From 7107025539486291206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6eb8cf86a44561,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 06:35:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: ARXX, Public Domain replacement of AR68 (Part 1 of 2)
Message-ID: <8610280904.AA07156@ucbvax>
Date: Mon, 27-Oct-86 09:35:11 EST
Article-I.D.: ucbvax.8610280904.AA07156
Posted: Mon Oct 27 09:35:11 1986
Date-Received: Tue, 28-Oct-86 21:04:11 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 251

Part 1 never made it to info-atari16 when I posted it together with
part 2. So here it is.

This is part 1 of a 2 part posting of ARXX. I wrote ARXX because my
version of AR68 was unusable to make own object libraries for use with
LINK68. AR68 could list the contents of a library and extract modules
from the library, but replacing and adding new modules did not work
correctly (e.g. all module names were converted to upper case when adding
to the library, while extracting forced names to lower case -> impossible
to extract modules you added yourself). Below you will find ARXX.DOC and
an example of the output of the -tv option (list contents).

Part 2 will consist of the uuencoded ARXX.ARC containing the sourcefiles,
the program and ARXX.DOC. So if you can use it you only need part 2.

Some things I found out while writing and testting ARXX:
- stderr in ALCYON C (=Toolkit C compiler) uses GEMDOS handle 1, as does
  stdout. So redirecting stdout in Micro C-Shell redirects both stdout
  and stderr.
- You can prevent redirection for the standard GEMDOS handles by using
  negative handles (word size). So writing to handle -1 is what I use
  to write error messages to the screen.
- Detecting if GEMDOS handle 1 is redirected can be done by using

  the GEMDOS FSeek function (trap #1, function $42). When asking for
  the current position FSeek always returns 0 when handle 1 is used
  for the screen. Otherwise it returns a number greater than 0.

Here follow ARXX.DOC and the output from 'arxx -tv gemlib'

------------------ARXX.DOC--

NAME

     arxx - an object library maintainer, replacement for ar68

SYNOPSIS

```
arxx -trdwx[v] [-ab opmod] lib mod1 mod2 .... [>file]
```

DESCRIPTION

With arxx you can create and maintain object libraries to be used with LINK68. It has been written as a replacement for ar68, which did not function satisfactorily.
In the command specify only one of the trdwx options. With the r option only one of the ab options may be specified. For details see below.

1. Listing the contents of the library:

   ```
   arxx -t[v] lib [>listfile]
   ```

   The t option will give you a list of the names and sizes of the object modules in the library on the standard output.
   When the v option is specified the global symbols for each module are also listed. Global symbols in the data segment are preceded by an '*'and external global symbols (common data, C external variables) are preceded by a '%'.

2. Replacing modules in the library:

   ```
   arxx -r[v] lib mod1 mod2 .... modn [>listfile]
   ```

   The library is scanned once and the modules are replaced in the order specified on the command line. When a module is not found in the library it is added at the end. It is possible to get the same module more than once in the library by specifying the wrong order.
   This is also the command to create a new library.
   With the v option the modules copied and replaced are listed on the standard output.

3. Inserting modules in the library:

   ```
   arxx -r[v] -ab opmod lib mod1 mod2 .... modn [>listfile]
   ```

   When you want to insert modules in the library use the a (after) or b (before) option (Only one allowed). This option has to be followed by the name of the library module after or before which the new modules have to be inserted.

3. Deleting modules from the library.

   ```
   arxx -d[v] lib mod1 mod2 ... modn [>listfile]
   ```

   Deletes the modules from the library. The modules have to be specified in library order because the library is only scanned once.

4. Extracting modules from the library.

```
        arxx -x[v] lib mod1 mod2 ... modn [>listfile]

        The library is searched only once to extract the modules
        specified on the command line. The object files are created
        in the default directory with the same names as in the library.
        If you want an other name and/or directory use the w option.

     5. Writing modules from the library to an other directory/file.

        arxx -w[v] lib mod >newfile

        This works the same as the x option, but only one module may be
        extracted. This module is written to the standard output which has
        to be redirected to the diskfile of your choice.

REMARKS
     Output redirection (necessary for -w, optional for the others)) has
     to be performed by the command interpreter. When using arxx as a TTP
     application from the desktop you are out of luck.

     When no v option is specified arxx performs it work silently (except
     for the t option). With the v option all actions (copying, adding,
     extracting, writing, deleting modules) are listed on the standard
     output.
--------------------------------------------------------------------------------
Here follows as an example the output of 'arxx -tv gemlib'
--------------------------------------------------------------------------------
channel5.o     1356 %__fds     _maxfile *__chvec   __allocc  __freec   __chinit
                    ___chini  __chkc
xmainnw.o      2632  ___main   _nowildc
mallocdb.o      912  __errmal  _malloc_
noascii.o       340  _noascii *___noasc  __rdasc   __wrtasc
nobinary.o      344  _nobinar *___nobin  __rdbin   __wrtbin
nodisk.o        492  _nodisk  *___nodis  __rdasc   __rdbin   __wrtasc  __wrtbin
nofilesz.o      152  _nofiles  __filesz
nofloat.o       496  _nofloat *___noflo  __petoa   __pftoa   __pgtoa   __atof
nolong.o        260  _nolong  *___nolon  ___prtld
nottyin.o       240  _nottyin  __ttyin
access.o        576  _access   _chmod    _chown
atoi.o          500  _atoi
atol.o          548  _atol
calloc.o        476  _zalloc   _calloc
exec.o          588  _execl
fdopen.o        660  _fdopen
fgets.o         392  _fgets
fopen.o        1432  __fopen   _fopen    _fopena   _fopenb
fputs.o         324  _fputs
fread.o         492  _fread
freopen.o      1408  __freope  _freopen  _freopa   _freopb
fseek.o         476  _fseek    _rewind
ftell.o         880  _ftell
fwrite.o        468  _fwrite
getl.o          280  _getl
```

```
getpass.o      1224  _getpass
gets.o          356  _gets
getw.o          240  _getw
main.o          404  __main
mktemp.o        536  _mktemp
getpid.o         96  _getpid
optoff.o        516  __optoff
perror.o       2456 *_sys_ner  _perror  *_sys_err
printf.o        344  _printf   _fprintf
putl.o          356  _putl
puts.o          320  _puts
putw.o          356  _putw
qsort.o        1316  _qsort
rand.o          660  _rand     _srand
readl.o         428  _readl
rename.o        400  _rename
strrchr.o       492  _strrchr  _rindex
scanf.o         344  _scanf    _fscanf
setbuf.o        288  _setbuf
sgtty.o         584  _stty     _gtty
sscanf.o        420  _sscanf
doscan.o       5572  __doscan
fgetc.o         252  _fgetc
filbuf.o        844  __filbuf
read.o          634  _read
readasc.o      1140  __rdasc   __cr_col
readbin.o       444  __rdbin
swab.o          292  _swab
ttyin.o         976  __ttyin
ttyinraw.o      716  __ttyinr  _ttyinra
ungetc.o        304  _ungetc
unlink.o        336  _unlink
writel.o        428  _writel
xmain.o        3184  ___main
creat.o        1088  __creat   _creat    _creata   _creatb
exit.o          160  _exit
cleanup.o       268  __cleanu
fclose.o        344  _fclose
close.o         596  _close
fdecls.o        548 *__iob     ___fdecl
fflush.o        560  _fflush
open.o         1272  __open    _open     _opena    _openb
lseek.o         508  _lseek    _tell
filesz.o        392  __filesz
sprintf.o       372  _sprintf
doprt.o        4300  __doprt
doprtfp.o       820  __pftoa   __petoa   __pgtoa
fputn.o         464  _fputn
fputc.o         296  _fputc
flsbuf.o       1060  __flsbuf
isatty.o        584  _isatty   _isdev    _ttyname
malloc.o       2704 *__afreeb *__aflist  _malloc   _free     _realloc
mallocnd.o      144  _malloc_  __errmal
```

```
prtint.o        496  ___prtin
prtld.o         856  ___prtld
prtshort.o      500  ___prtsh
sbrk.o          464  _sbrk
write.o         548  _write
channels.o     1300 %__fds    *__chvec   __allocc  __freec   __chinit  ___chini
                     __chkc
writeasc.o      968  __wrtasc
writebin.o      468  __wrtbin
blkio.o         524  __blkio
osattr.o        180 *_os_abil *_os_vers  _osattr
wrtchr.o       1284  __wrtchr
lstout.o        320  __lstout
ttyout.o        576  __ttyout
xopen.o         956  ___open
chkuser.o       208  __chkuse  __uchkus
errno.o          80 *_errno   *__errcpm
strchr.o        404  _strchr   _index
parsefn.o       420  __parsef
blkfill.o       240  _blkfill
blkmove.o       448  _blkmove
strcat.o        296  _strcat
strcmp.o        344  _strcmp
strncat.o       360  _strncat
strncmp.o       328  _strncmp
strncpy.o       384  _strncpy
strcpy.o        224  _strcpy
strlen.o        232  _strlen
ctype.o         356 *___atab   ____atab
xstrcmp.o       496  __strcmp
yesfloat.o       88  _nofloat
yesstart.o       88  _nostart
xatof.o         136  __atof
abort.o          88  _abort
aldiv.o         192  _aldiv    aldiv
almul.o         108  almul
alrem.o         204 %_ldivr    _alrem    alrem
ldiv.o          652 %_ldivr    _ldiv     ldiv
lrem.o          188 %_ldivr    _lrem     lrem
salloc.o        176  __salloc
setjmp.o        136  _setjmp   _longjmp
uldiv.o         552 *_uldivr   _uldiv
signal.o       1272  _signal   __setvec
xsignal.o       308  __illins  __trace   __trap    __buserr  __arith
blivot.o        280  _sw_
pcr.o           574  __pc_rea  __pc_wri
rta.o            88  _trap
lmul.o          336  lmul
```

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Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From 8475431405623219764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2d1a5ffafa058fe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 07:54:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!amdcad!
cae780!leadsv!lefko
From: lefko@leadsv.UUCP (Martin Lefkowitz)
Newsgroups: net.micro.atari16
Subject: updates
Message-ID: <1173@leadsv.UUCP>
Date: Mon, 27-Oct-86 10:54:53 EST
Article-I.D.: leadsv.1173
Posted: Mon Oct 27 10:54:53 1986
Date-Received: Tue, 28-Oct-86 06:47:31 EST
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 24
Keywords: atari & batteries included

I bought my atari about 3 months ago. At the time I also bought DB one
version 5xxxxx. Last month at the atari expo I bought thunderversion 1.01,
which by the way these things work together. The application I'm using it
for is to keep track of my Grateful Dead tapes recorded on my Beta hifi.
The box is too small to hold all the song names. Thunder works well as a
desk accessory with it because you can abbreviate the song names and have
the program expand them.

Anyway, both these pieces of software were outdated. I called up batteries
included. They said no problem. Your version is early enough to require a
free update just send your disk in. I tried to call up Stoneware for DB
one. They could not be found, even by address. I then called up Atari and
found they had the rights to distributuion of the product, but didn't have
the rights to update the copy. They said Stoneware offered the update for
25 dollars a while back. They could not even tell me if Stoneware was still
in existance. One, can you imagine spending 25 dollars for an update of
something I could buy for 34 dollars? Two Atari didn't seem to know what
the hell was going on with something they were in control of. I don't know
I just don't know.

Marty--

{(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!lefko
{{allegra ihnp4 dual}!fortune decvax!decwrl}!amdcad!cae780!leadsv!lefko

From -8529345222368286387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b8036e0d130a85e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 08:52:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!v5130b.DECnet!
menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: REVIEW OF "WORD WRITER ST" WORD PROCESSOR
Message-ID: <8610271650.AA12027@ucbvax.Berkeley.EDU>
Date: Mon, 27-Oct-86 11:52:17 EST
Article-I.D.: ucbvax.8610271650.AA12027
Posted: Mon Oct 27 11:52:17 1986
Date-Received: Mon, 27-Oct-86 22:36:04 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>
Organization: The ARPA Internet
Lines: 54

Several of us at work (and home) have changed word processors recently from "1st Word" to "Word Writer ST", by Timeworks. It may be short of the next-generation word processors that we're waiting for, but here's some of its features:

1. Pull-down menus.
2. Integrated 85,000 word spelling checker. Checks a word at a time, an entire document all at once, or continuously as you enter text. No info in the instructions on whether words can be added to the dictionary. Not as versatile as Thunder!, but pretty good.
3. On-screen special text: underline, italics, super- and subscripts, boldface, etc.
4. All of the other standard word processing features: cut and paste, find and replace, etc.
5. Editable printer drivers for many printers.
6. Reformats text by paragraph or by entire document reliably and easily. For example, change line length with mouse pointer at the top of the screen, reformat document: it works! I never could get this to work in 1st Word (maybe it was just me).
7. Ability to imbed printer control codes, which are hidden in the text on the monitor (but can be displayed by clicking on a check mark in the left border).
8. ASCII save to disk.
9. Up to 4 files may be simultaneously opened.
10. Easy out-denting (as this text is done).
11. Virtually all word processing commands are displayed in 3 rows on the bottom of the monitor screen. Typically one would leave only the lowest row showing (which defines the

10 function keys), but the text window can always be changed to a smaller vertical size to expose the other two rows. This greatly reduces trips to the instruction manual for info on infrequently-used features.

12. Number of pages, line count, word count, and free RAM displayed on demand.
13. Hard drive compatible.
14. Outliner capability with up to 5 levels.
15. Integration with Data Manager ST and Swiftcalc ST, also by Timeworks. Data Manager ST seems to have data graphing capabilities that go beyond those of V.I.P., but otherwise we have no experience with these data base and spreadsheet programs.

We like it. I recommend it for consideration as your ST word processor. I have no affiliation with Timeworks, or anyone else in the computer or software industries.

Bob Menton
MENTON@NRL-ACOUSTICS

From 713914303666490852
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6aaab0c8c369379,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 10:17:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: htb.uue available
Message-ID: <1293@batcomputer.TN.CORNELL.EDU>
Date: Mon, 27-Oct-86 13:17:36 EST
Article-I.D.: batcompu.1293
Posted: Mon Oct 27 13:17:36 1986
Date-Received: Tue, 28-Oct-86 06:44:08 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 11
Summary: htb.uuencoded: email if wanted

[]

Due to repeated requests, I have uuencoded HTB.PRG (the program
that converts from hex-dumps to binary, ignoring comments (anything
from '*' to end of line).

To lessen traffic, email me if you want it and I'll send it.
(I'll post it on mod.atari16.sources (or whatever it is) once somebody
tells me how to get onto that...)

- Moshe Braner

From 1864421951042918210
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a05011fc1a19d9cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 10:20:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Megamax update query
Message-ID: <1295@batcomputer.TN.CORNELL.EDU>
Date: Mon, 27-Oct-86 13:20:18 EST
Article-I.D.: batcompu.1295
Posted: Mon Oct 27 13:20:18 1986
Date-Received: Tue, 28-Oct-86 06:44:23 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 6
Summary: has anybody received it?

[]

Has anybody _received_ the updated Megamax C development system
that is rumored to exist? Please tell us what's fixed/added.

- Moshe Braner

From 4291101759054051692
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 10:32:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Ataris At Work
Message-ID: <423@uwmacc.UUCP>
Date: Mon, 27-Oct-86 13:32:23 EST
Article-I.D.: uwmacc.423
Posted: Mon Oct 27 13:32:23 1986
Date-Received: Mon, 27-Oct-86 22:30:37 EST
References: <1128@tekigm2.UUCP> <405@uwmacc.UUCP> <1142@tekigm2.UUCP>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 144

Xref: mnetor net.micro.atari8:520 net.micro.atari16:2770

In article <1142@tekigm2.UUCP> wrd@tekigm2.UUCP (Bill Dippert) writes:
>In article <405@uwmacc.UUCP>, oyster@uwmacc.UUCP (Vicarious Oyster) writes:
>> In article <1128@tekigm2.UUCP> wrd@tekigm2.UUCP (Bill Dippert) writes:
>> >From the sounds of recent messages, I am not the only one who would rather be
>> >using an Atari at work rather then an IBM. Whether a ST or a XE/XL is, I
>> >think, a moot point.
>>
>>   I don't think it's such a moot point.
>>
>>
>>   As a workstation, the 8-bit Atari lacks one thing that is essential: 80
>> characters per line. Unless things have changed since I bought an 8-bit
>> Atari, you still need to get "a special card." Color is nice (I don't like
>> doing without it), but that's just icing on the cake for a workstation.
>You have two choices here: one buy the new XEP80 80 column adapter device or
>two, buy software that allows 80/132 wide screens (with horizontal scrolling).

You just destroyed your original argument: that IBM's were bad things because
you had to buy add-ons all the time, and that you didn't have to do that
for Atari 8 bit machines...

>>   But what about the capabilities as a microcomputer, you ask? Well, the
>> IBM has the 8-bit beat here, too. Say you want to hook a standard printer
>> up to your 1200XL; what do you do? Call mail-order place after mail-order
>> place, trying to find somebody who knows what kind of cable you need; then
>> pay $59.95, only to discover that the 1200XL is different somehow than the
>> rest of Atari's 8-bit machines, so you have to go through the whole cycle
>> again.
>While I was no getting into modems, I will admit that you need an 850 interface
>for almost anything, be it modem or printer. (Or another 850
>equivalent--except that Atari is providing an RS232 port on the new XEP80 for
>printer or whatever.

And how many companies do you think make/support serial (RS232) printers
as opposed to Centronix style parallel printers...?

>And trying to find cables to connect a IBM into anything
>as simple as a Epson printer can be just as much a pain. I have an easier time
>locating Atari cables then IBM cables unless I go to mailorder.

Are you serious? The Centronix parallel cable with a DB25 connector has
got to be *the* most common cabling connection available...

>> And speaking of software, the IBM has just about every micro I know about
>> beat cold in both public domain software and commercial software, in both
>> quality and quantity. That may be only because of the perceived usage of
>> the respective machines, but frankly, I would not even *think* of trying
>> to market a serious program for the 8-bit Atari, if only because of what
>> I know about the, um, "habits" of local Atari users with regard to software
>> piracy.
>I think that there is as much public domain software out there for the Atari 8

>bitter as there is for IBM.

...um, again, I ask: are you serious? Atari 8 bits may have a lot of software, but nowhere near the about IBM PC/XTs do. There is a book published that lists useable PD software for the IBM, sources, and where to find it. It is 1210 pages of very, very tiny print...

> And the software that you buy at the dealer (read:
>commercial software) is a heck of a lot cheaper for Atari then IBM. Although
>they are getting closer!

Well, that's true. IBM software has always been *way* out of line, because IBM knows there are a lot of niave people (and business people) who will, and have been, pay for it.

>> There's a guy who gets pissed when, for example, Analog states
>> that there isn't much Atari software because of piracy, but who has a
>I agree that piracy is deplorable, but I doubt that anyone does not have some
>pirated software.

...excuse me?

> My feeling is that if it is still available at the dealer,
>then you should pay for it. (Dealer being anything from your local computer
>store, to mailorder, to the publisher of the software). But, and this is a big
>but, if it no longer is available anywhere legitimately, then I will used a
>socalled "pirated" copy.

Yea, and if I want out-of-print books, I usually rip them off from the library, rather than looking for them in used book stores...

> This generally applies to games, as they seem to be
>the most pirated software. I don't think that I have ever seen real useful
>software pirated (ala Syncalc, SynFile, etc.), these are currently available
>and are reasonably priced so there is no incentive to pirate them. Or am I
>being undully naive?

You are undully niave...

>
>At anyrate, getting back to my original discussion: I have purchased AW+,
>SynCalc, SynFile, SynGraph, etc. and they would suit my "business" needs just
>as well as the software I have at work for my IBM-XT. Maybe I don't have quite
>the memory available, but it is adequate for what I need. There is even a form
>of CAD available now for the XE (albeit somewhat crude). So I say that the
>XL/XE series are just as useful in business as the ST (unless you really need
>the .5 -- 1 Meg of memory). [And the 130XE can be pumped up to 1 MEG if you
>need it!]

Give me a break! So, try writing/using something where machine precision counts...it should be, for instance, relatively easy for an 8-bit computer to miss connecting the lines of a triangle, because the calculation had

a huge precision error in it. Or, in large business applications, how much of a spread sheet do you think you could fit into 64K or 128K? The real world has more uses for a computer than balancing checkbooks...

>
>> Short digression: Owners of 8-bit machines can take that as snobbery
>> if they wish (somebody always does, regardless of how tactfully it's
>> expressed), but it's a plain and simple fact that the 8-bit microprocessor
>> is nowhere near the present state of the art in cheap microcomputing.
>> For some uses, the 8-bit micros can perform as well as the owner of the
>> machine wants or expects it too; however, I personally could not tolerate
>> using most of today's 8-bit offerings for the kind of things I do, both
>> here at the office and while "playing" at home.
>Not snobbery, but your only advantage is memory and possible IBM
>compatibility.

...sigh...

Don't get me wrong, but I have both an IBM XT and an Atari ST. The ST is superior to the XT (even though I have the XT "suped-up") in almost every way, shape and form. But if you believe that any 8 bit machine is every bit as useable as a 16 bit machine, you must not use the machine for anything more than hobby computing...

...and if that sounds snobbish, I apologize...but I think, per chance, that it is true...

--

                          --- Rob DeMillo
                              Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA: demillo@unix.macc.wisc.edu   (now isn't that easier?)

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From 993610625695322501
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4dd11dd008f37f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 10:37:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: Re: Uniterm 1.5c - (nf)
Message-ID: <424@uwmacc.UUCP>

Date: Mon, 27-Oct-86 13:37:03 EST
Article-I.D.: uwmacc.424
Posted: Mon Oct 27 13:37:03 1986
Date-Received: Mon, 27-Oct-86 22:31:12 EST
References: <3968@utah-cs.UUCP> <12100003@infbs.UUCP>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 26

In article <12100003@infbs.UUCP> loerke@infbs.UUCP writes:
>On UniTerm 1.5c and bombs:
>
>We have tried to run uniterm (hardware: 520st+, 1meg, 20MB harddisk)
>with GDOS loaded at boot time --> bombs. Then we cancelled GDOS,
>and voila, it works fine.
>
>On uniterm: the best terminal emulator i have seen till now. Great Job, Simon.
>

That's because Simon didn't have access to GDOS. (Atari: hint,hint,hint...)

--
                          --- Rob DeMillo
                              Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA: demillo@unix.macc.wisc.edu   (now isn't that easier?)

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From -3941318056441867636
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88b3cf8e7f37df83,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 12:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Send me uniterm4 pleez
Message-ID: <100600004@uiucuxa>
Date: Mon, 27-Oct-86 15:04:00 EST
Article-I.D.: uiucuxa.100600004
Posted: Mon Oct 27 15:04:00 1986
Date-Received: Tue, 28-Oct-86 23:17:29 EST

Lines: 10
Nf-ID: #N:uiucuxa:100600004:000:148
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 27 14:04:00 1986

Could someone mail me part 4 of uniterm, I got
two part threes instead of 3 & 4.

Thanks in advance,

glk309@uiucuxa

E.C. Spieu!

From 5443696062393551485
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baace0df56671681,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 12:48:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!ADS.ARPA!neville
From: neville@ADS.ARPA (Neville Newman)
Newsgroups: net.micro.atari16
Subject: looking for info on Atari public offering
Message-ID: <8610272052.AA00450@ucbvax>
Date: Mon, 27-Oct-86 15:48:07 EST
Article-I.D.: ucbvax.8610272052.AA00450
Posted: Mon Oct 27 15:48:07 1986
Date-Received: Mon, 27-Oct-86 23:15:44 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

Can somebody tell me:
    What company is underwriting Atari's stock offering?
    If the offering is an "all or nothing" issue?
        If yes, what is the deadline for the 4.5M units?
    Whether the units include warrants?
        If yes, what price does a warrant get you and for how long?

-neville

~~~~~~
U.S. Mail: Neville D. Newman
        Advanced Decision Systems
        201 San Antonio Circle, Suite 286
        Mountain View, CA 94040-1289

Phone: (415) 941-3912
~~~~~~

Net mail: neville@ads.arpa   (internet-relative)

From -4237445289377468527
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9b593a5961c843b6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 13:40:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Supervisor mode
Message-ID: <1385@trwrb.UUCP>
Date: Mon, 27-Oct-86 16:40:56 EST
Article-I.D.: trwrb.1385
Posted: Mon Oct 27 16:40:56 1986
Date-Received: Tue, 28-Oct-86 06:30:38 EST
References: <660@chinet.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 50
Keywords: Hardware tweaking

In article <660@chinet.UUCP> cabbie@chinet.UUCP (Richard Andrews) writes:
>
>   I want to do some hardware tweaking and mave been attempting
>to enter supervisor mode but am still getting bus errors? Does
>anyone have some general purpose source code to do this?
>

Gemdos function 0x20 is the one you want:

Call: Super(stack); - or -   gemdos(0x20, stack);

where "stack" is a pointer to your supervisor stack or NULL (0L) if you
want to use the user stack as supervisor stack. The function returns a
pointer to the old supervisor stack. You MUST restore the stack to this
value when you exit supervisor mode or else the machine will crash.

C code example:

```
    long    old_ssp;        /* old supervisor stack pointer */

    old_ssp = Super(0L);    /* enter supervisor mode, use the user stack*/

    /* your super code goes here */

    Super(old_ssp);         /* exit supervisor mode, restore stack */
```

Assembly example:

```
    clr.l   -(sp)       ; pass a long zero (use user stack)
    move.w  #$20,-(sp)      ; pass gemdos function 0x20
    trap    #1              ; enter supervisor mode
    add.l   #6,sp       ; clean up the stack
    move.l  d0,old_ssp      ; save old stack pointer

; your super code goes here

    move.l  old_ssp,-(sp)   ; pass the old stack pointer
    move.w  #$20,-(sp)      ; pass gemdos function 0x20
    trap    #1              ; exit supervisor mode
    add.l   #6,sp       ; clean up the stack

-Rich

--
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________     TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom


From -2488855913255900819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dad589fe0ff03c6c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 14:03:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!reed!psu-cs!
omepd!wilson
From: wilson@omepd (Andy Wilson)
Newsgroups: net.micro.atari16
Subject: Lattice C and I/O redirection -- help wanted
Message-ID: <178@omepd>
Date: Mon, 27-Oct-86 17:03:43 EST
Article-I.D.: omepd.178
Posted: Mon Oct 27 17:03:43 1986
Date-Received: Wed, 29-Oct-86 22:35:30 EST
Reply-To: wilson@omepd.UUCP (Andy Wilson)
Organization: Intel Corp. Hillsboro, Oregon
Lines: 8

Yesterday I discovered what is apparently already common knowledge:
that I/O redirection in the Beckmeyer shell and Lattice C do not work
together.  I called the friendly people at MetaComCo and they said that
yes, a patch exists, but no, they didn't have it.  They suggested
Compuserve.

Can some public benefactor who has access to the patch (assuming one
exists...) post it to this net?
```

From -319701385502551711
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2133a373413471d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 14:38:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!husc2!grunau
From: grunau@husc2.UUCP (grunau)
Newsgroups: net.micro.atari16
Subject: Query about compilers
Message-ID: <996@husc2.UUCP>
Date: Mon, 27-Oct-86 17:38:18 EST
Article-I.D.: husc2.996
Posted: Mon Oct 27 17:38:18 1986
Date-Received: Mon, 27-Oct-86 23:16:37 EST
Reply-To: grunau@husc2.UUCP (justin grunau)
Organization: Harvard University Science Center
Lines: 23

What do people have to say about compilers? I have heard that Lattice is slow and that it produces code that is slow and large. It is, however, the compiler I am most familiar and comfortable with on other machines, and I like the use of the ANSI standard. How off the beaten track are other C compilers with regards to their libraries and the ANSI standard?

Also, being quite new to the ST (and 68000) scene, what about linkers? I have not heard of any independent linkers (a la phoenix plink86 on the MS-DOS machines), so I assume you get a linker with your compiler: but are there any standards with object code? If you buy a compiler from one vendor, but prefer the abilities/speed of a linker from another vendor, is it at all likely to be able to mix and match? On the PC side, all three of the compilers I am familiar with (Microsoft C and Pascal, Lattice C) will work with both of the linkers I am familiar with (Microsoft link and plink86). Does this situation obtain on the ST as well, or is there less standardization of object code format? Are there any standards in general on 68000 machines?

    thanx,

                                        JJMG

(my employers don't care what I think anyway)

From 6590830149452886663
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d850aaa99603693,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,5d850aaa99603693,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-10-27 16:38:18 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Antic Catalog - An Apology
Message-ID: <6555@topaz.RUTGERS.EDU>
Date: Mon, 27-Oct-86 19:38:18 EST
Article-I.D.: topaz.6555
Posted: Mon Oct 27 19:38:18 1986
Date-Received: Mon, 27-Oct-86 23:32:24 EST
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 12
Xref: mnetor net.micro.atari8:522 net.micro.atari16:2777
Cc: appelbau

Right after I flamed at Antic, my package arived with a letter from
their customer service manager apologizing for the delay. Enclosed
with the letter was a gift certificate for $10.00 towards the purchase
of any AP or ST software from the catalog!

I guess Antic really does care about their customers.

--
Marc L. Appelbaum
Arpa: appelbaum@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbaum

From 1506063573362229147
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 18:34:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!hp-sdd!ncr-sd!ncrcae!
ece-csc!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16
Subject: Help with Desk Accessories: accessory loaders.
Message-ID: <1745@alvin.mcnc.UUCP>
Date: Mon, 27-Oct-86 21:34:44 EST
Article-I.D.: alvin.1745
Posted: Mon Oct 27 21:34:44 1986
Date-Received: Tue, 28-Oct-86 21:14:12 EST
Organization: Microelectronics Center of NC; RTP, NC
Lines: 32
Keywords: desk accesories, loaders

 [For the great stone-eating mons..]

I'd like to thank all the guys who helped me out with the problem of order of execution of files in the AUTO folder; I got so many replies that it'll be better to acknowledge them all at once. Thanks! (The answer, as explained some days earlier by a poster, is that the files are executed in the order into which they are introduced into the AUTO folder). Now, on to the next question: (!)

I would like to get my ST into a certain configuration at bootup - into a shell, with a certain filestructure in my ramdisk, etc. I've been doing this by putting the ramdisk program and the shell program into the AUTO folder, with a profile (for the shell) that copies stuff into my ramdisk, etc. etc. However, this causes the desk accessories to not be loaded, because that seems to be done *after* the stuff in the AUTO folder finishes, so in my case only when I quit the shell. Now I would very much like certain desk accs. to be pre-loaded, so that I can do quick trips from the shell to the desktop, *without* waiting for the accs. to be loaded. This is also important because some stuff I use depends on the control panel to initialize the RS232 and printer ports.. Is there some way of putting a *desk acc. loader* into my AUTO folder, which would load the accessories? To prevent TOS from trying to load them when I quit the shell, the accs. could be renamed, eg. to .ACS or something. Does such a utility exist? I'm not sure what would be involved in writing it. I'd greatly appreciate any tips on this matter. Thanks in advance,

-ravi

{decvax, ucbvax, ihnp4}!mcnc!ravi

From -5211570622828222689
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 19:01:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!lsuc!jimomura
From: jimomura@lsuc.UUCP
Newsgroups: net.micro.atari16
Subject: Re: alite.prg problems
Message-ID: <1354@lsuc.UUCP>
Date: Mon, 27-Oct-86 22:01:56 EST
Article-I.D.: lsuc.1354
Posted: Mon Oct 27 22:01:56 1986
Date-Received: Tue, 28-Oct-86 03:47:41 EST
References: <8610151526.AA17642@trwrb.UUCP> <861016-043934-4496@Xerox>
<1364@trwrb.UUCP> <1351@lsuc.UUCP> <1372@trwrb.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: net
Organization: Barrister & Solicitor, Toronto
Lines: 23
Summary: RAM Disk conflict

In article <1372@trwrb.UUCP> sansom@trwrb.UUCP (Richard Sansom) writes:
>
...

>Alite does not work on monochrome systems (I should have stated this
>fact when I posted the beast). If you have a color system, then be sure
>to extract both 1alite.pic and 1alite.sng and store them on the same disk
>as alite.prg.
>
     Actually, the problem wasn't monochrome, but some kind of conflict
with the 512K RAM Disk I was using on my 1040ST. It's definitely the
presence of the RAM disk since it makes no difference whether I run from
the floppy or the RAM Disk. It doesn't work either way. If I boot without
the RAM Disk, 'alite' works fine.
>

Cheers! -- Jim O.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 1944900896500018786
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9a184e1ae133a5d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 22:35:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: UNITERM V1.5C PART 2 OF 4 (UNITERM.A)
Message-ID: <430@utcsscb.UUCP>
Date: Tue, 28-Oct-86 01:35:41 EST
Article-I.D.: utcsscb.430
Posted: Tue Oct 28 01:35:41 1986
Date-Received: Tue, 28-Oct-86 19:24:08 EST
References: <8610161545.AA16794@ucbvax.Berkeley.EDU> <811@othervax.UUCP>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 5
Keywords: HELP
Summary:

     It seems that most of Canada got a truncated copy of Uniterm.
Maybe an Ontario, Quebec only posting would be enough?
                        Pete @utcsscb
                        psantangeli on BIX

From -3080385745417927698
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 22:45:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: GDOS availability
Message-ID: <431@utcsscb.UUCP>
Date: Tue, 28-Oct-86 01:45:10 EST
Article-I.D.: utcsscb.431
Posted: Tue Oct 28 01:45:10 1986
Date-Received: Tue, 28-Oct-86 19:24:28 EST
References: <8610190113.AA06242@ucbvax.Berkeley.EDU> <1170@druhi.UUCP>
<396@uwmacc.UUCP> <444@atari.UUcp>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 29
Summary:

In article <444@atari.UUcp> neil@atari.UUCP writes:
>GDOS will be available to users (as opposed to developers) once a few more
>fonts are completed. Then it will be packaged and sold to everyone.
>
>--
>--->Neil @ Atari
>
>...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil
>
>BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
>GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308
>
>US Mail: Atari Corp.
>   1196 Borregas Ave.
>   Sunnyvale, CA 94086
>
>"I'm a 20th century man but I don't want to die here." -- Ray Davies

     One simple question. Approximatly how much $$? I am a simple mortal
and personaly object *VERY* much to being forced into buying a C compiler to
do development on the ST when all I need is the DOCUMENTATION.
     As a contrast, may I bring up that *OTHER* company.
     When Apple had similar complaints, they brought out a "promotional
version" of their Inside MacIntosh handbooks for those who didn't need the
entire developers package. How 'bout a similar deal for ST users??

                              Pete@utcsscb.uucp

From 6753117502150569543
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 16ddec,d49a3f9e7c0dbbdf
X-Google-Attributes: gid16ddec,public
X-Google-Thread: 140593,eaffeec72aa32107,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 11d3c1,eaffeec72aa32107,start
X-Google-Attributes: gid11d3c1,public
X-Google-ArrivalTime: 1986-10-28 03:35:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!ab
From: ab@unido.UUCP (ab)
Newsgroups: net.games.chess,net.micro.atari16,net.ai
Subject: Re: Places in Vancouver? Really Chess programs.
Message-ID: <170@unido.UUCP>
Date: Tue, 28-Oct-86 06:35:39 EST
Article-I.D.: unido.170
Posted: Tue Oct 28 06:35:39 1986
Date-Received: Wed, 29-Oct-86 09:23:34 EST
References: <2440@garfield.UUCP> <363@ur-cvsvax.UUCP> <3890@amdahl.UUCP>
<3942@amdahl.UUCP>
Followup-To: net.games.chess
Organization: University of Dortmund
Lines: 54
Summary: World champion chess program available for the Atari ST ?!!
Xref: mnetor net.games.chess:561 net.micro.atari16:2808 net.ai:1254

> I don't really understand why there are not any really good chess
> programs available for home computers. Fidelity has a machine
> with an official USCF rating of 2100 for 200 bucks. I am pretty
> sure that this has an 8 bit processor. Someone should be able to
> come up with a 68k program that is better than this!

Did you hear of the recent PSION-CHESS program for the Atari ST?
This is a completely new program developed by Richard Lang. It uses
heuristic search instead of the alpha-beta-procedure. This means that
the program can examine the game tree to arbitrary depth. It uses a highly
selective search to investigate the interesting lines of play. Moreover
its playing style is very aggressive. The search concentrates on lines
of play which are tactically sharp and which force the opponent to play
in a way which can be easily predicted. So not necessarily the best
move is played but the tactically sharpest with reasonable outcome.
This means that a depth of up to 20 plies can be forced and a gain of
material in let's say 8 plies is recognized.

The program can display up to 8 plies of its current expected moves.
There exist two ways of displaying the board: 3d and 2d. You can set the
board to an arbitrary position and there exist levels of play from
novice (1 sec) to expert (same time) and infinity. Also there are
problem modes for forced check mates. The program normally 'thinks'
while its opponent has to move, but with the feature 'handicap' this
can be disabled. A lot of other features are supported which could be

mentioned.

It seems to me that this program is identical to the Mephisto Munchen
with Amsterdam-modul since that one also uses the same strategy, the
same processor and is also by Richard Lang. If true that would mean
that PSION-CHESS alias Mephisto-Munchen is the recent world champion
of microcomputer chess (championship in Amsterdam fall 1985).

Has anyone further information on this program or on its strength?
I am particularly interested in the new programing approach realized
in this program. There exist some articles by Larry R. Harris about
heuristic search in chess, but these articles date back to 1975.
Are there other available programs which use the new approach?

     Andreas Bormann
     University of Dortmund [UniDo]
     West Germany

Uucp: ab@unido.uucp
Path: {USA}!seismo!{mcvax}!unido!ab
     {Europe}!{cernvax,diku,enea,ircam,mcvax,prlb2,tuvie,ukc}!unido!ab
Bitnet: ab@unido.bitnet (== ab@ddoinf6.bitnet)

[Followups will be directed to net.games.chess only.]

[Any thoughts or opinions which may or may not have been expressed]
[herein are my own. They are not necessarily those of my employer.]
[Also I have no ambitions to sell PSION-CHESS or Mephisto computers.]

From -1006506028038954415
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 03:56:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!MITRE-
BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: New way to post binaries - disc
Message-ID: <8610280203.AA00422@mitre-bedford.ARPA>
Date: Tue, 28-Oct-86 06:56:45 EST
Article-I.D.: mitre-be.8610280203.AA00422
Posted: Tue Oct 28 06:56:45 1986
Date-Received: Tue, 28-Oct-86 21:06:09 EST
References: <24200008@maggot>
Sender: chin@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 16

One disadvantage to the method mentioned in the abbove-referenced message is

that each encoded byte transmits only 4 bits of information.

By comparison, uuencoded data transmits 6 bits per encoded byte, obviously 50% more for your money.

The problem with uuencode is that it uses certain troublesome characters such as spaces to encode data. This problem would be immediately eliminated if we were to revise uuencode to use only non-troublesome characters. For example, the set a-z, A-Z, 0-9, and . and / or any other set of 64 noncontroversial characters would do the trick. However, it would make programming simpler if the selected characters were in two contiguous ranges, such as a-z and 56789:;<=>?@ plus A-Z. (I think that adds up to 64 of 'em!)

John Sangster
jhs@mitre-bedford.arpa

From 8922900306973098983
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab70e89939d09c6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 03:58:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!
CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM AND GDOS (IT DOESN'T WORK!)
Message-ID: <8610281045.AA08275@ucbvax>
Date: Tue, 28-Oct-86 06:58:31 EST
Article-I.D.: ucbvax.8610281045.AA08275
Posted: Tue Oct 28 06:58:31 1986
Date-Received: Tue, 28-Oct-86 21:07:41 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Sorry, I had already mentioned this after I posted UniTerm V1.2---->>>>

UniTerm will not work with GDOS loaded!!!!!!!!!!

This is due to a bug(s) in the the VDI_call routine of OSS/CCD Pascal (at least it seems to be)..

Simon Poole
K538915@CZHRZU1A.BITNET

P.S. If I ever get this fixed, that might be a reason for a repost :-)

From -8157039010193501449

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d36cbb9d3b7a8124,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 06:19:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!houxm!homxc!jdn
From: jdn@homxc.UUCP (J.NAGY)
Newsgroups: net.micro.atari16
Subject: ATARI 1040ST RFI
Message-ID: <1676@homxc.UUCP>
Date: Tue, 28-Oct-86 09:19:42 EST
Article-I.D.: homxc.1676
Posted: Tue Oct 28 09:19:42 1986
Date-Received: Wed, 29-Oct-86 02:20:23 EST
Distribution: net.ham-radio
Organization: AT&T Bell Labs, Holmdel NJ
Lines: 13

I am considering the purchase of an Atari 1040ST
for use in a ham radio station. The ST looks impressive
but does anyone know whether it generates a significant
amount of radio frequency interference (RFI)? Will
the machine itself be vulnerable to RF? In short, how
will it perform in an RF environment?

Jonathan Nagy NK2D
{allegra | seismo | ihnp4}!homxc!jdn

From 3884012748792123763
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d4d705c9114578,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 07:28:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Bob Fortin)
Newsgroups: net.micro.atari16
Subject: Degas Elite, Resource Construction Editors
Message-ID: <154@ritcv.UUCP>
Date: Tue, 28-Oct-86 10:28:27 EST
Article-I.D.: ritcv.154
Posted: Tue Oct 28 10:28:27 1986
Date-Received: Tue, 28-Oct-86 21:13:39 EST
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 16

I just noticed that a local computer store has Degas Elite for $79.00.
I thought I remembered that Antic or somebody had said that regestered
owners of Degas would be able to upgrade for half price or at least get
some type of discount. The local store hadn't heard of this (no big

surprise). Does anyone know about Batteries Included's policy?

Secondly, is there a Resource construction {set, editor} that can be used with Lattice or Mark Williams C?

Finally, has anyone developed an accessory that allows you to load and unload other accessories yet?

Bob Fortin
{allegra seismo decvax}!rochester!ref0070

(no relation to Arthur "two sheds" Jackson)

From 3101921082622835327
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76f0f3de05298d3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 07:30:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: CPM
Message-ID: <8610281530.AA02074@ncsc.ARPA>
Date: Tue, 28-Oct-86 10:30:47 EST
Article-I.D.: ncsc.8610281530.AA02074
Posted: Tue Oct 28 10:30:47 1986
Date-Received: Tue, 28-Oct-86 23:35:20 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Does someone out there have a copy of the much maligned (by Neil, anyway) CP/M on a host that I could FTP to? Barring that, would someone be willing to mail me a copy?

Thanks.

Jim
Moore@NCSC.arpa

From -7761835700459264735
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,884f3aac3f626c85,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 09:15:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!YALE.ARPA!ram-ashwin

From: ram-ashwin@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: UniTerm: Bug in File Capture
Message-ID: <8610281715.AA03886@yale-celray.YALE.ARPA>
Date: Tue, 28-Oct-86 12:15:40 EST
Article-I.D.: yale-cel.8610281715.AA03886
Posted: Tue Oct 28 12:15:40 1986
Date-Received: Tue, 28-Oct-86 23:25:00 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 33

Hi... File capture doesn't seem to work in the new version of UniTerm.
When I start file capture using alt-C, the dialog goes through fine, but
nothing that I type or the remote machine sends back gets echoed on the
screen (i.e., the screen just goes dead until I stop file capture). I
can see something is getting transferred because the cursor flickers.
After stopping the capture, it comes back to normal. However, the capture
file doesn't have ASCII data in it (when I type it on the screen, I get an
-- END OF FILE -- message right away) even though the file length looks
ok in the directory listing.

Has anyone else encountered this bug or knows how to fix it? For the
time being I've gone back to using the old UniTerm since I use the file
capture feature. I would appreciate it if someone (Simon?) could send
me a fix.

Another question: What came of the terminal lockup debate? I ran into
this problem yesterday while using UniTerm. Has this been tracked down?

-- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

P.S. A suggestion: If you called DEFAULT.SET something like UNITERM.SET
or UNITERM.OPT instead (like Kermit does), all the UniTerm files will list
together in the directory listing, making it easier to copy them all to
RAMDISK in one stroke (rather than having to hunt for DEFAULT.SET at the
other end of the directory listing).

From -8854650627922295788
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ca4ce6855638f259,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 121a8b,ca4ce6855638f259,start
X-Google-Attributes: gid121a8b,public

X-Google-ArrivalTime: 1986-10-28 09:17:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!watmath!watnot!water!ljdickey
From: ljdickey@water.UUCP (Lee Dickey)
Newsgroups: net.micro.atari16,net.lang.apl
Subject: APL for the ST
Message-ID: <581@water.UUCP>
Date: Tue, 28-Oct-86 12:17:56 EST
Article-I.D.: water.581
Posted: Tue Oct 28 12:17:56 1986
Date-Received: Wed, 29-Oct-86 00:10:59 EST
Organization: U of Waterloo, Ontario
Lines: 116
Xref: mnetor net.micro.atari16:2801 net.lang.apl:129

APL for the Atari ST

I have had my copy of APL.68000 for two weeks now, and am pleased with it. APL.68000 is a complete implementation with enhancements that make use of many of (and allow the user to make use of) the special features of the ST, like dialog boxes, alert boxes, function keys, line graphs, and pull down menus.

This APL has followed the lead of IBM in several ways. For instance, when APL.68000 first appeared, (some years ago), it included a copy of the IBM manual "THE APL LANGUAGE", and added a few pages about their own enhancements, such as the quad-SS function for string substitutions. A delightful feature is the use of the ALT key to provide access to all of the composite symbols. For example, the transpose symbol is traditionally created by typing a circle, a backspace, and a backslash. On the ST, I now press the ALT key and the "6" to get this effect. A set of keyfront stickers is included to show the mapping. This keyboard convention is not new. It seems to be the one that is used on IBM 3277 and 3278 terminals when used with APL and APL2, and it has also been adopted by other APL's such as WATCOM APL for their most recent version for the IBM PC and (I think) by STSC as well. A significant improvement indeed over the old way of composition.

The ST release is version 1.0, but it is release 6.0 for the interpreter itself, which has been around since before the IBM PC was introduced. I have yet to find any bugs in the APL. There are a few things about the interface to special ST features that I have not been able to do yet, that I would like to do. For instance, I would like to be able to read *any* key under function control, and I can almost do this, but not quite, because there seem are a few key sequences that are mapped to the same byte. For instance, reading the keyboard, I get the same byte from the HELP and the UNDO key. I would also like to be able to tell the "2" above the "W" from the "2" on the number pad. This would allow me to write a panel with special meanings for the keys on the number pad, while keeping the ability to have numeric entry.

The APL features a very nice "session monitor" that allows me to re-execute any line on the screen. It works like this: move the cursor back to any previous line, modify it (however I like), and press the return key. The modified line appears at the bottom of the screen and then it is executed. One aspect about this that I would change is this: I would like the previous line to pop back to its previous state, and then display and execute the modified line at the bottom of the screen. As it is, the previous line stays on the screen in its place, in the modified form.

The screen memory seems to be 75 lines long, and is controlled by the mouse in the side-bar.

There are two file systems available to the user. One is accessed by a set of supplied functions, with names like STCREATE, STREAD, STWRITE, and so on. With these, you can read and write ordinary native files. You can write any byte you choose, as many as you have room for on you disk.

The other file system is a sophisticated APL component system, complete with multiple user access control facilities. Imagine, if you will, a number of STs connected together, and that you might like to share some information with me, and something else with a third party, but each of us should not be able to read the other's components. Well, the hooks are all there. Until this comes along, a component file system is a marvelously usefule thing just for one person to use. One component can hold a character array, another can hold a numeric aray, another a Boolean array. You read the component, you get the array. You can replace the contents of any component with any other APL object.

I was easily able to make use of the native file functions and, with about 10 lines of code, write an "script" function that kept a copy of *all* my APL input lines, not just the last 75 lines that appeared on the screen.

There is a full screen editing feature at all times. There is a quad-R that displays the last input line, which you can then modify and execute with the press of the return key. If you prefer, for the entry of conventional text, for instance, to use the conventional typewriter layout with lower case, upper case letters instead of upper case letters and special symbols, you can easily switch. There is also a function editor that will feel comfortable to users who have become accustomed to ST mouse features.

The function keys are programmable from the keyboard. One of the first things I did do was to program one key and give)WSID,)FNS,)VARS, and)SI . I wrote a little function called EDIT that accepted a character string, the name of a function, which then programmed another key so that pressing it would open and display the named function.

I created an experimental a PANEL system. It is clear from the experiments I did that full control is available. I could dynamically change the meanings of the function keys, or, in fact, set some

predetermined action to happen at the stroke of any single key, and
then at the end of the PANEL session, set everything back the way it
was before.

On my 1M machine, with some modest desk accessories, I get a workspace
with about 600K. When I added a 500K ramdisk, I got a 100K workspace.

The documentation is complete. There is a fat manual telling all about
APL, a supplement that tells about special features for the ST, and a
pocket guide with brief summaries of all features.

I am pleased with APL.68000 on my ST.

In the US, readers can get APL.68000 from the Spencer Organization,
Box 248, Westwood New Jersey 07675. In the UK and elsewhere, it is
available from MicroAPL Limited, Unit 1F, Nine Elms Industrial Estate,
87 Kirtling Street, London SW8 5BP.

Lee Dickey
1986 10 28

Disclaimer:

I am not afilliated with either of these companies.
The views expressed in this article are strictly my own.

From -2992819298408362494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3d6feb35e580341,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 10:19:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!UMass.BITNET!
Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: UNITERM & CDC NETENC
Message-ID: <861028131909.00003DF5.AAVP.VE@UMass>
Date: Tue, 28-Oct-86 13:19:09 EST
Article-I.D.: UMass.861028131909.00003DF5.AAVP.VE
Posted: Tue Oct 28 13:19:09 1986
Date-Received: Tue, 28-Oct-86 23:24:23 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

For those of you who ain't got much luck with UUDECODE and may happen
to be on a CDC system. I will send anyone who asks me a copy of UNITERM.ARC
in NETENC format which can be decoded with NETDEC which is available from
the file server at CYBSER@CADIA.

Rick Flashman

Flash@UMASS.BITNET

From -7226503300684126103
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,728cc17a6bbbe7de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 12:57:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cuae2!ihnp4!houxm!genesis!odyssey!jcs
From: jcs@odyssey.UUCP (j.c.schwebel)
Newsgroups: net.micro.atari16
Subject: Need Printer Driver for Epson LQ-800 24 pin printer
Message-ID: <127@odyssey.UUCP>
Date: Tue, 28-Oct-86 15:57:11 EST
Article-I.D.: odyssey.127
Posted: Tue Oct 28 15:57:11 1986
Date-Received: Wed, 29-Oct-86 02:46:39 EST
Distribution: na
Organization: AT&T Bell Laboratories, Holmdel
Lines: 7
Keywords: Printer driver Epson 24-pin

I have a new Epson LQ-800 24 pin dot matrix printer and am trying
to use it withe the Atari 1040 ST.
I have installed one of the Epson drivers provided with First Word.
Text work fine but screen dumps do not work.
Screen dumps do not seem to do line feeds.

Does anyone have a printer driver for the LQ-800?

From 8898043131823541332
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae1fe1d768aada8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 16:31:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!XEROX.COM!
BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: What works under Magic
Message-ID: <861028-163116-1001@Xerox>
Date: Tue, 28-Oct-86 19:31:11 EST
Article-I.D.: Xerox.861028-163116-1001
Posted: Tue Oct 28 19:31:11 1986
Date-Received: Wed, 29-Oct-86 09:04:21 EST
References: <8610100526.AA25418@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

How about a update on the Magic Sac.

Bill

From 3719013735592432878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc113bc6045e4f2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-28 16:57:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!UWF.BITNET!DAVE
From: DAVE@UWF.BITNET
Newsgroups: net.micro.atari16
Subject: Lotsa Questions About 1040's
Message-ID: <8610290658.AA09337@ucbvax.berkeley.edu>
Date: Tue, 28-Oct-86 19:57:58 EST
Article-I.D.: ucbvax.8610290658.AA09337
Posted: Tue Oct 28 19:57:58 1986
Date-Received: Wed, 29-Oct-86 09:04:53 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 66

Subject: IBM Compatibility

Situation: Computer-less, but interested in the 520/1040ST. I also do all of my work, recreation, finance, etc. on an AT&T 6300+, which is highly IBM-compatible, but faster than an IBM-AT. I also spend a lot of time on the mainframe for school purposes. I'm definately going to want a modem, as I've had a lot of fun with a friend's modem and CompuServe and Dow Jones. I also want to expand my horizons into graphics, thus my choice for a 1040ST. I've heard of problems with expanding the 520 to 1M...

Queries: So then, I've heard a lot of talk around town, as well as on this BBS, about an IBM emulator. Rumors float around about it being 98% compatible, fully compatible, out in May, not out yet, not worth its weight in beans, etc. So what's the scoop? Living in Pensacola, Fl, I don't get to any conventions, and the dealers here couldn't find their asses with both hands and a flashlight, so I'm really just looking for information. Dealer's addresses for mail-order firms would also help. I've heard a *lot* of good things about 47th St Photo, but do they deal mail-order? And what's their number, to place orders or get info? Rumor also has it that Antic(?) has an emulator out. I read Neil's comment on Atari's emulator that's coming soon, but what about this one?

Another Query: A Hayes-Compatible modem. Are there any? What's the best one? Where can I find the best price? Etc. I'll want to dial up to our mainframe, but only at 1200 baud, since that's all students are allowed. We won't be connecting direct, so terminal emulators would only be necessary if they accept data at 1200baud

And Another: Software. I don't like paying thru the nose for it, which was one nice thing about the 520ST over anything IBM, is the availability of lower-priced software. And although I don't promote such actions, copying software is something that is done, and might actually help keep software prices down; my reasoning is that software companies would lower prices so that people would say "well, I won't copy it because it's cheap enough to buy." I know that's been the case with myself, when I bought TURBO Pascal. I wouldn't even think about getting Lattice C, for how many hundreds? Which leads to this...

What's the software situation for the ST? Public domain? Top software firms like MicroSoft? What's the scoop? I haven't had any experience with accessing public domain software for the PC, but then I don't have my own PC, or a modem for those that I work on. I've been watching this forum for some time, and see a lot of people posting code or portions of code for public use. This is great, but how would I get these files down to my 1040ST?

As you can see, I'm fairly ignorant into the workings of the ST's but want to learn. I've also just begun to learn about networking, and love it, but know little about file transfer protocols and methods.

Please everybody respond. I'd like to get as many various amswers as possible, including flames on my software copying opinions. I am on the list, so lets get everyone in on this. Neil, do you have a standard blurb from Atari on this?

.....==========<<<<<>>>>>==========.....

Regards,
Dave 'The Kid' Jaquay

BITNET: DAVE@UWF
ARPA : DAVE@UWF.BITNET, or some such thing...
PHONE : (904) 479-5226
Disclaimer: Unemployed, so nobody cares what I think.

....
==========<<<<<>>>>>==========

From -8647915914524876007
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eb3747f7df60d3b6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 04:05:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!reading!minster!martin
From: martin@minster.UUCP
Newsgroups: net.micro.atari16
Subject: Re: UNITERM
Message-ID: <530971509.19856@minster.UUCP>
Date: Wed, 29-Oct-86 07:05:10 EST
Article-I.D.: minster.530971509.19856
Posted: Wed Oct 29 07:05:10 1986

Date-Received: Sat, 1-Nov-86 04:27:10 EST
Reply-To: martin@minster.UUCP (martin)
Organization: Department of Computer Science, University of York, England
Lines: 19

Did anyone in the UK get a working copy of UNITERM? I'm told that it
was distributed in 4 parts, but we saw none of these. If anyone has it
and would be willing to send it to me, could they please let me know by
mail? Did this program, which everyone says is very good, actually reach
Europe or the UK?
     Martin

PS.
     Apologies to those outside Europe, to whom this may not be
very interesting.

usenet: mcvax!ukc!minster!martin
surface:
     Martin C. Atkins
     Department of Computer Science
     University of York
     Heslington
     York Y01 5DD
     ENGLAND

From -6987977153747544733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d4d705c9114578
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 04:16:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcsri!utegc!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Degas Elite Upgrade Policy
Message-ID: <2042@dalcs.UUCP>
Date: Wed, 29-Oct-86 07:16:08 EST
Article-I.D.: dalcs.2042
Posted: Wed Oct 29 07:16:08 1986
Date-Received: Thu, 30-Oct-86 02:42:24 EST
References: <154@ritcv.UUCP>
Reply-To: silvert@dalcs.UUCP (Bill Silvert)
Distribution: net
Organization: Marine Ecology Lab.
Lines: 4

To get the upgrade send your original Degas disk and $40 U.S. or
$50 in Canada to BI. Degas Elite sells for just under $100 in Canada,
and Degas for about $55, so the upgrade is about half-price, and the
total cost is comparable to the new cost.

From -2744026156765712708
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c8616ab11f9140b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 05:14:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16
Subject: Compuserve, Uniterm
Message-ID: <8610291336.AA14759@ucbvax.berkeley.edu>
Date: Wed, 29-Oct-86 08:14:38 EST
Article-I.D.: ucbvax.8610291336.AA14759
Posted: Wed Oct 29 08:14:38 1986
Date-Received: Wed, 29-Oct-86 22:15:56 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

For those of us who find it difficult or impossible to download and
uudecode files sent over the net, can someone upload them onto Compuserve?
I have found some info-atari16 stuff on ATARI16 (on CIS), but have not seen
such goodies as Uniterm. Upload time is free on CIS!

This would be a great help to those of us on BITNET whose IBMs like to
trash atari/amiga/vax/unix network mail.

Thanks,
maroC ddoTodd Coram

******* Liberate GDOS!! Liberate GDOS!! Free it! Release it to the public!!

From 4500784101147642860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a05011fc1a19d9cf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 07:39:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cbatt!ihnp4!inuxc!inuxj!wolenty
From: wolenty@inuxj.UUCP (R Wolenty)
Newsgroups: net.micro.atari16
Subject: Re: Megamax update query
Message-ID: <254@inuxj.UUCP>
Date: Wed, 29-Oct-86 10:39:04 EST
Article-I.D.: inuxj.254
Posted: Wed Oct 29 10:39:04 1986
Date-Received: Wed, 29-Oct-86 22:53:08 EST
References: <1295@batcomputer.TN.CORNELL.EDU>
Organization: AT&T Consumer Products, Indianapolis
Lines: 14

> []

>
> Has anybody _received_ the updated Megamax C development system
> that is rumored to exist? Please tell us what's fixed/added.
>
> - Moshe Braner

What version is the update? I recently bought Megamax C and received
version 1.1. Unfortunately, I have nothing to compare it to for
differences. If you have code containing examples of bugs in release
1.0 I'll be happy to compile under 1.1 and see if anything got fixed.

Ron Wolenty

From -3805650939802645523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d4d705c9114578
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 08:10:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!rutgers!lll-crg!micropro!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Re: Degas Elite, Resource Construction Editors
Message-ID: <1772@ptsfa.UUCP>
Date: Wed, 29-Oct-86 11:10:23 EST
Article-I.D.: ptsfa.1772
Posted: Wed Oct 29 11:10:23 1986
Date-Received: Wed, 29-Oct-86 22:36:38 EST
References: <154@ritcv.UUCP>
Reply-To: jmc@ptsfa.UUCP (Jerry Carlin)
Distribution: net
Organization: Pacific * Bell, San Ramon, CA
Lines: 16

In article <154@ritcv.UUCP> ref0070@ritcv.UUCP (Bob Fortin) writes:
>owners of Degas would be able to upgrade for half price or at least get

Send your original Degas disk to Batteries, Inc. with a check for $40.

>Finally, has anyone developed an accessory that allows you to load and
>unload other accessories yet?

I would love to have one as changing from low to medium res destroys
accessories and sometimes I want to swap accessories. I remember
a discussion about not being able to delete single ones, but I would
not mind being able to load a bunch from scratch each time.

--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From -5958377185413722571
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 08:29:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <699@chinet.UUCP>
Date: Wed, 29-Oct-86 11:29:16 EST
Article-I.D.: chinet.699
Posted: Wed Oct 29 11:29:16 1986
Date-Received: Thu, 30-Oct-86 07:09:59 EST
References: <1745@alvin.mcnc.UUCP>
Sender: news@chinet.UUCP
Reply-To: cabbie@chinet.UUCP (Richard Andrews)
Organization: chi-net, Public Access UN*X, Chicago IL
Lines: 15
Keywords: desk accesories, loaders

In article <1745@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
>
>
> [For the great stone-eating mons..]
>
>....Is there some
>way of putting a *desk acc. loader* into my AUTO folder, which would
>load the accessories?

I believe that I have a file that will do that. As soon as I verify
that the critter runs(I have never ran it before) I will post it.

Rich Andrews
...ihnp4!chinet!cabbie

From 3716577436632174779
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d4d705c9114578
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 08:46:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Degas Elite, Resource Construction Editors
Message-ID: <1285@druhi.UUCP>
Date: Wed, 29-Oct-86 11:46:59 EST
Article-I.D.: druhi.1285

Posted: Wed Oct 29 11:46:59 1986
Date-Received: Thu, 30-Oct-86 06:56:18 EST
References: <154@ritcv.UUCP>
Distribution: net
Organization: AT&T Information System Labs, Denver, Co
Lines: 19
Summary: DEGAS Elite upgrade

In article <154@ritcv.UUCP>, ref0070@ritcv.UUCP writes:
> I just noticed that a local computer store has Degas Elite for $79.00.
> I thought I remembered that Antic or somebody had said that regestered
> owners of Degas would be able to upgrade for half price or at least get
> some type of discount. The local store hadn't heard of this (no big
> surprise). Does anyone know about Batteries Included's policy?
>

Just send in your original Degas disk with original label, a check for $40, and your registration card (if you haven't already done so). Mention in a short note that your wish to take advantage of the DEGAS Elite upgrade for the Atari ST.

I'm waiting with bated breath for my upgrade, I just sent in for it yesterday.

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80241
ihnp4!drutx!druhi!lbl

From -2222129078337626211
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,16aeae3c745e37ea,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 15c82e,16aeae3c745e37ea,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,16aeae3c745e37ea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 09:16:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!
tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16,net.micro
Subject: Atari At Work
Message-ID: <1157@tekigm2.UUCP>
Date: Wed, 29-Oct-86 12:16:16 EST
Article-I.D.: tekigm2.1157
Posted: Wed Oct 29 12:16:16 1986
Date-Received: Thu, 30-Oct-86 22:42:24 EST
Organization: Tektronix Inc., Beaverton, Or.
Lines: 36
Keywords: Omniview, XEP80
Xref: mnetor net.micro.atari8:534 net.micro.atari16:2824 net.micro:6334

I was called to task for not mentioning OMNIVIEW. OMNIVIEW has been available for a couple of years and works with 3 wordprocessors: Atariwriter Plus, OmniWriter and Letter Perfect and a database: Data Perfect and a new communications program: OmniCom. OMNIVIEW is distributed by CDY (David Young) and is a true 80 column adaptation for the Atari 8 bit machines. Furthermore I was informed that John Scrutch of Atari has made the statement that the XEP80 Atari 80 column board/device will not make it out by Christmas (apparently when originally announced last June, they stated it would be out by October). This last sounds strange to me (would Neil @ Atari care to comment?) as I saw a working model at the Atari exhibition here in Portland earlier this month. The indications that I had then was that it would be out soon. Not being able to take the box apart, I was not able to see the state of the circuit board, it may have been an early prototype. The mechanical aspect of it was production quality (case, cables, etc.).

Secondly, before I get many more blasts, I use both my Atari 8 bit machines and my IBM XT primarily for wordprocessing, secondarily for telecommunications and thirdly for spreadsheets. For both wordprocessing and telecommunications, the Atari is equal to or better than the XT. For the amount of spreadsheets that I use, the Atari is just as good as the XT, but I don't create spreadsheets nine yards wide with an infinite amount of forulas, etc. I still maintain that for general office type work (i.e. wordprocessing and light spreadsheeting) that the Atari 8 bit is as good as the XT. (Have you ever looked at the lettering that a color monitor IBM gives out? Huge letters with many layers of bland pixels!) The letters that Atarwriter Plus may be a little crude, but they are as readable as the XT, IN MY OPINION! I have not personally seen OMNIVIEW letters so cannot comment, I have seen Letter Perfect and PaperClip and they are all as legible or better then the XT color letters.

If you are extensively into programming (in c or other) then probably most of the comments that I hear are correct, the ST outperforms both IBM and Atari 8 bit machines. Certainly the ST is superior to the 8 bit for CAD. If we are going to get into a general micro discussion, however, I agree that we should switch to net.micro.

--Bill Dippert--

From 5116644353147849574
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b929b5714433866b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 09:18:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!pc.ecn.purdue.edu!
aa.ecn.purdue.edu!westerm
From: westerm@aa.ecn.purdue.edu.UUCP (Richard P Westerman)
Newsgroups: net.micro.atari16
Subject: 1040 & composite monitors
Message-ID: <129@aa.ecn.purdue.edu.UUCP>
Date: Wed, 29-Oct-86 12:18:20 EST
Article-I.D.: aa.129

Posted: Wed Oct 29 12:18:20 1986
Date-Received: Thu, 30-Oct-86 07:08:26 EST
Reply-To: westerm@pur-ee.UUCP (Richard P Westerman)
Organization: Electrical Engineering Department , Purdue University
Lines: 19

Does anyone know for certain if a 1040 will output a color composite
signal? I know a 520 will (I have a friend with a 520 who hooks it up
to a composite monitor), but my 1040 doesn't seem to output composite,
even though the pin diagram in the back of the 1040 manual indicates
that it should. I read a short piece in Compute's ST magizine that
said 1040's don't have composite, only 520's do. My dealer doesn't
know. Help please -- my monochrome screen is extra sharp & nice, but I'd like
to see FujiBoink at least once on my own ST.

Whom: Rick Westerman Phone: +1-317-494-8341
Domain-type addressing: westerm@aa.ecn.purdue.edu.UUCP
Old-style UUCP address: {decvax, ihnp4, seismo, ucbvax}!pur-ee!westerm
USPS: Ag Data Network, Smith Hall, Purdue University, West Lafayette IN 47907
--
Whom: Rick Westerman Phone: +1-317-494-8341
Domain-type addressing: westerm@aa.ecn.purdue.edu
Old-style UUCP address: {decvax, ihnp4, seismo, ucbvax}!pur-ee!westerm
USPS: Ag Data Network, Smith Hall, Purdue University, West Lafayette IN 47907

From -945224262125719437
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,16aeae3c745e37ea
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,16aeae3c745e37ea
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,16aeae3c745e37ea
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-10-29 09:19:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!
tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16,net.micro
Subject: Re: Atari At Work
Message-ID: <1158@tekigm2.UUCP>
Date: Wed, 29-Oct-86 12:19:46 EST
Article-I.D.: tekigm2.1158
Posted: Wed Oct 29 12:19:46 1986
Date-Received: Thu, 30-Oct-86 22:42:52 EST
References: <1157@tekigm2.UUCP>
Organization: Tektronix Inc., Beaverton, Or.
Lines: 6
Keywords: Omniview, XEP80
Xref: mnetor net.micro.atari8:535 net.micro.atari16:2825 net.micro:6335

Sorry, make that "blank" pixels -- anyone who has ever used an IBM color monitor will know what I am talking about. All Atari (ST and X-) are infinitely better when it comes to screen graphics (alpha numeric or other).

--Bill Dippert--

From -7998354790831169444
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec4b84a88b612bd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 09:20:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: 520 ST memory map request
Message-ID: <1321@batcomputer.TN.CORNELL.EDU>
Date: Wed, 29-Oct-86 12:20:19 EST
Article-I.D.: batcompu.1321
Posted: Wed Oct 29 12:20:19 1986
Date-Received: Thu, 30-Oct-86 22:21:08 EST
References: <628@imagen.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 7
Summary: Please post it, somebody?

[]

If anybody has a good "what's where in the ST" list, please post it! We types who like to peek and poke and such really need it!

- Moshe Braner

From -5159725740401102856
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 09:58:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: New way to post binaries - discussion on format
Message-ID: <1322@batcomputer.TN.CORNELL.EDU>
Date: Wed, 29-Oct-86 12:58:44 EST
Article-I.D.: batcompu.1322
Posted: Wed Oct 29 12:58:44 1986

Date-Received: Thu, 30-Oct-86 22:21:38 EST
References: <2035@dalcs.UUCP> <2844@watmath.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 40
Keywords: compression
Summary: New way to code PICTURES - & problems

[]

By now I have a working AL RAM-resident program that, upon Alt-Help,
saves the screen in a file in a format that is BOTH compressed and
in a text (modem-able) form. Doing both in one algorithm
is not only convenient, it is essential for getting the most compact
final product. A typical desktop yields a TEXT FILE of about 7600
chars: 25% of the length of the bit map!

(Details on the coding algorithm used do not belong here,
It is similar to uuencode, but does not
use space chars nor is it sensitive to added/deleted control
chars or spaces.)

I am now working on a decoding program, to view such files, and on
a translator from the compressed format to Postscript (my intended
use of this whole mess is to send ST graphics to be printed on a
remote Laserwriter...). I'll post it all when done.

Problems:

The coding program (I call it scode, or perhaps sencode?)
works fine from the desktop, but hangs if Alt-Help is pressed inside
Micro-C-Shell. Why? (When first run, the program replaces the screen
dump vector at $502, then does Ptermres() to stay in RAM.)
(I also bite hard and do OS TRAP calls from my code, even though it
is called from the Alt-Help interrupt handler. I don't really have
a choice, do I?)

Also: At the end of the ROM screen dump routine, it has:

```
    ADDQ.L   #4,A7
    RTS
```

If I end my dump routine with the same or with just plain RTS, it
works the same. What's going on?

Any advice would be appreciated.

- Moshe Braner

From 7728579234078002947
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,9205c69b2e77e07,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 10:31:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!G.BRI%DEEP-THOUGHT
From: G.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Redirection & chaining
Message-ID: <12250715809.8.G.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Wed, 29-Oct-86 13:31:49 EST
Article-I.D.: DEEP-THO.12250715809.8.G.BRI
Posted: Wed Oct 29 13:31:49 1986
Date-Received: Fri, 31-Oct-86 14:50:35 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Could someone tell me if it is possible to redirect standard output to a file, and then chain to a program with its output dumped to the file. What I want to do, is make a GEM shell for the Alcyon C compiler along with build capabilities, to have a nice GEM c development package. I would like to have a way of grabbing any output from the program to check for errors, etc.

Code samples to do the redirection would be great. Is there any way that this will work? Do programs return error codes to the calling program? Thanks.

--- Bri

ARPA: g.bri@deep-thought.mit.edu
UUCP: ...!eddie!bri

From -6827335629490853156
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,61403c2cb59c3cb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 10:33:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Source for new version of uuen/decode (LONG)
Message-ID: <8610301615.AA04730@ucbvax.berkeley.edu>
Date: Wed, 29-Oct-86 13:33:00 EST
Article-I.D.: ucbvax.8610301615.AA04730
Posted: Wed Oct 29 13:33:00 1986
Date-Received: Fri, 31-Oct-86 02:06:30 EST

Sender: johnsson@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 439

```
$ share readme uudecode.c uuencode.c
#       This is a shell archive.
#       Remove everything above and including the cut line.
#       Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:    Shell Archiver
#       Run the following text with /bin/sh to create:
#       readme
#       uudecode.c
#       uuencode.c
# This archive created: Wed Oct 29 14:20:25 1986
cat << \SHAR_EOF > readme

I'm opening myself for flames by posting this to the net, but I've had
over twenty requests for this simple program, so I'm posting it in
three parts.  This part contains source for the two uuen/decode
programs.  Part two contains the uudecode program in the "new"
uuencoded form.  And the last part contains uuencode in the encoded
form.  The new form is compatible with the old version as long as you
delete the character tables at the beginning of each uuencoded file
(they're the group of letters before the "begin XXX FILENAME.TTP"),
delete the "include UUDECODB.UUE" line from the end of UUDECODA.UUE,
and delete the "begin part b" line from UUDECODB.UUE.  Then concat
UUDECODA.UUE and UUDECODB.UUE and run through your own UUDECODE
program.
SHAR_EOF
cat << \SHAR_EOF > uudecode.c
/*
 * Uudecode -- decode a uuencoded file back to binary form.
 *
 * Slightly modified from a version posted to net.sources once;
 * suitable for compilation on an IBM PC.
 *
 * modified for Lattice C on the ST - 11.05.86 by MSD
 * modified for Alcyon on the ST -    10-24-86 by RDR
 *
 */


#include <stdio.h>

#define USAGE "Usage: UUDECODE file\n"

/* single character decode */
#define DEC(c)  (((c) - ' ') & 077)

FILE  *out;
extern FILE *freopen(), *fopenb();
```

```
extern char *rindex(), *index(), *strcpy();
char chtbl[80]; /* read from input files */
char ifname[80];
int part = 'a';
int err = NO;

main(argc, argv)
int argc;
char *argv[];
{

        int mode;
        register char dest[128];
        register char buf[80];
        register int i;
        register int c;

        if (argc != 2) {
                fprintf(stderr,USAGE);
                exit(1);
        }
        if(freopen(argv[1], "r",stdin)!=stdin) {
                fprintf(stderr,"ABORT: cannot free stdin for reading\n");
                        exit(1);
                }
        makename(argv[1]);      /* get a filename for later */
        gettable();
        /* search for header line */
        for (;;) {
                if (fgets(buf, sizeof buf, stdin) == NULL) {
                        fprintf(stderr, "ABORT: no begin line\n");
                        exit(1);
                        }
                if (strncmp(buf, "begin", 5) == 0)
                        break;
                }
        sscanf(buf, "begin %o %s", &mode, dest);
        if((out=fopenb(dest, "w"))==NULL) {  /* create output file */
                fprintf(stderr,"ABORT: cannot open %s for output\n");
                exit(1);
        }
        decode();
        if(err) {
                /* I know, why bother, but this might prevent an
                 * accidental clicking on a bad command file
                 */
                fclose(out);
                unlink(dest);
        }
        else
                fclose(out);
        if (fgets(buf, sizeof buf, stdin) == NULL || strcmp(buf, "end\n")) {
                fprintf(stderr, "Warning: no end line\n");
```

```
                exit(1);
        }
        exit(0);
}

/* Is it a feature of C in general thet strcpy(name,argv[1]) will not
 * work, or is it just ALCYON?  It seems to work under CP/M-68K until
 * you check where the copied string really is, always at &00000000!
 */
makename(name)
char name[];
{
        strcpy(ifname,name);
}

/* read through file looking for the beginning of the character
 * table.  Then install the table in memory for later use.
 */
gettable()
{
        register char buf[80];
        register int c;
        register char *cpt;

        cpt = &chtbl[0];
        for (c=0;c<=66;c++)
                *cpt++ = '\0';
        for (;;) {
                if (fgets(buf, sizeof buf, stdin) == NULL) {
                        fprintf(stderr, "ABORT: no table line\n");
                        exit(1);
                        }
                if (strncmp(buf, "table", 5) == 0)
                        break;
                }
        cpt = &chtbl[0];
        for(;;) {
                c = getchar();
                if (c == '\n')
                        continue;
                if (index(chtbl,c)) {
                        fprintf(stderr,"ABORT: duplicate in character \
table:\nchar: \\%o\nfile: %s\n",c,ifname);
                        exit(1);
                }
                *cpt++ = c;
                if (c == '_') {
                        *cpt = '\0';
                        break;
                }
        }
}
```

```
/*
 * copy from stdin to out, decoding as you go along.
 */

decode()
{
        char buf[80];
        register char *bp;
        register int n;
        register char ch;

        for (;;) {
                if (fgets(buf, sizeof buf, stdin) == NULL) {
                        fprintf(stderr, "ABORT: short file %s\n",ifname);
                        break;
                }
                /* end of current file; get next one */
                if (strncmp(buf, "include", 7)==0) {
                        getfile(buf);
                        continue;
                }
                n = DEC(buf[0]);
                if (n <= 0)
                        break;
                bp = &buf[1];
                chkch(&buf[1]);
                while (n > 0) {
                        outdec(bp, n);
                        bp += 4;
                        n -= 3;
                }
        }
}

/* you may need to rename the filenames at the ends of each part
 * if the encoder encoded them on directories and specified drives.
 */
getfile(buf)
register char *buf;
{
        sscanf(buf,"include %s",ifname);
        if (freopen(ifname,"r",stdin)!=stdin) {
                fprintf(stderr,"ABORT: cannot reassign $%X to %s\n",
                stdin,ifname);
                exit(1);
        }
        gettable();
        for (;;) {
                if (fgets(buf, 80, stdin) == NULL) {
                        fprintf(stderr,"ABORT: no begin line in %s\n",ifname);
                        exit(1);
                        }
                if (strncmp(buf, "begin", 5) == 0)
```

```
                        break;
        }
        return;
}

/*
 * output a group of 3 bytes (4 input characters).
 * the input chars are pointed to by p, they are to
 * be output to file f.  n is used to tell us not to
 * output all of them at the end of the file.
 */
outdec(p,n)
register char *p;
register int n;
{
        register int c1, c2, c3;

        if (err)
                return;
        c1 = DEC(*p) << 2 | DEC(p[1]) >> 4;
        c2 = DEC(p[1]) << 4 | DEC(p[2]) >> 2;
        c3 = DEC(p[2]) << 6 | DEC(p[3]);
        if (n >= 1)
                putc(c1, out);
        if (n >= 2)
                putc(c2, out);
        if (n >= 3)
                putc(c3, out);
}

/* This routine returns the character that matches the native
 * character set.
 */
chkch(buf)
register char *buf;
{
        register char *t1, *t2;
        register char c;
        register int offset;
        register long filepos;
        long ftell();

        t1 = &chtbl[0];
        while(c = *buf) {
                if (t2=index(chtbl, c)) {
                        offset = (int)t2 - (int)t1;
                        *buf++ = (char)(' ' + offset);
                }
                else if (c == part)     /* should be a line terminator */
                        *buf++ = c;
                else if (c == '\n')
                        *buf++ = c;
                else {
```

```
                        filepos = ftell(stdin);
                        /* filepos is the end of the faulty line */
                        fprintf(stderr,"Warning: suspect character\n\
char: \\%o\nfile: %s\noffset: %D\nOutput file will not be completed\n",
                        c,ifname,filepos);
                        *buf++ = c;
                        err = YES;      /* file will not be closed */
                }
        }
        return;
}
SHAR_EOF
cat << \SHAR_EOF > uuencode.c
/*
 *
 * Uuencode -- encode a file so that it's printable ascii, short lines
 *
 * Slightly modified from a version posted to net.sources a while back,
 * and suitable for compilation on the IBM PC
 *
 * modified for Lattice C on the ST - 11.05.85 by MSD
 * modified for ALCYON on the ST -    10-24-86 by RDR
 *
 */


#include <stdio.h>
#include <ctype.h>

#define USAGE "Usage: UUENCODE file [>outfile]\n"

/* ENC is the basic 1 character encoding function to make a char printing */
#define ENC(c) (((c) & 077) + ' ')

extern FILE  *freopen(), *fopenb();
FILE *fp;
char ofname[80];
extern char *rindex();
int part = 'a';

main(argc, argv)
int argc; char *argv[];
{
        if (argc < 2) {
                fprintf(stderr, USAGE);
                exit(2);
                }
        makename(argv[1]);
        if ((fp=fopenb(argv[1], "r"))==NULL) {  /* binary input !!! */
                fprintf(stderr,"Cannot open %s\n",argv[1]);
                exit(1);
        }
        if(freopen(ofname, "w", stdout)!=stdout) {
```

```
                fprintf(stderr,"Cannot reassign stdout\n");
                exit(1);
                }
        maketable();
        printf("begin %o %s\n", 0777, argv[1]);
        encode();
        printf("end\n");
        exit(0);
}

/* create ASCII table so a mailer can screw it up and the decode
 * program can restore the error.
 */
maketable()
{
        register int i;
        register int j;

        puts("table");
        for(i=' ',j=0;i<``;j++) {
                if (j==12){ /* just an arbitrarily short line */
                        putchar('\n');
                        j=0;
                }
                else
                        fputc(i++,stdout);
        }
        putchar('\n');
}

/* I include this in all of my programs to take the guess work out of
 * filenames.
 */
makename(name)
char name[];
{
        register char *ptr;

        strcpy(ofname,name);
        /* I think index is neat; just look for a character, and
         * bomb it.  Voila, you have a substring, no mess.
         */
        if(ptr=rindex(ofname,.')) {
                *ptr = '\0';
                *--ptr = toupper(part);/*makes the include FILE look better*/
        }
        else /* i.e. make the last character in the first name = part */
                ofname[strlen(ofname)-1] = toupper(part);
        strcat(ofname,".UUE");
        return;
}

/*
```

```
 * copy from stdin to stdout, encoding as you go along.
 */
encode()
{
        char buf[80];
        char file[80];
        register int i, n;
        register int lines;
        lines = 6;

        strcpy(file,ofname);
        for (;;) {
                n = fr(buf, 45);
                putchar(ENC(n));
                for (i=0; i<n; i += 3)
                      outdec(&buf[i]);
                putchar(part);
                putchar('\n');
                ++lines;
                if (lines >300) {
                        ++part;
                        makename(file);
                        printf("include %s\n",ofname);
                        if(freopen(ofname, "w", stdout)!=stdout) {
                                fprintf(stderr,"Cannot reassign stdout\n");
                                exit(1);
                        }
                        maketable();
                        printf("begin part %c\n",part);
                        lines = 6;
                }
                if (n <= 0)
                        break;
        }
}

/*
 * output one group of 3 bytes, pointed at by p, on file f.
 */
outdec(p)
register char *p;
{
        register int c1, c2, c3, c4;

        c1 = *p >> 2;
        c2 = (*p << 4) & 060 | (p[1] >> 4) & 017;
        c3 = (p[1] << 2) & 074 | (p[2] >> 6) & 03;
        c4 = p[2] & 077;
        putchar(ENC(c1));
        putchar(ENC(c2));
        putchar(ENC(c3));
        putchar(ENC(c4));
}
```

```
/* fr: like read but stdio */
int fr(buf, cnt)
register char *buf;
register int cnt;
{
        register int c, i;
        for (i = 0; i < cnt; i++) {
                c = fgetc(fp);
                if (feof(fp))
                        return(i);
                buf[i] = c;
        }
        return (cnt);
}
SHAR_EOF
#       End of shell archive
exit 0
%NONAME-W-NOMSG, Message number 00000000


From 7898297612997774932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2a87f28e0100300,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 10:38:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Killer.prg, uuencoded
Message-ID: <1324@batcomputer.TN.CORNELL.EDU>
Date: Wed, 29-Oct-86 13:38:41 EST
Article-I.D.: batcompu.1324
Posted: Wed Oct 29 13:38:41 1986
Date-Received: Thu, 30-Oct-86 22:22:16 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 20

[]

Due to the large number of requests for HTB (hex to binary),
I will post it (uuencoded) unless I get significant oppostion
(as in: "please wait for organization of mod.sources.atari16",
or "please e-mail it to the 17 people who asked for it").

As practice, here's a uuencoding of the program that causes others
to quit upon Control-Alternate-BothShifts-Return:

----------- cut here -----------------------------------------------
begin 644 KILLER.PRG
M8!H```!P``````````````````````````#__TAZ`!@_/``F3DY<CT)G+SP`x
```

```
M``(`/SP`,4Y!2'H`""'?`1A.=0@7``5F%`PX``\.&V4,"-<`!2]\`/P*6@`"x
&3OD`_"@<x
`
end
```
---------- and here ----------

- Moshe Braner

From 2897619469247448353
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc113bc6045e4f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 11:03:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!husc6!husc2!grunau
From: grunau@husc2.UUCP (grunau)
Newsgroups: net.micro.atari16
Subject: Re: Lotsa Questions About 1040's
Message-ID: <999@husc2.UUCP>
Date: Wed, 29-Oct-86 14:03:55 EST
Article-I.D.: husc2.999
Posted: Wed Oct 29 14:03:55 1986
Date-Received: Wed, 29-Oct-86 22:21:51 EST
References: <8610290658.AA09337@ucbvax.berkeley.edu>
Reply-To: grunau@husc2.UUCP (justin grunau)
Organization: Harvard University Science Center
Lines: 50

First, about the IBM emulator: there are currently only two that I am aware of (I would like to know what this ANTIC one is supposed to be). That is, the software emulation by Paradox, and the hardware one, as yet unreleased, by Atari.

(a) Paradox: obviously, software emulation is slow. However, it SHOULD be possible to get absolutely everything to work right, if you think of everything people will try to do. The programmer who wrote the emulator claims it will run everything, no exceptions, including the famous benchmark, Microsoft's flight-simulator. He says it is about 70% of the speed of an XT. He says he has it running on his ST with the PC files in a partition of his hard disk (!), that he has compiled and assembled a lot of stuff on it, using PC-DOS compilers and assemblers, and that the only place where it is really slow is in doing direct writes to the screen, since those have to be patched. Importantly, such direct writes are SLOWEST in text mode: graphics are much faster! This is because of course text writes simply involve poking an ASCII value into the screen memory, which of course does nothing on the ST (you have to find the bitmap of the character at that ASCII address in the font, and then plot that).

He insists, though it is a mystery to me how it can be true, that you can only run his emulator from one of the 5.25" drives they sell: NOT from any other 5.25" drive (i.e. you cannot for instance put the emulator startup on your hard disk: you MUST have the floppy to boot from). Everything else CAN go

on your hard drive, as I said above. I don't know how a floppy can detect what drive it is running on, frankly. He says they have a year warranty on the floppy drives, and mail-order they sell for under $200, which is good, assuming they are good drives, which the warranty would imply. The emulation software itself sells mail-order for about $40.

(b) the ATARI emulator has been demoed right and left, and some people claim to have SEEN it run the flight simulator at a 30% speedup over the XT. Those "in the know" say it has been about 95% compatible at past demoes. The emulator was supposed to be released in September. Then it was pushed back till after Christmas; now they are saying maybe not until Jan. The inference to be drawn from this is that if it was 95% compatible when demoed in Sept., they can only be holding it up in order to make it 99.9% compatible. In theory, it should be possible to make it as compatible as any clone. No one at Atari is willing to talk about it, nor can anyone find out whether it will come with a 5.25" drive. So that's a big unknown.

Secondly: modems. The Avatex has two versions out: the 1200 and the 1200HC. They both do 300/1200 baud, and both are Hayes compatible, with the former having an almost complete subset (lacking, prominently, the hangup command that would make it possible (a) to run a BBS, or (b) to dial up your computer from a remote site and then not leave your telephone tied up and impossible to phone again); the latter is 100% compatible. Mail-order, it is easy to get the former for about $80 and the latter about $130, w/o cable. Good prices! I have not heard anything bad about them (nor anything spectacularly good).

From -4537182503023745099
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-10-29 11:10:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!
tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Ataris At Work
Message-ID: <1159@tekigm2.UUCP>
Date: Wed, 29-Oct-86 14:10:40 EST
Article-I.D.: tekigm2.1159
Posted: Wed Oct 29 14:10:40 1986
Date-Received: Thu, 30-Oct-86 22:43:17 EST
References: <1128@tekigm2.UUCP> <405@uwmacc.UUCP> <1142@tekigm2.UUCP>
<423@uwmacc.UUCP>
Organization: Tektronix Inc., Beaverton, Or.
Lines: 121
Xref: mnetor net.micro.atari8:536 net.micro.atari16:2826

In article <423@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:

===>Much deleted from Rob's previous posting<===
> You just destroyed your original argument: that IBM's were bad things because
> you had to buy add-ons all the time, and that you didn't have to do that
> for Atari 8 bit machines...
>
Maybe I was not as clear as I should have been, yes, sometimes you have to buy add-ons for an Atari, or a Commodore or an IBM, etc. (Read open architecture or whatever you want to call it.) Add-ons for Atari are merely cable plugins for the most part. They usually do not involve taking your computer apart to add boards, flip dip switches, etc. Granted the early 400/800 was an exception -- but it was a true open architecture and for the most part all you did was add boards. What I was trying to say was that for the most part what I either had built in in my Atari or could add with a cable type plug in unit, is not true with the IBM XT that I use at work. The IBM requires not only that I add new cards but also that I often must reconfigure it either thru software or more often thru dip switches. Have you ever tried to figure out first of all where the damn dip switches are, secondly which one dip switch you want and thirdly which switch on the dip switch needs to be off and which ones need to be on? Believe me, it's a pain in the ***.
> >> But what about the capabilities as a microcomputer, you ask? Well, the
> >> IBM has the 8-bit beat here, too. Say you want to hook a standard printer
> >> up to your 1200XL; what do you do? Call mail-order place after mail-order
> >> place, trying to find somebody who knows what kind of cable you need; then
> >> pay $59.95, only to discover that the 1200XL is different somehow than the
> >> rest of Atari's 8-bit machines, so you have to go through the whole cycle
> >> again.
Cables for the Atari line are available in this area as readily or more readily then for the IBM and there is no difference between the 1200XL and any other Atari as far as cabling goes, the only difference is in the OS.
>
> And how many companies do you think make/support serial (RS232) printers
> as opposed to Centronix style parallel printers...?
This comment loses me, I use a centronix parallel style cable/printer port on my Tek 4107, IBM-XT and all Atari's. Granted for about $150 you can add a board to an Epson to make it serial. What is your point?
>
> Are you serious? The Centronix parallel cable with a DB25 connector has
> got to be *the* most common cabling connection available...
Probably should be, but except for authorized IBM dealers, it is not that common in the Portland area. Admittedly, the most uncommon cable to find is centronix to centronix. Recently tried to obtain 5 of them for some Tek 4107's and ended up having Egghead Software custom make some for us.
>
> >> And speaking of software, the IBM has just about every micro I know about
> >> beat cold in both public domain software and commercial software, in both
> >> quality and quantity. That may be only because of the perceived usage of
> >> the respective machines, but frankly, I would not even *think* of trying
> >> to market a serious program for the 8-bit Atari, if only because of what
> >> I know about the, um, "habits" of local Atari users with regard to software
> >> piracy.
I won't comment on this as more informed persons on the net have already been countering this argument. There is some concern of quantity vs quality, and most User groups have a lot of each (Atari, or IBM user groups).

> ...um, again, I ask: are you serious? Atari 8 bits may have a lot of software,
> but nowhere near the about IBM PC/XTs do. There is a book published that lists
> useable PD software for the IBM, sources, and where to find it. It is 1210
> pages of very, very tiny print...
Again, I only am aware of what the various user groups have available, believe me in the PNW we have a lot of PD software available thru the user groups. land Atari Club, Seattle Puget-Sound Atari Computer Enthusiasts, etc.)
> >I agree that piracy is deplorable, but I doubt that anyone does not have some
> >pirated software.
> ...excuse me?
> Yea, and if I want out-of-print books, I usually rip them off from
> the library, rather than looking for them in used book stores...
I hate to push the issue, but where do you find "used software stores" and isn't it just as illegal to sell software as it is to copy it? I do not go out of my way to obtain illegal software, I try buying it first. In fact I do not ever deliberately obtain illegal software, but I am sure that I have downloaded software from a BBS that was. I just have no idea how to identify it as such. Software does not have a tag saying, this software is illegal copied software. How do you decide that what you have downloaded from a BBS is pirated and should not be used, but erased? My crystal ball does not read software for illegality. And again, I have never heard of pirated business type software, but am aware that many, many games are copied illegally. So I generally stay clear of games, but for my kids, I have downloaded games from BBSs and I have absolutely no idea what is pirated and what is legitimate. None of the game titles are familar from the software that I have seen at my local computer store. So before you get on your soap box about using pirated software, tell me how you figure out what is nice and what is pirated?
>
> Don't get me wrong, but I have both an IBM XT and an Atari ST. The ST is
> superior to the XT (even though I have the XT "suped-up") in almost
> every way, shape and form. But if you believe that any 8 bit machine
> is every bit as useable as a 16 bit machine, you must not use the machine
> for anything more than hobby computing...
>
> ...and if that sounds snobbish, I apologize...but I think, per chance, that
> it is true...
>
> --
>   --- Rob DeMillo
My last comment is that I wish that Rob would go to one of the Atari Computer Faires now being organized on the West Coast (San Jose and Portland have occurred, but more are coming including Seattle). There is a form of Pascal for the 8 bit (Turbo Pascal) that supposedly is a full set (or whatever the term is) and there are CAD programs available now that work, look nice and do not have the mathematical errors in them that Rob seems to think. As for the ST, try looking at Real CADD from Generic Software (what a company name!)--it is exceptional for use on either the IBM or the ST, but the ST is super looking.

One other comment, since when is the IBM PC a 16 bit machine? I always thought of IBM PC (and XT) as being 8 bitters, also. I believe that the IBM AT is a 16 bitter, albeit not a 68000 chip.

--Bill Dippert--

Disclaimer: I do not have stock in Atari, Commodore or IBM, my opinions expressed are my own and do not represent Tektronix, or any computer vendor, manufacturer or supplier. And I definitely support the viewpoint of ADAPSO.

> Madison Academic Computer Center
>
> usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
> ARPA: demillo@unix.macc.wisc.edu (now isn't that easier?)
>
> ----------
> "I am not so sure
> what you want me for! 'War Games'
> Either your machine is a - Crosby, Stills and Nash
> fool, or me..."

From -8096818410518980602
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 11:25:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Ataris At Work
Message-ID: <1160@tekigm2.UUCP>
Date: Wed, 29-Oct-86 14:25:04 EST
Article-I.D.: tekigm2.1160
Posted: Wed Oct 29 14:25:04 1986
Date-Received: Thu, 30-Oct-86 22:43:35 EST
References: <1128@tekigm2.UUCP> <405@uwmacc.UUCP> <1142@tekigm2.UUCP> <1159@tekigm2.UUCP>
Organization: Tektronix Inc., Beaverton, Or.
Lines: 8
Xref: mnetor net.micro.atari8:537 net.micro.atari16:2827

Somehow my great IBM XT lost a line or two in my previous transmission. The user groups that I referenced were: Portland Atari Club, Portland Oregon; Eugene (Oregon) Atari Computer Enthusiasts; and SPACE which I believe stands for Seattle Puget-Sound Atari Computer Enthusiasts. There probably are others also in the PNW, but these are the big three.

--Bill--

From -8386995096611781314
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b8036e0d130a85e

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 14:02:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: REVIEW OF "WORD WRITER ST" WORD PROCESSOR
Message-ID: <8610291903.AA23956@mitre-bedford.ARPA>
Date: Wed, 29-Oct-86 17:02:32 EST
Article-I.D.: mitre-be.8610291903.AA23956
Posted: Wed Oct 29 17:02:32 1986
Date-Received: Thu, 30-Oct-86 06:25:37 EST
References: <428@uwmacc.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

Right justification with proportional fonts in a printer is best done by the printer. You will have to find out what the escape codes are for setting left and right margins and for selecting right justification, and embed these in your text.

If your printer does not support right justification, it will be a real "bear" to implement, because the printer drive will have to know exactly how wide each character is.

-John Sangster
jhs@mitre-bedford.arpa

From 751877734168715802
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc113bc6045e4f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 14:10:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Lotsa Questions About 1040's
Message-ID: <8610291842.AA22821@mitre-bedford.ARPA>
Date: Wed, 29-Oct-86 17:10:24 EST
Article-I.D.: mitre-be.8610291842.AA22821
Posted: Wed Oct 29 17:10:24 1986
Date-Received: Thu, 30-Oct-86 06:25:52 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 38

47th St. Whatever (camra, stereo, computer, ???) is indeed into mail order. I don't happen to have their address or phone number handy, but they usually advertise in BYTE. So far as I know, they have an excellent reputation for low prices and solid service if problems should develop.

Another place you might try is Applied Computer Associates. They were, as of a few months ago, beating any legitimate price by $1. They had the 520ST for $495 as I recall. Their phone number is 1-(800) FOR-ATARIS (428-2747).
I have dealt with them as a walk-in customer and believe them to be a very solid place to put your trust in. Address is 16220 Frederick Road, Gaithersburg, MD 20877. (Southwest corner of Shady Grove Road and 355, for you locals. Local phone is (301) 948-0256.)

COMPUCLUB in Framingham, MA (617) 879-5232 seems to be run by good folks also. Tom Graziano is proprietor. INWATS phone is 1-(800) MY-ATARI.

Other places with very competitive prices are:

Computer Mail Order (I got good service from them on my one order.) 1-(800) 233-8950.

Black Patch Systems. 1 (800) ATARI02 (757-1302). Typically the BEST prices on everything. (But check on shipping charges, which I haven't compared with others.

Electronic One. (614) 864-9994. Good prices, no experience with them.

CSC, Hightstown, NJ. (609) 448-8889. Small but very helpful and competitive.

Re: 520ST 1M upgrade. This seems to be successful if done right. Several people on the net have had success, a couple of others have had problems. Several people do the upgrade commercially, including COMPUCLUB and Applied Computer Associates mentioned above. Price is around $140 to $150.

I hope this is of some help.

-John Sangster
jhs@mitre-bedford.arpa

From -6936468772825555736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc113bc6045e4f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 21:29:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Lotsa Questions.. (really: modems)
Message-ID: <1332@batcomputer.TN.CORNELL.EDU>
Date: Thu, 30-Oct-86 00:29:01 EST
Article-I.D.: batcompu.1332
Posted: Thu Oct 30 00:29:01 1986
Date-Received: Thu, 30-Oct-86 23:36:21 EST
References: <8610290658.AA09337@ucbvax.berkeley.edu>
Reply-To: braner@batcomputer.UUCP (braner)

Organization: Theory Center, Cornell University, Ithaca NY
Lines: 28
Summary: compact new modem ad

[]

I hope this is not too commercial...

I have an Avatex 1200 and am quite happy. But if you're still
shopping, I just got a catalog from Priority One Electronics
where they have a tiny thing (a wee bit larger than the usual
AC adaptor) that plugs into an AC socket and has phone and RS232
connectors on it. It is claimed to be a Hayes compatible auto-dial
auto-answer 300/1200 baud modem, complete with speaker.

I suppose that's one of the new modem designs using the new
1200-baud modem-on-a-chip chip. Expect others soon, and
probably price drops...

They sell it now for $129 (RS232 cable not included).

Their address is:

     21622 Plummer St.
     Chatsworth, CA 91311
     (800) 423-5922

But then, my Avatex 1200 has DIP switches for all kinds of settings,
and also has nifty LEDs and an on/off switch... - all missing from
that little thing...

- Moshe Braner

From 6339236273988590893
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af2d417ef5f8cfd2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 21:54:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Megamax bugs and queries
Message-ID: <1333@batcomputer.TN.CORNELL.EDU>
Date: Thu, 30-Oct-86 00:54:07 EST
Article-I.D.: batcompu.1333
Posted: Thu Oct 30 00:54:07 1986
Date-Received: Thu, 30-Oct-86 23:36:42 EST
References: <381@cernvax.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: world
Organization: Theory Center, Cornell University, Ithaca NY

Lines: 33

[]

A few answers/suggestions:

     Never put a function call inside a macro! E.g.: isalpha(c) is
a macro (defined in ctype.h):

     #define isalpha(c) (c>='A' && c<='Z' || c>='a' && c<='z')

which means that isalpha(c=getchar()) calls getchar() 4 times, probably
not what you wanted... (to make things worse, getchar() is a macro
inside another macro...). BTW, they should have defined isalpha as
above but with "(c)" instead of "c" everywhere - that may be why it
does not compile...

     To get stuff out on the screen or whatever, flushing the
buffer, use fflush().

     The Megamax malloc(), as explained in the manual, is designed
to bypass the problems with the OS Malloc(). It takes no less than 8K
at a time from the system, and does further splitting itself. It works
mighty fine under heavy use, with MANY small malloc()s and free()s,
as exemplified by my microEMACS.

     To print out a pointer, use:

     printf("%lx", (long)pointer);

(remember: from now on, pointers are 32 bits, until they get to be 64!)

- Moshe Braner

PS - anybody got the upgrade from Megamax yet? Or is it due Friday night?

From 405349599213048512
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c54c7cd06553042
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-29 22:03:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: copy protection flame
Message-ID: <1334@batcomputer.TN.CORNELL.EDU>
Date: Thu, 30-Oct-86 01:03:07 EST
Article-I.D.: batcompu.1334
Posted: Thu Oct 30 01:03:07 1986
Date-Received: Thu, 30-Oct-86 23:40:19 EST
References: <246@bath63.UUCP>

Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 24

[]

At the risk of being repetitive:

     Before I shell out money for ANY piece of software, I find
out whether it is "copy protected". If it is, I DO NOT BUY IT!!!!!!!

FLAME ON:

I will not buy a car with that thin spare wheel and a 55 mph mechanical
limit, nor an insurance policy where other drivers are excluded.

I will not buy a book printed in ink that is visible only under a
special lamp.

I will not rent a house with limits imposed in the lease on guests
staying overnight.

And I will not pay for software that will not run off a hard disk,
a ram disk, and a backup.

FLAME OFF.

- Moshe Braner

From 8060816066025822469
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67caef7c0c994b17
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 02:01:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!strath-cs!paisley!rh
From: rh@cs.paisley.ac.uk (Robert Hamilton)
Newsgroups: net.micro.atari16
Subject: Re: MicroEmacs 3.7i
Message-ID: <210@paisley.ac.uk>
Date: Thu, 30-Oct-86 05:01:09 EST
Article-I.D.: paisley.210
Posted: Thu Oct 30 05:01:09 1986
Date-Received: Wed, 5-Nov-86 06:17:40 EST
References: <MDCG.WAYNE.12246443018.BABYL@MIT-OZ> <612@imagen.UUCP>
<414@husc6.HARVARD.EDU>
Sender: rh@paisley.ac.uk
Reply-To: rh@cs.paisley.ac.uk (Robert Hamilton)
Organization: Paisley College of Technology Scotland.
Lines: 29

In article <414@husc6.HARVARD.EDU> olson@endor.UUCP (Eric Olson) writes:

>More questions regarding shell escapes:
>
>In 3.7i, M-X ! prompts for a command to send to a CLI. It seems to do
>something, but not very useful.

The "shell-command" (^X!) in the latest version of ue3.7
seems buggy. If you try (say) ^X! then "make.prg" you get a bus error.
(Using MONST which came over the recently I found the bombing code
was caused by reading a NULL pointer) .

Strangely though if you first try ^X! then just <SPACE> you
get back to u-emacs and subsequent ^X! 's work properly !!

That aside this version is *REALLY REALLY* good.
(but I cant get the ^X# and ^X@ commands to work. are they supposed to?)

I've put 3.6 on our VAX as an alternative to VI for our users
 (It dos'nt give the load overhead that GNU emacs does!)
I'd like to put on 3.7 .
Any chance of a sources posting of 3.7 ???

--
JANET: rh@uk.ac.paisley.cs
EMAIL: rh@cs.paisley.ac.uk | Post: Paisley College
UUCP: ...!seismo!mcvax!ukc!paisley!rh | Department of Computing,
Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                        | Scotland.
                        | PA1 2BE

From 6730758094759236157
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,96d15ad2c7bb9513,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 06:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!USU.BITNET!FATR6
From: FATR6@USU.BITNET
Newsgroups: net.micro.atari16
Subject: 1040ST
Message-ID: <8610302003.AA09092@ucbvax.berkeley.edu>
Date: Thu, 30-Oct-86 09:16:00 EST
Article-I.D.: ucbvax.8610302003.AA09092
Posted: Thu Oct 30 09:16:00 1986
Date-Received: Fri, 31-Oct-86 02:08:01 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

I hope someone out there can help me. I am an Atari 8 bit user who
needs to upgrade to a moore powerful machine for proogramming purposes.
I have narrowed the field down to PC clones and the ST. I am wondering

if there are full ANSI versions of the major languages out for the ST, especially Pascal and Prolog. I know OSS makes both but I don't know how 'mini/mainframe' compatable these are. If I get an ST who can comment on which monitor would be better monochrome or color. I am mainly going to use the machine for programming and uploads/downloads to a VAX and HP9000. I understand that the internal drives on the 1040 are bug ridden. Someone please help before I make a big mistake and buy a PC just for the software.

Jon Jensen
Utah State University
Logan Ut
CS DEPT

P.S. I know the ST is a GREAT machine (so you don't have to convince me of that)

From -3489523389032466241
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b46d849042229efe
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 10:31:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: Volume of net traffic
Message-ID: <248@bath63.UUCP>
Date: Thu, 30-Oct-86 13:31:53 EST
Article-I.D.: bath63.248
Posted: Thu Oct 30 13:31:53 1986
Date-Received: Sat, 1-Nov-86 04:28:01 EST
References: <8610151215.AA00607@ncsc.ARPA> <8610152229.AA17925@mitre-bedford.ARPA>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 13

I'm not convinced that 'descriptions and mail to requesters' would actually cut the net traffic. At present (bar accidents) net stuff crosses the Atlantic once (to Holland, innit?), crosses the Channel once, and so on. A separate trans-Atlantic posting to each requestor would pretty obviously crank the transmitted bitcount right up.

Similar arguments, of course, apply to non-international posting. Also, I think that this net has a higher connectivity than 'pure user mail', so that solution would leave lots of people out, I spect.

Better, the idea (is it reelly going to happen) of a separate meeting for the software, so that them as don't want it can more easily miss it out.

From 5847859429913750225

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 10:52:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!rutgers!lll-crg!nike!ucbcad!ucbvax!
UOGUELPH.BITNET!SOFPJF
From: SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer)
Newsgroups: net.micro.atari16
Subject: Re: 1040ST questions (C compilers)
Message-ID: <8610301952.AA08913@ucbvax.berkeley.edu>
Date: Thu, 30-Oct-86 13:52:47 EST
Article-I.D.: ucbvax.8610301952.AA08913
Posted: Thu Oct 30 13:52:47 1986
Date-Received: Fri, 31-Oct-86 02:10:44 EST
References: <iarocci@eneevax.umd.edu>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

OK, but which C is most Alcyon compatible? I tried to convert something
A->MM (the details are a bit fuzz now) having to do with trying to move
characters with a pointer into memory based on an offset and some index
in a loop. The problem was that Megamax complained that the pointer was
not the same type as the long int that was the calculated address.
Alcyon accepted this no problems. This was probably 'lint', but I couldn't
think of any other way to re-code it. Ideas anyone?

I dislike Alcyon for several reasons among which are:
1) Multi-passes, multi little bits and pieces contribute a lot to its slowness
2) The links are a MESS, in Megamax, you just point to the .O files you want
   linked together (yours not system stuff) and it goes. None of this
   fiddling with multitudinous libraries and worrying about what order...
But unfortunately, a LOT of good software around is still written in it.

The .O files are not compatible either!   That's not right. I wish there
was a standard ST linker, and that PASCAL, MODULA, and WHATever else all
produced the same type of object files, which could then be linked together.
I know that there's some different parameter passing conventions there, but
Am I asking too much? Why not?

So what about Mark Williams' and other Cs with respect to source compatability?
(The object file compatability is just a dream with multi vendors *sigh*)
/PJ

From -5126001914419488079
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29a568511b92128c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 10:57:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes

From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM V1.5C PART 3 OF 4 (UNITERM.B)
Message-ID: <249@bath63.UUCP>
Date: Thu, 30-Oct-86 13:57:08 EST
Article-I.D.: bath63.249
Posted: Thu Oct 30 13:57:08 1986
Date-Received: Sat, 1-Nov-86 04:28:13 EST
References: <8610161724.AA18412@ucbvax.Berkeley.EDU>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 21

Sigh. Someone up there doesn't want me to have UniTerm 1.5c. Our site finally received parts 1, 2, and 3 of the 16th (19th? it's scrolled off my screen) posting of 1.5c. Assuming that the part 3 I got earlier was correct (got it twice, and they both matched) the new part 3 was savagely truncated =678 lines, missing about 600 if I counted right. Part 2 ('A') was also chopped off short. So, I've now got

  Part 1 Read Me
  Part 2 ('A') 1 bad copy (truncated)
  Part 3 ('B') 2 good copies and one bad (truncated)
  Part 4 ('C') 1 good copy

Of course this all assumes that the Parts were all the same each time. Anyone with UK PSS or JANET access (or US ARPA) willing to trade a part A for one of my spare part B's :-).

  JANET: Smee at AUCC
  ARPA: Smee at AUCC via UCL-CS.ARPA

(in whatever syntax your favorite mailer uses for at's and via's)

From -5753554752118947610
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 165181,696242754f9136eb,start
X-Google-Attributes: gid165181,public
X-Google-Thread: 140593,53cb90613407fd71
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 11:25:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site xios.UUCP
Path: utzoo!dciem!nrcaer!xios!greg
From: greg@xios.UUCP (Greg Franks)
Newsgroups: net.micro.atari16,net.emacs
Subject: Re: Micro-EMACS 3.7i -- bugs and comments
Message-ID: <347@xios.UUCP>
Date: Thu, 30-Oct-86 14:25:55 EST
Article-I.D.: xios.347
Posted: Thu Oct 30 14:25:55 1986

Date-Received: Sat, 1-Nov-86 19:35:51 EST
References: <8610221417.AA09421@Yale-Bulldog.YALE.ARPA>
Reply-To: greg@xios.UUCP (Greg Franks)
Organization: Xios Systems Corp., Ottawa, Ont.
Lines: 41
Xref: dciem net.micro.atari16:2737 net.emacs:2366
Summary:

In article <8610221417.AA09421@Yale-Bulldog.YALE.ARPA> ram@YALE.ARPA (Ashwin Ram) writes:
(from net.micro.atari16)
>[So you thought there were no bugs left, eh?]
>
>Hi... uEmacs 3.7i works and is wonderful. But, as always, we unsatisfied
>users want more! Here are 5 bugs and 3 suggestions which I would appreciate
>your help with:
>
>
>2b. Using ESC to delimit search strings is silly. If you really don't want
>to use RETURN, why not use ENTER? Better still, I would suggest using
>RETURN, and making ^J insert a ^J in the search string, and ^M a ^M. That
>way you can use ^J to get a NL in the search string (since ^J is a NL), and
>RETURN can still delimit the search string which is makes more sense since I
>think it's more intuitive. In fact, I usually use control-RETURN to delimit
>search strings since it is faster to type ^S-^RETURN when you want to repeat
>a search than ^S-RETURN

The search terminators should be bindable (like the meta key). I have
to type ^3 (control-3) on my vt220 terminal for <escape> right now :-(.
I would rather bind the terminator to something else (like FN^N). (I use
sys V curses, so I can get 10 function keys and the cursor keys - .emacsrc
takes care of the rest).

We in terminal land don't have control-return, so I don't think it
should be used as a terminator. I bind the function "hunt-forward" to a
function key (1 keystroke instead of 2 or 3). (The backwards function is
"hunt-backward" (Before flaming, see item 4. - he can't RTFM)).

>4. Is there documentation available for 3.7i? I was thinking of the syntax
>of regular expressions in particular, but a brief description of each
>function and customizable flags would be nice too.
>

Regular expressions! Gee - I wish - but then again, I only have 3.7 (from
mod.sources). Can I get sources (I suspect search.c is all that's needed)?
Better yet, could the pattern matching stuff goto either net.sources or
mod.sources?

Happy hacking!
  Greg Franks

From -3878459038289166956

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,884f3aac3f626c85
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 11:38:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!UOGUELPH.BITNET!
SOFPJF
From: SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer)
Newsgroups: net.micro.atari16
Subject: Re: UniTerm: Bug in File Capture
Message-ID: <8610302032.AA09519@ucbvax.berkeley.edu>
Date: Thu, 30-Oct-86 14:38:47 EST
Article-I.D.: ucbvax.8610302032.AA09519
Posted: Thu Oct 30 14:38:47 1986
Date-Received: Fri, 31-Oct-86 02:12:17 EST
References: <ram-ashwin@YALE.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 31

That ---END OF FILE--- reply for your request to display the file is not uncommon. That *THING* that Atari put into GEM to display the file has got to be the most USELESS object on the ST. I hate asking for something to be displayed and having only the "printable" (according to WHO, an owner of a century old Teletype??) characters displayed (ever tried to dump a 1st Word file saved in WP mode?), and spurrious premature EOF's.

Request: How difficult would it be to case the SHOW|PRINT|CANCEL alert to branch to some DECENT file display. It should be able to set a DEFAULT for PRINT|SHOW (if it's fast you can always CANCEL from the display!)

   Even if that's too hard (with ROM), does someone have a fast SMALL desk assessory that displays (R/O edit) a file: maybe a window, that displays ALL characters using the full character set, displaying "unprintables" (0 - 1F) as, say grey "."s (I don't care) and the minimal set of pull/down or CNTRL key options or commands:
1) Toggle ASCCII|HEX
2) Toggle CR: use|display-as-glyph
2) Scroll bars + keypad arrows + ? (other movements)
3) FindUP, FindDown of arbitrary string (including ALT and CNTRL chars),
   terminated by mouse click, not ^M (unlike uEMACS), so you can look for CR.
4) Quit (UNDO key?)
But K.I.S.S. (and SMALL/FAST)

The thing shouldn't care if the entire file is 1M-all-one-line (unlike uEMACS which complains about too-long lines).

The only thing that I've found that has most of the functions is DiskDoctor but it's big, slow, and more than is needed.

 /PJ

From 8093837360680771248
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d4d705c9114578
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 12:40:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!uwvax!husc6!think!nike!ucbcad!ucbvax!NADC.ARPA!
kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: Degas Elite, Resource Construction Editors
Message-ID: <8610311159.AA29625@ucbvax.berkeley.edu>
Date: Thu, 30-Oct-86 15:40:12 EST
Article-I.D.: ucbvax.8610311159.AA29625
Posted: Thu Oct 30 15:40:12 1986
Date-Received: Sat, 1-Nov-86 03:13:22 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Batteries Included will update DEGAS to DEGAS Elite for $40.00
Check the Discounter Mail Order houses for some heavy discounts!

Ron Kushnier
kushnier@nadc.arpa

From -1104540178036364466
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 12:53:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!uwvax!husc6!think!nike!ucbcad!ucbvax!AMES-
PRANDTL.ARPA!getty
From: getty@AMES-PRANDTL.ARPA
Newsgroups: net.micro.atari16
Subject: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <8610302053.AA05161@ames-prandtl.ARPA>
Date: Thu, 30-Oct-86 15:53:47 EST
Article-I.D.: ames-pra.8610302053.AA05161
Posted: Thu Oct 30 15:53:47 1986
Date-Received: Sat, 1-Nov-86 03:11:33 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

Hi Neil:

I was in the store the other day looking at the Easydraw program, and I
was suprised to discover that GDOS is being distributed with this program.
Included with this GDOS were some fonts, device drivers, and a program named

OUTPUT.PRG.

After trying Easydraw I got a copy of PaintPro (Abacus) and tried running it. PaintPro simply would not run with GDOS installed on the system, but ran just fine when the system was booted without GDOS. The README file that comes with PaintPro claimed that it would work with GDOS installed. When the program starts the menus claimed that the Swiss font is loaded, but the program soon bombed. The salesman at the store said he had no idea what was going on.

This all disturbs me. Apparently GDOS is already being given away in some form with commercial software, but you are telling us that we are going to have to pay money for it. Will the GDOS given away with software in the future be the same thing that is going to be sold for money separately? Is it possible in the future that some old software will not work correctly with GDOS installed on the system? Do you have a date in mind for the "release" of GDOS?

Thanks in advance,

Karl

"Free the masses and give them GDOS!"

From 7452017050863121799
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3d6feb35e580341
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 13:33:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: UNITERM & CDC NETENC
Message-ID: <100600005@uiucuxa>
Date: Thu, 30-Oct-86 16:33:00 EST
Article-I.D.: uiucuxa.100600005
Posted: Thu Oct 30 16:33:00 1986
Date-Received: Mon, 3-Nov-86 19:50:59 EST
References: <3@<861028131909>
Lines: 6
Nf-ID: #R:<861028131909:3:uiucuxa:100600005:000:79
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309 Oct 30 15:33:00 1986

Rick, please send a copy to glk309@uiucuxa

Thanks in advance,
Spieu!

From -1032740481812326163
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ca4ce6855638f259
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 13:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: APL for the ST
Message-ID: <100600006@uiucuxa>
Date: Thu, 30-Oct-86 16:38:00 EST
Article-I.D.: uiucuxa.100600006
Posted: Thu Oct 30 16:38:00 1986
Date-Received: Mon, 3-Nov-86 19:51:32 EST
References: <581@water.UUCP>
Lines: 9
Nf-ID: #R:water.UUCP:581:uiucuxa:100600006:000:148
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 30 15:38:00 1986

Is there anyway I could send you a disk and some $$ and yoiu could send me a
copy?

              Thanks.

                   Mail response to glk309@uiucuxa

         Spieu!

From 7138578575129240909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7c00196eeb7bec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 14:01:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!
BILLW
From: BILLW@SCORE.STANFORD.EDU (William "Chops" Westfield)
Newsgroups: net.micro.atari16
Subject: ATARI distribution lists to pause somewhat...
Message-ID: <12251016126.12.BILLW@Score.Stanford.EDU>
Date: Thu, 30-Oct-86 17:01:31 EST
Article-I.D.: Score.12251016126.12.BILLW
Posted: Thu Oct 30 17:01:31 1986
Date-Received: Fri, 31-Oct-86 02:17:30 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Due to overwhelming arpanet congestion problems and user complaints
of slow mail delivery on Score, INFO-ATARI8 and INFO-ATARI16 are
immediately being converted to a non-immediate distribution mode.

This means that you will probably not receive any ATARI mail at
all for several days, after which you may start receiving Digests,
rather than single messages.

Please do not send complaints - this is apparently the way that
it has to be. (though if any site want to take over distribution
of the list, that would be ok with me - INFO-ATARI is currently
maintained by a set of volunteers with a guest account on score).

Bill Westfield
Score Systems Programmer/Postmaster/etc.

From -170231719114727600
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae1fe1d768aada8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 16:09:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: What works under Magic
Message-ID: <433@utcsscb.UUCP>
Date: Thu, 30-Oct-86 19:09:57 EST
Article-I.D.: utcsscb.433
Posted: Thu Oct 30 19:09:57 1986
Date-Received: Thu, 30-Oct-86 22:58:21 EST
References: <8610100526.AA25418@ames-nas.ARPA> <861028-163116-1001@Xerox>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 62
Keywords: Magic Sac Mac Cartridge
Summary: Not Everything, but LOTS

In article <861028-163116-1001@Xerox> BillHolland.ES@XEROX.COM.UUCP writes:
>How about a update on the Magic Sac.
>
>Bill

     Hi!
     I've had the Magic Sac since very soon after it came out. Version
2.00 of the driver software is now available, and improves things somewhat.
     Do not get me wrong. Everything does not work on the Cartridge, and
if you have a specific program in mind, CHECK FIRST (mail me. I can probably
help you out.) The version 2.00 driver software cures the serial port troubles
that plagued the earlier version. I know of 2 terminal programs that work with
the Sac. Freeterm, and TermWorks. These are both shareware. ie. if you use it

pay for it. Both of these programs are faily simplistic, but do have good downloading capabilities. Unfortunately, Red Rider does not work.

Other software that works (or seems to!):

MacPaint, MacDraw, Redit, Edit, Finder (4.1 and earlier)
Basic, JoyPaint, ClipArt Effects, certain RamDisks, Font Librarian,
Iago (a game), Wizards Fire, Daleks II
Most DA's that I have found.

Major Dissapointments (didn't work):
ResEdit, Fedit, Wizardry (boo hoo!), Fortran (My transfer may not
have worked properly), MDS Assembler, Finder 5.3 etc, Rmaker,
MacWrite (Dave Small is working on this) MacWord.

Also note another shortcoming of the system. In order to easily use any printing functions of these programs, you must have either a working printer driver for your Atari style printer FOR THE MAC, or an imagewriter (this is by far the simplest way, but it is a pain to keep unhooking it from you Mac :-) In order to help alleviate this problem, I have written an Imagewriter -> Epson printer code translator. All I have to do now is hook it into the driver software. I'll let you know how it goes.

One Interesting Aspect of the Cartridge is that it gives you a chance to easily compare the software aspects of the two systems without having the hardware get in the way. As a rule, and to my own great surprise, I very much prefer running under GEM than the Finder. The Finder is *very* slow, requires excessive disk swaps given a one drive system, and takes forever to load in desk accessories when you need them. It does have a much more flexible memory allocation system, but you pay heavily for it in speed.

As for drop down menues vs pull down menues, this is *definitely* a matter of preferance (good religeous war topic!). I much prefer a well thought out GEM desktop arrangment to the Finders slowness. While I'm on the topic, does anybody know whether GDOS changes the GEM desktops features at all?

Anyways, Summary:

If you want to have access to Mac software, check first, but the Magic Sac is probably a good way to go. If you are looking for a more powerfull programming environment, check into a Good CLI before going to the Magic Cartridge.

Thanks for reading my wordyness
Pete

Pete Santangeli
pete@utcsscb.UUCP
psantangeli on BIX

From -3684818927125090652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b929b5714433866b
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-10-30 16:19:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1040 & composite monitors
Message-ID: <434@utcsscb.UUCP>
Date: Thu, 30-Oct-86 19:19:13 EST
Article-I.D.: utcsscb.434
Posted: Thu Oct 30 19:19:13 1986
Date-Received: Thu, 30-Oct-86 22:57:57 EST
References: <129@aa.ecn.purdue.edu.UUCP>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 9
Summary:

If the 1040 can't (which I am lead to believe) could somebody
let us know if there is at least a board, or kit, or set of instructions
or something to let us do it ourselves?

Thanks,
Pete

From -8826403514407910707
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6aaab0c8c369379
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 17:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: htb.uue available
Message-ID: <100600007@uiucuxa>
Date: Thu, 30-Oct-86 20:09:00 EST
Article-I.D.: uiucuxa.100600007
Posted: Thu Oct 30 20:09:00 1986
Date-Received: Mon, 3-Nov-86 19:49:53 EST
References: <1293@batcomputer.TN.CORNELL.EDU>
Lines: 4
Nf-ID: #R:batcomputer.TN.CORNELL.EDU:1293:uiucuxa:100600007:000:62
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 30 19:09:00 1986

Please send a copy to glk309@uiucuxa

Thanks. -Spieu!

From 3749376832677216381
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9e0e12aae6fa4896
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 17:11:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: disk drive question
Message-ID: <100600008@uiucuxa>
Date: Thu, 30-Oct-86 20:11:00 EST
Article-I.D.: uiucuxa.100600008
Posted: Thu Oct 30 20:11:00 1986
Date-Received: Mon, 3-Nov-86 19:49:37 EST
Lines: 9
Nf-ID: #R:<8610272023.AA15421@ucbvax.Berke:-40:uiucuxa:100600008:000:147
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 30 19:11:00 1986

My 520ST arrived with that problem, and after securing
a few chips towards the back of the machine, everything
worked.

glk309@uiucuxa

From 4652701940935239109
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567f53c77229c23f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 17:34:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!zen!buddy.Berkeley.EDU!c9c-bg
From: c9c-bg@buddy.Berkeley.EDU (James A. Landay)
Newsgroups: net.micro.atari16
Subject: ST problems
Message-ID: <758@zen.BERKELEY.EDU>
Date: Thu, 30-Oct-86 20:34:18 EST
Article-I.D.: zen.758
Posted: Thu Oct 30 20:34:18 1986
Date-Received: Fri, 31-Oct-86 13:27:27 EST
Sender: news@zen.BERKELEY.EDU
Reply-To: c9c-bg@buddy.Berkeley.EDU (James A. Landay)
Organization: University of California, Berkeley
Lines: 8

Has anyone had the problem of their ST upon booting (TOS in ROM) saying
that every disk was empty. (i.e. 0K in 0 folders). Mine is doing this.

I have a single sided drive.
Help!!!

James Landay
c9c-bg@buddy.berkeley.edu

From 5561471756401398791
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab8d39815c68ddab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-30 21:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: INFOATARI MAILLIST ADDITION
Message-ID: <100600009@uiucuxa>
Date: Fri, 31-Oct-86 00:29:00 EST
Article-I.D.: uiucuxa.100600009
Posted: Fri Oct 31 00:29:00 1986
Date-Received: Mon, 3-Nov-86 19:51:50 EST
Lines: 17
Nf-ID: #N:uiucuxa:100600009:000:185
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 30 23:29:00 1986

If someone could please add me to the
INFOATARI mailing list, it would be
much appreciated by many here in
Champaign, Il

Thankyou

-Spieu!

glk309@uiucuxa

From -7174742213975735500
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7644f1c163a4fb1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 05:16:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Re: arc
Message-ID: <104@its63b.ed.ac.uk>
Date: Fri, 31-Oct-86 08:16:47 EST
Article-I.D.: its63b.104
Posted: Fri Oct 31 08:16:47 1986
Date-Received: Wed, 5-Nov-86 06:10:34 EST
References: <645@zen.BERKELEY.EDU>
Reply-To: csan@its63b.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 12

In article <645@zen.BERKELEY.EDU> c9c-bg@buddy.Berkeley.EDU (James Landay) writes:
>Can someone please send me ARC and the docs. My version doesn't seem
>to work.
>
>Thanks,
>
>James A. Landay
>c9c-bg@buddy.berkeley.edu

Me too.....

--Andie Ness

From -1223273574515496286
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff1af9bff57e8988
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 05:19:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Re: gem-kermit
Message-ID: <105@its63b.ed.ac.uk>
Date: Fri, 31-Oct-86 08:19:04 EST
Article-I.D.: its63b.105
Posted: Fri Oct 31 08:19:04 1986
Date-Received: Wed, 5-Nov-86 06:11:32 EST
References: <652@zen.BERKELEY.EDU>
Reply-To: csan@its63b.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 10

In article <652@zen.BERKELEY.EDU> c9c-bg@buddy.Berkeley.EDU (James A. Landay)
writes:
>Could someone please send me Gem-kermit or repost it.
>
>Thanks,

>
>James Landay

Me too.....again

--Andie Ness

From -6443397198049846260
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dad39df0f0750397,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 05:48:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: UniTerm Zoom Help!
Message-ID: <4852@pur-ee.UUCP>
Date: Fri, 31-Oct-86 08:48:14 EST
Article-I.D.: pur-ee.4852
Posted: Fri Oct 31 08:48:14 1986
Date-Received: Mon, 3-Nov-86 20:03:33 EST
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 15
Keywords: UniTerm zoom documentation help

<<<<<>>>>>

  I have yet to get an answer from anyone one way or another
on the abilities of UniTerm to zoom back out after zooming in.
Is this possible? I would really like to keep from generating
the entire screenful of data if it were at all possible.
  Simon? are you out there? please help me.

         Thanks anyway, (it's still a good program)
              Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From -7990798325303680940
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,884f3aac3f626c85
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 05:54:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!uthub!utecfa!mugc

From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Terminal Lockup
Message-ID: <1923@utecfa.UUCP>
Date: Fri, 31-Oct-86 08:54:33 EST
Article-I.D.: utecfa.1923
Posted: Fri Oct 31 08:54:33 1986
Date-Received: Fri, 31-Oct-86 12:39:57 EST
References: <8610281715.AA03886@yale-celray.YALE.ARPA>
Organization: Engineering Computing Facility, University of Toronto
Lines: 17

[]

I'm not very sure, but I think that the terminal lockup happens
when a ^S (X-off) arrives from the host, and the atari (fully
compliant) stops dead waiting for a ^Q. The ^S could be due
to garbage, in which case, people have to re-boot or whatever.

In my case, running PC-Intercom, I find that resetting the
terminal, or simply typing "<UNDO> n" does the trick.

-anees munshi

--
Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfb!munshi

From -1697534740718276088
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 06:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!seismo!mcvax!unido!coma!axel
From: axel@coma.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ARC and ALITE comments - (nf)
Message-ID: <600026@coma.UUCP>
Date: Fri, 31-Oct-86 09:53:00 EST
Article-I.D.: coma.600026
Posted: Fri Oct 31 09:53:00 1986
Date-Received: Sat, 8-Nov-86 06:40:10 EST
References: <1098@mhuxl.UUCP>
Lines: 10
Nf-ID: #R:mhuxl:-109800:coma:600026:000:598
Nf-From: coma!axel   Oct 31 15:53:00 1986

>Finally, someone got it to work! The "problem" is that I sent only
>one *.sng and *.pic file with alite.prg. I had thought of distributing

>some more of the *.sng/*.pic combos, but decided not to (in light of all
>the recent grumblings about large volumes of mail). Those of you wishing
>to acquire more of the original alite music should send email to me, and
>I'll email the stuff directly to you.
>
It drives me mad to see that people don't dare to post useful (or at
least interesting) material, while literally everyday 100s of KBs of
trash flood the net. Post your *.sng/*.pic combos.

From -8484632581719587684
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,db5898702c5cf6fb
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 08:40:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro,net.micro.atari16
Subject: Re: New way to post binaries
Message-ID: <250@bath63.UUCP>
Date: Fri, 31-Oct-86 11:40:08 EST
Article-I.D.: bath63.250
Posted: Fri Oct 31 11:40:08 1986
Date-Received: Wed, 5-Nov-86 06:14:59 EST
References: <2035@dalcs.UUCP> <2462@gitpyr.gatech.EDU>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Distribution: net
Organization: AUCC c/o University of Bath
Lines: 20
Xref: watmath net.micro:15868 net.micro.atari16:2946

I'd agree with Ken Thompson. uuencode may not be great, but it is usable --
sometimes with a little thought using inspiration derivable from the
uuencode doc. And, it is more-or-less standardly available on Unix systems.
If we invent a new encode decode technique, I foresee continual requests from
new people joining the net for yet-another retransmission of fredcode -- or
whatever it's called.

From this standpoint, even hex encoding is optimal, as it is obvious when
you see a hex file what you should do to unpack it. I fear new baroque
and clever coding techniques will cause more confusion than they solve.
(Unless, of course, you can manage to get the new stuff packaged in as a
standard bit of Unix systems.)

(Also, a quick comment on the original version of the proposal --
The character set A-P is only contiguous on ASCII machines. Fine for
my purposes, but not that handy for EBCDIC users. Of course, I've been
known to argue that EBCDIC users deserve whatever they get, but I'm
prepared to accept that others might disagree; and besides, it's not clear

there *is* any nice subset of chars in EBCDIC.)

From 1881950921493773150
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c54c7cd06553042
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 11:01:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!husc6!mit-eddie!ll-xn!cit-vax!amdahl!
drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: copy protection flame
Message-ID: <224@drivax.UUCP>
Date: Fri, 31-Oct-86 14:01:49 EST
Article-I.D.: drivax.224
Posted: Fri Oct 31 14:01:49 1986
Date-Received: Mon, 3-Nov-86 19:27:28 EST
References: <246@bath63.UUCP>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Inc., Monterey
Lines: 18

In article <246@bath63.UUCP> pes@ux63.bath.ac.uk (Paul Smee) writes:
>I had a go at copying the Epyx disk. It appears to work, but when you
>try to run the copy, you get put into what appears to be an infinite
>'put disk A into drive A; put disk B into drive A' loop. I actually
>gave that a try for a bit over 80 swaps, figuring that, since they hadn't
>said it was copy-protected, they might have simply made it 'unattractive'
>to copy by requiring that you somehow 'validate' the 80 tracks individually.
>Finally decided that's not the case. It annoyed me enough to decide that
>I think I'll try to crack that one, though.

I copied Rogue over to my hard disk, and it runs fine from there, although
it requires the original disk in 'A'... it just accesses it for a couple
of seconds. Also, you can only save files to the original disk! But at
least the loading time is slashed, especially for those l-o-n-g picture
files.
--
....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From 8640694684784843816
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5824ff515079148
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 16:21:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cuae2!ihnp4!iwtpu!katzung
From: katzung@iwtpu.UUCP (Brian Katzung)
Newsgroups: net.micro.atari16

Subject: Re: Printer Problems :-(
Message-ID: <183@iwtpu.UUCP>
Date: Fri, 31-Oct-86 19:21:53 EST
Article-I.D.: iwtpu.183
Posted: Fri Oct 31 19:21:53 1986
Date-Received: Mon, 3-Nov-86 20:15:03 EST
References: <1619@i.cc.purdue.edu>
Reply-To: katzung@iwtpu.UUCP (Brian Katzung)
Organization: ATT-IS Naperville, Il.
Lines: 46
Keywords: Epson MX100 screen dumps
Summary: That's one small step for an IBM, one giant leap for OKIData/Epson

[Pacman lives]

Sounds familiar... I bought my atari, soldered up a parallel cable for my old OKIData Microline 92 which was formerly speaking RS232 serial, tried to print some things, swore a little, flipped some option settings, etc. After I got the basics to go, I tried a screen dump and got the same results as you did (looks like blank bands between each print pass).

I didn't have a better way to view the control stream, so I put the printer in low-res mode for 480 bytes but gave it no data, and then started a screen dump. Decoding the pixel patterns, I found the following ugly sequence at the end of the first line of graphics data (I don't know about the other lines, but I assume they're the same; they *LOOK* the same):

```
ESC '3' 1 (theoretically, advance in 1/216" increments)
LF        (OKI/Epson stepper can only step 1/144", so does 1/144")
ESC '3' 1 (beats me why they do it again)
LF        (another 1/216" (IBM) or 1/144" (OKI/Epson))
LF        (and another)
ESC '1'       (set 7/72" mode)
LF        (travel 7/72" (everybody))
```

(The 7/72" mode is correct, but I'm working from memory on the ESC '1' code, so that might not be the correct character sequence.)
This whole mess is supposed to advance the 8/72" height of the print head. The stepper motors for the OkiData (and, I guess, the Epson series) step in 1/144" steps instead of 1/216", so the printer goes 1/144" on a 1/216" request to avoid the problems of not spacing at all. The problem is that after three 1/144" steps, we've gone 1/144" beyond 3/216" (1/72"). The printer corrects advances of 3/216" steps to 2/144", but it doesn't have the smarts to correct them when they come 1 or 2/216" at a time.
If the 1/216" section had been replaced with

```
ESC '3' 3
LF
```

the problem would not have shown up (at least in screen dumps).

I have a call in to Atari to see if they already have a simple solution to this (besides buying an IBM printer). If not, I wrote an algorithm to correct accumulative and local error on the fly. If Atari doesn't have an easy answer, I will also write the code to insert my algorithm between

the BIOS trap vector and the lst: output routine (it's an ugly scheme, but
what can you do when your *OS is in ROM?).

Anyone who is interested in the results should send me mail. If I get a
large response, I'll post them.
-- Brian Katzung (ihnp4!{laidbak,iwtpu}!katzung)

From 9195895208350290762
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4efd615ae25770c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 19:22:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cuae2!ihnp4!invest!wheaton!
milbourn
From: milbourn@wheaton (Mark Andrew Milbourn)
Newsgroups: net.micro.atari16
Subject: Atari ST MIDI
Message-ID: <217@wheaton>
Date: Fri, 31-Oct-86 22:22:32 EST
Article-I.D.: wheaton.217
Posted: Fri Oct 31 22:22:32 1986
Date-Received: Mon, 3-Nov-86 21:16:50 EST
Organization: Wheaton College, Wheaton IL
Lines: 27
Keywords: MIDI

I am considering purchasing an ST and hope to do my own programming to
use the MIDI ports. Can anyone out there in net-land tell me about
using the ST with synthesizers and the like? I am a musician as well
as a programmer and would probably want to write a lot of my own software
for sequencing, voice editing (specifically Yamaha DX7) and the like.

What is a good language to use? I assume C is the best, but which one?
Can Megamax C be used with the MIDI ports?

What about this MacCompatible cartrige that is rumored? Will Mac MIDI
software run with the ST?

As you can tell by now, I know very little ST programming (I have an old
atari 800) but I would like to get into doing music with the ST.
The ST is the best machine for me since I would want to get MT "C" Shell
as well (I'm also a UNIX hack).

If anybody knows anything about ST MIDI software, I would appreciate any
responses either over the net, or by e-mail.

Thanks much,
     Mark Milbourne
     CPO 1855 Wheaton College

Wheaton IL, 60187 (USA)

From 4098204126414974463
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 19:58:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <448@atari.UUcp>
Date: Fri, 31-Oct-86 22:58:58 EST
Article-I.D.: atari.448
Posted: Fri Oct 31 22:58:58 1986
Date-Received: Tue, 4-Nov-86 01:14:07 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 26
Keywords: desk accesories, loaders

In article <699@chinet.UUCP>, cabbie@chinet.UUCP (Richard Andrews) writes:
> In article <1745@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
> >
> >
> > [For the great stone-eating mons..]
> >
> >....Is there some
> >way of putting a *desk acc. loader* into my AUTO folder, which would
> >load the accessories?
>
> I believe that I have a file that will do that. As soon as I verify
> that the critter runs(I have never ran it before) I will post it.

It seems unlikely that the critter will run, since the desktop
and AES have not been initialized at the time \AUTO folder
execution takes place. Doing an AES call from an AUTO program
will likely result in a crash ->thud<- and an endless cycle of
reboots. Life is like that sometimes.
--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 701436176030847379

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8fc9347785f7c10a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-31 23:04:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!tektronix!tekig!
tekig4!georgew
From: georgew@tekig4.UUCP (George Walker)
Newsgroups: net.micro.atari16
Subject: check your copy of VIX.TTP to see if it's the right size
Message-ID: <1063@tekig4.UUCP>
Date: Sat, 1-Nov-86 02:04:08 EST
Article-I.D.: tekig4.1063
Posted: Sat Nov 1 02:04:08 1986
Date-Received: Tue, 4-Nov-86 01:12:15 EST
Reply-To: georgew@tekig4.UUCP (George Walker)
Distribution: na
Organization: Oregon Home for Orphaned Responses
Lines: 28

The version of VIX (part 2) that reached our site was damaged:
11 lines of the encoded file were deleted, so that even though
it uudecoded without errors, it was not a good file. The correct
size of VIX.TTP should be 53041 bytes. Below is a diff showing
how to restore the missing lines:

```
< MIS\\  %.N0 6@3EY.=4Y6  !(YP$$*FX ""!Y  ##!""-6+D  ,,$4GD
---
> MIS\\  %.N0  F+!<C[!\__]F$"Z-4I<O/   O1MA  %\6(]@)$)7+PU2ETZY
> M  "5;EB/L'P  6<0+HU2ER\\  "]*F$  598CV   /(^O  _+PU.N0   .Q8
> MCTJ 9A0^O  J+PU.N0   .Q8CTJ 9P  L"U\  #. O_\+J[__ :7    .#\\
> M !I.N0   *)4CSZ\ !$O#3\\  -.N0  HAA<CQP O#P _V8.+KP  +TY+PUA
> M  #F6(]@7BZ.!I?____>$ 9(@#\ +R[__&$  5I<CRZ.!I?____>3KD  */J
> M/H!25TZY  "DBBA +HX&E____]XO#$ZY  "CR%B/+HQA  #\/KP $B\-/SP
> M TZY  "B&%R/' "\/ #_9IQ@!BZ-80  VF 4L'P /&< _G:P?  ^9P#^G&
> M_Q+:QTH59@#]L$*780  ME-Y  #"_BZY  ##!$ZY    AK!\__]F$"Z\  "]
> M4R\\  "]1&$J6(]"ER\Y  ## #\Y  #"_DZY   !!ER//H!.N0  E:!*GTS?
> M,,!.7DYU3E;_?"ZN  @O#@:7____@$ZY  "CR%B/+JX #"\.!I?___^ 3KD
> M *-<6(\NO   O50O#@:7____@$ZY  "C7%B/+HX&E____X _/  )3KD   "B
> M5(\^O/__3KD  )6@3EY.=4Y6  !(YP$$*FX ""!Y  ##!""-6+D  ,,$4GD
```

By the way, the path the bad copy took to our site was:
tekig4!tekig!tektronix!uw-beaver!cornell!rochester!seismo!rutgers!sri-spam!sri-
unix!hplabs!pyramid!prls!philabs!cmcl2!lanl!unm-la!unmvax!wampler

George S. Walker   {decvax,ucbvax,...}!tektronix!tekig4!georgew UUCP
Tektronix, Inc.   tekig4!georgew@tektronix   CSNET
P.O. Box 500, M/S 39-222 tekig4!georgew.tektronix@Udel-Relay   ARPANET
Beaverton, OR 97077   503-627-4669

From -3408258620381870700
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,53a27ac02fe81d0b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 09:22:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cuae2!gatech!akgua!akguc!rbk
From: rbk@akguc.UUCP (rbk)
Newsgroups: net.micro.atari16
Subject: How do I adjust the drive speed?
Message-ID: <7715@akguc.UUCP>
Date: Sat, 1-Nov-86 12:22:59 EST
Article-I.D.: akguc.7715
Posted: Sat Nov 1 12:22:59 1986
Date-Received: Tue, 4-Nov-86 01:36:45 EST
Organization: AT&T Technologies/Bell Labs, Atlanta
Lines: 9

<><><><><><><><><><>
I am having problems running certain write-protected programs on my 1040.
I checked the speed of the internal drive (using a program from one of
the BBSs) and it was 304.5 rpm. My external (SF314) drive was 301.5 rpm.
What is the correct speed (300 rpm?), and how do I adjust it?

     Thanks,
     R. Brad Kummer   {ihnp4, seismo!akgua}!akguc!rbk
     AT&T Bell Labs   Atlanta, GA

From -6311776210905857518
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d9bda1be4742dfb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 10:50:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Fforce()
Message-ID: <449@atari.UUcp>
Date: Sat, 1-Nov-86 13:50:57 EST
Article-I.D.: atari.449
Posted: Sat Nov 1 13:50:57 1986
Date-Received: Tue, 4-Nov-86 01:05:26 EST
References: <1639@cwruecmp.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 42

In article <1639@cwruecmp.UUCP>, pm@cwruecmp.UUCP (Prabhaker Mateti) writes:
> /*
> In a program I am writing, I need to redirect input/output. E.g., to
> redirect input from a file, I do Fforce(0, fd), but then I can't close
> the fd and reuse that handle. The following code demonstrates this.
> Any body has a clue as to what is wrong here??

```
> */
>
> #include <osbind.h>
>
> main()
> {
>    int  fi, ff, fc, i;
>
>    for (i=0; i < 81; i++)
>    {    fi = Fopen  ("in", 0);
>         ff = Fforce(0, fi);
>         fc = Fclose(fi);
>         printf("fi ff fc %d %d %d \n", fi, ff, fc);
>    }
> }
```

The problem here is the Fclose(fi) --- you can't close a handle, even after an Fforce, because handles in GEMDOS are shared between ALL processes. [In theory, you could open a file, do a Pexec(), and have the child process do I/O on the handle that the parent opened. In practice, this is a bad practice....]

Negative handles correspond (kind of) to BIOS devices, -1 is CON:, -2 is AUX:, and so on. Handles from 0 to 5 are "standard" handles, and are inherited by the child on a Pexec(). Handles 6 and up always refer to files. Standard handles are a kind of indirection; they "point" to a character device (handle < 0) or a file handle (> 5).

--

-Landon Dyer, Atari Corp. {sun,lll-lcc,imagen}!atari!dyer

```
/-----------------------------------------------\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. |  I'm a Prisoner of Business!"
\-----------------------------------------------/
```

```
From 7735640513336393250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5185d409ad4c1dc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 10:55:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!bellcore!petrus!sabre!blade!martin
From: martin@blade.UUCP (martin levy)
Newsgroups: net.micro.atari16
Subject: Wanted: the UKC terminal program for the ST-1040
Message-ID: <849@blade.UUCP>
Date: Sat, 1-Nov-86 13:55:04 EST
Article-I.D.: blade.849
Posted: Sat Nov  1 13:55:04 1986
Date-Received: Mon, 3-Nov-86 23:24:06 EST
```

Distribution: net
Organization: Bellcore, Red Bank ,NJ)
Lines: 10

I'm looking for a USA source (arpanet ftp public?) of the UKC terminal
program that will work with 4.2bsd machines to provide multiple screens.

please mail me any infomation.

martin levy
bellcore, nj.

ihnp4!sabre!martin
martin@bellcore.bellcore.com

From -6695210982048776923
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9205c69b2e77e07
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 12:32:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Redirection & chaining
Message-ID: <1653@cwruecmp.UUCP>
Date: Sat, 1-Nov-86 15:32:13 EST
Article-I.D.: cwruecmp.1653
Posted: Sat Nov 1 15:32:13 1986
Date-Received: Mon, 3-Nov-86 22:15:55 EST
References: <12250715809.8.G.BRI@DEEP-THOUGHT.MIT.EDU>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. of Computer Engineering, Cleveland OH
Lines: 44

In article <12250715809.8.G.BRI@DEEP-THOUGHT.MIT.EDU> G.BRI%DEEP-
THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>
>   Could someone tell me if it is possible to redirect standard output
>   to a file, and then chain to a program with its output dumped to the
>   file. What I want to do, is make a GEM shell for the Alcyon C compiler
>   along with build capabilities, to have a nice GEM c development
>   package. I would like to have a way of grabbing any output from
>   the program to check for errors, etc.
>
>   Code samples to do the redirection would be great. Is there any
>   way that this will work? Do programs return error codes to the calling
>   program? Thanks.
>
     The following code will redirect stdout to a file called 'foo'
          dup = Fdup(0);
          handle = Fopen("foo", 1); if handle < -5 ERROR;

```
          Fforce(0, handle);

     The following code executes another program and returns its exit
     status
          status = Pexec(0, "program.prg", tail, (char *)NULL);

     where :-
     program.prg : should be the complete pathname, including extention.
     tail :
          tail[0] = length of command tail;
          tail[1...len] = Command tail (args) '\0' terminated
     (char *)NULL for the environment means that the child process
               inherits the environment of the parent. if you want
               to pass an environment, it is of the form string of
               strings, where each string if of the form "VAR=VALUE"

     The child process inherits all the open handles of the parent, so
     if you had redirected stdout in the parent, it will  be redirected
     in the child too.

     ** BUG ALERT **
     Alcyon C (v4.14 and the earlier version) always returns success (0)
     status, even if there were compilation errors.
--
usenet: .....!decvax!cwruecmp!bammi       jwahar r. bammi
csnet:       bammi@case
arpa:        bammi%case@csnet-relay
compuServe:  71515,155


From 3749633306089309005
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7c2d0cbc63f1ed72,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 13:10:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: mod.atari16.sources
Message-ID: <1352@batcomputer.TN.CORNELL.EDU>
Date: Sat, 1-Nov-86 16:10:22 EST
Article-I.D.: batcompu.1352
Posted: Sat Nov  1 16:10:22 1986
Date-Received: Tue, 4-Nov-86 00:44:32 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 8
Summary: How do you get there from here?

[]

I've tried mailing to Peter Barada but it bounced.  Does anybody know
```

his right address, and/or how to send stuff to mod.atari16.sources?
(and how to receive it, and whether it exists...) - I am holding off
on posting binaries and source code here until this issue is cleared...

- Moshe Braner

From -3034369349625312437
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d1381f9c949c5375,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 13:22:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Motorola 68K pocket reference - query
Message-ID: <1353@batcomputer.TN.CORNELL.EDU>
Date: Sat, 1-Nov-86 16:22:09 EST
Article-I.D.: batcompu.1353
Posted: Sat Nov 1 16:22:09 1986
Date-Received: Tue, 4-Nov-86 00:44:51 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 18
Summary: How do you get it?

[]

Does anybody know of a source for the Motorola "MC68000/8/10/12
Programming Pocket Reference Guide" (M68000RG/AD)(A18606)(1984)?

I'm using a borrowed copy. It is a nifty little thing that is ideal
for reference while you're writing in AL. I cannot find it in the local
computer literature outlets. Can you order it from Motorola? Address?
Price? Any alternative sources or books?

This booklet gives, for each mnemonic, a short but precise discription
of the operation, allowed addressing modes, assembler syntax and the
binary machine code (for each addressing mode and attribute). It is about
3.5 by 5 inches and about 120 pages long.

While we're at it: is there, after all, a good PD assembler for the ST?

- Moshe Braner

From 9199710949587008386
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-01 17:57:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!hp-sdd!ncr-sd!ncrcae!
wingard
From: wingard@ncrcae.UUCP (Steve Wingard)
Newsgroups: net.micro.atari16
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <2341@ncrcae.UUCP>
Date: Sat, 1-Nov-86 20:57:16 EST
Article-I.D.: ncrcae.2341
Posted: Sat Nov 1 20:57:16 1986
Date-Received: Tue, 4-Nov-86 00:11:24 EST
References: <8610302053.AA05161@ames-prandtl.ARPA>
Reply-To: wingard@ncrcae.UUCP (Steve Wingard)
Organization: NCR Corp, E&M-Columbia, W Columbia, SC
Lines: 28

The GDOS.PRG that Migraph has been sending out with EasyDraw for the
past 7 months is strictly a prerelease version that was debugged enough
to work for EasyDraw. Migraph was apparently working in an IBM -> ST
cross-development environment (the IBM PC version of GDOS/VDI works fine,
I guess...) and they had to have GDOS to release their program. Atari
probably saw EasyDraw as a good product that would help sell quite a
few ST's and worked on getting Migraph a version of GDOS that worked
well enough to get EasyDraw out the door.

Don't get too upset at Neil and the rest of the folks at Atari...
they seem to be taking the time they need to release a really well-debugged
package for us and sometimes that can take a while... all in all, I
would rather wait than get a GDOS that Atari has to continually fix. And
when it's really ready, I bet we'll be seeing some really fantastic
software that takes advantage of all the goodies.

DISCLAIMER: I don't have any affiliation with Atari (obviously.. look at
the ORG line in the header!) but I think lots of us know what it's like to
try to kill every bug in a complicated program as people are screaming at you
to RELEASE it...

--
Steve Wingard   ...!ucbvax!sdcsvax!ncr-sd!ncrcae!wingard
NCR Corp., E&M-Columbia   ...!decvax!mcnc!ncsu!ncrcae!wingard
#include <disclamer.h>
#include <sillyquote.h>

From -7648808807856363880
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 06:13:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!turner

From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <679@imagen.UUCP>
Date: Sun, 2-Nov-86 09:13:48 EST
Article-I.D.: imagen.679
Posted: Sun Nov 2 09:13:48 1986
Date-Received: Tue, 4-Nov-86 00:20:36 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP> <448@atari.UUcp>
Organization: The Houses of the Holy
Lines: 37

> In article <699@chinet.UUCP>, cabbie@chinet.UUCP (Richard Andrews) writes:
> > In article <1745@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
> > >
> > >
> > > [For the great stone-eating mons..]
> > >
> > >....Is there some
> > >way of putting a *desk acc. loader* into my AUTO folder, which would
> > >load the accessories?
> >
> > I believe that I have a file that will do that. As soon as I verify
> > that the critter runs(I have never ran it before) I will post it.
>
> It seems unlikely that the critter will run, since the desktop
> and AES have not been initialized at the time \AUTO folder
> execution takes place. Doing an AES call from an AUTO program
> will likely result in a crash ->thud<- and an endless cycle of
> reboots. Life is like that sometimes.
> --
>
> -Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

sorry to disagree landon but if the program in question is acc_load
that was posted to the net awhile ago, it works just fine allowing
the user to even select which .acc are to be loaded
--

          These are days for the locust to eat
                        - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 3269390316674370427
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,9205c69b2e77e07
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 06:18:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Redirection & chaining
Message-ID: <680@imagen.UUCP>
Date: Sun, 2-Nov-86 09:18:31 EST
Article-I.D.: imagen.680
Posted: Sun Nov 2 09:18:31 1986
Date-Received: Tue, 4-Nov-86 00:21:16 EST
References: <12250715809.8.G.BRI@DEEP-THOUGHT.MIT.EDU>
Organization: The Houses of the Holy
Lines: 23

>
>   Could someone tell me if it is possible to redirect standard output
>   to a file, and then chain to a program with its output dumped to the
>   file. What I want to do, is make a GEM shell for the Alcyon C compiler
>   along with build capabilities, to have a nice GEM c development

you want to use the Fdup and Pexec calls, but may i recommend the
Beckemeyer Micro Cshell to you, its not very expensive and will
allow you to do pipes, redirect output etc., but wait there's
more... it comes with a cc.prg that does exactly what you are
looking to do
--

         These are days for the locust to eat
                        - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 7549559152451228490
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 10:57:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!princeton!chiu
From: chiu@princeton.UUCP (Kenneth Chiu)

Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari's At Work
Message-ID: <2322@princeton.UUCP>
Date: Sun, 2-Nov-86 13:57:45 EST
Article-I.D.: princeto.2322
Posted: Sun Nov 2 13:57:45 1986
Date-Received: Tue, 4-Nov-86 00:36:35 EST
References: <1142@tekigm2.UUCP> <426@uwmacc.UUCP>
Reply-To: chiu@princeton.UUCP (Kenneth Chiu)
Distribution: na
Organization: Princeton University Computer Science Department
Lines: 15
Xref: mnetor net.micro.atari8:546 net.micro.atari16:2871

In article <426@uwmacc.UUCP> oyster@uwmacc.UUCP (Vicarious Oyster) writes:
>In article <1142@tekigm2.UUCP> wrd@tekigm2.UUCP (Bill Dippert) writes:
>>. . .personally I hate mice and windows with a passion.
>
> Me too, at least as a development environment. That's why I use Micro
>C-Shell. However, for some applications (end-user programs, editors, games,
>etc), a windowing system is ideal. It's nice to have the flexibility; it's
>even nicer to be able to push the mouse aside and get some *real* work done.

Are you saying that you would rather program on a 24 x 80 terminal than a 19"-
screen, bit-mapped workstation? (e.g. Sun) If so, either you have never used one,
or are a super-human programmer.
--
Kenneth Chiu   UUCP: princeton!chiu
Princeton University Computer Science Department   BITNET: 6031801@PUCC

From -2748698586107251160
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a60c126500ce175b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 12:15:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Patches for the RAM disk program
Message-ID: <1354@batcomputer.TN.CORNELL.EDU>
Date: Sun, 2-Nov-86 15:15:44 EST
Article-I.D.: batcompu.1354
Posted: Sun Nov 2 15:15:44 1986
Date-Received: Tue, 4-Nov-86 00:27:39 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 50
Summary: Can be used as drive 'C' or 'F'

[]

If you want to use the RAM disk program I've posted as a drive other
than 'D', you have to patch it. This patch is essential if you want to use
a hard disk together with the RAM disk. Here is an old hint:

>From: jdg@elmgate.UUCP (Jeff Gortatowsky)
>   {allegra,seismo}!rochester!kodak!elmgate!jdg
>Subject: Reset survivable RAM disk and Atari HD problem fixed!
>Date: 3 Oct 86
>
>Well after a bit of digging and disassembly my brother (a sharp troop)
>found the correct combination to get the reset surviving RAM disk to play
>as drive F: in a HD system (Atari 20meg).   First, as was mentioned
>before on this news group you need to change the bit set in the 'drivebits'
>variable down in low memory. The BSET #3,d0 needs to be BSET #5,d0 (for
>drive F:). The other patch is applied to the compare instruction in the
>code that is executed when RWABS calls the RAM Disk.   The RAM disk checks
>the device number and if it's not the right number it passes control
>through a JMP instruction to the Hard disk vector the RAM disk saved at
>boot time. The above patches imply that the RAM disk need be executed
>AFTER the hard disk driver is installed, so it may take over and save
>the hard disk vectors.

What I think was meant: Change the bytes at the following
offsets from the beginning of the ".prg" file:

offset	old value(for drive D)	new value (for drive F)
$145 (325)	03	05
$173 (371)	03	05
$181 (385)	03	05
$193 (403)	03	05

The first one is the "BSET #3,D0" in the installation, the other three
are "CMP #3,x(A7)"s in handling calls to disk device drivers.

For drive C instead of F, use the value 02.

To change the default RAM disk size, change the byte at offset
$B3 (179): The value is the size in units of 64K, e.g. 03 for
a default size of 192K, 09 for 576K.

WARNING: These are untested speculations!!!
If somebody tests this (with a hard disk, if possible), please tell us!
Jeff, if you're out there: please confirm &/or post the fix and the
disassembly!

- Moshe Braner

From 2834264306899681071
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 15:53:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!rutgers!lll-crg!lll-lcc!unisoft!dual!islenet!
jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: GDOS availability
Message-ID: <2907@islenet.UUCP>
Date: Sun, 2-Nov-86 18:53:24 EST
Article-I.D.: islenet.2907
Posted: Sun Nov 2 18:53:24 1986
Date-Received: Tue, 4-Nov-86 19:48:21 EST
References: <8610190113.AA06242@ucbvax.Berkeley.EDU> <1170@druhi.UUCP>
<396@uwmacc.UUCP> <444@atari.UUcp>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 19

In article <444@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>GDOS will be available to users (as opposed to developers) once a few more
>fonts are completed. Then it will be packaged and sold to everyone.
>
>--
>--->Neil @ Atari

Please forgive the uninitiated and uninformed, but could you explain
a little bit more about what GDOS is exactly? When you mention fonts,
does that mean that this is more like the "real" operating system that
Atari had intended? Or is it an extension of GEM?

By the way, Hawaii distributers have been getting Atari products in, yeah!
Three cheers to Atari!

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From -7168408853533763357
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9752283d0e3ec392
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 16:07:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!rutgers!lll-crg!lll-lcc!unisoft!dual!islenet!
jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <2908@islenet.UUCP>
Date: Sun, 2-Nov-86 19:07:02 EST

Article-I.D.: islenet.2908
Posted: Sun Nov 2 19:07:02 1986
Date-Received: Tue, 4-Nov-86 19:48:38 EST
References: <6085@ut-sally.UUCP> <993@husc2.UUCP>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Distribution: net
Organization: Islenet Inc., Honolulu
Lines: 21
Keywords: -on newsstands near you now-

In article <993@husc2.UUCP> chabris@husc2.UUCP (christopher chabris) writes:
>STart, the ST Quarterly, is a new quarterly magazine about the ST (and future
>high-end Atari computers ...) published by Antic Publishing. The first two
>
>Christopher F. Chabris

Saw Chris's article in Fall 1986 STart. I am thoroughly impressed with this
issue. People on the net will also be interested in the C comparision chart
from the article "Which C for Me?" By the way, Megamax (as Moshe points out)
was rated by STart to be the best choice for a decent C compiler on the ST.

Address for STart:

Antic Publishing
524 Second St.
San Francisco, CA 94107
1-800-443-0100 ext. 133

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From 1182089732570024084
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baace0df56671681
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 16:23:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!rutgers!lll-crg!lll-lcc!unisoft!dual!islenet!
jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: looking for info on Atari public offering
Message-ID: <2909@islenet.UUCP>
Date: Sun, 2-Nov-86 19:23:11 EST
Article-I.D.: islenet.2909
Posted: Sun Nov 2 19:23:11 1986
Date-Received: Tue, 4-Nov-86 19:48:57 EST
References: <8610272052.AA00450@ucbvax>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 46

In article <8610272052.AA00450@ucbvax> neville@ADS.ARPA (Neville Newman) writes:
>
>Can somebody tell me:
>   What company is underwriting Atari's stock offering?
>   If the offering is an "all or nothing" issue?
>
>Net mail: neville@ads.arpa   (internet-relative)

This came from X*Press about 2 weeks ago:

Hope this helps.
Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

==========
ATARI CORP. PRESS RELEASE, Sept. 18, 1986

(Sunnyvale, CA) Atari Corporation announced today that it has filed a Registration Statement with the Securities and Exchange Commission for an initial public offering by the Company of 4,500,000 shares of Common Stock (and up to an additional 675,000 shares that may be purchased by the Underwriters from the Company to cover over-allotments) through an Underwriting group to be managed by PaineWebber, Incorporated. The price range is anticipated to be between $11.50 and $13.50 per share, and the offering is scheduled for mid- to late October. A written prospectus with respect to the offering will be available from PaineWebber, Incorporated.

Atari Corporation develops, manufactures, and markets microcomputer systems and software as well as video game systems, designed to offer advanced technology at low prices. The Company's product line consists of the 16/32-bit ST computers, the 8-bit XE computers, and the 2600 and 7800 video game systems, with associated software and accessories.

A registration statement relating to these securities has been filed with the Securities and Exchange Commission but has not yet become effective. These securities may not be sold, nor may offers to buy be accepted prior to the time the registration statement becomes effective. This (communication) shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under securities laws of any such State.

For more information, please contact Greg Pratt, Chief Financial Officer of Atari Corp. at (408) 745-2349.

From 1778860312147560550
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa1850edb3592450,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-11-02 18:51:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ssc-vax!benoni
From: benoni@ssc-vax.UUCP (Charles L Ditzel)
Newsgroups: net.micro.atari16
Subject: problems with MultiTasking C shell
Message-ID: <920@ssc-vax.UUCP>
Date: Sun, 2-Nov-86 21:51:26 EST
Article-I.D.: ssc-vax.920
Posted: Sun Nov 2 21:51:26 1986
Date-Received: Tue, 4-Nov-86 05:09:36 EST
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 25

YARG!

I am having problems with MT-C SHELL. I suspect it is something i
am doing...but who knows...

Problem one ... how do i get C SHELL to understand the command :
"ls ." (give me a directory listing of the current directory)
in fact all my problems stem from this one. If i have an executable
in my current directory i have to spell it out

    \usr\root\inter\infer animal
to execute infer.prg in directory infer.

YES I know that in login.sh i should have :
          set path = (. \bin \etc)

only when i have this then everything gets lost!!!

That is i try to do an 'ls' and the c shell says :
'ls' not found

If someone could send me their login.sh that works or tell me what I am
doing wrong i would be greatly in their debt.   Thank you,
                         Charles Ditzel
                         ...uw-beaver!ssc-vax!benoni

From -2905803893157378127
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6645a1fb5bead921
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 20:13:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: TRAPs from an interrupt handler and micro C Shell

Message-ID: <1357@batcomputer.TN.CORNELL.EDU>
Date: Sun, 2-Nov-86 23:13:21 EST
Article-I.D.: batcompu.1357
Posted: Sun Nov 2 23:13:21 1986
Date-Received: Tue, 4-Nov-86 00:27:55 EST
References: <14600009@uklirb.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 31
Summary: HELP!!!

[]

Following this posting you will find a posting of source code
for a program that compresses ST pictures AND codes them into
a text file that can be sent through e-mail. The text file's
length depends on the picture, but for simple pictures (e.g.
an image of a desktop with some icons and an open dialog box)
it is about 4000 to 8000 chars, i.e. 12 to 25% of the bitmap
size in RAM. The combination code/compress algorithm is the
culprit for those ratios.

The program is installed in RAM, and activated later upon an
Alt-Help. Then, instead of printing the screen, it codes it
and saves it on the disk. (I have also written a program that
decodes and decompresses the text file, shows the picture on
the screen, and can also save it uncompressed in DEGAS format.
I am waiting for net.atari16.sources to post it, and the 2
executables.)

To do what it does, the program calls various OS routines (via TRAPs).
But, the program is called from the keyboard interrupt handler,
and it is officially verboten to do OS calls from there!!
I did it anyway, because I didn't know what else to do. And
it seems to work - from the desktop. But when called from
inside micro-C-Shell, the system hangs. Removing all the TRAPs
makes the program docile (but also futile...).

Can some expert out there tell us what to do about it, and/or how
to write files without TRAPs?

- Moshe Braner

From 3110577070640360071
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da9a9dd6774a789c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 20:16:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16

Subject: SCODE - a program to code ST screens
Message-ID: <1358@batcomputer.TN.CORNELL.EDU>
Date: Sun, 2-Nov-86 23:16:29 EST
Article-I.D.: batcompu.1358
Posted: Sun Nov 2 23:16:29 1986
Date-Received: Tue, 4-Nov-86 00:28:12 EST
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 287
Summary: Works from the desktop but not MCS

[]

```
/*
 *   Program to code ST screens in a text file.
 *   By Moshe Braner, 861103.
 *
 * Run once, it stays in RAM and is activated by Alt-Help.
 *
 * This version written for the Megamax C compiler.
 */

#include <osbind.h>

/* register assignments: */

#define REPN  D3
#define INDEX D4
#define REP   D5
#define ROW   D6
#define OUTN  D7
#define OLD   A2
#define COL   A3
#define PHYS  A4
#define COLS  A5
#define VAR   A6
#define BUF   A6
#define SP    A7

/* non-register variables: */

#define HAND  -2
#define ROWS  -4
#define RES   -6
#define LINEN -8
#define CHKSUM     -12  /* long! */
#define DTA   -60  /* 44 bytes   */

extern dump();
asm {
dump:
     MOVE.W    #1,0x4EE
     MOVEM.L   A6-A0/D7-D0,-(SP)
```

```
     LEA  vars+60(PC),VAR
     MOVE.B    0xFF8260,D0   /* video resolution */
     AND.L     #0x00000003,D0
     MOVE.L    D0,CHKSUM(VAR)
     MOVE.W    D0,RES(VAR)
     ADD.W     #0x30,D0
     MOVE.B    D0,(BUF)  /* output resolution (1 byte)    */
     LEA  dumpname+8(PC),A0
     MOVE.B    D0,(A0)       /* modify file name         */
     PEA  DTA(VAR)  /* check for last file name used */
     MOVE.W    #0x1A,-(SP)   /* SETDTA */
     TRAP #1
     ADDQ.L    #6,SP
chkname:
     CLR.W     -(SP)         /* attribute 0 = normal files */
     PEA  dumpname(PC)
     MOVE.W    #0x4E,-(SP)   /* SFIRST */
     TRAP #1
     ADDQ.L    #8,SP
     TST  D0
     BNE.S     okname        /* not found - use it */
     LEA  dumpname+4(PC),A0
     CMPI.B    #0x5A,(A0)    /* was 'A' - up to 'Z' ? */
     BLT.S     incname
     MOVE.B    #0x41,(A0)    /* back to 'A'     */
     BRA.S     okname
incname:
     ADDQ.B    #1,(A0)
     BRA.S     chkname
okname:
     CLR.W     -(SP)         /* attribute 0 = r/w file */
     PEA  dumpname(PC)
     MOVE.W    #0x3C,-(SP)   /* CREATE */
     TRAP #1
     ADDQ.L    #8,SP
     TST  D0       /* any errors?     */
     BMI  cleanup       /* - then skip     */
     MOVE.W    D0,HAND(VAR)  /* file handle     */
     MOVE.W    #2,-(SP)  /* PHYSBASE   */
     TRAP #14
     ADDQ.L    #2,SP
     MOVE.L    D0,PHYS       /* video RAM       */
     MOVEQ     #1,OUTN       /* output char counter */
     MOVE.W    #1,LINEN(VAR) /* line length counter */
     MOVE.L    #0xFF8240,A0  /* palette    */
     MOVE.W    #15,D2
palette:           /* output palette (48 bytes)     */
     CLR.L     D0
     MOVE.W    (A0)+,D0
     ADD.L     D0,CHKSUM(VAR)
     BSR  codeuniq
     DBF  D2,palette
     LEA  consts,A0/* read constants from table     */
```

```
     MOVE.W    RES(VAR),D0
     ADD.W     D0,D0
     MOVE.W    0(A0,D0),ROW
     MOVE.W    ROW,ROWS(VAR)
     MOVE.W    6(A0,D0),COLS
     MOVE.W    #0,COL         /* set up for coding        */
     SUBQ.W    #1,ROW
     CLR.W     REP
     CLR.W     INDEX
     BSR  nextw
     MOVE.W    D0,OLD
     BRA.S     comp2
comp1:                  /* compress the picture     */
     MOVE.W    COL,D0
     CMP.W     COLS,D0
     BGE.S     endloop
     MOVE.W    ROWS(VAR),ROW
     MOVE.W    COL,INDEX
comp2:
     BSR  nextw
     CMP.W     OLD,D0
     BNE.S     notrep
     TST.W     REP
     BNE.S     oldrep
     SEQ  REP
     MOVEQ     #1,REPN
oldrep:
     CMP.W     #127,REPN
     BLT.S     loop1
notrep:
     EXG  D0,OLD
     TST.W     REP
     BEQ.S     uniq
     CLR.W     REP
     BSR  coderep
     BRA.S     loop
uniq:
     BSR  codeuniq
loop:
     BNE.S     close          /* error writing file */
loop1:
     ADDQ.W    #1,REPN
     DBF  ROW,comp2
     ADDQ.W    #1,COL
     BRA  comp1
endloop:
     TST.W     REP       /* in middle of repetition? */
     BEQ.S     done
     MOVE.W    OLD,D0         /* then go finish it...     */
     BSR  coderep
done:
     MOVE.W    CHKSUM(VAR),D0     /* append coded checksum
     */
```

```
     BSR  codeuniq
     MOVE.L    CHKSUM(VAR),D0
     BSR  codeuniq
     BSR  crlf      /* end last line       */
     BSR  save      /* save to disk             */
close:
     MOVE.W    HAND(VAR),-(SP)
     MOVE.W    #0x3E,-(SP)   /* CLOSE file */
     TRAP #1
     ADDQ.L    #4,SP
cleanup:
     MOVEM.L   (SP)+,D0-D7/A0-A6
     MOVE.W    #0xFFFF,0x4EE
/*   ADDQ.L    #4,SP            ROM does it, so me too?  */
     RTS            /* return to interrupt handler   */
coderep:
     MOVE.W    D0,D1
     MOVE.W    REPN,D0
     LSR.W     #2,D0
     ORI.W     #0x40,D0
     BSR  notz
     LSL.W     #4,REPN
     MOVE.W    D1,D0
     LSR.W     #6,D0
     LSR.W     #6,D0
     OR.W REPN,D0
     BRA.S     code1
codeuniq:
     MOVE.W    D0,D1
     LSR.W     #6,D0
     LSR.W     #6,D0
code1:
     BSR  outbyte
     MOVE.W    D1,D0
     LSR.W     #6,D0
     BSR  outbyte
     MOVE.W    D1,D0
     BSR  outbyte
     CMP.W     #4600,OUTN    /* buffer almost full? */
     BLT.S     nosave
save:                    /* save to disk        */
     MOVE.L    BUF,-(SP)
     EXT.L     OUTN
     MOVE.L    OUTN,-(SP)
     MOVE.W    HAND(VAR),-(SP)
     MOVE.W    #0x40,-(SP)   /* WRITE to file   */
     TRAP #1
     ADDA #12,SP
     CMP.W     OUTN,D0
     BNE.S     error         /* retain error code   */
     CLR.W     OUTN
nosave:
     CLR.W     D0       /* no error       */
```

```
error:
     RTS
nextw:                  /* read 2 bytes from screen */
     CLR.L     D0
     MOVE.B    0(PHYS,INDEX),D0
     ADD.W     COLS,INDEX
     LSL.W     #8,D0
     MOVE.B    0(PHYS,INDEX),D0
     ADD.W     COLS,INDEX
     ADD.L     D0,CHKSUM(VAR)
     RTS
outbyte:           /* put byte in buffer  */
     AND.W     #0x3F,D0
     BEQ.S     zzz
     ADD.W     #0x20,D0  /* offset by ' '   */
     BRA.S     notz
zzz:
     MOVE.W    #0x7A,D0  /* but avoid ' ' itself*/
notz:
     MOVE.B    D0,0(BUF,OUTN)
     ADDQ.W    #1,OUTN
     ADDQ.W    #1,LINEN(VAR)
     CMPI.W    #64,LINEN(VAR)          /* line long enough? */
     BLT.S     nocrlf
crlf:
     MOVE.B    #0x0D,0(BUF,OUTN)  /* then append cr-lf */
     MOVE.B    #0x0A,1(BUF,OUTN)
     ADDQ.W    #2,OUTN
     CLR.W     LINEN(VAR)
nocrlf:
     RTS
dumpname:     /* filename: "DUMPA.CSn" - will be changed */
     DC.B 0x44,0x55,0x4D,0x50,0x41,0x2E,0x43,0x53,0x6E,0x00
consts:            /* rows/2-1, columns  */
     DC.W 99,99,199,160,160,80
vars:              /* 60-byte variable space,  */
               /* then 4608-byte output buffer  */
}

char dummy[4668];  /* ensure enough space in SBRK       */

extern poke_it();  /* put our vector for screen dump    */
asm {
poke_it:
     LEA  dump,A0
     MOVE.L    #0x000502,A1
     MOVE.L    A0,(A1)
     RTS
}

char *text[] = {
     "\033E\r\n",
     "\t+-------------------------+\r\n",
```

```
     "\t|   SCREEN DUMP PROGRAM    |\r\n",
     "\t|   (Compressed format)    |\r\n",
     "\t|           for            |\r\n",
     "\t| Atari ST with TOS in ROM |\r\n",
     "\t|  by Moshe Braner, 8610   |\r\n",
     "\t+--------------------------+\r\n",
     "\r\n",
     "\tProgram installed. Hit any key.\r\n",
     "\r\n",
     "\t(Later: press Alt-Help for a screen dump.\r\n",
     "\t Dumps into files DUMPA.CSn, DUMPB.CSn, ...\r\n",
     "\t where n = 0, 1 or 2 for lo, med or hi res.)\r\n",
     "\r\n\n",
     ""
};

main()
{
     register char c;
     register char *cp;
     register char **cpp;

     Supexec(&poke_it);     /* mess with vector    */

     cpp = &text[0];             /* print message   */
     while (*(cp=*cpp++))
          while (c=*cp++)
               Bconout(2, c);
     Bconin(2);             /* wait for keypress   */

     Ptermres((long)6000, 0);    /* stay resident   */
}
```

- Moshe Braner,   Cornell U.

```
From 1149127660364141359
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b75b4587bfbc21d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-02 23:48:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Megamax I/O redirection fix
Message-ID: <208@nikhefh.UUCP>
Date: Mon, 3-Nov-86 02:48:36 EST
Article-I.D.: nikhefh.208
Posted: Mon Nov  3 02:48:36 1986
Date-Received: Wed, 5-Nov-86 06:19:06 EST
Organization: NIKHEF-H  Amsterdam (the Netherlands)
Lines: 92
```

Apparently-To: rnews@mcvax

Here is a fix for the megamax library, for those who want I/O redirection
from within a shell (command line interpreter). Megamax programs could not be
IOredirected since Megamax' ideas about standard IO are a bit weird.

The problem is caused by the idiotic file desciptor -32000 in the first
three slots of the stdio-stream table '_iob'.

When a character is written to (or read from) these
filedescriptors the MM lib uses probably a low numbered GemDos call
(between 0 and 0x20) to do the IO. But these GemDos calls cause bombs to
appear when the standard GemDos file descriptors 0 or 1 are redirected to
another file by means of the Fdup and Fforce system calls.
So a solution is to overwrite the values of _iob[0]._fd to _iob[2]._fd with
real GemDos file descriptor numbers.
The only drawback is that the lf to crlf mapping by the library is
lost. But this mapping *IS* done when you declare your program as

```
 main ( argc, argv )
 char **argv;
```

Is that documented anywhere ? How does MM-lib work ???

This causes inclusion of the _initargcv module from syslib during linking.
When _initargcv is not included cr to crlf mapping is not done.

The overwriting is done in the routine 'initstdio' which should be called from
'main' before any IO is done.
The 'exitstdio' routine puts the old values back, otherwise the bombs still
appear.

Do not use this trick when your programs are to be IO redirected from the
desktop.

Hope this solves the problem,

    Gert Poletiek
    Dutch National Institute for High Energy Physics
    Amsterdam
    The Netherlands

Uucp:
    .... { seismo | philabs } !mcvax!gert@nikhefh.uucp

```
#include <stdio.h>
```

```
/*
 *   Test program
 */

main ()
{
     int  i;

/*
 *   initialize stdio library to use standard GemDos file descriptors 0 and 1.
 */

     initstdio();

     for ( i=0; i<3; i++ )  {
          printf ( "stream %d file descriptor %d\n", i, _iob[i]._fd );
          printf ( "flags = %x\n", _iob[i]._flag );
     }
     fprintf ( stdout, "test\ntest\ntest\n\n" );

/*
 *   reset the stdio library to use the idiot Megamax descriptors again,
 *   otherwise it's possible that the application exits with three bombs.
 */
     exitstdio();
}



initstdio()
{
     _iob[0]._fd = 0;
     _iob[1]._fd = _iob[2]._fd = 1;
}



exitstdio()
{
     _iob[0]._fd = _iob[1]._fd = _iob[2]._fd = -32000;
}


From -7129948708704216789
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,101eed8ae6f80dec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 06:18:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: DESKTOP question
```

Message-ID: <115@its63b.ed.ac.uk>
Date: Mon, 3-Nov-86 09:18:28 EST
Article-I.D.: its63b.115
Posted: Mon Nov 3 09:18:28 1986
Date-Received: Wed, 5-Nov-86 06:23:02 EST
Reply-To: csan@itspna.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 13
Keywords: help questions accessories

Can anyone help ?
I am trying to find out if I can activate a desk accessory on booting .
Is there any line I could add to the DESKTOP.INF file ?

What are the advantages to having TOS in rom ?

Andrew Ness . Department of Computer Science
EDINBURGH University.

ARPA: csan%ed.itspna@ucl-cs.arpa
UUCP: ...!seismo!mcvax!ukc!itspna!csan
JANET: csan@uk.ac.ed.itspna

From -7701853385475155865
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,737057091ca64111,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 07:29:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cbatt!ihnp4!inuxc!inuxj!wolenty
From: wolenty@inuxj.UUCP (R Wolenty)
Newsgroups: net.micro.atari16
Subject: UNITERM documentation
Message-ID: <255@inuxj.UUCP>
Date: Mon, 3-Nov-86 10:29:20 EST
Article-I.D.: inuxj.255
Posted: Mon Nov 3 10:29:20 1986
Date-Received: Tue, 4-Nov-86 03:25:15 EST
Distribution: net
Organization: AT&T Consumer Products, Indianapolis
Lines: 11

In shuffling versions of code around it seems I inadvertantly deleted
the documentation files for UNITERM. Could someone please mail me
a copy of the documentation? I have been using version 1.5 with
no problems and would also like to add my kudos to Simon Poole for
job well done.

Ron Wolenty

From 8283300084910608774
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 09:10:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!j.cc.purdue.edu!
i.cc.purdue.edu!afo
From: afo@i.cc.purdue.edu (Alan Davis)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <1629@i.cc.purdue.edu>
Date: Mon, 3-Nov-86 12:10:57 EST
Article-I.D.: i.1629
Posted: Mon Nov 3 12:10:57 1986
Date-Received: Thu, 6-Nov-86 01:06:12 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP> <448@atari.UUcp>
Reply-To: afo@i.cc.purdue.edu.UUCP (Alan Davis)
Distribution: na
Organization: Purdue University Computing Center
Lines: 29
Keywords: desk accesories, loaders
Summary: I have one that works

In article <448@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>> >....Is there some
>> >way of putting a *desk acc. loader* into my AUTO folder, which would
>> >load the accessories?
>>
>> I believe that I have a file that will do that. As soon as I verify
>> that the critter runs(I have never ran it before) I will post it.
>
>It seems unlikely that the critter will run, since the desktop
>and AES have not been initialized at the time \AUTO folder
>execution takes place. Doing an AES call from an AUTO program
>will likely result in a crash ->thud<- and an endless cycle of
>reboots. Life is like that sometimes.
>--
>
>-Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

 I have a desk accessory loader in my auto folder that works just
 fine. If you would like a copy of it, send me a note and we'll
 give it a whirl.

Alan Davis
Purdue University Computing Center
:-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-)
USENET: {seismo, decvax, ucbvax, ihnp4}!pur-ee!i.cc!afo

BITNET: ADAVIS@PURCCVM

Disclaimer: My boss has opinions too but I can't express them in public.
Therefore, I thought up my opinions all by myself.

From -3258173824345011028
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 10:00:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <450@atari.UUcp>
Date: Mon, 3-Nov-86 13:00:42 EST
Article-I.D.: atari.450
Posted: Mon Nov 3 13:00:42 1986
Date-Received: Tue, 4-Nov-86 09:54:08 EST
References: <8610302053.AA05161@ames-prandtl.ARPA>
Organization: Atari Corp/Mktg
Lines: 44

In article <8610302053.AA05161@ames-prandtl.ARPA>, getty@AMES-PRANDTL.ARPA
writes:

> I was in the store the other day looking at the Easydraw program, and I
> was suprised to discover that GDOS is being distributed with this program.
> Included with this GDOS were some fonts, device drivers, and a program named
> OUTPUT.PRG.
>
> After trying Easydraw I got a copy of PaintPro (Abacus) and tried running
> it. PaintPro simply would not run with GDOS installed on the system, but
> ran just fine when the system was booted without GDOS. The README file
> that comes with PaintPro claimed that it would work with GDOS installed.

Apparently the README file was wrong. We have been looking into the
compatibility issue, and have found some trouble spots -- one big problem is
that programs compiled with OSS Personal Pascal don't work with GDOS. We
have told OSS how to fix this.

> This all disturbs me. Apparently GDOS is already being given away in some
> form with commercial software, but you are telling us that we are going to
> have to pay money for it. Will the GDOS given away with software in the
> future be the same thing that is going to be sold for money separately?

Why should it disturb you? We are licensing GDOS for use with commercial
packages -- if you get the package, you get GDOS. The current thinking is
to package GDOS separately for consumers who want it.

EasyDraw uses a very early GDOS, under strict directions to their
programmers to use only the functions we explicitely told them were working.
The final version is complete now.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 1872129850880179098
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b5e65b95d0c26862,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 11:22:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!mit-eddie!ll-xn!nike!ucbcad!ucbvax!
SCORE.STANFORD.EDU!Info-Atari16
From: Info-Atari16@SCORE.STANFORD.EDU (Info-Atari16 Digest)
Newsgroups: net.micro.atari16
Subject: Info-Atari16 Digest V86 #2
Message-ID: <8611032045.AA18414@ucbvax.Berkeley.EDU>
Date: Mon, 3-Nov-86 14:22:19 EST
Article-I.D.: ucbvax.8611032045.AA18414
Posted: Mon Nov 3 14:22:19 1986
Date-Received: Tue, 4-Nov-86 02:47:22 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Info-Atari16@Score.Stanford.edu
Organization: The ARPA Internet
Lines: 657

Info-Atari16 Digest Monday, November 3, 1986 Volume 86 : Issue 2

This weeks Editor: Bill Westfield

Today's Topics:

LIMIT ON TOTAL NUMBER OF FILES ON AN ST DISK ??
micro-C-shell and MT-C-shell
Re: UNITERM
Re: Volume of net traffic
Re: UNITERM V1.5C PART 3 OF 4 (UNITERM.B)
Re: copy protection flame
phreakers

Date: 0 0 00:00:00 EDT
From: "V5130B::MENTON" <menton@v5130b.decnet>
Subject
: LIMIT ON TOTAL NUMBER OF FILES ON AN ST DISK ??
To: "info-atari16" <info-atari16@su-score>
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>

Is there a limit on the total number of files on an ST disk, either single-sided or double-sided?

While copying over 200 FORTRAN subroutines from an IBM PC/AT to a VAX to the ST (total bytes well below the capacity of a SS disk), the file copy bombed at about 111 files. This same limit was reached (same error message, something about a file not being opened to write ??) when the destination disk was formatted DS. I tried to copy an additional file to the disk, to see if it was a limitation of the XMODEM program. Nope - same error message - the disk would just not take another file, even though it was well below its max capacity.

Any thoughts on why this happened would be appreciated. I don't remember reading about a limit to the number of file names on an ST disk, analogous to the 64-file limit with the 8-bit Atari disk drives.

Bob Menton
MENTON@NRL

Buckaroo Banzai: "Take the wheel. It drives like a truck".
John Parker: "Good. What is a truck?"

From: mcvax!lasso!didier@seismo.CSS.GOV
Date: Fri Oct 31 17:07:41 GMT+1:00 1986
To: info-atari16@score.stanford.edu
Subject: micro-C-shell and MT-C-shell

Would some kind soul give me a serious description on the uCshell and MTCshell packages ? The names are fairly suggestive, but I wonder how functionnaly close to a Unix csh they may be. In particular, are they of any serious use for systems without a hard disk ?
Are we talking freebees here, or are they $old (price ?) ?

Didier Giralt
...!seismo!mcvax!inria!lasso!didier

LAAS-CNRS
7 av du Colonel Roche
31077 Toulouse Cedex
France

Date: 29 Oct 86 12:05:10 GMT
From: mcvax!ukc!reading!minster!martin@seismo.css.gov
Subject: Re: UNITERM
To: info-atari16@score.stanford.edu

Did anyone in the UK get a working copy of UNITERM? I'm told that it
was distributed in 4 parts, but we saw none of these. If anyone has it
and would be willing to send it to me, could they please let me know by
mail? Did this program, which everyone says is very good, actually reach
Europe or the UK?
     Martin

PS.
     Apologies to those outside Europe, to whom this may not be
very interesting.

usenet: mcvax!ukc!minster!martin
surface:
     Martin C. Atkins
     Department of Computer Science
     University of York
     Heslington
     York Y01 5DD
     ENGLAND

Date: 30 Oct 86 18:31:53 GMT
From: mcvax!ukc!dcl-cs!bath63!pes@seismo.css.gov (Paul Smee)
Subject: Re: Volume of net traffic
To: info-atari16@score.stanford.edu

I'm not convinced that 'descriptions and mail to requesters' would actually
cut the net traffic. At present (bar accidents) net stuff crosses the Atlantic
once (to Holland, innit?), crosses the Channel once, and so on. A separate
trans-Atlantic posting to each requestor would pretty obviously crank the
transmitted bitcount right up.

Similar arguments, of course, apply to non-international posting. Also,
I think that this net has a higher connectivity than 'pure user mail',
so that solution would leave lots of people out, I spect.

Better, the idea (is it reelly going to happen) of a separate meeting for
the software, so that them as don't want it can more easily miss it out.

Date: 30 Oct 86 18:57:08 GMT
From: mcvax!ukc!dcl-cs!bath63!pes@seismo.css.gov (Paul Smee)
Subject: Re: UNITERM V1.5C PART 3 OF 4 (UNITERM.B)
To: info-atari16@score.stanford.edu

Sigh. Someone up there doesn't want me to have UniTerm 1.5c. Our site

finally received parts 1, 2, and 3 of the 16th (19th? it's scrolled off my screen) posting of 1.5c. Assuming that the part 3 I got earlier was correct (got it twice, and they both matched) the new part 3 was savagely truncated =678 lines, missing about 600 if I counted right. Part 2 ('A') was also chopped off short. So, I've now got

  Part 1 Read Me
  Part 2 ('A') 1 bad copy (truncated)
  Part 3 ('B') 2 good copies and one bad (truncated)
  Part 4 ('C') 1 good copy

Of course this all assumes that the Parts were all the same each time. Anyone with UK PSS or JANET access (or US ARPA) willing to trade a part A for one of my spare part B's :-).

  JANET: Smee at AUCC
  ARPA: Smee at AUCC via UCL-CS.ARPA

(in whatever syntax your favorite mailer uses for at's and via's)

Date: 31 Oct 86 19:01:49 GMT
From: amdahl!drivax!holloway@csvax.caltech.edu (Bruce Holloway)
Subject: Re: copy protection flame
To: info-atari16@score.stanford.edu

In article <246@bath63.UUCP> pes@ux63.bath.ac.uk (Paul Smee) writes:
>I had a go at copying the Epyx disk. It appears to work, but when you
>try to run the copy, you get put into what appears to be an infinite
>'put disk A into drive A; put disk B into drive A' loop. I actually
>gave that a try for a bit over 80 swaps, figuring that, since they hadn't
>said it was copy-protected, they might have simply made it 'unattractive'
>to copy by requiring that you somehow 'validate' the 80 tracks individually.
>Finally decided that's not the case. It annoyed me enough to decide that
>I think I'll try to crack that one, though.

I copied Rogue over to my hard disk, and it runs fine from there, although it requires the original disk in 'A'... it just accesses it for a couple of seconds. Also, you can only save files to the original disk! But at least the loading time is slashed, especially for those l-o-n-g picture files.
--
....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

Date: 31 Oct 86 10:45:13 GMT
From: ihnp4!chinet!cabbie@ucbvax.Berkeley.EDU (Richard Andrews)
Subject: phreakers
To: info-atari16@score.stanford.edu

This is an article that I found. Read it and weep.

Rich Andrews
...ihnp4!chinet!cabbie

by
John "C". Sucilla

This sucker is pretty long (287 lines). I just downloaded it from Plantz'z machine and thought it might be a good idea to make it available here.
I have no idea if this is for real or not at this time. I hope not!

The Night of the Hackers

. As you are surveying the dark and misty swamp you come across what appears to be a small cave. You light a torch and enter. You have walked several hundred feet when you stumble into a bright blue portal. . . With a sudden burst of light and a loud explosion you are swept into . . . DRAGONFIRE . . . Press Any Key

. You have programmed your personal computer to dial into Dragonfire, a computer bulletin board in Gainesville, Texas. But before you get any information, Dragonfire demands your name, home city and phone number. So, for tonight's tour of the electronic wilderness you become Montana Wildhack of San Francisco.

. Dragonfire, Sherwood Forest (sic), Forbidden Zone, Blottoland, Plovernet, The Vault, Shadowland, PHBI and scores of other computer bulletin boards are hangouts of a new generation of vandals. These precocious teenagers use their electronic skills to play hide-and-seek with computer and telephone security forces. Many computer bulletin boards are perfectly legitimate: they resemble electronic versions of the familiar cork boards in supermarkets and school corridors, listing services and providing information someone out there is bound to find useful. But this is a walk on the wild side, a trip into the world of underground bulletin boards dedicated to encouraging -- and making -- mischief.

. The phone number for these boards are as closely guarded as a psychiatrist's home telephone number. Some numbers are posted on underground boards; others are exchanged over the telephone. A friendly hacker provided Dragonfire's number. Hook up and you see a broad choice of topics offered. For Phone Phreaks -- who delight in stealing service from AT&T and other phone networks . Phreakenstein's Lair is a potpourri of phone numbers, access codes and technical information. For computer hackers -- who dial into other people's computers -- Ranger's Lodge is chock-full of phone numbers and passwords for government, university and corporate

computers. Moving through Dragonfire's offerings, you can only marvel at how conversant these teen-agers are with the technical esoterica of today's electronic age. Obviously they have spent a great deal of time studying computers, though their grammar and spelling indicate they haven't been diligent in other subjects. You are constantly reminded of how young they are.

. "Well it's that time of year again. School is back in session so let's get those high school computer phone numbers rolling in. Time to get straight A's, have perfect attendance (except when you've been up all night hacking school passwords), and messing up you worst teacher's paycheck."

. Forbidden Zone, in Detroit, is offering ammunition for hacker civil war -- tips on crashing the most popular bulletin-board software. There also are plans for building black, red and blue boxes to mimic operator tones and get free phone service. And he re are the details for "the safest and best way to make and use nitroglycerine," compliments of Doctor Hex, who says he got it "from my chemistry teacher."

. Flip through the "pages." You have to wonder if this information is accurate. Can this really be the phone number and password for Taco Bell's computer? Do these kids really have the dial-up numbers for dozens of university computers? The temptation is too much. You sign off and have your computer dial the number for the Yale computer. Bingo -- the words Yale University appear on your screen. You enter the password. A menu appears. You hang up in a sweat. You are now a hacker.

. Punch in another number and your modem zips off the touch tones. Here comes the tedious side of all of this. Bulletin boards are popular. No vacancy in Bates Motel (named for Anthony Perkin's creepy motel in the movie "Psycho"); the line is busy. So are 221 B. Baker Street, PHBI, Shadowland and The Vault, Caesar's Palace rings and connects. This is different breed of board. Caesar's Palace is a combination Phreak board and computer store in Miami. This is the place to learn ways to mess up a department store's anti-shoplifting system, or make free calls on telephones with locks on the dial. Pure capitalism accompanies such anarchy, Caesar's Palace is offering good deals on disc drives, software, computers and all sorts of hardware. Orders are placed through electronic mail messages.

. 'Tele-Trial': Bored by Caesar's Palace, you enter the number for Blottoland, the board operated by one of the nation's most notorious computer phreaks -- King Blotto. This one has been busy all night, but it's now pretty late in Cleveland. The phone rings and you connect. To get past the blank screen, type the secondary password "S-L-I-M-E." King Blotto obliges, listing his rules: he must have your real name, phone number, address, occupation and interests. He will call and disclose the primary password, "if you belong on this board." If admitted, do not reveal the phone number

or the secondary password, lest you face "tele-trial," the King warns as he dismisses you by hanging up. You expected heavy security, but this teenager's security is, as they say, awesome. Computers at the Defense Department and hundreds of businesses let you know when you've reached them. Here you need a password just to find out what system answered the phone. Then King Blotto asks questions -- and hangs up. Professional computer-security experts could learn something from this kid. He knows that ever since the 414 computer hackers were arrested in August 1982, law-enforcement officers have been searching for leads on computer bulletin boards.

. "Do you have any ties to or connections with any law enforcement agency or any agency which would inform such a law enforcement agency of this bulletin board?"

. Such is the welcoming message from Plovernet, a Florida board known for its great hacker/phreak files. There amid a string of valid VISA and MasterCard numbers are dozens of computer phone numbers and passwords. Here you also learn what Blotto means by tele-trial. "As some of you may or may not know, a session of the conference court was held and the Wizard was found guilty of some miscellaneous charges, and sentenced to four months without bulletin boards." If Wizard calls, system operators like King Blotto disconnect him. Paging through bulletin boards is a test of your patience. Each board has different commands. Few are easy to follow, leaving you to hunt and peck your way around. So far you haven't had the nerve to type "C," which summons the system operator for a live, computer-to-computer conversation. The time, however, however has come for you to ask a few questions of the "sysop." You dial a computer in Boston. It answers and you begin working your way throughout the menus. You scan a handful of dial-up numbers, including one for Arpanet, the Defense Department's research computer. Bravely tap C and in seconds the screen blanks and your cursor dances across the screen.

. Hello . . . What kind of computer do you have?

. Contact. The sysop is here. You exchange amenities and get "talking." How much hacking does he do? Not much, too busy. Is he afraid of being busted, having his computer confiscated like the Los Angeles man facing criminal changes because his computer bulletin board contained a stolen telephone-credit-card number? "Hmmmm . . . No," he replies. Finally, he asks the dreaded question: "How old are you?" "How old are YOU," you reply, stalling. "15," he types. Once you confess and he knows you're old enough to be his father, the conversation gets very serious. You fear each new question; he probably thinks you're a cop. But all he wants to know is your choice for president. The chat continues, until he asks, "What time is it there?" Just past midnight, you reply. Expletive. "it's 3:08 here," Sysop types. "I must be going to sleep. I've got school tomorrow." The cursor dances "********** Thank you for Calling." The screen goes blank.

Epilog:

. A few weeks after this reporter submitted this article to Newsweek, he found that his credit had been altered, his drivers' licence revoked, and EVEN HIS Social Security records changed! Just in case you all might like to construe this as a 'Victimless' crime. The next time a computer fouls up your billing on some matter, and COSTS YOU, think about it!

. This the follow-up to the previous article concerning the Newsweek reporter. It spells out SOME of the REAL dangers to ALL of us, due to this type of activity!

The REVENGE of the Hackers

. In the mischievous fraternity of computer hackers, few things are prized more than the veil of secrecy. As NEWSWEEK San Francisco correspondent Richard Sandza found out after writing a story on the electronic underground's (DISPATCHES, Nov. 12, 198\ ability to exact revenge can be unnerving. Also severe.... Sandza's report:

. "Conference!" someone yelled as I put the phone to my ear. Then came a mind-piercing "beep," and suddenly my kitchen seemed full of hyperactive 15-year-olds. "You the guy who wrote the article in NEWSWEEK?" someone shouted from the depths of static, and giggles. "We're going disconnect your phone," one shrieked. "We're going to blow up your house," called another. I hung up.

. Some irate readers write letters to the editor. A few call their lawyers. Hackers, however, use the computer and the telephone, and for more than simple comment. Within days, computer "bulletin boards" around the country were lit up with attacks on NEWSWEEK's "Montana Wildhack" (a name I took from a Kurt Vonnegut character), questioning everything from my manhood to my prose style. "Until we get real good revenge," said one message from Unknown Warrior, "I would like to suggest that everyone with an auto-l modem call Montana Butthack then hang up when he answers." Since then the hackers of America have called my home at least 2000 times. My harshest critics communicate on Dragonfire, a Gainesville, Texas, bulletin board where I am on teletrial, a video-lynching in which a computer user with grievance dials the board and presses charges against the offending party. Other hackers -- including the defendant --post concurrences or rebuttals. Despite the mealtime interruptions, all this was at most a minor nuisance; some was amusing, even fun.

. FRAUD: The fun stopped with a call from a man who identified himself only as Joe. "I'm calling to warn you," he said. When I barked back, he said, "Wait, I'm on your side. Someone has broken into TRW and obtained a list of all your credit-card numbers, your home address, social-security number and wife's name and is posting it on bulletin boards around the country." He named the charge cards in my wallet.

. Credit-card numbers are a very hot commodity among some hackers. To get one from a computer system and post it is the hacker equivalent of making the team. After hearing from Joe I visited the local office of the TRW credit bureau and got a copy of my credit record. Sure enough, it showed a Nov. 13 inquiry by the Lenox (Mass.) Savings Bank, an institution with no reason whatever to ask about me. Clearly some hacker had used Lenox's password to the TRW computers to get to my files (the bank has since changed the password).

. It wasn't long before I found out what was being done with my credit-card numbers, thanks to another friendly hacker who tipped me to Pirate 80, a bulletin board in Charleston, W.Va., where I found this: "I'm sure you guys have heard about Richard Stza or Montana Wildhack. He's the guy who wrote the obscene story about phreaking in NewsWeek Well, my friend did a credit card check on TRW . . . try this number, it' a VISA . . . Please nail this guy bad . . . Captain Quieg.

. Captain Quieg may himself be nailed. He has violated the Credit Card Fraud Act of 1984 signed by President Reagan on Oct. 12. The law provides a $10,000 fine and up to a 15-year prison term for "trafficking" in illegally obtained credit-card account numbers. He "friend" has committed a felony violation of the California computer-crime law. TRW spokeswoman Delia Fernandex said that TRW would "be more than happy to prosecute" both of them.

. TRW has good reason for concern. Its computers contain the credit histories of 120 million people. Last year TRW sold 50 million credit reports on their customers. But these highly confidential personal records are so poorly guarded that computerized teenagers can ransack the files and depart undetected. TRW passwords -- unlike many others -- often print out when entered by TRW's customers. Hackers then look for discarded printouts. A good source: the trash of banks and automobile dealerships, which routinely do credit checks. "Everybody hacks TRW," says Cleveland hacker King Blotto, whose bulletin board has security system the Pentagon would envy. "It's the easiest." For her her part, Fernandez insists that TRW "does everything it can to keep the system secure

. In my case, however, that was not enough. My credit limits would hardly support big-time fraud, but victimization takes many

forms. Another hacker said it was likely that merchandise would be ordered in my name and shipped to me -- just to harass me. I used to use credit-card numbers against someone I didn't like," the hacker said. "I'd call Sears and have a dozen toilets shipped to his house."

. Meanwhile, back on Dragonfire, my teletrial was going strong. The charges, as pressed my Unknown Warrior, include "endangering all phreaks and hacks." The judge in this case is a hacker with the apt name of Ax Murderer. Possible sentences range from exile from the entire planet" to "kill the dude." King Blotto has taken up my defense, using hacker power to make his first pleading: he dialed up Dragonfire, broke into its operating system and "crashed" the bulletin board, destroying all of its messages naming me. The board is back up now, with a retrial in full swing. But then, exile from the electronic underground looks better all the time.

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+-------------------------------------------+
| END of COLOSSUS NEWSLETTER Issue 3, Volume 1 |
| Please upload to MANY boards!             |
+-------------------------------------------+
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(Chuck: Whew!)
(Ed: My fingers cramped again!)

Dave I.

I'm not surprised. If *I* ever get my hands on one of these little theives, I'll show him or her how a professional can scramble their silicon...

Seriously, I don't know how anyone expected something different. We can teach kids all the tech skills necessary to do these things, but it's just not considered part of either the formal curriculum, or a parent's duty, to teach a sense of ethics about use of such skills. I once let loose on a bunch of students at U of W who were on the system staff; they considered it perfectly OK to read anyone's electronic mail that passed through their machine, or between students and professors. Not only that, but if you annoyed one of them, you might find your files munged or missing. By the time I got through, I'm sure that they got my message. Don't believe for a moment that they'd do anything about it, but they knew that when they got out into the 'real world', if they ever did something like that and I caught them, they'd be fired--or worse.

Oh, well...this is just one of my sore points. These twits are going to ruin it for all the rest of us, unless we police them ourselves...

meg

We get a few phreakers or hackers on M-Net now and then, at least they claim to be, mostly we drive 'em out by means of some 'practical jokes'

we engineer, that and a combination of the fact that Mike states every where and anywhere that if anyone comes investigating, all his files and stuff are open and for the record. That usually keeps it at a minimum, and they are never around long enough to cause any trouble on the board, nor do anything illegal.

Was interesting tho, a conversation I had with someone who professed to be a hacker, no longer on M-Net, and his absolute conviction that what he was doing was perfectly alright and he honestly believed no one had a right to complain. I was completely dumbfounded, myself.

rob

Anyone have any ideas of how we can rid the computer world of these types? It's always the bad who receive publicity...

Arthur F.

I hate to say it, but business should have adopted a different equivalent of the ASCII code for transfering data

jjw

Easiest way to rid the world of these is to have intelligent people in charge of setting up security in the first place, followed by more intelligent people using it.
 I had my share of this s**t at Harper College, where a bunch of local phreaks thought they could run the system out from under the school. I did them one better - joined the school and ran it as secure as I could make it (within the limits that the school itself imposed).
 Some general ideas - y'all remember a few years ago the kid that broke into DePauls system? I knew him, and the other guy who helped was my friend's cousin (both sorta twits). It helped that DePaul kept last years password list as a readable ascii file, open to public inspection. Seems they used 3 character passwords. Also, the first letter was between A and M. Took about 20 minutes to break through. When they changed it, the new password followed the same format. The program that allegedly did so much damage had been around for several months. All the authorities denied that it could possibly crash the system, and refused to listen to me when I told them. Eventually, HP came up with a fix that took care of it, but DePaul somehow didn't think it needed that fix.
 I'd kind of like to make the sys administrators liable for damages on any system that gets broken into. It would encourage them to take much better care in designing the security.
 Oh, also, on my home BBS system (not yet up, but getting there slowly), I have a sure way to prevent anybody from getting through. Even supposing that they can crash the program, the modem's hooked up to the serial printer port. I do *all* my own i/o, and if it crashes, they're not a console, they're a printer and the system ignores them. Also, I am *not* going to allow so-called 'sysop' stuff to be done from within the system. To do these functions, you'll have to be physically in my apt, at my terminal, running programs outside of the bbs system. The worst I can come up with would be to bring each user down, but even that won't let anybody do anything un-cool.

kji

I like the idea of the i/o through the serial printer stuff. I could
throw up a board in not time if I only had the smart modem. Have all
the programs setup with tons of pd stuff, but no $ for the modem.

jcs

Here's an idea for twit control: Uzi's & Mac 10's are rarely argued with.

bhv

If kids can get into the credit bureaus, imagine what the professionals
can do. It seems to me that the credit bureaus are the weak link in the
chain, and it would be better to work on increasing their security than
to try and police every kid in existence.

greg

I have little worry of a serial port of any kind being turned into a tty
controlling the system since {there's no way to control the mouse via
that port.. and even if they could, they couldn't see what they were doing
anyway..

Problem solved...

rlk

I don't think the credit agencies themselves are bad, its the clients
who don't maintain security of their passwords. I've seen several
places where access passwords were taped to the wall over the
terminal, and the terminals were in public access areas so that
everyone 'knew' the shop was computerized. One place must have
had a nearsighted operator, 'cause the password had been written
using a magic marker. You could read it from the lobby.

pgy

There is also the other extreme of security. I'm currently working on
a team programming project for which we have a librarian who maintains
among other things, the include files for the system. I came in today
and reran the make file for my current sub project. I was immediately
informed that cc could not find the include files. I thought that
perhaps the files had been reorganised (this is something I've been
told to expect soon). But upon further investigation, I found that
read permission for the world had been removed from the include
directory. In order to access these files I had to newgrp to the
special group which only the librarian defaults to, and then re-run
the make. It was a small annoyance, but it was an an
annoyance. These files are most decidedly NOT secret -- there was no good
reason to take read permissions off of that directory. Especially in a
development environment, security should be only as tight as necessary.

jcs

There is a new guy in our department who was doing the same thing.
He had post-its with logins & passwords for all the Indian Hill machines
we use hanging all around his terminal. He even had his login/password
for our machine embedded in his function keys. It took about 10 minutes
to convince him that we WOULD use his login to wreak havoc on his files
if he didnt get rid of the stuff. He cleaned up his act in a hurry!
LMHY:
Sounds like you could use the Change Management System (CMS) available
from Bell Labs. It would make everybody's life easier there.
CMS=Change Management System.
Let's say you have a product that consists of N directories
with a couple hundred source files involved (ours consists of a few thousand
files). You have X number of developers working full time on the product
and the files are in a constant state of flux. Under CMS, only one developer
can modify a file(s) at a time. All other developers are denied access to
the file(s) until he is done with it. There are typically three "nodes"
available to the CMS user. 1) The "Official" node - where the last release
was generated from. 2) The "Approved" node - where files are kept after
they have been approved by the test team and before an integration has
been performed. Integration moves the files from approved to official.
3) The "Local" node - where changes are made and proved in by the developer.
Here is a simplified scenario of a change:
 Programmer jcs needs to change x.c for some reason. He generates an MR
 (modification request). Once the MR is approved by commitee (if there is one)
 and assigned he gets the latest version of the file from the official node.
 Thats right, SCCS is involved here. He makes the required changes to the file
 and builds the product in his local node. The build command utilizes
 a viewpath which tells build where to look for the files it needs to create
 the product. If the viewpath looked like this -

  VPATH=/prod/ofc:/prod/appr:/prod/localnode
 build would first search /prod/ofc for the files it needs then look in
 /prod/appr for any missing files then /prod/localnode. If a file in
 /prod/localnode is newer than a matching file in the other nodes it is
 used instead. Now that the product is built, the developer checks it out
 on whatever hardware it was built for and once he's satisified with it
 he passes it on to the test team. If the test team kisses the change,
 the change is moved into the approved node and eventually into the
 official node.

For large projects, CMS can't be beat. It's a logical way to synchronize
changes and prevent a lot of unnecessary confusion.
For small projects it's probably a lot easier to rap the bozo next door
in the head for screwing around with your struct than it is to justify CMS.
CMS is available from Bell Labs.

Back to original topic for...

I find it hard to get worked up if someone looks through my files. I think

damaging (deleting/changing/encrypting/etc) files is a different matter.
I dunno, but I certainly think your 'anti-hacker/phreak' stance is a bit
more extreme then warranted.

End of Info-Atari16 Digest
****

From 3084656320624196426
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c8036509900e527b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 12:49:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!bellcore!whuxcc!lcuxlm!whuxl!
houxm!ihnp4!inuxc!iuvax!ndmath!milo
From: milo@ndmath.UUCP (Greg Corson)
Newsgroups: net.micro.atari16
Subject: New ST models?
Message-ID: <154@ndmath.UUCP>
Date: Mon, 3-Nov-86 15:49:26 EST
Article-I.D.: ndmath.154
Posted: Mon Nov 3 15:49:26 1986
Date-Received: Tue, 4-Nov-86 08:34:39 EST
Organization: Math. Dept., Univ. of Notre Dame, Notre Dame, IN
Lines: 8

There was a short note in this month's BYTE magazine mentioning that Atari had
released a 2 and 4 megabyte version of the ST in europe somewhere. Does anyone
out there (ATARI??) have some more information on this? The new machine was
said to have a bit-blit chip. I would be very interested to know if there
are any new graphics modes with more colors/higher resolutions.

Greg Corson
{pur-ee,seismo}!iuvax!kangaro!milo

From 173176527095093397
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 15:07:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!tektronix!uw-
beaver!tikal!slovax!michael
From: michael@slovax.UUCP (Michael Longe)
Newsgroups: net.micro.atari16
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <191@slovax.UUCP>
Date: Mon, 3-Nov-86 18:07:33 EST

Article-I.D.: slovax.191
Posted: Mon Nov 3 18:07:33 1986
Date-Received: Tue, 4-Nov-86 09:45:58 EST
References: <8610302053.AA05161@ames-prandtl.ARPA> <2341@ncrcae.UUCP>
Organization: R & D Associates., Tacoma, WA
Lines: 56

Just for the record (I used to work for Migraph):

> The GDOS.PRG that Migraph has been sending ...
> is strictly a prerelease version ...

More accurately, it is strictly the only version that has been available to an ST developer up to this point. Apparently it was a direct port by DRI from the PC ("We Port Bugs"). Migraph requested it and DRI gave the go-ahead to release it (and Output) with Easy-Draw.

> Migraph was apparently working in an IBM -> ST
> cross-development environment (the IBM PC version of GDOS/VDI works fine,
> I guess...) ...

No, on genuine first-generation 520's. Trying to do it from the PC would have been even more of a nightmare. The PC version of GDOS works. Just. Easy-Draw was the first program designed to use ALL of the features of GEM (working or not!).

> Atari ...
> worked on getting Migraph a version of GDOS that worked
> well enough to get EasyDraw out the door.

Atari did all they could to help, under the circumstances (some of this stuff was apparently never explicitly licensed to Atari by DRI). They also helped Migraph *beg* DRI for the changes we all may receive shortly.

> Don't get too upset at Neil and the rest of the folks at Atari... I
> would rather wait than get a GDOS that Atari has to continually fix.

Amen! I was the lucky person who got find some of the BUGS in that version and report them to Atari and DRI. If all goes well, the new version should include mulitple font loading, hard disk support, and none of those silly boot-drive defaults (like OUTPUT.RSC and font files).

Incidentally, Migraph did not "give away" GDOS with Easy-Draw. Each developer should make their own agreement with Atari and DRI, not take the stuff off the Easy-Draw disk.

Finally, I suspect (and refer this to Neil for confirmation) that the GDOS itself will not be the item for sale, but the *very expensive* fonts and device drivers which it uses.

Michael Longe'
..!tikal!slovax!michael

------- standard disclaimer --

Rumors are free and easy to give.

------- usual disclaimer ---

Qui, moi?

From 8633821976179085700
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,16aeae3c745e37ea
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,16aeae3c745e37ea
X-Google-Attributes: gid140593,public
X-Google-Thread: 129c11,16aeae3c745e37ea
X-Google-Attributes: gid129c11,public
X-Google-ArrivalTime: 1986-11-03 19:44:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ukma!ukecc!chaney
From: chaney@ukecc.UUCP (Dan Chaney)
Newsgroups: net.micro.atari8,net.micro.atari16,net.micro
Subject: Re: Atari At Work
Message-ID: <730@ukecc.UUCP>
Date: Mon, 3-Nov-86 22:44:28 EST
Article-I.D.: ukecc.730
Posted: Mon Nov 3 22:44:28 1986
Date-Received: Wed, 5-Nov-86 05:30:16 EST
References: <1157@tekigm2.UUCP>
Reply-To: chaney@ukecc.UUCP (Dan Chaney)
Organization: Presently At Large
Lines: 11
Xref: watmath net.micro.atari8:566 net.micro.atari16:2951 net.micro:15869

To Whom It May Inspire to Help-

     Some years back I read an article (possibly in COMPUTE!) regarding the use of a servo via the joystick ports. The interesting part of the article was the explanation, and subsequent programs, allowing the joystick port to be accessed for *output* from BASIC. If anyone has this article or relevant ones, I would be very appreciative. The end goal is to run a UART-based switching system for the Atari 800.

       | Void where prohibited by law | Bitnet: EXT698@UKCC

                              Dan Chaney

From 8297734955897051889
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,b929b5714433866b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-03 23:47:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: 1040 & composite monitors
Message-ID: <2756@mit-hermes.ARPA>
Date: Tue, 4-Nov-86 02:47:12 EST
Article-I.D.: mit-herm.2756
Posted: Tue Nov 4 02:47:12 1986
Date-Received: Tue, 4-Nov-86 08:33:17 EST
References: <129@aa.ecn.purdue.edu.UUCP>
Organization: The MIT AI Lab, Cambridge, MA
Lines: 17

> Does anyone know for certain if a 1040 will output a color composite
> signal? I know a 520 will (I have a friend with a 520 who hooks it up
> to a composite monitor), but my 1040 doesn't seem to output composite,
> even though the pin diagram in the back of the 1040 manual indicates
> that it should. I read a short piece in Compute's ST magizine that
> said 1040's don't have composite, only 520's do. My dealer doesn't
> know. Help please -- my monochrome screen is extra sharp & nice, but I'd like
> to see FujiBoink at least once on my own ST.
> Whom: Rick Westerman   Phone: +1-317-494-8341

Maybe sometime in the future, but not now. This really ticked me off when I got my 1040. The decision to release them without composite or RF output seems to have been made at the last minute, as the manual shows you where to hook it up, and there's a different texture in the plastic at the rear of the case where the RF output ought to be. Plus they give Neochrome away with the computer so you can watch it not work on a mono screen. If someone knows a way to get composite output I'd like to know how.

From 1873138692517098711
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567f53c77229c23f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 04:14:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Re: ST problems
Message-ID: <118@its63b.ed.ac.uk>
Date: Tue, 4-Nov-86 07:14:15 EST
Article-I.D.: its63b.118
Posted: Tue Nov 4 07:14:15 1986
Date-Received: Fri, 7-Nov-86 21:57:51 EST
References: <758@zen.BERKELEY.EDU>
Reply-To: csan@its63b.ed.ac.uk (Andie)

Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 24

In article <758@zen.BERKELEY.EDU> c9c-bg@buddy.Berkeley.EDU (James A. Landay) writes:
>Has anyone had the problem of their ST upon booting (TOS in ROM) saying
>that every disk was empty. (i.e. 0K in 0 folders). Mine is doing this.
>I have a single sided drive.
>Help!!!
>
>
>James Landay
>c9c-bg@buddy.berkeley.edu

I had a lot of trouble with this when I had my TOS on disk . I had 2 versions .. A UK version and the usual US version . Some files ,in particular folders , were deemed to be empty by the US version if they were created in the UK version . Top level directories were ok but any sub-dir was empty according to the US one. UK reading US created disks had no problems ....!
Dunno if this is any help but here goes anyway .

Andrew Ness . Department of Computer Science
EDINBURGH University.

ARPA: csan%ed.itspna@ucl-cs.arpa
UUCP: ...!seismo!mcvax!ukc!itspna!csan
JANET: csan@uk.ac.ed.itspna

From -3675085312553709537
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7d53fd83bd58dfa4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 04:55:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!cuae2!ihnp4!drutx!tlz
From: tlz@drutx.UUCP (ZrustTL)
Newsgroups: net.micro.atari16
Subject: Some info about the Epson DS drive bug
Message-ID: <1828@drutx.UUCP>
Date: Tue, 4-Nov-86 07:55:05 EST
Article-I.D.: drutx.1828
Posted: Tue Nov 4 07:55:05 1986
Date-Received: Wed, 5-Nov-86 21:09:41 EST
Organization: AT&T Information Systems Laboratories, Denver
Lines: 30

Got this in the mail and thought it would be of general interest.
In case you missed it, this is a response to my article on the 3.5"
DS Epson drive upgrade for the SF354. There is a problem with the
non-boot drive (B:) not being recognized by the system unless a disk
(even a blank one) is in it.

> >From sun!atari.uucp!jwt Tue Nov 4 02:26:01 1986 remote from ihnp4
> To: sun!ihnp4!drutx!tlz
> Subject: Re: Epson DS disk drive upgrade news and ??
> In-Reply-To: your article <1793@drutx.UUCP>

> That is one of the problems with buying just any off-the-shelf 3.5" disk
> drive for replacement in the ST. There are a couple of different types of
> 3.5" drives out there (not quite as standardized as you had hoped). Some
> drives will report the correct status of the write protect signal when there
> is no diskette in the drive and the type that requires a diskette to be in
> the drive before it returns the write protect signal.

> I am not aware of an easy modification to get it to return write protect
> without a diskette... when it happened to us, we returned the drives for the
> ones we wanted.

> Jim Tittsler, Atari Corp. {lll-lcc,sun}!atari!jwt

OK, any ideas? How about just shorting out the disk in
position switch? :-)
--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

From 7856413543592613164
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a60c126500ce175b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 04:56:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!codas!akgua!akguc!rbk
From: rbk@akguc.UUCP (rbk)
Newsgroups: net.micro.atari16
Subject: Re: Patches for the RAM disk program
Message-ID: <7719@akguc.UUCP>
Date: Tue, 4-Nov-86 07:56:58 EST
Article-I.D.: akguc.7719
Posted: Tue Nov 4 07:56:58 1986
Date-Received: Wed, 5-Nov-86 06:34:58 EST
References: <1354@batcomputer.TN.CORNELL.EDU>
Organization: AT&T Technologies/Bell Labs, Atlanta
Lines: 39

<><><><><><><><><>
> If you want to use the RAM disk program I've posted as a drive other
> than 'D', you have to patch it. This patch is essential if you want to use
> a hard disk together with the RAM disk. Here is an old hint:
> ... (some lines deleted) ...
> What I think was meant: Change the bytes at the following
> offsets from the beginning of the ".prg" file:

>
>   offset old value(for drive D) new value (for drive F)
>   ====== ====================== ======================
>
> $145 (325)   03   05
> $173 (371)   03   05
> $181 (385)   03   05
> $193 (403)   03   05
>
> The first one is the "BSET #3,D0" in the installation, the other three
> are "CMP #3,x(A7)"s in handling calls to disk device drivers.
>
> For drive C instead of F, use the value 02.
>
> To change the default RAM disk size, change the byte at offset
> $B3 (179): The value is the size in units of 64K, e.g. 03 for
> a default size of 192K, 09 for 576K.
>
> WARNING: These are untested speculations!!!
> If somebody tests this (with a hard disk, if possible), please tell us!
> Jeff, if you're out there: please confirm &/or post the fix and the
> disassembly!
>
> - Moshe Braner

The patch works as advertised; thanks Moshe!

BTW, I changed the byte to "0C" for Drive "M" since
I already have a hard disk partition called "F".

     R. Brad Kummer   {ihnp4, seismo!akgua}!akguc!rbk
     AT&T Bell Labs   Atlanta, GA

From -8120506781325813006
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eb3747f7df60d3b6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 07:36:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM
Message-ID: <252@bath63.UUCP>
Date: Tue, 4-Nov-86 10:36:30 EST
Article-I.D.: bath63.252
Posted: Tue Nov 4 10:36:30 1986
Date-Received: Fri, 7-Nov-86 21:58:05 EST
References: <530971509.19856@minster.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 18

I *think* I have finally managed to collect all the bits. I got the
README and parts b and a from a 'second-source'. (I already had c.)
The part b I just got matches the part b I'd already had, so I'm hoping that
I've now got the full set. However, I haven't ported it onto my ST and
uudecoded/de-arced it yet. If I can find a JANET path from UK.AC.AUCC to
your machine, I'll try to mail it to you, unless I hear rather quicly that
you'd as soon not be the guinea-pig.

Anyone else in the UK who is accesible to JANET mail, and in a similar situation,
send me mail ***AT MY PRIMARY MACHINE*** (poor connectivity). E-mail address
for there is:

   Smee at UK.AC.AUCC

(In theory, I can also get at ARPA via UCL-CS gateway, and at BITNET via RL.EARN
gateway, but I haven't been terribly successful at those. Still, if anyone
wants to try to establish a mail path between me (at AUCC) and somewhere on
those nets, I'll be happy to give that a try as well...)

From 4134085998330340634
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af2d417ef5f8cfd2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 07:53:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!mordor!lll-crg!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Re: Megamax bugs and queries
Message-ID: <387@cernvax.UUCP>
Date: Tue, 4-Nov-86 10:53:22 EST
Article-I.D.: cernvax.387
Posted: Tue Nov 4 10:53:22 1986
Date-Received: Wed, 5-Nov-86 06:20:22 EST
References: <381@cernvax.UUCP> <1333@batcomputer.TN.CORNELL.EDU>
Reply-To: jmg@cernvax.UUCP (Mike Gerard)
Distribution: world
Organization: CERN, Geneva/Switzerland
Lines: 12

In article <1333@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>A few answers/suggestions:
>
>   Never put a function call inside a macro! E.g.: isalpha(c) is
>a macro (defined in ctype.h):
>
>   #define isalpha(c) (c>='A' && c<='Z' || c>='a' && c<='z')

May I suggest that the real problem is the lousy way that the macro

is defined! Look at the BSD4.2 macro to see how things should be done.
Library macros should be pretty well equivalent to library functions,
with no side effects.

From 3700770315790775968
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab74b8a0f069a2c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 09:43:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Joystick problem
Message-ID: <253@bath63.UUCP>
Date: Tue, 4-Nov-86 12:43:11 EST
Article-I.D.: bath63.253
Posted: Tue Nov 4 12:43:11 1986
Date-Received: Fri, 7-Nov-86 21:58:19 EST
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Distribution: net.micro.atari16
Organization: AUCC c/o University of Bath
Lines: 9

I find that if I boot up my machine (520, TOS in ROM) with a joystick
attached to port 2 (the non-mouse port) the machine comes up with the
keyboard effectively disabled, and I have to unplug it and reboot. If
I plug it in after the machine has booted, everything is happy.

Admittedly, it's an '8-bit' Atari joystick model, but still...

Anyone else seen this? Have any clues? Helpful hints and suggestions?

From -1260462255210542979
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1edd96410d48cde0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 14:20:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!clyde!cbatt!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: December 1986 ANTIC TOC for ST's
Message-ID: <1423@ihuxi.UUCP>
Date: Tue, 4-Nov-86 17:20:30 EST
Article-I.D.: ihuxi.1423
Posted: Tue Nov 4 17:20:30 1986
Date-Received: Thu, 6-Nov-86 01:06:44 EST
Distribution: net
Organization: AT&T Bell Labs, Naperville, IL

Lines: 77

**********[Ignore header path]**********

Below is the portion of the table of contents of the December issue
of ANTIC magazine that I think will be of interest to ST owners.
The complete TOC is available in net.micro.atari8 if you are
interested. -Kit-

****

December 1986 ANTIC TOC
Theme: Annual Shoppers Guide

page article

6 I/O BOARD
     Letters from Readers.
50 TWO NEW ATARI PRINTERS
     A review of the Atari XMM801 and SMM804 printers for the
     8-bit and ST computers.

**********BEGIN THE ST RESOURCE SECTION**********

72 BUILD GEM DIALOG BOXES
     A tutorial on how to create and manipulate your own
     dialog box.
89 DEDUCTION
     A classy ST BASIC adaptation of the old game most
     recently popularized as Master Mind. You must guess
     a pattern of four colors chosen by the computers.
95 ST PRODUCT NEWS AND REVIEWS
     Books
       Atari ST BASIC Training Guide (Abacus)
     Hardware
       ESTE Clock Cartridge (BigFoot Systems)
     Software
       Action Pack (Action Software)
       EZ-Track ST (Hybrid Arts)
     New Products (description only)
       Fast BASIC cartridge (Computer Concepts)
       Star Raiders (Atari Corp)
       Midiplay (Electronic Music Publishing House, Inc)
       SYS/EX (Key Clique)
       EZRAM 520 (Terrific Peripherals)
       TechMate Chess (Szabo Software)
       K-Resource (Kuma Software)
       MT C-Shell (Beckmeyer Development Tools)
       UCSD Pascal Power System (Pecan Software Systems, Inc)
       Philon Fast/BASIC-M (Philon Inc)

**********END THE ST RESOURCE SECTION**********

101 SOFTWARE LIBRARY
         This section contains all the program listings for the
         articles in this issue.

Coming next month: Atari talking typewriter for ST and 8-bit, door prize
         selector, Math educational game with optional speech
         modules, J.D.Casten's newest hit game and Super Star
         Trek for the ST.

Comments: There has been some discussion on the net lately about using
        the BSR X10 controller with the Atari. There is an ad in
        ANTIC from Terrific Peripherals for this device. For $119.95
        you get the X-10 Powerhouse controller, a special Atari
        interface adapter (8-bit) and the Building Manager software disk.
        ANTIC is running an 8-bit contest for practical programs.
        First prize is a 1040ST with $500 worth of software from
        Batteries Included. Computer Mail Order (CMO) has a nice
        16 page spread with lots of specials.

                        Kit Kimes
                        AT&T-ISL
                        1100 E. Warrenville Rd.
                        Naperville, IL 60566
                        ...!ihnp4!iwvae!kimes

From 6937906196879004690
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c54c7cd06553042
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 17:09:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: copy pretection
Message-ID: <683@imagen.UUCP>
Date: Tue, 4-Nov-86 20:09:58 EST
Article-I.D.: imagen.683
Posted: Tue Nov 4 20:09:58 1986
Date-Received: Wed, 5-Nov-86 22:12:30 EST
References: <246@bath63.UUCP> <224@drivax.UUCP> <463@uwmacc.UUCP>
Organization: The Houses of the Holy
Lines: 34

>   Lastly, after reading (Ian Chadwick's?) column in the most recent
> Analog, I took a look at the executatble file. It was entertaining
> finding phrases like "Software Pirate", "Copy Protection Mafia", and
> "Scum of the Earth." (Ian, by the way, changed the "die roll" figures
> in the executable, thereby making his character much better, allowing

> him to get the Amulet. Kinda defeats the purpose of the game, doesn't it?)
> --

~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~

if you're going to look for ways to cheat, you might try looking in
the executable for the rogue's name (i.e. what you type in for the
name) that allows you to create anything, scrolls, weapons etc. It's
literally right there in front of you in the code. nuff said..

but i agree with you it takes all of the fun out of the game

on another subject; is anyone out there playing Phantasie I ? (if you
like rogue, you will fall in love with this game) i have gotten all
of the rings and runes and found the black knight's dungeon but
i can't get him, what am i doing wrong ?????

--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -6613733954397521708
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,25b4c5bdc1b7e345,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 18:01:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!Info-
Atari16
From: Info-Atari16@SCORE.STANFORD.EDU (Info-Atari16 Digest)
Newsgroups: net.micro.atari16
Subject: Info-Atari16 Digest V86 #4
Message-ID: <8611050300.AA19751@ucbvax.Berkeley.EDU>
Date: Tue, 4-Nov-86 21:01:10 EST
Article-I.D.: ucbvax.8611050300.AA19751
Posted: Tue Nov 4 21:01:10 1986
Date-Received: Wed, 5-Nov-86 06:36:42 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Info-Atari16@Score.Stanford.edu
Organization: The ARPA Internet
Lines: 549
~~~~~~~~~~~~~~~~

This weeks Editor: Bill Westfield

Today's Topics:

Re: Help with Desk Accessories: accessory loaders.
TRAPs from an interrupt handler and micro C Shell
Patches for the RAM disk program
SCODE - a program to code ST screens
problems with MultiTasking C shell
Re: copy pretection
Printer Problem

Date: 2 Nov 86 14:13:48 GMT
From: imagen!turner@ucbvax.Berkeley.EDU (D'arc Angel)
Subject: Re: Help with Desk Accessories: accessory loaders.
To: info-atari16@score.stanford.edu

> In article <699@chinet.UUCP>, cabbie@chinet.UUCP (Richard Andrews) writes:
> > In article <1745@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
> > >
> > >....Is there some
> > >way of putting a *desk acc. loader* into my AUTO folder, which would
> > >load the accessories?
> >
> > I believe that I have a file that will do that. As soon as I verify
> > that the critter runs(I have never ran it before) I will post it.
>
> It seems unlikely that the critter will run, since the desktop
> and AES have not been initialized at the time \AUTO folder
> execution takes place. Doing an AES call from an AUTO program
> will likely result in a crash ->thud<- and an endless cycle of
> reboots. Life is like that sometimes.
> --
>
> -Landon Dyer, Atari Corp. {sun,lll-lcc,imagen}!atari!dyer

sorry to disagree landon but if the program in question is acc_load
that was posted to the net awhile ago, it works just fine allowing
the user to even select which .acc are to be loaded
--

These are days for the locust to eat
- Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

GEnie   : D-ARCANGEL

Date: 3 Nov 86 04:13:21 GMT
From: braner@tcgould.tn.cornell.edu (braner)
Subject: TRAPs from an interrupt handler and micro C Shell
To: info-atari16@score.stanford.edu

[]

Following this posting you will find a posting of source code
for a program that compresses ST pictures AND codes them into
a text file that can be sent through e-mail. The text file's
length depends on the picture, but for simple pictures (e.g.
an image of a desktop with some icons and an open dialog box)
it is about 4000 to 8000 chars, i.e. 12 to 25% of the bitmap
size in RAM. The combination code/compress algorithm is the
culprit for those ratios.

The program is installed in RAM, and activated later upon an
Alt-Help. Then, instead of printing the screen, it codes it
and saves it on the disk. (I have also written a program that
decodes and decompresses the text file, shows the picture on
the screen, and can also save it uncompressed in DEGAS format.
I am waiting for net.atari16.sources to post it, and the 2
executables.)

To do what it does, the program calls various OS routines (via TRAPs).
But, the program is called from the keyboard interrupt handler,
and it is officially verboten to do OS calls from there!!
I did it anyway, because I didn't know what else to do. And
it seems to work - from the desktop. But when called from
inside micro-C-Shell, the system hangs. Removing all the TRAPs
makes the program docile (but also futile...).

Can some expert out there tell us what to do about it, and/or how
to write files without TRAPs?

- Moshe Braner

Date: 2 Nov 86 20:15:44 GMT
From: braner@tcgould.tn.cornell.edu (braner)
Subject: Patches for the RAM disk program
To: info-atari16@score.stanford.edu

[]

If you want to use the RAM disk program I've posted as a drive other
than 'D', you have to patch it. This patch is essential if you want to use
a hard disk together with the RAM disk. Here is an old hint:

>From: jdg@elmgate.UUCP (Jeff Gortatowsky)
>   {allegra,seismo}!rochester!kodak!elmgate!jdg
>Subject: Reset survivable RAM disk and Atari HD problem fixed!
>Date: 3 Oct 86
>
>Well after a bit of digging and disassembly my brother (a sharp troop)
>found the correct combination to get the reset surviving RAM disk to play
>as drive F: in a HD system (Atari 20meg).   First, as was mentioned
>before on this news group you need to change the bit set in the 'drivebits'
>variable down in low memory. The BSET #3,d0 needs to be BSET #5,d0 (for
>drive F:). The other patch is applied to the compare instruction in the
>code that is executed when RWABS calls the RAM Disk.   The RAM disk checks
>the device number and if it's not the right number it passes control
>through a JMP instruction to the Hard disk vector the RAM disk saved at
>boot time. The above patches imply that the RAM disk need be executed
>AFTER the hard disk driver is installed, so it may take over and save
>the hard disk vectors.

What I think was meant: Change the bytes at the following
offsets from the beginning of the ".prg" file:

offset	old value(for drive D)	new value (for drive F)
$145 (325)	03	05
$173 (371)	03	05
$181 (385)	03	05
$193 (403)	03	05

The first one is the "BSET #3,D0" in the installation, the other three
are "CMP #3,x(A7)"s in handling calls to disk device drivers.

For drive C instead of F, use the value 02.

To change the default RAM disk size, change the byte at offset
$B3 (179): The value is the size in units of 64K, e.g. 03 for
a default size of 192K, 09 for 576K.

WARNING: These are untested speculations!!!
If somebody tests this (with a hard disk, if possible), please tell us!
Jeff, if you're out there: please confirm &/or post the fix and the
disassembly!

- Moshe Braner

Date: 3 Nov 86 04:16:29 GMT
From: braner@tcgould.tn.cornell.edu (braner)
Subject: SCODE - a program to code ST screens
To: info-atari16@score.stanford.edu

```
[]

/*
 *   Program to code ST screens in a text file.
 *   By Moshe Braner, 861103.
 *
 * Run once, it stays in RAM and is activated by Alt-Help.
 *
 * This version written for the Megamax C compiler.
 */

#include <osbind.h>

/* register assignments: */

#define REPN  D3
#define INDEX D4
#define REP   D5
#define ROW   D6
#define OUTN  D7
#define OLD   A2
#define COL   A3
#define PHYS  A4
#define COLS  A5
#define VAR   A6
#define BUF   A6
#define SP    A7

/* non-register variables: */

#define HAND  -2
#define ROWS  -4
#define RES   -6
#define LINEN -8
#define CHKSUM     -12  /* long! */
#define DTA   -60  /* 44 bytes   */

extern dump();
asm {
dump:
     MOVE.W   #1,0x4EE
     MOVEM.L  A6-A0/D7-D0,-(SP)
     LEA  vars+60(PC),VAR
     MOVE.B   0xFF8260,D0   /* video resolution */
     AND.L    #0x00000003,D0
     MOVE.L   D0,CHKSUM(VAR)
     MOVE.W   D0,RES(VAR)
     ADD.W    #0x30,D0
     MOVE.B   D0,(BUF) /* output resolution (1 byte)    */
     LEA  dumpname+8(PC),A0
     MOVE.B   D0,(A0)       /* modify file name         */
     PEA  DTA(VAR) /* check for last file name used */
     MOVE.W   #0x1A,-(SP)   /* SETDTA */
```

```
     TRAP #1
     ADDQ.L    #6,SP
chkname:
     CLR.W     -(SP)          /* attribute 0 = normal files */
     PEA  dumpname(PC)
     MOVE.W    #0x4E,-(SP)    /* SFIRST */
     TRAP #1
     ADDQ.L    #8,SP
     TST  D0
     BNE.S     okname         /* not found - use it */
     LEA  dumpname+4(PC),A0
     CMPI.B    #0x5A,(A0)     /* was 'A' - up to 'Z' ? */
     BLT.S     incname
     MOVE.B    #0x41,(A0)     /* back to 'A'     */
     BRA.S     okname
incname:
     ADDQ.B    #1,(A0)
     BRA.S     chkname
okname:
     CLR.W     -(SP)          /* attribute 0 = r/w file */
     PEA  dumpname(PC)
     MOVE.W    #0x3C,-(SP)    /* CREATE */
     TRAP #1
     ADDQ.L    #8,SP
     TST  D0        /* any errors?     */
     BMI  cleanup       /* - then skip     */
     MOVE.W    D0,HAND(VAR)  /* file handle     */
     MOVE.W    #2,-(SP)  /* PHYSBASE   */
     TRAP #14
     ADDQ.L    #2,SP
     MOVE.L    D0,PHYS        /* video RAM       */
     MOVEQ     #1,OUTN        /* output char counter */
     MOVE.W    #1,LINEN(VAR) /* line length counter */
     MOVE.L    #0xFF8240,A0  /* palette    */
     MOVE.W    #15,D2
palette:           /* output palette (48 bytes)     */
     CLR.L     D0
     MOVE.W    (A0)+,D0
     ADD.L     D0,CHKSUM(VAR)
     BSR  codeuniq
     DBF  D2,palette
     LEA  consts,A0 /* read constants from table     */
     MOVE.W    RES(VAR),D0
     ADD.W     D0,D0
     MOVE.W    0(A0,D0),ROW
     MOVE.W    ROW,ROWS(VAR)
     MOVE.W    6(A0,D0),COLS
     MOVE.W    #0,COL         /* set up for coding        */
     SUBQ.W    #1,ROW
     CLR.W     REP
     CLR.W     INDEX
     BSR  nextw
     MOVE.W    D0,OLD
```

```
     BRA.S    comp2
comp1:                  /* compress the picture     */
     MOVE.W   COL,D0
     CMP.W    COLS,D0
     BGE.S    endloop
     MOVE.W   ROWS(VAR),ROW
     MOVE.W   COL,INDEX
comp2:
     BSR  nextw
     CMP.W    OLD,D0
     BNE.S    notrep
     TST.W    REP
     BNE.S    oldrep
     SEQ  REP
     MOVEQ    #1,REPN
oldrep:
     CMP.W    #127,REPN
     BLT.S    loop1
notrep:
     EXG  D0,OLD
     TST.W    REP
     BEQ.S    uniq
     CLR.W    REP
     BSR  coderep
     BRA.S    loop
uniq:
     BSR  codeuniq
loop:
     BNE.S    close         /* error writing file */
loop1:
     ADDQ.W   #1,REPN
     DBF  ROW,comp2
     ADDQ.W   #1,COL
     BRA  comp1
endloop:
     TST.W    REP       /* in middle of repetition? */
     BEQ.S    done
     MOVE.W   OLD,D0        /* then go finish it...     */
     BSR  coderep
done:
     MOVE.W   CHKSUM(VAR),D0     /* append coded checksum
     */
     BSR  codeuniq
     MOVE.L   CHKSUM(VAR),D0
     BSR  codeuniq
     BSR  crlf     /* end last line       */
     BSR  save     /* save to disk             */
close:
     MOVE.W   HAND(VAR),-(SP)
     MOVE.W   #0x3E,-(SP)   /* CLOSE file */
     TRAP #1
     ADDQ.L   #4,SP
cleanup:
```

```
     MOVEM.L   (SP)+,D0-D7/A0-A6
     MOVE.W    #0xFFFF,0x4EE
/*   ADDQ.L    #4,SP            ROM does it, so me too?  */
     RTS            /* return to interrupt handler   */
coderep:
     MOVE.W    D0,D1
     MOVE.W    REPN,D0
     LSR.W     #2,D0
     ORI.W     #0x40,D0
     BSR  notz
     LSL.W     #4,REPN
     MOVE.W    D1,D0
     LSR.W     #6,D0
     LSR.W     #6,D0
     OR.W REPN,D0
     BRA.S     code1
codeuniq:
     MOVE.W    D0,D1
     LSR.W     #6,D0
     LSR.W     #6,D0
code1:
     BSR  outbyte
     MOVE.W    D1,D0
     LSR.W     #6,D0
     BSR  outbyte
     MOVE.W    D1,D0
     BSR  outbyte
     CMP.W     #4600,OUTN     /* buffer almost full? */
     BLT.S     nosave
save:                   /* save to disk        */
     MOVE.L    BUF,-(SP)
     EXT.L     OUTN
     MOVE.L    OUTN,-(SP)
     MOVE.W    HAND(VAR),-(SP)
     MOVE.W    #0x40,-(SP)    /* WRITE to file   */
     TRAP #1
     ADDA #12,SP
     CMP.W     OUTN,D0
     BNE.S     error          /* retain error code   */
     CLR.W     OUTN
nosave:
     CLR.W     D0        /* no error        */
error:
     RTS
nextw:                  /* read 2 bytes from screen */
     CLR.L     D0
     MOVE.B    0(PHYS,INDEX),D0
     ADD.W     COLS,INDEX
     LSL.W     #8,D0
     MOVE.B    0(PHYS,INDEX),D0
     ADD.W     COLS,INDEX
     ADD.L     D0,CHKSUM(VAR)
     RTS
```

```
outbyte:          /* put byte in buffer  */
     AND.W    #0x3F,D0
     BEQ.S    zzz
     ADD.W    #0x20,D0 /* offset by ' '   */
     BRA.S    notz
zzz:
     MOVE.W   #0x7A,D0 /* but avoid ' ' itself*/
notz:
     MOVE.B   D0,0(BUF,OUTN)
     ADDQ.W   #1,OUTN
     ADDQ.W   #1,LINEN(VAR)
     CMPI.W   #64,LINEN(VAR)         /* line long enough? */
     BLT.S    nocrlf
crlf:
     MOVE.B   #0x0D,0(BUF,OUTN)  /* then append cr-lf */
     MOVE.B   #0x0A,1(BUF,OUTN)
     ADDQ.W   #2,OUTN
     CLR.W    LINEN(VAR)
nocrlf:
     RTS
dumpname:     /* filename: "DUMPA.CSn" - will be changed */
     DC.B 0x44,0x55,0x4D,0x50,0x41,0x2E,0x43,0x53,0x6E,0x00
consts:           /* rows/2-1, columns  */
     DC.W 99,99,199,160,160,80
vars:             /* 60-byte variable space,  */
               /* then 4608-byte output buffer  */
}

char dummy[4668];  /* ensure enough space in SBRK       */

extern poke_it();  /* put our vector for screen dump    */
asm {
poke_it:
     LEA  dump,A0
     MOVE.L   #0x000502,A1
     MOVE.L   A0,(A1)
     RTS
}

char *text[] = {
     "\033E\r\n",
     "\t+--------------------------+\r\n",
     "\t|   SCREEN DUMP PROGRAM    |\r\n",
     "\t|   (Compressed format)    |\r\n",
     "\t|           for            |\r\n",
     "\t| Atari ST with TOS in ROM |\r\n",
     "\t|  by Moshe Braner, 8610   |\r\n",
     "\t+--------------------------+\r\n",
     "\r\n",
     "\tProgram installed. Hit any key.\r\n",
     "\r\n",
     "\t(Later: press Alt-Help for a screen dump.\r\n",
     "\t Dumps into files DUMPA.CSn, DUMPB.CSn, ...\r\n",
```

```
     "\t where n = 0, 1 or 2 for lo, med or hi res.)\r\n",
     "\r\n\n",
     ""
};

main()
{
     register char c;
     register char *cp;
     register char **cpp;

     Supexec(&poke_it);     /* mess with vector    */

     cpp = &text[0];             /* print message   */
     while (*(cp=*cpp++))
          while (c=*cp++)
               Bconout(2, c);
     Bconin(2);             /* wait for keypress   */

     Ptermres((long)6000, 0);    /* stay resident   */
}
```

- Moshe Braner,   Cornell U.

Date: 3 Nov 86 02:51:26 GMT
From: ssc-vax!benoni@beaver.cs.washington.edu (Charles L Ditzel)
Subject: problems with MultiTasking C shell
To: info-atari16@score.stanford.edu

YARG!

I am having problems with MT-C SHELL. I suspect it is something i
am doing...but who knows...

Problem one ... how do i get C SHELL to understand the command :
"ls ." (give me a directory listing of the current directory)
in fact all my problems stem from this one. If i have an executable
in my current directory i have to spell it out

    \usr\root\inter\infer animal
to execute infer.prg in directory infer.

YES I know that in login.sh i should have :
          set path = (. \bin \etc)

only when i have this then everything gets lost!!!

That is i try to do an 'ls' and the c shell says :
'ls' not found

If someone could send me their login.sh that works or tell me what I am

doing wrong i would be greatly in their debt. Thank you,
                        Charles Ditzel
                        ...uw-beaver!ssc-vax!benoni

Date: 3 Nov 86 14:47:01 GMT
From: oyster@unix.macc.wisc.edu (Vicarious Oyster)
Subject: Re: copy pretection
To: info-atari16@score.stanford.edu

In article <224@drivax.UUCP> holloway@drivax.UUCP (Bruce Holloway) writes:
>In article <246@bath63.UUCP> pes@ux63.bath.ac.uk (Paul Smee) writes:
>>I had a go at copying the Epyx disk. It appears to work, but...
>>It annoyed me enough to decide that I think I'll try to crack that one,
>>though.
>
>I copied Rogue over to my hard disk, and it runs fine from there, although
>it requires the original disk in 'A'... it just accesses it for a couple
>of seconds. Also, you can only save files to the original disk! But at
>least the loading time is slashed, especially for those l-o-n-g picture
>files.

   Well, I've tried running it from a RAMdisk copy, and it wouldn't run, even *with* the original diskette in drive A. Also, although I haven't actually saved a game on an alternate diskette, I've subsequently copied saved game files to another diskette, and have loaded them from that diskette (in drive B). Works great!
   Lastly, after reading (Ian Chadwick's?) column in the most recent Analog, I took a look at the executatble file. It was entertaining finding phrases like "Software Pirate", "Copy Protection Mafia", and "Scum of the Earth." (Ian, by the way, changed the "die roll" figures in the executable, thereby making his character much better, allowing him to get the Amulet. Kinda defeats the purpose of the game, doesn't it?)
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: oyster@unix.macc.wisc.edu

Can you say "opinion"? I *knew* you could!

Date: Sun, 2 Nov 86 15:25:21 EST
From: Flash%UMass.BITNET@WISCVM.WISC.EDU (Rick Flashman)
Subject: Printer Problem
To: Info-Atari16@SU-SCORE.ARPA

Hello,

    I've got a problem with a printer here, and I was wondering if someone here can help me out. We are trying to connect a Okidata ML-192 printer

to the ST. Problem is that the printer is randomly repeating a character
that is sent to it. Sooooo, we tried changing the printer cables, no luck.
Changing the ST to another ST, no luck. Changing the printer for another
printer, no luck. Tried the printer and STs with other printers and computers
and everything was fine, it is ONLY when we have an Okidata ML-192 printer
connected to the ST. Contacted OKIDATA, they are not aware of the problem
and insist that it is the Atari's fault. Contancted Atari, they were of no
help either. Does anybody out there have a Okidata ML-192 printer connected
to an Atari? Any help will be greatly appreciated. Is this something like
the ole SONY monitor that was advertised to work with the st, but didn't?

Rick Flashman
Flash%UMASS.BITNET@WISCVM.WISC.EDU

End of Info-Atari16 Digest
****

From 8624166298496832597
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4b34d0b92519470f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 18:08:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!zen!zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Autocopy
Message-ID: <810@zen.BERKELEY.EDU>
Date: Tue, 4-Nov-86 21:08:32 EST
Article-I.D.: zen.810
Posted: Tue Nov 4 21:08:32 1986
Date-Received: Wed, 5-Nov-86 06:36:56 EST
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 3

Autocopy compiles but it doesn't work as expected. It says h/filename 'not able
to write'. Does anyone know how to fix this problem? Comments are appreciated.
                                Duy

From 6707416058123517874
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-04 20:55:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!clyde!cbatt!cwruecmp!bammi

From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <1654@cwruecmp.UUCP>
Date: Tue, 4-Nov-86 23:55:18 EST
Article-I.D.: cwruecmp.1654
Posted: Tue Nov 4 23:55:18 1986
Date-Received: Wed, 5-Nov-86 21:58:31 EST
References: <8610302053.AA05161@ames-prandtl.ARPA> <2341@ncrcae.UUCP>
<191@slovax.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. of Computer Engineering, Cleveland OH
Lines: 23

In article <191@slovax.UUCP> michael@slovax.UUCP (Michael Longe) writes:
>Amen! I was the lucky person who got find some of the BUGS in that
>version and report them to Atari and DRI. If all goes well, the new
>version should include mulitple font loading, hard disk support, and none
>of those silly boot-drive defaults (like OUTPUT.RSC and font files).

     The version if Gdos that we recently received from Atari does indeed
allow multiple font loading (from any directory), etc. One thing that i was
rather surprised to find was that Ataris version of Gdos does not support
NDC coordinates (Landon/Neil can you shed some light on why ??). In any case
i feel NDC coordinates are quite useless, and what would be more usable
are user defined world coordinates (only metafiles support them), that
Gdos converts to RC in the appropriate way so that drawing primitive still
come out right (at least on the screen??). Also NDC coordinates are quite
useless in Gem as AES does'nt use them anyway. Can someone from DRI/Atari
explain why AES was designed in this way (rather why Gem was half done??),
or were NDC coordinates added into Vdi as an after thought??

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 761498877199015618
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 02:47:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <388@cernvax.UUCP>
Date: Wed, 5-Nov-86 05:47:18 EST
Article-I.D.: cernvax.388
Posted: Wed Nov 5 05:47:18 1986

Date-Received: Fri, 7-Nov-86 22:00:42 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP> <448@atari.UUcp>
<679@imagen.UUCP>
Reply-To: jmg@cernvax.UUCP ()
Organization: CERN, Geneva/Switzerland
Lines: 6

In article <679@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>sorry to disagree landon but if the program in question is acc_load
>that was posted to the net awhile ago, it works just fine allowing
>the user to even select which .acc are to be loaded

Did I miss this program? Long ago? Maybe repost if others also missed it.

From -221012786880503057
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,55362bffe098dbaa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 10:04:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: floppies a la 410 k per side
Message-ID: <254@bath63.UUCP>
Date: Wed, 5-Nov-86 13:04:40 EST
Article-I.D.: bath63.254
Posted: Wed Nov 5 13:04:40 1986
Date-Received: Fri, 7-Nov-86 22:03:04 EST
References: <3504@utcsri.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Distribution: net
Organization: AUCC c/o University of Bath
Lines: 24
Keywords: *** IMPORTANT WARNING ***

Maybe someone's said it before, though I've been watching a lot longer
than i've been talking and haven't seen it. I am using 'over-formatted'
disks for bulk storage of some things. However there is one short-coming
which people should be aware of. Some programs think they know what a
disk looks like and will not work on, or with, nonstandard disks.

    ******* IN PARTICULAR *******

The desktop 'whole disk copy' (move disk icon A over disk icon B) will
NOT properly copy a whole 410K disk onto another 410K disk. It
looks like it is working, but in fact only 9 sectors per track get
copied over. The 10th on the target disk is left containing the trash
pattern put in by the formatter. (This is definitely true with the
version of ROM TOS which I've got. If other people don't have this
problem, you're lucky. At least check first, before counting on this.)

I suspect that the 'whole disk copy' also only knows about 80 tracks per disk and that it will therefore do the wrong thing with 82 track 9sector disks, but I haven't checked that.

File-by-file copies appear to work fine -- though I confess I now do a compare between source and target files before trusting the result as backup.

From -1770470367072466843
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d66500423c544c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 10:27:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!husc2!chabris
From: chabris@husc2.UUCP (chabris)
Newsgroups: net.micro.atari16
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
Message-ID: <1013@husc2.UUCP>
Date: Wed, 5-Nov-86 13:27:28 EST
Article-I.D.: husc2.1013
Posted: Wed Nov 5 13:27:28 1986
Date-Received: Wed, 5-Nov-86 22:33:45 EST
References: <8610302053.AA05161@ames-prandtl.ARPA> <2341@ncrcae.UUCP>
<191@slovax.UUCP> <1654@cwruecmp.UUCP>
Reply-To: chabris@husc2.UUCP (christopher chabris)
Organization: Harvard University Science Center
Lines: 23

How did you get GDOS from Atari? When I called the other day, they told me that either I had to pay the $500 licensing fee per product per year, or I could send my software that didn't use GDOS to them "for testing". I was told that if I wanted to do that testing myself, I should buy some commercial software that has GDOS on the disk and use that copy.

Can anyone shed some light on this?

--
-- Christopher F. Chabris
   Dunster F-61
   Harvard University
   Cambridge, MA   02138

   [HOME: 15 Sterling Road, Armonk, NY, 10504]

   CompuServe: 73277,305
         UUCP: ...!harvard!husc4!chabris
         ARPA: chabris%husc4@harvard.ARPA
       BITNET: chabris@HARVUNXU.BITNET

AT&T: (617) 498-2239

From 7588723668680987935
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,43ed87ee5409236,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 10:41:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!Info-Atari16
From: Info-Atari16@SCORE.STANFORD.EDU (Info-Atari16 Digest)
Newsgroups: net.micro.atari16
Subject: Info-Atari16 Digest V86 #6
Message-ID: <8611051932.AA04326@ucbvax.Berkeley.EDU>
Date: Wed, 5-Nov-86 13:41:27 EST
Article-I.D.: ucbvax.8611051932.AA04326
Posted: Wed Nov 5 13:41:27 1986
Date-Received: Wed, 5-Nov-86 22:37:08 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Info-Atari16@Score.Stanford.edu
Organization: The ARPA Internet
Lines: 355

Info-Atari16 Digest   Wednesday, November 5, 1986   Volume 86 : Issue 6

This weeks Editor: Bill Westfield

Today's Topics:

                    Re: Advertising methods
          RE: Limit on number of files on Atari disks?
             Re: Redirection of stdout and chaining
                       Pascal programming
                    UNITERM documentation
                          signing up
              Re: 1040 & composite monitors
                      New ST models?
              Re: GDOS, GDOS, GDOS, GDOS ...
              Re: GDOS, GDOS, GDOS, GDOS ...

Date: 3 Nov 86 16:35:36 GMT
From: oyster@unix.macc.wisc.edu (Vicarious Oyster)
Subject: Re: Advertising methods
To: info-atari16@score.stanford.edu

In article <2322@princeton.UUCP> chiu@princeton.UUCP (Kenneth Chiu) writes:
>In article <426@uwmacc.UUCP> oyster@uwmacc.UUCP (Vicarious Oyster) writes:
>>In article <1142@tekigm2.UUCP> wrd@tekigm2.UUCP (Bill Dippert) writes:
>>>. . .personally I hate mice and windows with a passion.
>>

>> Me too, at least as a development environment. That's why I use Micro
>>C-Shell. However, for some applications (end-user programs, editors, games,
>>etc), a windowing system is ideal. It's nice to have the flexibility; it's
>>even nicer to be able to push the mouse aside and get some *real* work done.
>
>Are you saying that you would rather program on a 24 x 80 terminal than a 19"-
>screen, bit-mapped workstation? (e.g. Sun)

   Huh? Are you saying that green cheese falls from the sky in .6 micron
spheroids? Can you say confused? How about non sequitur?
.....

Just to keep this Atari-related, a question:

   Why are things like ST Rogue usually advertised using grungy IBM screen
photos? The ST version is wonderfully detailed, and is almost worth the
price just to admire the artwork. The IBM version uses those silly
IBM screen "graphics" characters, while the ST has individual mini-icons
for the rogue, for each type of monster (they even all have shadows!), and
for each type of item or trap, as well as good representations of passageways
(with cobblestones) and rooms (rather than the IBM/mainframe style of dots
and dashes). Even the Atari Explorer (BTW, nice pic, Neil...) had an IBM-style
photo along with the ST Rogue article. Why give people a poor impression of
a nice machine and superior version of the software?
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: oyster@unix.macc.wisc.edu

Date: Tue, 04 Nov 86 01:50:39 GMT
To: info-atari16@su-score.ARPA
From: K538915%CZHRZU1A.BITNET@WISCVM.WISC.EDU
Return-Receipt-To: K538915@CZHRZU1A.BITNET
Subject: RE: Limit on number of files on Atari disks?

Yes, the limit on the number of files in the ROOT directory is 112 (just like
on a IBM-PC or so), but you should be able to but as many as you want in to
a Subdirectory (this is naturally limited by the size of the FAT, but you
wont have that many files:-)).......the nasty thing is that it bombs on you...
BTW it seems as if the file_selector can only handle 112 entrys as well....
which is very annoying with the large directorys you have to have with a hard
disk (when is this going to be fixed?). More reading on the structure of
MS-DOS or TOS Disks -> Norton's Inside the IBM PC.
                                                    Simon

Date: Mon, 03 Nov 86 11:24:26 PLT
From: Don Howes <HOWESDW%WSUVM1.BITNET@WISCVM.WISC.EDU>
Subject: Re: Redirection of stdout and chaining

To: INFO-ATARI16@SU-SCORE.ARPA

 Stdout can be redirected using "freopen()". The documentation for the Alcyon compiler is very terse about this function, but a good description is given in Harbison & Steele (p. 192 I believe). The freopen() function is normally used to reassign the stream handles for stdin, stdout or stderr to another stream (generally a file). Note that freopen() will return a NULL pointer on failure or the stream handle if successful. Also, freopen() will *always* close the input stream, even on failure, so be careful.

 A generalized stream redirection function can be written as follows (I haven't had a chance to test this, since my machine is down):

```
FILE *redirect(infile,outfile,mode)
FILE *infile;
char *outfile, mode;
{
   FILE *stream, *freopen();

   if ((stream = freopen(outfile,mode,infile)) == NULL)
   {
      fprintf(stderr,"Could not redirect to file %s\n",outfile);
      return(NULL);
   }
   else
      return(stream);
}   /* end of redirect() */
```

a use of this function to redirect stdout would be:

```
main()
{
   FILE *redirect(), *str_ptr;
           .
           .
    /* some stuff */

   if ((str_ptr = redirect(stdout,"errors.txt","w")) == NULL)
           .
           .
   /* some more stuff */
}
```

I wasn't able to find out any information about whether the Alcyon compiler sets any error flags. It must do so internally, but I don't know whether those would be available to an external program. If an error flag is set in the CPU, then things would be set. Does anyone out there have any info on the compiler operation?

Don Howes   BITNET: HOWESDW@WSUVM1

Date: Mon, 03 Nov 86 21:25:07 PLT
From: Brian Henry <20370843%WSUVM1.BITNET@WISCVM.WISC.EDU>
Subject: Pascal programming
To: Atari Mailing List <info-atari16@score.stanford.edu>

Does anybody out there have experience using Personal Pascal? I would
like to try using sprites with it but need a way to define them. As far
as I can tell, Pascal doesn't have any facility for including data with
the program--- It would be nice to have a segment of the program devoted
just to the hex data for some sprite without using a separate assignment
statement for every byte. This problem extends to other areas as well,
such as perhaps storing instructions for a program without having a bunch
of WRITELN statements. If I haven't made myself clear yet, what I want
is the equivalent of a DC.W statement for Pascal.
  Thanks in advance for comments.
  --B. Henry

Date: 3 Nov 86 15:29:20 GMT
From: ihnp4!inuxc!inuxj!wolenty@ucbvax.Berkeley.EDU (R Wolenty)
Subject: UNITERM documentation
To: info-atari16@score.stanford.edu

In shuffling versions of code around it seems I inadvertantly deleted
the documentation files for UNITERM. Could someone please mail me
a copy of the documentation? I have been using version 1.5 with
no problems and would also like to add my kudos to Simon Poole for
job well done.

                  Ron Wolenty

Date: 3 November 86 18:20 CST
From: hacee%uno.BITNET@WISCVM.WISC.EDU
To: info-atari16@su-score
Subject: signing up

Dear Atari16,

This is my second attempt at getting on a mailing list on arpanet and so I'm
not too sure how to go about it . Maybe this time I'll be more sucessfull.
I'm not too sure how these lists work but I'm willing to try it.

I own an atari 520st which I've had since july '85. It's my second one
actually (the first one, may it rest in peace, was replaced by atari
last month for $95.00).

If there are programs that I can download I'm hoping that I can find out how

to do this. I am also interested in networking ST's.

If perhaps this letter is ending up in the wrong place please drop me a line and tell me what's happening. I wonder if there are any special things which have to be done since I'm coming from Bitnet.

Howard Chandler
University of New Orleans

Date: 4 Nov 86 07:47:12 GMT
From: jpexg@HERMES.AI.MIT.EDU (John Purbrick)
Subject: Re: 1040 & composite monitors
To: info-atari16@score.stanford.edu

> Does anyone know for certain if a 1040 will output a color composite
> signal? I know a 520 will (I have a friend with a 520 who hooks it up
> to a composite monitor), but my 1040 doesn't seem to output composite,
> even though the pin diagram in the back of the 1040 manual indicates
> that it should. I read a short piece in Compute's ST magizine that
> said 1040's don't have composite, only 520's do. My dealer doesn't
> know. Help please -- my monochrome screen is extra sharp & nice, but I'd like
> to see FujiBoink at least once on my own ST.
> Whom: Rick Westerman   Phone: +1-317-494-8341

Maybe sometime in the future, but not now. This really ticked me off when I got my 1040. The decision to release them without composite or RF output seems to have been made at the last minute, as the manual shows you where to hook it up, and there's a different texture in the plastic at the rear of the case where the RF output ought to be. Plus they give Neochrome away with the computer so you can watch it not work on a mono screen. If someone knows a way to get composite output I'd like to know how.

Date: 3 Nov 86 20:49:26 GMT
From: ihnp4!inuxc!iuvax!ndmath!milo@ucbvax.Berkeley.EDU (Greg Corson)
Subject: New ST models?
To: info-atari16@score.stanford.edu

There was a short note in this month's BYTE magazine mentioning that Atari had released a 2 and 4 megabyte version of the ST in europe somewhere. Does anyone out there (ATARI??) have some more information on this? The new machine was said to have a bit-blit chip. I would be very interested to know if there are any new graphics modes with more colors/higher resolutions.

Greg Corson
{pur-ee,seismo}!iuvax!kangaro!milo

Date: 3 Nov 86 18:00:42 GMT
From: imagen!atari!neil@ucbvax.Berkeley.EDU (Neil Harris)
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
To: info-atari16@score.stanford.edu

In article <8610302053.AA05161@ames-prandtl.ARPA>, getty@AMES-PRANDTL.ARPA writes:

> I was in the store the other day looking at the Easydraw program, and I
> was suprised to discover that GDOS is being distributed with this program.
> Included with this GDOS were some fonts, device drivers, and a program named
> OUTPUT.PRG.
>
> After trying Easydraw I got a copy of PaintPro (Abacus) and tried running
> it. PaintPro simply would not run with GDOS installed on the system, but
> ran just fine when the system was booted without GDOS. The README file
> that comes with PaintPro claimed that it would work with GDOS installed.

Apparently the README file was wrong. We have been looking into the compatibility issue, and have found some trouble spots -- one big problem is that programs compiled with OSS Personal Pascal don't work with GDOS. We have told OSS how to fix this.

> This all disturbs me. Apparently GDOS is already being given away in some
> form with commercial software, but you are telling us that we are going to
> have to pay money for it. Will the GDOS given away with software in the
> future be the same thing that is going to be sold for money separately?

Why should it disturb you? We are licensing GDOS for use with commercial packages -- if you get the package, you get GDOS. The current thinking is to package GDOS separately for consumers who want it.

EasyDraw uses a very early GDOS, under strict directions to their programmers to use only the functions we explicitely told them were working. The final version is complete now.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

---

Date: 3 Nov 86 23:07:33 GMT

From: tikal!slovax!michael@beaver.cs.washington.edu (Michael Longe)
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
To: info-atari16@score.stanford.edu

Just for the record (I used to work for Migraph):

> The GDOS.PRG that Migraph has been sending ...
> is strictly a prerelease version ...

More accurately, it is strictly the only version that has been available to an ST developer up to this point. Apparently it was a direct port by DRI from the PC ("We Port Bugs"). Migraph requested it and DRI gave the go-ahead to release it (and Output) with Easy-Draw.

> Migraph was apparently working in an IBM -> ST
> cross-development environment (the IBM PC version of GDOS/VDI works fine,
> I guess...) ...

No, on genuine first-generation 520's. Trying to do it from the PC would have been even more of a nightmare. The PC version of GDOS works. Just. Easy-Draw was the first program designed to use ALL of the features of GEM (working or not!).

> Atari ...
> worked on getting Migraph a version of GDOS that worked
> well enough to get EasyDraw out the door.

Atari did all they could to help, under the circumstances (some of this stuff was apparently never explicitly licensed to Atari by DRI). They also helped Migraph *beg* DRI for the changes we all may receive shortly.

> Don't get too upset at Neil and the rest of the folks at Atari... I
> would rather wait than get a GDOS that Atari has to continually fix.

Amen! I was the lucky person who got find some of the BUGS in that version and report them to Atari and DRI. If all goes well, the new version should include mulitple font loading, hard disk support, and none of those silly boot-drive defaults (like OUTPUT.RSC and font files).

Incidentally, Migraph did not "give away" GDOS with Easy-Draw. Each developer should make their own agreement with Atari and DRI, not take the stuff off the Easy-Draw disk.

Finally, I suspect (and refer this to Neil for confirmation) that the GDOS itself will not be the item for sale, but the *very expensive* fonts and device drivers which it uses.

          Michael Longe'
          ..!tikal!slovax!michael

------- standard disclaimer -------
Rumors are free and easy to give.

------- usual disclaimer --------
Qui, moi?

End of Info-Atari16 Digest
****

From 1529599738136277772
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 10:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <255@bath63.UUCP>
Date: Wed, 5-Nov-86 13:47:00 EST
Article-I.D.: bath63.255
Posted: Wed Nov 5 13:47:00 1986
Date-Received: Fri, 7-Nov-86 22:03:31 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP> <448@atari.UUcp>
<679@imagen.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 6

Well, I just looked through the back items here (admittedly often swept)
and in Arizona and see no sign of this alleged acc_load. Where was it posted
to, when? Is it just that it ain't got here yet? Is it small enough
to repost sensibly? Is it really named something else non-obvious, or
tucked away in a message with a totally unrelated subject?

From -3582337111809930904
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,895c0778fcf1361a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 11:49:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!sdcsvax!sdcc6!ix181
From: ix181@sdcc6.ucsd.EDU (John Ogawa)
Newsgroups: net.micro.atari16
Subject: AUTO folders
Message-ID: <2981@sdcc6.ucsd.EDU>
Date: Wed, 5-Nov-86 14:49:52 EST
Article-I.D.: sdcc6.2981
Posted: Wed Nov 5 14:49:52 1986

Date-Received: Wed, 5-Nov-86 23:15:37 EST
Organization: University of California, San Diego
Lines: 24
Keywords: multiple execution problems

<< Why is there a line eater? Well, bec

I've got a problem with AUTO folders. I wrote a simple program to
set the time and date using Mark Williams C. I then put it in my
AUTO folder. The problem is that it sometimes exectues the folder more
than once! I boot up (or reset) and it loads and runs the contents of the
AUTO folder 2 or 3 times. It runs the AUTO files only once about 2
times out of 3, but that third time it runs them multiple times. I
think I have exitted gracefully (with the exit() routine) so I am
confused.

Any help would be greatly appreciated.


```
=====================================================================
|        |  | ____ ____ ___                                          |
|        |  | |    |___ |  \    John Ogawa                          |
|        |__| |___ ___| |__/    UC San Diego                        |
|                               ix181@sdcc6@sdcsvax@ucbvax           |
|                                                                    |
|     DISCLAIMER:      My views do not represent those of the       |
|     University of California, nor do theirs represent mine.       |
=====================================================================
```


From 3841459693253922909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3bf9a16f7c4f7a1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 12:46:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!uthub!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Question about Micro-Emacs 3.7i
Message-ID: <1925@utecfa.UUCP>
Date: Wed, 5-Nov-86 15:46:25 EST
Article-I.D.: utecfa.1925
Posted: Wed Nov 5 15:46:25 1986
Date-Received: Wed, 5-Nov-86 18:43:26 EST
Organization: Engineering Computing Facility, University of Toronto
Lines: 21

[]

     How does one replace a string with a null-string using

uEmacs 3.7i?

I do the following (which works but seems very indirect):

{ESC}R<string>{ESC}{CTRL-Q}{SP}{BSP}{ESC}

Is there a more direct way?

-anees

ps. Thanks to James and the other netters who have posted some
very high quality stuff.

--
Anees Munshi
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc

From 472542683927697576
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 13:41:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!lll-lcc!well!ptsfa!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: Advertising methods
Message-ID: <2913@islenet.UUCP>
Date: Wed, 5-Nov-86 16:41:16 EST
Article-I.D.: islenet.2913
Posted: Wed Nov 5 16:41:16 1986
Date-Received: Sat, 8-Nov-86 06:33:35 EST
References: <1142@tekigm2.UUCP> <426@uwmacc.UUCP> <2322@princeton.UUCP>
<464@uwmacc.UUCP>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Distribution: na
Organization: Islenet Inc., Honolulu
Lines: 22

>>>etc), a windowing system is ideal. It's nice to have the flexibility; it's
>price just to admire the artwork. The IBM version uses those silly
>IBM screen "graphics" characters, while the ST has individual mini-icons
>for the rogue, for each type of monster (they even all have shadows!), and
>for each type of item or trap, as well as good representations of passageways
>(with cobblestones) and rooms (rather than the IBM/mainframe style of dots
>and dashes). Even the Atari Explorer (BTW, nice pic, Neil...) had an IBM-style
>photo along with the ST Rogue article. Why give people a poor impression of
>a nice machine and superior version of the software?
>--
>

> - Joel Plutchak

My guess? The version of ROGUE for the ST wasn't finished by the time the advertising deadlines were in... Did I hit the target?

Guessing is my middle name, and in Hawaii, it is a fact of life.

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From 2870029424295361824
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 111a55,f902c4d9973d1bf7,start
X-Google-Attributes: gid111a55,public
X-Google-Thread: 140593,f902c4d9973d1bf7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 17:04:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Bob Fortin)
Newsgroups: net.micro.atari16,comp.sys.atari.st
Subject: Documentation
Message-ID: <203@ritcv.UUCP>
Date: Wed, 5-Nov-86 20:04:43 EST
Article-I.D.: ritcv.203
Posted: Wed Nov 5 20:04:43 1986
Date-Received: Fri, 7-Nov-86 21:02:44 EST
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 9
Xref: watmath net.micro.atari16:2967 comp.sys.atari.st:1

How does the documentation from Megemax C compare to the Developers Kit.

Does it just explain the function calls, or is it more complete documentation.

ps. along the same line, what is the latest status of the ATARI Documentation package.

Thanks,
   Bob Fortin

From -5999853004680205469
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab74b8a0f069a2c4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 19:25:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!nikhefk!keeshu

From: keeshu@nikhefk.uucp (Kees Huyser)
Newsgroups: net.micro.atari16
Subject: Re: Joystick problem
Message-ID: <45@nikhefk.UUCP>
Date: Wed, 5-Nov-86 22:25:22 EST
Article-I.D.: nikhefk.45
Posted: Wed Nov 5 22:25:22 1986
Date-Received: Fri, 7-Nov-86 22:04:42 EST
References: <253@bath63.UUCP>
Reply-To: keeshu@nikhefk.uucp (Kees Huyser)
Distribution: net.micro.atari16
Organization: Nikhef-K CSG
Lines: 1
Apparently-To: rnews@mcvax

As far as I know, it's a common problem with the Atari joysticks (only the _real_ Atari joysticks?). An ST-dealer I know frequently complains about this, although I may add I never experienced the 'hangup' myself. My Atari 1040 ST (with ROM's [even specia
l U7 ROM with much faster disk-access] never 'hangs' under normal circumstances - joystick or no joystick connected).

From -2363008042191290706
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 19:32:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Computer Sci Club)
Newsgroups: net.micro.atari16
Subject: Printable Character Archiver
Message-ID: <3248@watmath.UUCP>
Date: Wed, 5-Nov-86 22:32:08 EST
Article-I.D.: watmath.3248
Posted: Wed Nov 5 22:32:08 1986
Date-Received: Thu, 6-Nov-86 02:51:13 EST
References: <2906@watmath.UUCP> <24200008@maggot>
Reply-To: csc@watmath.UUCP (Tracy Tims)
Organization: U of Waterloo, Ontario
Lines: 48
Summary:

I (with some others) am in the process of building a printable character archiver, called "earthpig" (it's an aarchiver, :-)). The following is an example of the compression its printable character encoding algorithm gets.

The "test" file is /bin/vi. I have shown the compression ratios for the various interesting files. A file ending in "pig" is an earthpig encoded file. A file ending in "uue" is a uuencoded file. A file ending in 'Z' is a "compress"ed file.

```
test     131338
test.Z         70103   (0.533 of test)
test.pig 143087   (1.090 of test)
test.uue 180979   (1.378 of test)
test.pig.Z     73175
test.uue.Z     94691
test.Z.pig     96698   (0.736 of test)
test.Z.uue     96611   (0.735 of test)
```

For compressed data, it does about as well as uuencode. For uncompressed data it's quite a lot better. Small binaries (under 20K) shrink slightly. C programs and text files shrink slightly or stay about the same.

Earthpig uses only the characters

```
+-abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ
@.,;:=?*"'/!()_%&
```

This character set should make it through almost anything unchanged. The algorithm only uses table lookup: no bit masking or shifting.

When we finish the archiver we will post various versions of it to the net.

What it does:

- can generate correction requests from errors
- can generate patches from correction requests
- CRC checking on two levels
- supports os independent hierchical file names
- high immunity to format changes and noise characters (space/control)
- close to 1:1 encoding on uncompressed data

The basic goal of earthpig is to provide a single tool that will allow the transfer of arbitrary data and software around the network while providing a very high level of confidence that the data arrived correctly.

Tracy Tims
mail to ihnp4!watmath!unit36!tracy

From -4147264436569799962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,d468807f269553b6,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,d468807f269553b6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-05 23:08:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!brad
From: brad@looking.UUCP (Brad Templeton)

Newsgroups: net.micro.atari16,net.micro.mac
Subject: Anybody seen Turbo Pascal for the Mac or the Atari ST
Message-ID: <702@looking.UUCP>
Date: Thu, 6-Nov-86 02:08:02 EST
Article-I.D.: looking.702
Posted: Thu Nov 6 02:08:02 1986
Date-Received: Fri, 7-Nov-86 21:04:46 EST
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 10
Xref: watmath net.micro.atari16:2968 net.micro.mac:8545

I have heard rumours about these products but I have not actually seen
them. Has anybody? What are they like? In particular, what is their
programming interface to the graphics environment and window system like?

Is it just a bunch of calls to do the bindings, or do they support higher
level things?

Reply by mail, please.
--
Brad Templeton, Looking Glass Software Ltd. - Waterloo, Ontario 519/884-7473

From -6357527500291050179
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,301844b98d6e1b73,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 02:26:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: chkdsk, formater, mousetrap
Message-ID: <389@cernvax.UUCP>
Date: Thu, 6-Nov-86 05:26:13 EST
Article-I.D.: cernvax.389
Posted: Thu Nov 6 05:26:13 1986
Date-Received: Fri, 7-Nov-86 22:05:33 EST
Reply-To: jmg@cernvax.UUCP ()
Distribution: world
Organization: CERN, Geneva/Switzerland
Lines: 16

To save some people some trouble:

chkdsk (posted some time ago) only seems to work on a hard disk
(default drive c), not a floppy. Has anyone modified it to work on a
floppy?

If it does, will it (and other programs) work with the formater program
recently posted, i.e. on a floppy created by formater with either 9 or
10 sectors per track and either 80 or 82 tracks per disk. Incidentally,

I would be interested to know how the option for formatting disks for
fast reading works.

Formater is incompatible with the mousetrap program posted with the
second issue of STart, because both use the right hand mouse button.
Thus, if you want to use formater, don't put mousetrap in the auto
folder.

From -5443636936802199324
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9fa4922a687a56e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 04:19:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!brl-adm!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: Help with Desk Accessories: accessory loaders.
Message-ID: <256@bath63.UUCP>
Date: Thu, 6-Nov-86 07:19:45 EST
Article-I.D.: bath63.256
Posted: Thu Nov 6 07:19:45 1986
Date-Received: Sat, 8-Nov-86 06:38:20 EST
References: <1745@alvin.mcnc.UUCP> <699@chinet.UUCP> <448@atari.UUcp>
<679@imagen.UUCP> <388@cernvax.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 3

ACC_LOAD showed up here today. Looks like just another case of order
shuffling, so that US comments about it came before it did.

From 1054689496281098704
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8fcb8791024ae61,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 07:21:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!david
From: david@looking.UUCP (David Rowley)
Newsgroups: net.micro.atari16
Subject: Executable Format Dumper
Message-ID: <703@looking.UUCP>
Date: Thu, 6-Nov-86 10:21:28 EST
Article-I.D.: looking.703
Posted: Thu Nov 6 10:21:28 1986
Date-Received: Fri, 7-Nov-86 21:23:10 EST
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario

Lines: 457

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

What follows is a simple program that dumps the format of an executable,
and displays the symbol table (if any). Both the standard and Mark Williams
symbol tables can be displayed. The dumper checks the integrity of various
aspects of the format, and can thus be used to see if a program has been
properly transmitted over the net.

I hope someone finds it useful. I use a modified version of the routine
to load and relocate my own .PRG's, my own Pexec() if you will.

The source compiles under Alcyon (v4.14) and Mark Williams, I have not
tried it under Megamax, but there shouldn't be any major problem.
(Of course, Megamax does not spit out ANY form of symbol table, since
 everything is PC relative)

```
----------cut here---------------cut here--------------------------
/************************************************************************
 *
 *            Executable Program Dumper - Nov. 6th / 1986
 *
 *            David Rowley (..utzoo!watmath!looking!david)
 *
 *     Thanks to the person who posted the header format of a .PRG
 *
 ************************************************************************/

#include <stdio.h>
#include <ctype.h>

/* Select the appropriate define below: */

/* #define ALCYON 1 */
/* #define MarkWilliams 1 */


#ifdef ALCYON
     extern FILE *fopenb();
#endif

#ifdef MarkWilliams
     extern FILE *fopen();
#endif

extern long ftell();

#define FROM_CURRENT        1    /* Seek from current file pos */

typedef struct hdr {
     int  magic;        /* Magic word, contains 601Ah */
```

```
     long text_size;    /* size of text segment */
     long data_size;    /* size of data segment */

     long bss_size; /* Block storage segment size */
     long sym_size; /* Symbol Table size */

     long zero1;        /* reserved, zero */
     long zero2;        /* reserved, zero */

     int  reloc;        /* Flag - 0 - relocation info present */

     } HEADER;

typedef struct symtab {

     char name[8];  /* name padded to 8 chars */
     int  symtype;  /* type */
     long value;        /* value */

     } SYMTAB;

/*
 * Mark Williams Symbol Table Info
 */

typedef struct _mark_hdr {
     char mwc_hdr[48];
     } MWC_HEADER;

typedef struct _mwc_sym {
     char         mwc_name[16];
     unsigned char mwc_type[2];
     unsigned char mwc_value[4];
     } MWC_SYM;

#define  DEFINED       0x8000
#define EQUATED        0x4000
#define GLOBAL         0x2000
#define EQUATED_REG    0x1000
#define EXTERN_REF 0x0800
#define DATA_RELOC 0x0400
#define TEXT_RELOC 0x0200
#define BSS_RELOC  0x0100

int show_sym       = FALSE;
int show_end_bytes = FALSE;
int mark_williams  = FALSE;

main( argc, argv )
int argc;
char *argv[];
{
```

```
     char *str;

     while( (argc--) > 1 ) {
          str = argv[1];
          if( str[0] == '-' ) {
               switch( str[1] ) {
                    case 's':
                    case 'S':
                         show_sym = TRUE;
                         break;
                    case 'a':
                    case 'A':
                         show_end_bytes = TRUE;
                         break;
                    case 'm':
                    case 'M':
                         mark_williams = TRUE;
                         break;
                    default:
                         usage();
                         exit(1);
               }
          } else {

               printf( "Dumping file '%s'\n", str );

               dump_prg( str );

          }
          argv++;
     }
}

usage()
{
     printf( "dump [-sam] filenames...\n" );
     printf( "     -s  displays symbol table (if any)\n" );
     printf( "     -a  displays the surplus bytes at the end of file\n" );
     printf( "     -m  displays a Mark Williams format symbol table\n" );
}

dump_prg( fname )
char *fname;
{
     FILE *fp;
     HEADER hdr;
     long symsize, textsize, datasize;
     long offset;
     long txt_relocs, data_relocs;
     long extra_bytes;
     long total;
     long reloc_size;
     int InText = TRUE;
```

```
     SYMTAB sym;
     int c;
     MWC_HEADER m_hdr;  /* The 48 byte header of a MWC symtab */
     MWC_SYM m_sym;          /* A MWC symtab entry */

     /*
      * Read the header of a .TOS or .PRG file
      */

#ifdef ALCYON
     fp = fopenb( fname, "r" );
#else
# ifdef MarkWilliams
     fp = fopen( fname, "rb" );
# else
     fp = fopen( fname, "r" );
# endif
#endif


     if( fp == (FILE *)0 ) {
          printf( "Can't open '%s'\n", fname );
          return;
     }

     fread( &hdr, 1, sizeof( HEADER ), fp );

     /*
      * Now print out the values
      */

     printf( "Magic Word: %4x\n\n", hdr.magic );

     if( hdr.magic != 0x601a ) {
          printf( "Unknown file type - Bad magic number\n" );
          return;
     }

     total = hdr.text_size + hdr.data_size + hdr.bss_size;

     printf( "Text size:  %8lx  %10ld\n", hdr.text_size, hdr.text_size );
     printf( "Data size:  %8lx  %10ld\n", hdr.data_size, hdr.data_size );
     printf( "Bss size:   %8lx  %10ld\n", hdr.bss_size,  hdr.bss_size  );
     printf( "----------------------------------\n" );
     printf( "Total Size: %8lx  %10ld\n", total, total );

     printf( "\n" );
     printf( "Sym size:   %8lx  %10ld\n", hdr.sym_size,  hdr.sym_size  );

     printf( "\n" );
     if( hdr.reloc != 0 )
          printf( "No relocation information\n" );
```

```
/*
 * Skip past the text segment info
 */

textsize = hdr.text_size;

/*
 * Seek past the text segment
 */
if( fseek( fp, hdr.text_size, FROM_CURRENT ) != 0 ) {
     printf( "Error - Premature end of file in text segment\n" );
     return;
}

/*
 * Skip past the data segment info
 */

datasize = hdr.data_size;

if( fseek( fp, hdr.data_size, FROM_CURRENT ) != 0 ) {
     printf( "Error - Premature end of file in data segment\n" );
     return;
}

/*
 * Now print out the symbol table
 */
symsize = hdr.sym_size;
if( symsize )
     printf( "%ld symbol table entries:\n", (long)symsize /
               (long)sizeof( SYMTAB ) );

/*
 * If we are to show the symbol table, then do it
 */
if( show_sym ) {

    for( ;; ) {
     if( symsize == 0L ) break;
     if( symsize < sizeof( SYMTAB ) ) {
          printf( "Corrupt symbol table size\n" );
          return;
     }
     if( fread( &sym, 1, sizeof( SYMTAB ), fp ) != sizeof(SYMTAB)){
          printf( "Corrupt Symbol Table\n" );
          return;
     }

     symsize -= sizeof( SYMTAB );

     /*
      * Print out this symbol table entry
```

```
      */
     print_sym( &sym );

   }
} else {
     /*
      * Otherwise, skip it
      */
     fseek( fp, hdr.sym_size, FROM_CURRENT );
}

/*
 * Now there is the relocation info
 * (if present)
 */
if( hdr.reloc == 0) {
     fread( &offset, 1, sizeof( long ), fp );
     reloc_size = 4L;

     txt_relocs = 0L;
     data_relocs = 0L;
     if( offset > hdr.text_size ) {
          data_relocs = 1;
          InText = FALSE;
     } else {
          txt_relocs = 1;
          InText = TRUE;
     }

     while( (c = fgetc( fp )) != 0 ) {

          reloc_size++;

          if( c == EOF ) {
     printf( "Error - Premature end of file in relocation info\n" );
               return;
          }
          /*
           * We have an offset, if it is '1', add 254
           */
          if( (offset & 1L) == 1L ) {
               printf( "Error - relocation of odd address\n" );
               printf( "        at file location %lx\n",
                         ftell( fp ) );
          }

          if( c == 1 )
               offset += 254;
          else {
               offset += c;

               if( InText && (offset > hdr.text_size )) {
                    InText = FALSE;
```

```
                }

                if( InText )
                     txt_relocs++;
                else
                     data_relocs++;

                /*
                 * And relocate this location
                 */
           }
     }
     reloc_size++;

     printf( "Text Relocs: %ld, Data Relocs: %ld\n", txt_relocs,
          data_relocs );
     printf( "Size of relocation info: %ld\n", reloc_size );
}

/*
 * We should get EOF now
 */

/*
 * If we think this file might be a MarkWilliams one, with a symbol
 * table, then do dump it
 */
if( mark_williams ) {
     /* Skip past the header */
     fread( &m_hdr, 1, sizeof( MWC_HEADER ), fp );

     printf( "Symbols:\n" );

     while( fread( &m_sym, 1, sizeof( MWC_SYM ), fp ) ) {

          print_mwc( &m_sym );

     }
} else {
     extra_bytes = 0;
     while( (c = fgetc(fp)) != EOF ) {
          if( show_end_bytes ) {
               printf( "%2x ", c );
               if( isprint( c ) ) printf( "(%c) ", c );
          }
          extra_bytes++;
     }

     if( extra_bytes ) {
          printf( "Warning - %ld (%lx) extra bytes at end of file\n",
                    extra_bytes, extra_bytes );
     }
}
```

```
     fclose( fp );
}

/*
 * Print out a MarkWilliams format symbol table entry
 */

print_mwc( s )
MWC_SYM *s;
{
     int i;
     int s_type;
     unsigned long s_value;
     char buf[17];

     for( i=0; i<16; i++ )
          buf[i] = s->mwc_name[i];
     buf[16] = 0;

     printf( "%20s   ", buf );

     s_type = (s->mwc_type[1] * 256) + s->mwc_type[0];
     printf( "%4x ", s_type );

     s_value = s->mwc_value[1];
     s_value *= 256;
     s_value |= s->mwc_value[0];
     s_value *= 256;
     s_value |= s->mwc_value[3];
     s_value *= 256;
     s_value |= s->mwc_value[2];

     printf( "%8lx ", s_value );

     printf( "\n" );
}

/*
 * Print out a standard format symbol table entry (ALCYON, etc)
 */

print_sym( s )
SYMTAB *s;
{
     char symname[9];
     int i;
     int s_type;

     for( i=0; i<8; i++ ) symname[i] = s->name[i];
     symname[8] = 0;

     printf( "%8s - %8lx : ", symname, s->value );
```

```
     s_type = s->symtype;

     if( s_type & DEFINED )
          printf( "defined " );

     if( s_type & EQUATED )
          printf( "equated " );

     if( s_type & GLOBAL )
          printf( "global " );

     if( s_type & EQUATED_REG )
          printf( "equated-reg " );

     if( s_type & EXTERN_REF )
          printf( "extern-ref " );

     if( s_type & DATA_RELOC )
          printf( "data-reloc " );

     if( s_type & TEXT_RELOC )
          printf( "text-reloc " );

     if( s_type & BSS_RELOC )
          printf( "bss-reloc " );

     printf( "\n" );
}
----------and here-----------and here-------------and here---------------
```

David Rowley
Looking Glass Software
Waterloo, Ontario.
..utzoo!watmath!looking!david

```
From -8287443113732429478
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,53cb90613407fd71
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 10:10:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!seismo!lll-crg!nike!ucbcad!zen!
zooey.Berkeley.EDU!c160-bv
From: c160-bv@zooey.Berkeley.EDU (Warner Young)
Newsgroups: net.micro.atari16
Subject: Re: Micro-EMACS 3.7i -- bugs and comments
Message-ID: <837@zen.BERKELEY.EDU>
Date: Thu, 6-Nov-86 13:10:44 EST
Article-I.D.: zen.837
Posted: Thu Nov  6 13:10:44 1986
Date-Received: Fri, 7-Nov-86 22:20:33 EST
```

References: <8610221417.AA09421@Yale-Bulldog.YALE.ARPA>
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-bv@zooey.Berkeley.EDU.UUCP (Warner Young)
Organization: University of California, Berkeley
Lines: 11

Another "bug" I have found in uEmacs, probably more of a feature, is that,
unlike the older uEmacs, it uses <NL> at the end of a line, as opposed to a
<NL> and a <CR>. Try writing any sort of file, or modifying anything with
uEmacs 3.7, and SHOWing it from the Desktop. Also, if your Desktop.Inf file
doesn't end with a sequence of NL and CR on each line, the Desktop will do
strange things. After the first task (SHOW) or application, the mouse button
speed will suddenly slow down. Has anyone else had this happen?

No quote worth saying.
                        Warner Young

From 3045535199042199426
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c8036509900e527b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 14:16:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: New ST models?
Message-ID: <453@atari.UUcp>
Date: Thu, 6-Nov-86 17:16:48 EST
Article-I.D.: atari.453
Posted: Thu Nov 6 17:16:48 1986
Date-Received: Sat, 8-Nov-86 03:55:08 EST
References: <154@ndmath.UUCP>
Organization: Atari Corp/Mktg
Lines: 27

In article <154@ndmath.UUCP>, milo@ndmath.UUCP (Greg Corson) writes:
> There was a short note in this month's BYTE magazine mentioning that Atari
> had released a 2 and 4 megabyte version of the ST in europe somewhere.
> Does anyone out there (ATARI??) have some more information on this? The
> new machine was said to have a bit-blit chip. I would be very interested
> to know if there are any new graphics modes with more colors/higher
> resolutions.

No word will be forthcoming on hardware products until they pass FCC.

The blit chip (which will be available as a ~$120 upgrade to older ST's)
will not add new resolutions -- it is not an upgrade to the video shifter,
it is a chip chich performs bit block memory transfers.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -1681603579767010143
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7644f1c163a4fb1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-06 18:20:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!uthub!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: arc
Message-ID: <1926@utecfa.UUCP>
Date: Thu, 6-Nov-86 21:20:49 EST
Article-I.D.: utecfa.1926
Posted: Thu Nov 6 21:20:49 1986
Date-Received: Fri, 7-Nov-86 17:17:18 EST
References: <645@zen.BERKELEY.EDU> <104@its63b.ed.ac.uk>
Organization: Engineering Computing Facility, University of Toronto
Lines: 8

[]

Could I get a copy of Arc too please.

--
Anees Munshi
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc

From 4336933211062952002
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3bf9a16f7c4f7a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 05:22:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!turner

From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Question about Micro-Emacs 3.7i
Message-ID: <685@imagen.UUCP>
Date: Fri, 7-Nov-86 08:22:23 EST
Article-I.D.: imagen.685
Posted: Fri Nov 7 08:22:23 1986
Date-Received: Sat, 8-Nov-86 06:24:41 EST
References: <1925@utecfa.UUCP>
Organization: The Houses of the Holy
Lines: 30

>
> []
>
>   How does one replace a string with a null-string using
>   uEmacs 3.7i?
>
>   I do the following (which works but seems very indirect):
>
>   {ESC}R<string>{ESC}{CTRL-Q}{SP}{BSP}{ESC}
>
>   Is there a more direct way?
>
>   -anees
>
the following has always worked for me,

{ESC}R<string>{ESC}{ESC}

--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 8449964237769843539
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7c2d0cbc63f1ed72
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 06:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!ll-xn!adelie!necntc!encore!linus!
raybed2!applicon!bambi!maggot!barada
From: barada@maggot.applicon.UUCP

Newsgroups: net.micro.atari16
Subject: Re: mod.atari16.sources
Message-ID: <24200010@maggot>
Date: Fri, 7-Nov-86 09:51:00 EST
Article-I.D.: maggot.24200010
Posted: Fri Nov 7 09:51:00 1986
Date-Received: Sun, 9-Nov-86 03:40:55 EST
References: <1352@batcomputer.TN.CORNELL.EDU>
Lines: 7
Nf-ID: #R:batcomputer.TN.CORNELL.EDU:-135200:maggot:24200010:000:105
Nf-From: maggot.applicon.UUCP!barada   Nov 7 09:51:00 1986

     See the announcement of comp.sources.atari in net.micro.atari16

Peter Barada
ihnp4!ima!pbear!peterb

From 6548014186995292641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b548cb2c2adcdae3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 06:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!ll-xn!adelie!necntc!encore!linus!
raybed2!applicon!bambi!maggot!barada
From: barada@maggot.applicon.UUCP
Newsgroups: net.micro.atari16
Subject: Announce: comp.sources.atari
Message-ID: <24200011@maggot>
Date: Fri, 7-Nov-86 09:52:00 EST
Article-I.D.: maggot.24200011
Posted: Fri Nov 7 09:52:00 1986
Date-Received: Sun, 9-Nov-86 03:41:39 EST
Lines: 61
Nf-ID: #N:maggot:24200011:000:1979
Nf-From: maggot.applicon.UUCP!barada   Nov 7 09:52:00 1986

>
>[]
>
>I've tried mailing to Peter Barada but it bounced. Does anybody know
>his right address, and/or how to send stuff to mod.atari16.sources?
>(and how to receive it, and whether it exists...) - I am holding off
>on posting binaries and source code here until this issue is cleared...
>
>- Moshe Braner
>

Huh??? I did't know that it was that hard to contact me...

Anyway, I'm in the middle of changing jobs, but I WILL be moderating comp.sources.atari soon as I get News up at my new employer. That will be by Thanksgiving.

In the meantime, send your sources, binaries (and your kids if you can...) to:

UUCP:

```
     allegra       \
     amd       \
     decvax!bbncca   \
     harvard          \
     cca          + ! ima ! pbear ! peterb
     cbosgd           /
     wjh12           /
     ihnp4          /
     yale     /
```

This is my machine at home, so I'll save everything over the next few weeks and then when the group is formed, I'll start posting.

Please include a well known return path in the message so I can get a reply to you. I will consider all entries and send back a message either accepting the stuff, or a reject message with a suggestion for changes. Please keep the messages below 65K since my mail connection limits messages to that length. I don't want to overload the network.

I'm assuming that I will be flooded with a ton of sources, so PLEASE: if you have to break up a submission, put section numbers on the pieces. I can accept compressed and uuencoded binaries, but the compression can only be 12 bit (compress -b12). I'm soliciting ideas for having a compresssion scheme that is usable and doesn't need a big VAX to run. Please mail your ideas to me.

In order to keed the netload down some, I'll be posting only about 65K per day, so there will be a backlog.

I'll also be soliciting ideas and kind people to help with a tape archive service, so if you have any ideas, please drop me a line.

Peter Barada

{ihnp4|allegra|amd|cbosgd|decvax!bbncca|harvard|cca|yale}!ima!pbear!peterb

12 days and counting...

From -7740919622411871807
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,f9a08c8bb0b7f610,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 11:32:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!bellcore!petrus!sabre!blade!jls
From: jls@blade.UUCP (John L. Schantz)
Newsgroups: net.micro.atari16
Subject: Atari Stock
Message-ID: <856@blade.UUCP>
Date: Fri, 7-Nov-86 14:32:57 EST
Article-I.D.: blade.856
Posted: Fri Nov 7 14:32:57 1986
Date-Received: Sat, 8-Nov-86 05:26:29 EST
Distribution: net
Organization: Bellcore, Red Bank ,NJ)
Lines: 3

Well every body Atari went public this morning (11/7/86).
It opened at $11.50 and went up to $11.75 by noon with about
3M share traded so far. I hope it does well.

From -8933219577333384399
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 111a55,598ff337738b7912,start
X-Google-Attributes: gid111a55,public
X-Google-Thread: 140593,598ff337738b7912,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 12:04:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!mark
From: mark@cbosgd.ATT.COM (Mark Horton)
Newsgroups: net.micro.atari16,comp.sys.atari.st
Subject: net.micro.atari16 is being renamed comp.sys.atari.st
Message-ID: <3000@cbosgd.ATT.COM>
Date: Fri, 7-Nov-86 15:04:50 EST
Article-I.D.: cbosgd.3000
Posted: Fri Nov 7 15:04:50 1986
Date-Received: Sat, 8-Nov-86 05:46:48 EST
Distribution: na
Organization: AT&T Bell Laboratories, Columbus, Oh
Lines: 12
Xref: watmath net.micro.atari16:2983 comp.sys.atari.st:2

This newsgroup is being renamed from net.micro.atari16 to comp.sys.atari.st.
This renaming will gradually take place over the next few weeks.
More and more messages posted to this newsgroup will be aliased
into the new newsgroup as they pass through the net, and people
will begin to post to the new group. After a few weeks, the
old name will be removed.

This note is to inform you of the renaming so you can begin to
read the new group as well as the old group.

Mark Horton
Director, the UUCP Project

From -1695743262335170294
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e9911a85f19b19c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-07 17:21:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!Info-Atari16
From: Info-Atari16@SCORE.STANFORD.EDU (Info-Atari16 Digest)
Newsgroups: net.micro.atari16
Subject: Info-Atari16 Digest V86 #7
Message-ID: <8611080154.AA20226@ucbvax.Berkeley.EDU>
Date: Fri, 7-Nov-86 20:21:33 EST
Article-I.D.: ucbvax.8611080154.AA20226
Posted: Fri Nov 7 20:21:33 1986
Date-Received: Sat, 8-Nov-86 18:23:44 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Info-Atari16@Score.Stanford.edu
Organization: The ARPA Internet
Lines: 798

Info-Atari16 Digest Friday, November 7, 1986 Volume 86 : Issue 7

This weeks Editor: Bill Westfield

Today's Topics:

Autocopy
Some info about the Epson DS drive bug
Re: Patches for the RAM disk program
Re: GDOS, GDOS, GDOS, GDOS ...
Re: copy pretection
UNITERM ZOOM MODE - GETTING OUT
RE: MIDI on the ST
Apple II Emulator
Re: GDOS, GDOS, GDOS, GDOS ...
Desperately seeking LARN and 1stLATEX
Re: Micro-EMACS 3.7i -- bugs and comments
AUTO folders
More on GDOS
Question about Micro-Emacs 3.7i
Re: Help with Desk Accessories: accessory loaders.
December 1986 ANTIC TOC for ST's
Documentation
Printable Character Archiver

Date: 5 Nov 86 02:08:32 GMT
From: zen!zooey.Berkeley.EDU!c160-fk@cad.Berkeley.EDU (Duy Le)
Subject: Autocopy
To: info-atari16@score.stanford.edu

Autocopy compiles but it doesn't work as expected. It says h/filename
'not able to write'. Does anyone know how to fix this problem?
Comments are appreciated.
                                Duy

Date: 4 Nov 86 12:55:05 GMT
From: ihnp4!drutx!tlz@ucbvax.Berkeley.EDU (ZrustTL)
Subject: Some info about the Epson DS drive bug
To: info-atari16@score.stanford.edu

Got this in the mail and thought it would be of general interest.
In case you missed it, this is a response to my article on the 3.5"
DS Epson drive upgrade for the SF354. There is a problem with the
non-boot drive (B:) not being recognized by the system unless a disk
(even a blank one) is in it.

> >From sun!atari.uucp!jwt Tue Nov 4 02:26:01 1986 remote from ihnp4
> To: sun!ihnp4!drutx!tlz
> Subject: Re: Epson DS disk drive upgrade news and ??
> In-Reply-To: your article <1793@drutx.UUCP>

> That is one of the problems with buying just any off-the-shelf 3.5" disk
> drive for replacement in the ST. There are a couple of different types of
> 3.5" drives out there (not quite as standardized as you had hoped). Some
> drives will report the correct status of the write protect signal when there
> is no diskette in the drive and the type that requires a diskette to be in
> the drive before it returns the write protect signal.

> I am not aware of an easy modification to get it to return write protect
> without a diskette... when it happened to us, we returned the drives for the
> ones we wanted.

> Jim Tittsler, Atari Corp. {lll-lcc,sun}!atari!jwt

OK, any ideas? How about just shorting out the disk in
position switch? :-)
--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

Date: 4 Nov 86 12:56:58 GMT
From: rutgers!clyde!burl!codas!akgua!akguc!rbk@lll-crg.arpa (rbk)
Subject: Re: Patches for the RAM disk program

To: info-atari16@score.stanford.edu

<><><><><><><><><>
> If you want to use the RAM disk program I've posted as a drive other
> than 'D', you have to patch it. This patch is essential if you want to use
> a hard disk together with the RAM disk. Here is an old hint:
> ... (some lines deleted) ...
> What I think was meant: Change the bytes at the following
> offsets from the beginning of the ".prg" file:
>
>   offset old value(for drive D) new value (for drive F)
>   ====== ====================== ======================
>
> $145 (325)   03   05
> $173 (371)   03   05
> $181 (385)   03   05
> $193 (403)   03   05
>
> The first one is the "BSET #3,D0" in the installation, the other three
> are "CMP #3,x(A7)"s in handling calls to disk device drivers.
>
> For drive C instead of F, use the value 02.
>
> To change the default RAM disk size, change the byte at offset
> $B3 (179): The value is the size in units of 64K, e.g. 03 for
> a default size of 192K, 09 for 576K.
>
> WARNING: These are untested speculations!!!
> If somebody tests this (with a hard disk, if possible), please tell us!
> Jeff, if you're out there: please confirm &/or post the fix and the
> disassembly!
>
> - Moshe Braner

The patch works as advertised; thanks Moshe!

BTW, I changed the byte to "0C" for Drive "M" since
I already have a hard disk partition called "F".

    R. Brad Kummer   {ihnp4, seismo!akgua}!akguc!rbk
    AT&T Bell Labs   Atlanta, GA

Date: 5 Nov 86 04:55:18 GMT
From: cbatt!cwruecmp!bammi@ucbvax.Berkeley.EDU (Jwahar R. Bammi)
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
To: info-atari16@score.stanford.edu

In article <191@slovax.UUCP> michael@slovax.UUCP (Michael Longe) writes:
>Amen! I was the lucky person who got find some of the BUGS in that
>version and report them to Atari and DRI. If all goes well, the new
>version should include mulitple font loading, hard disk support, and none

>of those silly boot-drive defaults (like OUTPUT.RSC and font files).

     The version if Gdos that we recently received from Atari does indeed allow multiple font loading (from any directory), etc. One thing that i was rather surprised to find was that Ataris version of Gdos does not support NDC coordinates (Landon/Neil can you shed some light on why ??). In any case i feel NDC coordinates are quite useless, and what would be more usable are user defined world coordinates (only metafiles support them), that Gdos converts to RC in the appropriate way so that drawing primitive still come out right (at least on the screen??). Also NDC coordinates are quite useless in Gem as AES does'nt use them anyway. Can someone from DRI/Atari explain why AES was designed in this way (rather why Gem was half done??), or were NDC coordinates added into Vdi as an after thought??

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

Date: 5 Nov 86 01:09:58 GMT
From: imagen!turner@ucbvax.Berkeley.EDU (D'arc Angel)
Subject: Re: copy pretection
To: info-atari16@score.stanford.edu

>   Lastly, after reading (Ian Chadwick's?) column in the most recent
> Analog, I took a look at the executatble file. It was entertaining
> finding phrases like "Software Pirate", "Copy Protection Mafia", and
> "Scum of the Earth." (Ian, by the way, changed the "die roll" figures
> in the executable, thereby making his character much better, allowing
> him to get the Amulet. Kinda defeats the purpose of the game, doesn't it?)
> --

~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~

if you're going to look for ways to cheat, you might try looking in the executable for the rogue's name (i.e. what you type in for the name) that allows you to create anything, scrolls, weapons etc. It's literally right there in front of you in the code. nuff said..

but i agree with you it takes all of the fun out of the game

on another subject; is anyone out there playing Phantasie I ? (if you like rogue, you will fall in love with this game) i have gotten all of the rings and runes and found the black knight's dungeon but i can't get him, what am i doing wrong ?????

--

         These are days for the locust to eat
                       - Winston Churchill
~~~~~~~~~~~~~~~

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

Date: 0 0 00:00:00 EDT
From: "V5130B::MENTON" <menton@v5130b.decnet>
Subject: UNITERM ZOOM MODE - GETTING OUT
To: "info-atari16" <info-atari16@su-score>
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>

    To the person who asked about 'zooming out' in the zoom mode of Uniterm: in the zoom mode, 'Backspace' will restore the previous scaling factors, and 'Return' will leave zoom mode. Also, the arrow keys will move the screen 1/10 of the screen width/height in their direction (in the zoom mode).

Bob Menton
ARPAnet: MENTON@NRL

    Buckaroo Banzai: "Take the wheel. It drives like a truck."
        John Parker: "Good. What is a truck?"

Date: 5 Nov 1986 12:45:54 EST
Subject: RE: MIDI on the ST
From: Dr. James A. Guffey <GUFFEY@A.ISI.EDU>
To: info-atari16@SU-SCORE.ARPA

> I am considering purchasing an ST and hope to do my own programming to
> use the MIDI ports. Can anyone out there in net-land tell me about
> using the ST with synthesizers and the like? I am a musician as well
> as a programmer and would probably want to write a lot of my own software
> for sequencing, voice editing (specifically Yamaha DX7) and the like.

Mark,

I am also a part-time musician and a full-time computer engineer.
I have two synthesizers and a drum machine that I have had MIDIed to
my ST with no problems. The ST seems to be an excellent choice for this
type of application. Some of the projects I've been working on are a
patch librarian and an Artificial Intelligence based patch generator.
I've also experimented with a single track MIDI sequencer, but nothing
very complex.

> What is a good language to use? I assume C is the best, but which one?
> Can Megamax C be used with the MIDI ports?

I use Megamax C to do my MIDI programming. I've found the inline assembly feature to be very valuable when try to optimize sections of code for speed, a necessity in real-time MIDI applications.

> What about this MacCompatible cartrige that is rumored? Will Mac MIDI
> software run with the ST?

I don't know about this. I would think that the MAC software wouldn't run though since the MIDI hardware interfaces would be different. I don't think the cartridge would take care of this difference.

> If anybody knows anything about ST MIDI software, I would appreciate any
> responses either over the net, or by e-mail.

The following is what is available from Hybrdi Arts...

ATARI 8 bits (130XE, 65XE)
MidiTrack III
MidiTrack III updates (with new book)
MidiTrack II
MMS
GenPatch
Librarians for DX,CZ,RX,Ob8,Pro5,...
Oasis (for EnsonMidiCom (general purpose and MIDI
telecommunication software)
MidiMate Interface

ATARI ST (520 and 1040)

EZ-Track
DX-Droid
DX-Editor
CZ-Droid

****
SOON TO BE SHIPPING----------
ATARI 8 bits (130XE, 65XE, all others)

MidiScore
GenPatch updates

ATARI ST (520 and 1040)

ADAP I (Projected date = Oct 24, 1986)
Sampler and Command Module
Dual Trace Oscilliscope
Echo and Reverb
ADAP II (same or soon after I)

MidiTrack ST (with tape sync interface,

Projected date = Oct 1, 86)
MidiTrack ST Professional (with SMPTE interface, Projected date = Oct 1, 86)
GenPatch ST
MidiUtilities (general purpose file MIDI & TOS, manipulator, perfect for MIDI hackers,...etc.)
EZ-Score (Scores our MIDI song files)
MidiScore Pro (Scores and resequences our MIDI song files)
SMPTEMate (compatible with all forms of of SMPTE US/Euro,...etc., and all tape sync formats (FSK, Roland,... etc). Doubles as MousePad! Projected date = Oct 1, 86)
Oasis ST

****
Hybrid Arts is feverishlg on the ADAP and associated products (20 Software Applications are slated for development).

ADAProcessor) is our "16 Bit Professional Digital Audio Workstation generic digital interface, the software determines the application, that is, ADAP can be a Recorder/Editor, 64 Track Multitrack Recording System (Recorder, Mixer, Effects, Synthesizer,...etc.), Test Sets (Spectrum Analyzer, O'scope,...etc.

ADAP hardware specifications are:

ADAP I - is a 16 bit linear, Stereo (2 discrete channels), +4/-10 dbm in/out, Mic/line at the input, gain trims at the input, calibrated in/out, with LED metering for in/out for calibration and monitoring. It has a sampling rate that is adjustable up to 65k s/s (may change up to 100k s/s), and is fully CD compatible. This version only supports RAM.

ADAP II - Same specs as ADAP I with additional support of "Direct to Harddisk".

ADAP III - (ADAP III is only speculative) Same as ADAP II, but with multiple inputs and outputs (up to 6?).

ADAP can sample up to 20 seconds with an unmodified 1040ST. ADAP tests for available memory, so that, upgrades are taken advantage with an unmodified ADAP. 4 meg allows for about 1 minute sample time.

The sampler will offer 64 samples key assignable, 6 voice poly,...etc.

The direct to disk versions can record up to 40 minutes or more! The 2 track editing capabilities are going to be astounding, and ultra-easy!!!!!!!!!!!!!!

The ADAP has made its first television and live stage appearance.

The television show was "Chronicles" aired on your local PBS station during the week of September 29, 1986. Call "Computer Chronicles" at; 415-574-6233 and ask about the "#403, MIDI Music" segment, or request transcripts via "Compuserve". Hybrid Arts presents the ADAP and EZ-Track to the world.

smb: I called the "Computer Chronicles" people and they said the show would air again during the week of DEC 23. CAll your local PBS station for the exact time.

The "Pointer Sister's" used ADAP, live onstage before 17,000 listeners. In the crowd were: Sam Tramiel, Gary Tramiel and other executives from ATARI, Wendel Brown, Rick Oliver and Scott of Hippopotomus Software, all invited by Hybrid Arts. Afterf the show the Tramiel's were taken backstage and introduced to the "Pointer Sister's".

****
Enough of ADAP, EZ-Track is our $65, 20 track MIDI Recorder, with lots of advanced features that has been shipping for about a month now. It can be bought through our music dealers and "Mega-Chain Stores" like Federated,...etc.

DX-Droid for the ST is shipping, it will actually program you DX/TX modules for you ($244).

CZ-Droid for the ST is shipping ($99), it will program ALL CZ's for you (even the unprogrammable 230S, that's right! and the CZ1).

EZ-Score for the ST ($99) will be shipping soon, it will chart out our song files for you (like printing the standard musical notation for your EZ-Track songs,...etc.)!

SMPTEMate, a universal SMPTE interface for the ST will be shipping October 1, 1986. This incredible device will read and write all standard forms of SMPTE and lock up to all other forms of presently used tape sync (like FSK,...).

All associated manuals can be bought separately.

I called Hybrid Arts and the price of the ADAP I is listed at $1995. MIDITRACK ST is $375/$575(with SMPTE). Also I know Dr. T's has just released a MIDI sequencer for $199. With this kind of support, the has a good chance of becoming THE computer for MIDI applications.

Steve Bate
Artificial Intelligence Technology
McDonnell Aircraft Co.

ARPA: smb.mdc@office-1.arpa

Date: 5 Nov 86 10:07:26 PST (Wednesday)
From: BillHolland.ES@Xerox.COM
Subject: Apple II Emulator
To: XeroxAtari16Users^.X@Xerox.COM
Reply-To: BillHolland.ES@Xerox.COM

Does someone know anything about the Apple II/E/C Emulator,when will it
be ready,how compatible and fast will it be,it would be nice if it would
run in a GEM window.Also is it hardware or software ?

Bill

Date: 5 Nov 86 18:27:28 GMT
From: husc6!husc2!chabris@eddie.mit.edu (chabris)
Subject: Re: GDOS, GDOS, GDOS, GDOS ...
To: info-atari16@score.stanford.edu

How did you get GDOS from Atari? When I called the other day, they told me
that either I had to pay the $500 licensing fee per product per year, or I
could send my software that didn't use GDOS to them "for testing". I was told
that if I wanted to do that testing myself, I should buy some commercial
software that has GDOS on the disk and use that copy.

Can anyone shed some light on this?

--
-- Christopher F. Chabris
   Dunster F-61
   Harvard University
   Cambridge, MA   02138

   [HOME: 15 Sterling Road, Armonk, NY, 10504]

   CompuServe: 73277,305
         UUCP: ...!harvard!husc4!chabris
         ARPA: chabris%husc4@harvard.ARPA
       BITNET: chabris@HARVUNXU.BITNET
         AT&T: (617) 498-2239

Date: 4 Nov 86 10:47:02 EST (Tue)
From: Ashwin Ram <ram@YALE.ARPA>
Subject: Desperately seeking LARN and 1stLATEX
To: info-atari16@su-score.ARPA

Hi... I'm looking for LARN (or any similar game) and 1stLATEX (a program to convert 1stWORD files into LATEX). Could someone please send these to me? If e-mail is a problem, would someone be willing to copy them onto a disk if I snail-mailed a disk+SASE?

Please send me e-mail if you can do this. May your ship of fortune sail on the seas of success and all that jazz.

Thanx a million -- Ashwin Ram.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

Date: 4 Nov 86 10:36:09 EST (Tue)
From: Ashwin Ram <ram@YALE.ARPA>
Subject: Re: Micro-EMACS 3.7i -- bugs and comments
To: info-atari16@su-score.ARPA

I think some people misunderstood my point about the search string delimiter key. I'm not pitching for using a machine-specific key like ENTER or control-RETURN. I would like to use RETURN itself (which is about as standard as you can get). The point is that given ^Q-RETURN inserts a <NL> anyway, why not use RETURN to delimit the search string rather than ESC? I have worked with fairly lay people and nearly all of them find ESC very non-intuitive. If this is to be an editor for a user-friendly PC for non-technical people, RETURN makes much more sense as a delimiter (besides being easier to type). I guess the best thing to do would be to make it customizable, as a couple of people have already suggested.

The other related point is that ^M should insert a ^M rather than being coerced to <NL>. Since <NL> is merely ^J, either ^J and ^Q-RETURN can be used to get a <NL> in the search string.

Finally, for those who haven't managed to bind their mouse, try:

```
    bind-to-key previous-line      FNH
    bind-to-key next-line          FNP
    bind-to-key forward-character  FNM
    bind-to-key backward-character FNK
```

(I also find it useful to bind the left mouse button to SET-MARK; to do this, try: "bind-to-key set-mark FNt"). One question though: it is weird to see the cursor wrapping around when you move the mouse off the left or right end of a line (again, something I could live with but non-intuitive nevertheless). Is there a way to define a macro that would not do that, and bind the mouse key to that? Something like the LOOKING-AT function of Emacs with some sort of conditional would do it. (Unfortunately, I still can't RTFM. No-one sent me one. Sigh...)

-- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

Date: 5 Nov 86 19:49:52 GMT
From: sdcc6!ix181@sdcsvax.ucsd.edu (John Ogawa)
Subject: AUTO folders
To: info-atari16@score.stanford.edu

<< Why is there a line eater? Well, bec

I've got a problem with AUTO folders. I wrote a simple program to
set the time and date using Mark Williams C. I then put it in my
AUTO folder. The problem is that it sometimes exectues the folder more
than once! I boot up (or reset) and it loads and runs the contents of the
AUTO folder 2 or 3 times. It runs the AUTO files only once about 2
times out of 3, but that third time it runs them multiple times. I
think I have exitted gracefully (with the exit() routine) so I am
confused.

Any help would be greatly appreciated.


```
=========================================================================
|        |  | ____ ____ ___                                              |
|        |  | |    |___ |  \    John Ogawa                               |
|        |__| |___ ___| |__/    UC San Diego                             |
|                               ix181@sdcc6@sdcsvax@ucbvax               |
|                                                                        |
|     DISCLAIMER:      My views do not represent those of the            |
|     University of California, nor do theirs represent mine.           |
```

Date: Wed, 5 Nov 86 14:52:04 pst
From: rowley@AMES-NAS.ARPA (Karl P. Rowley)
To: info-atari16@su-score.ARPA
Subject: More on GDOS

Neil:

So you say GDOS is ready. That is good. When is it going to be made available
to everyone? Is GDOS going to be available as a product sold by itself?
Is the first version going to be able to get along without reading files off
a floppy disk?

Speaking of running without a floppy, when might we get software to let us
boot off of our hard disks?

While I am on a roll here, is the next version of TOS going to fix the famous

40 directory limit? Is the version of TOS in the new ROM's (the ones that will go with the Blitter chip) improved in terms of fixes/additions?

BTW, the return address of getty@prandtl on my last note was caused by malfunctioning software, and was bogus.

Thanks in advance,

Karl

P.S. If GDOS is ready, release it to the masses now!!

Date: 5 Nov 86 20:46:25 GMT
From: mnetor!utzoo!utcsri!uthub!utecfa!mugc@seismo.css.gov (ModemUserGroupChairman)
Subject: Question about Micro-Emacs 3.7i
To: info-atari16@score.stanford.edu

[]

How does one replace a string with a null-string using uEmacs 3.7i?

I do the following (which works but seems very indirect):

{ESC}R<string>{ESC}{CTRL-Q}{SP}{BSP}{ESC}

Is there a more direct way?

-anees

ps. Thanks to James and the other netters who have posted some very high quality stuff.

--
Anees Munshi
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc

Date: 3 Nov 86 17:10:57 GMT
From: i.cc.purdue.edu!afo@j.cc.purdue.edu (Alan Davis)
Subject: Re: Help with Desk Accessories: accessory loaders.
To: info-atari16@score.stanford.edu

In article <448@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>> >....Is there some
>> >way of putting a *desk acc. loader* into my AUTO folder, which would

>> >load the accessories?
>>
>> I believe that I have a file that will do that. As soon as I verify
>> that the critter runs(I have never ran it before) I will post it.
>
>It seems unlikely that the critter will run, since the desktop
>and AES have not been initialized at the time \AUTO folder
>execution takes place. Doing an AES call from an AUTO program
>will likely result in a crash ->thud<- and an endless cycle of
>reboots. Life is like that sometimes.
>--
>
>-Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

 I have a desk accessory loader in my auto folder that works just
 fine. If you would like a copy of it, send me a note and we'll
 give it a whirl.

Alan Davis
Purdue University Computing Center
:-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-)
USENET: {seismo, decvax, ucbvax, ihnp4}!pur-ee!i.cc!afo
BITNET: ADAVIS@PURCCVM

Disclaimer: My boss has opinions too but I can't express them in public.
Therefore, I thought up my opinions all by myself.

Date: 4 Nov 86 22:20:30 GMT
From: ihnp4!ihuxi!store2@ucbvax.Berkeley.EDU (Wilcox)
Subject: December 1986 ANTIC TOC for ST's
To: info-atari16@score.stanford.edu

     ******************[Ignore header path]*******************

Below is the portion of the table of contents of the December issue
of ANTIC magazine that I think will be of interest to ST owners.
The complete TOC is available in net.micro.atari8 if you are
interested.   -Kit-

     ****

               December 1986 ANTIC TOC
               Theme: Annual Shoppers Guide

page article

6   I/O BOARD
          Letters from Readers.
50   TWO NEW ATARI PRINTERS
          A review of the Atari XMM801 and SMM804 printers for the

8-bit and ST computers.

**********BEGIN THE ST RESOURCE SECTION**********

72 BUILD GEM DIALOG BOXES
A tutorial on how to create and manipulate your own dialog box.

89 DEDUCTION
A classy ST BASIC adaptation of the old game most recently popularized as Master Mind. You must guess a pattern of four colors chosen by the computers.

95 ST PRODUCT NEWS AND REVIEWS
Books
Atari ST BASIC Training Guide (Abacus)
Hardware
ESTE Clock Cartridge (BigFoot Systems)
Software
Action Pack (Action Software)
EZ-Track ST (Hybrid Arts)
New Products (description only)
Fast BASIC cartridge (Computer Concepts)
Star Raiders (Atari Corp)
Midiplay (Electronic Music Publishing House, Inc)
SYS/EX (Key Clique)
EZRAM 520 (Terrific Peripherals)
TechMate Chess (Szabo Software)
K-Resource (Kuma Software)
MT C-Shell (Beckmeyer Development Tools)
UCSD Pascal Power System (Pecan Software Systems, Inc)
Philon Fast/BASIC-M (Philon Inc)

**********END THE ST RESOURCE SECTION**********

101 SOFTWARE LIBRARY
This section contains all the program listings for the articles in this issue.

Coming next month: Atari talking typewriter for ST and 8-bit, door prize selector, Math educational game with optional speech modules, J.D.Casten's newest hit game and Super Star Trek for the ST.

Comments: There has been some discussion on the net lately about using the BSR X10 controller with the Atari. There is an ad in ANTIC from Terrific Peripherals for this device. For $119.95 you get the X-10 Powerhouse controller, a special Atari interface adapter (8-bit) and the Building Manager software disk. ANTIC is running an 8-bit contest for practical programs. First prize is a 1040ST with $500 worth of software from Batteries Included. Computer Mail Order (CMO) has a nice 16 page spread with lots of specials.

Kit Kimes

AT&T-ISL
1100 E. Warrenville Rd.
Naperville, IL 60566
...!ihnp4!iwvae!kimes

Date: 6 Nov 86 01:04:43 GMT
From: ritcv!ref0070@rochester.arpa (Bob Fortin)
Subject: Documentation
To: info-atari16@score.stanford.edu

How does the documentation from Megemax C compare to the Developers Kit.

Does it just explain the function calls, or is it more complete documentation.

ps. along the same line, what is the latest status of the ATARI Documentation package.

Thanks,
Bob Fortin

Date: 6 Nov 86 03:32:08 GMT
From: rutgers!clyde!watmath!csc@titan.arc.nasa.gov (Computer Sci Club)
Subject: Printable Character Archiver
To: info-atari16@score.stanford.edu

I (with some others) am in the process of building a printable character archiver, called "earthpig" (it's an aarchiver, :-)). The following is an example of the compression its printable character encoding algorithm gets.

The "test" file is /bin/vi. I have shown the compression ratios for the various interesting files. A file ending in "pig" is an earthpig encoded file. A file ending in "uue" is a uuencoded file. A file ending in 'Z' is a "compress"ed file.

```
test     131338
test.Z         70103   (0.533 of test)
test.pig 143087   (1.090 of test)
test.uue 180979   (1.378 of test)
test.pig.Z     73175
test.uue.Z     94691
test.Z.pig     96698   (0.736 of test)
test.Z.uue     96611   (0.735 of test)
```

For compressed data, it does about as well as uuencode. For uncompressed data it's quite a lot better. Small binaries (under 20K) shrink slightly. C programs and text files shrink slightly or stay about the same.

Earthpig uses only the characters

```
     +-abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ
     @.,;:=?*"'/!()_%&
```

This character set should make it through almost anything unchanged. The algorithm only uses table lookup: no bit masking or shifting.

When we finish the archiver we will post various versions of it to the net.

What it does:

- can generate correction requests from errors
- can generate patches from correction requests
- CRC checking on two levels
- supports os independent hierchical file names
- high immunity to format changes and noise characters (space/control)
- close to 1:1 encoding on uncompressed data

The basic goal of earthpig is to provide a single tool that will allow the transfer of arbitrary data and software around the network while providing a very high level of confidence that the data arrived correctly.

Tracy Tims
mail to ihnp4!watmath!unit36!tracy

End of Info-Atari16 Digest
****

From -5994936905204121287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af2d417ef5f8cfd2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-08 05:04:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Re: Megamax bugs and queries
Message-ID: <390@cernvax.UUCP>
Date: Sat, 8-Nov-86 08:04:47 EST
Article-I.D.: cernvax.390
Posted: Sat Nov 8 08:04:47 1986
Date-Received: Sun, 9-Nov-86 04:14:16 EST
References: <381@cernvax.UUCP> <1333@batcomputer.TN.CORNELL.EDU>
Reply-To: jmg@cernvax.UUCP ()
Distribution: world
Organization: CERN, Geneva/Switzerland
Lines: 24

In article <1333@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>   The Megamax malloc(), as explained in the manual, is designed
>to bypass the problems with the OS Malloc(). It takes no less than 8K
>at a time from the system, and does further splitting itself. It works
>mighty fine under heavy use, with MANY small malloc()s and free()s,
>as exemplified by my microEMACS.
>
>   To print out a pointer, use:
>
>   printf("%lx", (long)pointer);
>
>(remember: from now on, pointers are 32 bits, until they get to be 64!)

I DO remember, and I HAD already tried that method, and it ONLY prints
out the first 16 bits. If anyone can actually get it to print the full
32-bit number I should like to know (maybe %d would work).
BTW, I note in my tests that malloc can actually hand out blocks larger
than 8K. Any problems with this, since at least one of my correspondents
thought that 8K was the maximum.

Another bug, though maybe not Megamax. If I try to use the editor to
look at a file which is too large to fit into memory then I get a nice
dialogue box telling me so, but no amount of mouse clicking gets rid
of that dialogue box.

From 1911196295458149807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,53cb90613407fd71
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-08 07:01:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: Micro-EMACS 3.7i -- bugs and comments
Message-ID: <687@imagen.UUCP>
Date: Sat, 8-Nov-86 10:01:40 EST
Article-I.D.: imagen.687
Posted: Sat Nov 8 10:01:40 1986
Date-Received: Sun, 9-Nov-86 06:22:51 EST
References: <837@zen.BERKELEY.EDU>
Organization: The Houses of the Holy
Lines: 32

>
> Another "bug" I have found in uEmacs, probably more of a feature, is that,
> unlike the older uEmacs, it uses <NL> at the end of a line, as opposed to a
> <NL> and a <CR>. Try writing any sort of file, or modifying anything with
> uEmacs 3.7, and SHOWing it from the Desktop. Also, if your Desktop.Inf file
> doesn't end with a sequence of NL and CR on each line, the Desktop will do

> strange things. After the first task (SHOW) or application, the mouse button
> speed will suddenly slow down. Has anyone else had this happen?
>
> No quote worth saying.
>   Warner Young
>
actually its niether, its a pain in the (explicative deleted), the problem is
uEmacs was written to run on a variety of machines, some use LF (unix) and
some use CRLF (atari, ibm). i corrected the problem in the latest version,
but because of the joys of posting, and reposting part xx etc. i am asking
people to send me a SASE with a SSDD disk and i will fill it with the
latest version and documentation. i realize that this is a pain but so is
all of the repost msgs to the net in general and me in particular. sorry
if i sound grumpy but its before coffee.
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1126098190836052837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9a08c8bb0b7f610
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-08 07:33:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Bob Fortin)
Newsgroups: net.micro.atari16
Subject: Re: Atari Stock
Message-ID: <238@ritcv.UUCP>
Date: Sat, 8-Nov-86 10:33:02 EST
Article-I.D.: ritcv.238
Posted: Sat Nov 8 10:33:02 1986
Date-Received: Sun, 9-Nov-86 02:54:34 EST
References: <856@blade.UUCP>
Reply-To: ref0070@ritcv.UUCP ()
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 9

In article <856@blade.UUCP> jls@blade.UUCP (John L. Schantz) writes:
>Well every body Atari went public this morning (11/7/86).
>It opened at $11.50 and went up to $11.75 by noon with about
>3M share traded so far. I hope it does well.

What exchange, and what name does it go by (atari? I asume).

Bob Fortin
{allegra seismo decvax}!rochester!ref0070

From 758716058859816961
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7023c2cb23e03f5e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-10 15:01:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site hcrvx1.UUCP
Path: utzoo!hcrvx1!hugh
From: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Newsgroups: net.micro.atari16
Subject: CP/M-80 Z80 Emulator Bug
Message-ID: <1429@hcrvx1.UUCP>
Date: Mon, 10-Nov-86 18:01:24 EST
Article-I.D.: hcrvx1.1429
Posted: Mon Nov 10 18:01:24 1986
Date-Received: Tue, 11-Nov-86 00:33:45 EST
Organization: Human Computing Resources, Toronto
Lines: 52

I have just spent some time putting up the CP/M-80 emulator on my
1040ST. I have found the emulator seems quite well done. But there
are some problems with it.

In the Z80, there are two flags for purposes of BCD arithmetic: the
H flag is for recording "half-carry" and the N flag is for recording
whether the last operation was an add or a subtract. An AND
instruction sets both N and H flags. Similarly, an OR instruction
clears both. (In the 8080, there is no N flag, and both the AND and
OR instructions clear H.)

In the emulator, the AND and OR instructions seem to leave the N and
H flags alone. So it does not match the Z80, or even the 8080.
Although this seems unimportant, I only discovered it because it
caused the program that I was porting to fail.

The emulator seems to support only floppy drives. I could not get
it to use a RAM disk (I use the Intersect RAM disk at the moment).
Since the disks it uses must have a CP/M file system, I don't wish
to try my hard disk. Even on a floppy, it only supports a single
side! This makes the emulator much less useful on a system with
only one floppy drive.

The make_cpm command (to start the bootstrapping process of creating
the first CP/M disk) prompts at the start. DO NOT put the blank
disk in at this point. It needs to fetch a file from the TOS disk

(which must be on a floppy, I think). Put the blank disk in at the second prompt. If you do put in a blank disk the first time, you will not get a diagnostic. The machine will just fall asleep for a minute and then return to the desktop.

I sure wish that the TOSCPM and CPMTOS commands (for transferring files between TOS and CP/M file systems) would take ambiguous file names. As it is, a command must be issued for every file transferred.

I don't see a way to change what terminal the console emulates. My ST is replacing a Kaypro II. But since the Kaypro emulates an ADM-3 (more or less) and the ST emulates a VT52 (more or less), I cannot trivially move my programs. (Legality is another problem, but I am not talking about copyrighted programs.)

The emulator is not quite good enough to be useful to me. Just a few enhancements could change this.

Now that this program is free, I wonder how much support will be provided by Atari or the original developer (a company in West Germany).

Hugh Redelmeier (416) 922-1937
utzoo!hcr!hugh

From 1451260171976532031
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129fb9,8b3135e59f1856a3,start
X-Google-Attributes: gid129fb9,public
X-Google-Thread: 140593,8b3135e59f1856a3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-11 07:47:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcsri!utegc!utai!jpierre
From: jpierre@utai.UUCP
Newsgroups: net.micro.atari16,net.lang.mod2
Subject: Turbo Modula2
Message-ID: <2686@utai.UUCP>
Date: Tue, 11-Nov-86 10:47:35 EST
Article-I.D.: utai.2686
Posted: Tue Nov 11 10:47:35 1986
Date-Received: Tue, 11-Nov-86 11:43:10 EST
Distribution: net
Organization: CSRI, University of Toronto
Lines: 12

Would anyone know if and when BORLAND is planning to come out with TURBO MODULA2 for the Atari ST series? I would also appreciate comments on TDI's MODULA2 developper's package for the ST.

Thanks,

Jean-Pierre Corriveau

CSNet: jpierre@ai.toronto.edu
EAN: jpierre@ai.toronto.cdn
UUCP: jpierre@utai.uucp

From -3034375043643793570
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7023c2cb23e03f5e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-12 08:05:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: CP/M-80 Z80 Emulator Bug
Message-ID: <441@utcsscb.UUCP>
Date: Wed, 12-Nov-86 11:05:54 EST
Article-I.D.: utcsscb.441
Posted: Wed Nov 12 11:05:54 1986
Date-Received: Wed, 12-Nov-86 19:31:12 EST
References: <1429@hcrvx1.UUCP>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 46
Summary:

In article <1429@hcrvx1.UUCP> hugh@hcrvx1.UUCP writes:
>I have just spent some time putting up the CP/M-80 emulator on my
>1040ST. I have found the emulator seems quite well done. But there
>are some problems with it.
>
>The emulator seems to support only floppy drives. I could not get
>it to use a RAM disk (I use the Intersect RAM disk at the moment).
>Since the disks it uses must have a CP/M file system, I don't wish
>to try my hard disk. Even on a floppy, it only supports a single
>side! This makes the emulator much less useful on a system with
>only one floppy drive.

I have had no problems with running the emulator off of a ramdisk. Using the inidir.com program included in the package, I have been able to reinitialize ram disks previously set up under TOS for CPM. The ramdisk I am using is one I downloaded off of a local BBS, and has no documentation, so I do not know which one it is . It is a fixed 600k Ram disk.

In an in store experiment, I have tried running the emulator off of 1 partition of the Atari 20mb Hard Drive, with seeming success. (Just imagine: A system with Magic Sac, the CPM emulator and the ST, all running off of different partitions of the same Hard disk!)

>The make_cpm command (to start the bootstrapping process of creating
>the first CP/M disk) prompts at the start. DO NOT put the blank
>disk in at this point. It needs to fetch a file from the TOS disk
>(which must be on a floppy, I think). Put the blank disk in at the
>second prompt. If you do put in a blank disk the first time, you
>will not get a diagnostic. The machine will just fall asleep for a
>minute and then return to the desktop.

     Further advice. people with 1040st's should boot off of a
SINGLE SIDED diskette before attempting the installation program. This
seems to make a diffence.

>
>Hugh Redelmeier (416) 922-1937
>utzoo!hcr!hugh

Pete Santangeli
pete@utcsscb@utcs
psantangei on BIX

From 3928212976118154601
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f7f6f54ae68d4284,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-11-30 23:17:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!unirot!gib
From: gib@unirot.UUCP (gib wallis)
Newsgroups: net.micro.atari16
Subject: MT Micro C Shell vs. OS9 for ST
Message-ID: <120@unirot.UUCP>
Date: Wed, 5-Nov-86 17:33:35 EST
Article-I.D.: unirot.120
Posted: Wed Nov 5 17:33:35 1986
Date-Received: Wed, 5-Nov-86 22:46:35 EST
Expires: Mon, 1-Dec-86 00:00:00 EST
Reply-To: gib@unirot.UUCP (gib wallis)
Distribution: net.micro.atari16 comp.sys.atari.16
Organization: Public Access Un*x (The Soup Kitchen) NJ
Lines: 20
Keywords: Which is better in your opinion?

Recently I have been debating whether or not I should purchase MT Micro C Shell
or OS9. Both are said to have the feel of UNIX, both are said to have
multi-tasking and multi-user capabilities, both of which I highly desire for my
Atari ST [it would make me use my Macintosh less, but I'd be willing to pay the
price!]

How many of you netters have had experience with either or both OS9 for the

Atari ST, and MT Micro C Shell? I probably would have make a hasty decision
long ago if either were readily available in the beautiful Land Of UM
[Upper Montclair, NJ for those of you not in the know]

Please reply via email and if there is enough interest, I will post my
findings to the net.

ciao for now,
     gib

--
..!rutgers!unirot!gib
OR gib@unirot.UUCP
"Power can command wealth, but wealth can't always command power."

From -4186502275265026863
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a68fd4b8214f9134
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 13:02:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-
beaver!fluke!ssc-vax!ssc-bee!eve
From: eve@ssc-bee.UUCP (Michael Eve)
Newsgroups: net.micro.atari16
Subject: Re: crummy Atari monitors.
Message-ID: <633@ssc-bee.UUCP>
Date: Mon, 20-Oct-86 16:02:10 EDT
Article-I.D.: ssc-bee.633
Posted: Mon Oct 20 16:02:10 1986
Date-Received: Wed, 22-Oct-86 04:46:01 EDT
References: <861019173034.000001A0.ANLH.MA@UMass>
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 17

> Well, folks, I just picked up a brand-new SC1224 color monitor, to supplement
> ... The new, Goldstar-supplied monitor is, to put it quite
> bluntly, the pits. The video quality is a disaster.
> ...It looks even worse than an Amiga in
> 80-column mode, if such a thing is possible.
>

Thanks for this info. I was agonizing over whether to buy an Atari or Amiga.
I loved the old Atari color monitors, but the built-in sound is also the pits.
The Amiga has reasonable sound and other interesting features, but the display
was not as good as the Atari. (The price difference was not an overriding
concern.) Now Atari has solved my problem. I can my cake and eat it too!

Bye, bye Atari. Buy, buy Amiga.
--
     Mike Eve   Boeing Aerospace, Seattle

...uw-beaver!ssc-vax!ssc-bee!eve

From -5953113647356539114
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,479793cf6a794f44
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 14:03:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
XEROX.COM!Bicer.ES
From: Bicer.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: 1st WORD Update
Message-ID: <861020-140353-168@Xerox>
Date: Mon, 20-Oct-86 17:03:55 EDT
Article-I.D.: Xerox.861020-140353-168
Posted: Mon Oct 20 17:03:55 1986
Date-Received: Wed, 22-Oct-86 01:15:43 EDT
References: <3959@utah-cs.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

In 1st WORD Update (V1.06), how can you double space?

Thanks in advance,

Jack Bicer

Bicer.ES@Xerox.COM

From -9078184458932422387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cd04dfc96f4122a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 15:20:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!houxm!homxc!jdn
From: jdn@homxc.UUCP (J.NAGY)
Newsgroups: net.micro.atari16
Subject: Re: Mail List - Add
Message-ID: <1664@homxc.UUCP>
Date: Mon, 20-Oct-86 18:20:30 EDT
Article-I.D.: homxc.1664
Posted: Mon Oct 20 18:20:30 1986
Date-Received: Wed, 22-Oct-86 04:53:34 EDT
References: <48700002@mic>
Organization: AT&T Bell Labs, Holmdel NJ

Lines: 10

What is this mailing list to which everyone is requesting
that their name be added?

I'm a new to net.micro.atari16 but if it contains info
on the ST, then please add my name too! Thanks.

Jonathan Nagy
{ihnp4}!homxc!jdn
(201) 615-4349

From 1186729842794022003
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8f6daf9d388fe8b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 15:49:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!sdcsvax!sdcc6!ix181
From: ix181@sdcc6.ucsd.EDU (John Ogawa)
Newsgroups: net.micro.atari16
Subject: C++, StarGlider, UniTerm
Message-ID: <2956@sdcc6.ucsd.EDU>
Date: Mon, 20-Oct-86 18:49:13 EDT
Article-I.D.: sdcc6.2956
Posted: Mon Oct 20 18:49:13 1986
Date-Received: Wed, 22-Oct-86 01:32:33 EDT
Organization: University of California, San Diego
Lines: 34
Keywords: C++, StarGLider, UniTerm

------------ Plop Plop Fizz Fizz --> Line Eater --------------

Hi. I suppose since I started the C++ round, I should answer the
question about its availability. C++ is not (as far as I can tell
and have been told) in the public domain. AT&T gives licences out at
around $500.00 a crack so I've heard. Furthermore, as far as I know
there is no micro verxion for the Atari even from them. I may be
wrong. Anybody who has other information please correct me, and
write me. It's too bad, since C++ is a great extension to C, and
would not be too hard to port over (software companies take note:
I'd surely buy a copy of C++!).
   As to its availability on the VAX, that is the only place I have
ever heard of it. Once again, I think you must contact AT&T.

Now, on another topic: I just got a new game the other day, Star
Glider. It is really great. Nice graphics, an interesting scenerio,
and even music in the beginning! A good game. John says:

     /
       V Check it out.

One last thing before I go: I missed the Uniterm posting for
unknown reasons. Can anybody e-mail me a _working_ copy? Thanks in
advance.


```
=========================================================================
|        |  | ____ ____ ___                                              |
|        |  | |    |___ |  \    John Ogawa                               |
|        |__| |___ ___| |__/    UC San Diego                             |
|                                                                        |
|     DISCLAIMER:      My views do not represent those of the            |
|     University of California, nor do theirs represent mine.           |
=========================================================================
```


From 538308648893686206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd5e374f7172e37c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 15:54:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!rutgers!lll-crg!lll-lcc!unisoft!mtxinu!rtech!
hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Large postings and how to make them work
Message-ID: <1208@hoptoad.uucp>
Date: Mon, 20-Oct-86 18:54:58 EDT
Article-I.D.: hoptoad.1208
Posted: Mon Oct 20 18:54:58 1986
Date-Received: Wed, 22-Oct-86 01:28:22 EDT
References: <1349@lsuc.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 40

Net.sources used to have the same problems as net.micro.atari16 with
regards to large postings producing hundreds of requests for retransmission.
One person (I think it was Bill Mitchell of U. of Arizona) said he'd
never again post any big thing to the net because it was weeks of hassle
straightening it all out. Then he released a revised version and had to
face it all again...so he send it to mod.sources

The mod.sources moderators keep careful watch on their news links, and
have arranged for each posting to appear simultaneously on many
machines around the net. This significantly reduces the chances of
your getting a truncated copy, or no copy at all, since the message
will have to go through less hops to get to you, and if one site drops
it, another will carry it to you. Also, just having the moderator
check the message to see if it will download, reduces the trash by a
large factor.

This takes work, however, and requires a site with good news links (or
that is willing to make a set of good cross country links for shipping

the newsgroup out to the world). Reliable mail is also essential, since all the postings will come in to the moderator by mail. I suggest that the Atari community find a person at such a site to handle distribution of large Atari sources or binaries. Ideally this person is already a PD software packrat, so they know what they are getting into. The moderator should also have good bit of disk space [on their Unix machine] for archives of what's been posted.

I don't think there would be much complaining from the netghods about creating mod.atari16.sources and binaries groups, given a willing moderator.

As for IBM machines not knowing what their character set is and messing up postings, I suggest that the BITNET sites involved submit an APAR to IBM complaining that their operating system should support ASCII as an alternative to EBCDIC, and see what they say. [I don't mean supporting ASCII terminals! I mean supporting ASCII as the internal character set for files, commands, etc.] While, even if IBM agrees, it will take years, you have to start sometime...
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
(C) Copyright 1986 by John Gilmore.   May the Source be with you!

From 5753228137656854986
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7bd0e421dc7577b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 15:57:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: UNITERM 1.5c
Message-ID: <861020185726.0000054F.AFFX.MA@UMass>
Date: Mon, 20-Oct-86 18:57:26 EDT
Article-I.D.: UMass.861020185726.0000054F.AFFX.MA
Posted: Mon Oct 20 18:57:26 1986
Date-Received: Thu, 23-Oct-86 07:24:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

I am getting tired of these networks. My copy did not work, after all the undecoding, ARC decided I had a bad header. Could someone post UNITERM.ARC to a BBS *anywhere* in the Continental US? Atari BBS is more than fine. From there, others like myself will be able to download it and un-arc it. (Be sure to leave a copy of ARC at the BBS where you upload it, if they don't have it there) Thanks.
Rick

From 6716449472406818058

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aeed9bf98bc6024e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 18:20:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: redundant request (yes, again!)
Message-ID: <8610210120.AA21783@ncsc.ARPA>
Date: Mon, 20-Oct-86 21:20:33 EDT
Article-I.D.: ncsc.8610210120.AA21783
Posted: Mon Oct 20 21:20:33 1986
Date-Received: Wed, 22-Oct-86 01:18:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Could someone send me the documentation for UNITE, and maybe a quick recap of how to use either Uniterm or the Emulator acc to run full screen apps like vi? My screen shows about 12 lines in vi, even though I have the recently posted atari_termcap (or did I download it from Atari Base???) Any help is appreciated.

Jim
Moore@NCSC.arpa

From 3051836133433326553
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5a510228a41ac814,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 18:48:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!CSNET-RELAY.ARPA!
GODDEN%gmr.com
From: GODDEN%gmr.com@CSNET-RELAY.ARPA
Newsgroups: net.micro.atari16
Subject: Lisp/ST
Message-ID: <8610210109.AA07836@ucbvax.Berkeley.EDU>
Date: Mon, 20-Oct-86 21:48:40 EDT
Article-I.D.: ucbvax.8610210109.AA07836
Posted: Mon Oct 20 21:48:40 1986
Date-Received: Wed, 22-Oct-86 01:18:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

From >Expert Systems<, July 86, Vol.3, No.3:

The Lisp/ST system from Robinson Systems provides- for under 1,000 pounds- an AI workstation with 1Mbyte of RAM and disk, 640x400 high resolution graphics, mouse and Lisp software.

Lisp/ST is a version of Common Lisp, providing a development and runtime environmentincluding multi-window support on the GEM operating system. Functions for pretty printing and debugging Lisp programs are included with the package. Lisp/ST is written in the language Modula-2 and can, the developers claim, easily be ported to other operating systems and computers for OEMs.

The Lisp/ST software system costs 99.95 pounds. A complete AI workstation based on the Atari 1040/ST computer with Lisp/ST software is available for 899.00 pounds.

Robinson Systems Engineering Ltd, Red Lion House, St. Mary's Street, Painswick, Gloucestershire, GL6 6QR, England. Tel:(0452)813699.

From -5576498496580938042
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 19:47:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: 23alite.uur (WARNING - LONG)
Message-ID: <1351@lsuc.UUCP>
Date: Mon, 20-Oct-86 22:47:55 EDT
Article-I.D.: lsuc.1351
Posted: Mon Oct 20 22:47:55 1986
Date-Received: Tue, 21-Oct-86 09:21:39 EDT
References: <8610151526.AA17642@trwrb.UUCP> <861016-043934-4496@Xerox>
<1364@trwrb.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: net
Organization: Barrister & Solicitor, Toronto
Lines: 13
Summary: Is my 'alite' right?

As far as I can tell, my copy of 'alite' arrived intact. At least it un ARC'ed. But when I tried to run it (without a MIDI module attached-- just to see if it worked) it loaded and then just seemed to return to the desktop without displaying the picture. Is this right? There were no bombs, just nothing.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura

(416) 652-3880

From -5493608346071210265
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2c108fe88681e3a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 06:30:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!seismo!think!nike!ucbcad!ucbvax!XEROX.COM!
JDavidson.WBST
From: JDavidson.WBST@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Passin' thru...
Message-ID: <861021-063112-1517@Xerox>
Date: Tue, 21-Oct-86 09:30:03 EDT
Article-I.D.: Xerox.861021-063112-1517
Posted: Tue Oct 21 09:30:03 1986
Date-Received: Wed, 22-Oct-86 04:03:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: JDavidson.WBST@Xerox.COM
Organization: The ARPA Internet
Lines: 9

I mistakenly subscribed to Personal Computing before I bought my ST. My
personal opinion is that they think if it isn't a PC or Clone or a Mac
its not a personal computer. They have made almost no mention of either
the Amiga or ST since I started buying this mail box filler. (I don't
plan on resubscribing.)
Personally, asfter reading this magazine for about 6 months is that IBM
has done for PCs what they did for mainframes. Made them unnecessarily
hard to use.
     {John}

From -837246555671061842
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 06:43:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <1170@druhi.UUCP>
Date: Tue, 21-Oct-86 09:43:53 EDT
Article-I.D.: druhi.1170
Posted: Tue Oct 21 09:43:53 1986
Date-Received: Wed, 22-Oct-86 05:03:39 EDT
References: <8610190113.AA06242@ucbvax.Berkeley.EDU>
Organization: AT&T Information System Labs, Denver, Co
Lines: 10

In article <8610190113.AA06242@ucbvax.Berkeley.EDU>, bammi@case.CSNET.UUCP writes:
> Barry,
>   GDOS is available, and has been for some time now to ANY registered
> developer. If you want more info, just call Cindy Clavern @ Atari.

Jwahar,

I stand corrected, thanks.

Barry

From 2808725175974293442
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 06:56:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Re: extra "raw" disk drives
Message-ID: <1171@druhi.UUCP>
Date: Tue, 21-Oct-86 09:56:53 EDT
Article-I.D.: druhi.1171
Posted: Tue Oct 21 09:56:53 1986
Date-Received: Wed, 22-Oct-86 05:03:59 EDT
References: <8610161411.AA02878@mitre-bedford.ARPA> <619@imagen.UUCP>
<648@chinet.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 47
Summary: Teac drives work well

In article <648@chinet.UUCP>, cabbie@chinet.UUCP writes:
> In article <619@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
> >>
> >> Paul Swanson of Nite-Lite Systems (617) 663-4221 (BBS line) has done some
> >> interfacing of "foreign" disk drives to the ST. I think this includes IBM
> >> PC drives (5.25 inch). He of course would prefer to sell you an interface
> >> rather than telling you how to design one, but he certainly could answer your
> >> questions if he has the time.
> >>
> >> -John Sangster
> >> jhs@mitre-bedford.arpa
> >
> >it was written up with only 2 omissions in an old issue of antic (i can give
> >you the issue # if you want), the first omission was that the atari
> >disk drives use cmos level signals so you need to stick a buffer chip
> >in between the drives and second you need to set the access time to 6
> >ms. there was a pgm called sixms.prg to do that posted to the net, i
> >have a copy if you need it.
> >--

> >----
> I have interfaced the CDC drives that are sold by BG micro and those drives
> (Full height DSDD) require at least 10ms step rate. Let the buyer beware!
> Until someone come up with a 10ms step rate program, Those drives are
> useless on the ST.
>
>
>   Rich Andrews
>   ...ihnp4!chinet!cabbie

I've been using a Teac 5.25" drive for about a year now. It works flawlessly without changing the access rate or using a buffer chip. This seems like the drive to use if you need a 5.25" drive.

If you want to upgrade your original single sided 3.5" Atari drive to a double sided drive, I have been told that Epson 3.5" drives work quite well. There are only
two problems. First, the busy light is on the wrong side. You'll have to remount it, or just listen to the drive if you want to see if it is on. :)
Second, the disk eject button is too short to reach through the Atari drive's cabinet. To fix this, you need to replace the eject button on the new drive with the one from the old drive.

I am planning on doing this upgrade soon, so I'll let everyone know how it goes.

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80234
ihnp4!drutx!druhi!lbl

From 1637894858562846086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 06:58:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!husc6!seismo!rochester!ritcv!dmb6863
From: dmb6863@ritcv.UUCP (Infamous Card Shark)
Newsgroups: net.micro.atari16
Subject: Re: LARN
Message-ID: <118@ritcv.UUCP>
Date: Tue, 21-Oct-86 09:58:03 EDT
Article-I.D.: ritcv.118
Posted: Tue Oct 21 09:58:03 1986
Date-Received: Wed, 22-Oct-86 06:27:12 EDT
References: <8610172222.AA17261@ucbvax.Berkeley.EDU>
Reply-To: dmb6863@ritcv.UUCP (Infamous Card Shark)
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 16

In article <8610172222.AA17261@ucbvax.Berkeley.EDU> etu@fingate.BITNET (Esa Turtiainen) writes:

>
>More fire to dicussion about program postings:
>
>Should I send uuencoded LARN? Rather many people
>from ARPA has asked this from me.
>
>Esa Turtiainen
>Helsinki Univ. of Technology
>ETU@FINGATE.BITNET   (UNIX 4.2)
>LK-ET@FINHUTC.BITNET (VM/SP)

     Please POST!!!!!!

                              Dudley Bertram.

From -6250232986555532404
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc7d0df9a21669fe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 07:10:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: More Uemacs troubles
Message-ID: <6384@topaz.RUTGERS.EDU>
Date: Tue, 21-Oct-86 10:10:53 EDT
Article-I.D.: topaz.6384
Posted: Tue Oct 21 10:10:53 1986
Date-Received: Wed, 22-Oct-86 04:00:10 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 30
Keywords: It still doesn't work

I downloaded the second executable for version 3.7 of uemacs last
week. I could not get it to work. Its decodes without any problems,
but as soon as I try to run it, it runs and exits before anything
can happen.

I downloaded the earlier version posted in about July, and the same
exacted thing happened. I rarely have any trouble with sources, so
there must be something about uemacs that my machine does not like.
I have a 1040. I have not had any problems with other big programs
like hack or uniterm that I've pulled off the net.

Any ideas? Could it be the resource file? I didn't think they were
supposed to be straight text.

HELP!!

Thanks,
Phil Paone

paone@topaz.rutgers.edu

--
Phil Paone

(I need 2 tickets to game 4 of the World Series. Mets vs ???)

From -3704886490975911190
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6645a1fb5bead921,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 07:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uklirb!mdoerr
From: mdoerr@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: KKiillll those double characters! - (nf)
Message-ID: <14600009@uklirb.UUCP>
Date: Tue, 21-Oct-86 10:58:00 EDT
Article-I.D.: uklirb.14600009
Posted: Tue Oct 21 10:58:00 1986
Date-Received: Thu, 23-Oct-86 22:59:54 EDT
Lines: 204
Nf-ID: #N:uklirb:14600009:000:5867
Nf-From: uklirb!mdoerr   Oct 21 15:58:00 1986

```
# This is a shell archive.
# Remove everything above and including the cut line.
# Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:  Shell Archiver
# Run the following text with /bin/sh to create:
#    RMBS.DOC
#    RMBS.C
#
# This archive created:  Oct 21, 1986 -- 12:39:52
# By:     a friendly ATARI ST hacker  (using that wonderful machine :-)
#
echo shar: extracting RMBS.DOC
sed 's/^XX//' << \SHAR_EOF > RMBS.DOC
XXKKiillll those double characters!
XX
XXI finally got tired of the horrible sounds my C.Itoh 8510A printer is doing,
```

```
XXwhen printing proff'ed documents in incremental print mode. To cure the
XXproblem, I've written a simple filter to convert overstrike sequences to
XXthe corresponding printer control codes. As there have been some requests
XXfor such a utility, I'm posting the program to the net.
XX
XXThis is a true filter, i.e. reading from stdin and writing to stdout. Watch
XXout for the problems, that Megamax-C is having with I/O-Redirection. The
XXTTP-Application runs fine from the DESKTOP and any COMMAND shell, that
XXdoesn't do redirection of its own. I ran into problems with the COMMAND.PRG,
XXthat comes with the developers kit and the Michtron shell. I suspect problems
XXwith the Beckmeyer shell, too. The filter works nicely with the COMMAND.TOS,
XXthat has been posted by franco@iuvax (thanx a lot!) many months ago.
XXBTW: Lattice-C is also doing I/O-Redirection of its own. Expect similiar
XXproblems as with Megamax-C.
XX
XXThe filter does a little more than is absolutely necessary. I suppose it can
XXhandle nroff output, too. But this hasn't been tested, yet.
XX
XXSend     v v v
XX       /-------\
XX     O-|  bug  |    reports to   ...!seismo!unido!uklirb!mdoerr
XX       \-------/
XX         ^ ^ ^
XX
SHAR_EOF
if test 1279 -ne "`wc -c RMBS.DOC`"
then
echo shar: error transmitting RMBS.DOC '(should have been 1279 characters)'
fi
echo shar: extracting RMBS.C
sed 's/^XX//' << \SHAR_EOF > RMBS.C
XX/* rmbs.c   (V.1.0)
XX *
XX * Rmbs converts the output of text formatters like proff or nroff
XX * (not tested) into a form that is less harmful to the mechanics
XX * of a modern matrix printer. These formatters highlight text by a
XX * technique called overstriking. Rmbs tries to detect the character
XX * sequences that are output for bold, bold and underlined and
XX * underlined text and converts them to the corresponding control
XX * codes of the printer.
XX *
XX * Proff outputs the following sequences:
XX * Bold:              'char' '\b' 'char'
XX * Underlined:        '_' '\b' 'char'
XX * Bold & Underlined: '_' '\b' '_' '\b' 'char' '\b' 'char'
XX * This implies an ambiguity that cannot be easily resolved: What
XX * does '_' '\b' '_' stand for? Is it a bold or an underlined '_'?
XX * For ease of coding I've decided, that it's a bold '_'.
XX *
XX * Because the printer control codes are hardwired into the program,
XX * you must build a different version of the program for every printer
XX * you have. As most people (including me) have only one printer, I
XX * didn't want to bother with a suitable data base of printer codes.
```

```
XX *
XX * Although there's a high probability, that there's no true original
XX * idea in this program, you should give me credit, if you debug,
XX * modify, enhance, or give it away. Lightning shall strike your
XX * computer(s), if you sell this program or any close derivatives
XX * for profit.
XX *
XX * Michael Doerr (uucp: ...!seismo!unido!uklirb!mdoerr)
XX * University of Kaiserslautern (West Germany)
XX */
XX
XX/* This is the only printer specific part of the program. Change the
XX * control codes according to your printer manual.
XX * These codes are for the C.Itoh 8510A:
XX */
XX#define BOLD_ON       "\033!"
XX#define BOLD_OFF  "\033\""
XX#define ULIN_ON       "\033X"
XX#define ULIN_OFF  "\033Y"
XX
XX
XX#include <stdio.h>
XX
XX/* character attributes */
XX#define NONE     0
XX#define BOLD     1
XX#define ULIN     2
XX
XXtypedef int  WORD;
XXtypedef char BYTE;
XXtypedef union    {
XX    WORD    w;
XX    struct  {
XX   BYTE    ch;
XX   BYTE    attrib;
XX    } s;
XX} elem;
XX
XX#define line_len  300
XXelem   line[line_len];
XX
XXmain(argc, argv)
XXint    argc;
XXchar   **argv;
XX{
XX    int     i, high;
XX    BYTE    ch;
XX
XX    for (i = 0; i < line_len;)
XX   line[i++].w = 0;
XX    i = high = 0;
XX
XX    while ((ch = getchar) != EOF)
```

```
XX    {
XX   if (ch == '\n')
XX   {
XX       print_line(high);
XX       i = high = 0;
XX       continue;
XX   }
XX   else if (ch == '\b')
XX       i--;
XX   else if (line[i].s.ch == '\0')
XX       line[i++].s.ch = ch;
XX   else if (line[i].s.ch == ch)
XX       line[i++].s.attrib |= BOLD;
XX   else if (line[i].s.ch == '_')
XX   {
XX       line[i].s.ch = ch;
XX       line[i++].s.attrib |= ULIN;
XX   }
XX   else if (ch == '_')
XX       line[i++].s.attrib |= ULIN;
XX   if (i < 0)
XX       i = 0;
XX   else if (high < i)
XX       high = i;
XX   if (i == line_len)
XX       i = line_len-1;
XX    } /* while */
XX    if (high > 0)
XX   print_line(high);
XX} /* main */
XX
XXprint_line(high)
XXint    high;
XX{
XX    int     i;
XX    BYTE    new, old = NONE;
XX
XX    for (i = 0; i < high;)
XX    {
XX   if (old != (new = line[i].s.attrib))
XX   {
XX       change_state(old, new);
XX       old = new;
XX   }
XX   putchar(line[i].s.ch);
XX   line[i++].w = 0;
XX    }
XX    if (old != NONE)
XX   change_state(old, NONE);
XX    putchar('\n');
XX} /* print_line */
XX
XX#define putstr(str)   char *s = str; s--; while(*++s) putchar(*s)
```

```
XX
XXchange_state(old, new)
XXBYTE    old, new;
XX{
XX    if ((old ^ new) & BOLD)
XX    {
XX   if (new & BOLD)
XX   {   putstr(BOLD_ON);    }
XX   else
XX   {   putstr(BOLD_OFF);   }
XX    }
XX    if ((old ^ new) & ULIN)
XX    {
XX   if (new & ULIN)
XX   {   putstr(ULIN_ON);    }
XX   else
XX   {   putstr(ULIN_OFF);   }
XX    }
XX}
XX
SHAR_EOF
if test 3413 -ne "`wc -c RMBS.C`"
then
echo shar: error transmitting RMBS.C '(should have been 3413 characters)'
fi
# End of shell archive
exit 0


From -2897459693663639140
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad1fb3b9a6137f78,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 08:00:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uklirb!mdoerr
From: mdoerr@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Shar/Unshar for the ST! - (nf)
Message-ID: <14600010@uklirb.UUCP>
Date: Tue, 21-Oct-86 11:00:00 EDT
Article-I.D.: uklirb.14600010
Posted: Tue Oct 21 11:00:00 1986
Date-Received: Thu, 23-Oct-86 23:01:10 EDT
Lines: 742
Nf-ID: #N:uklirb:14600010:000:20524
Nf-From: uklirb!mdoerr    Oct 21 16:00:00 1986

# This is a shell archive.
# Remove everything above and including the cut line.
# Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
```

```
# shar:  Shell Archiver
# Run the following text with /bin/sh to create:
#    SHAR.DOC
#    SHAR.C
#    README.AMG
#
# This archive created:  Oct 21, 1986 -- 12:36:48
# By:    a friendly ATARI ST hacker  (using that wonderful machine :-)
#
echo shar: extracting SHAR.DOC
sed 's/^XX//' << \SHAR_EOF > SHAR.DOC
XXShar/Unshar for the ST!
XX
XXSome of you have been requesting a program to unshar USENET postings on the
XXAtari ST. I finally could spare some time to port such a utility to the ST.
XXIt has been written by Dave Wecker and was posted to mod.amiga.sources some
XXtime ago. (It pays off to look into other news groups, too :-)
XX
XXI've tried to keep its original functionality: It should still work on UNIX,
XXVMS and the Amiga. The Atari stuff is new and has been done by me. It does
XXcontain #ifdef's for Megamax, Lattice and DRI-C. It has never been compiled
XXwith the dev-kit compiler, because wild cards on the command line are a sure
XXway to bomb every DRI-C program (look for the comments in the source). The
XXprogram runs fine, however, when compiled with Megamax or Lattice. (Beware
XXof bugs in the Lattice V.3.03 library!)
XX
XXIt's a great tool, that should be on every netlander's utility disk: Nice for
XXUNIX folks (transfer only one file instead of many) and a real life saver
XXfor all (poor) BITNET and VMS hackers, who don't have access to the Bourne
XXshell. However, this program is not a REAL shell!
XX
XXIt will unshar most of the common shell archives (cat- and sed-type). But it
XXstill has problems with some of the bizarre formats Rich $alz (moderator of
XXmod.sources) has been posting lately. He's assigning file names to the shell
XXvariable $OUT and unpacking on the ST ends up with only the last file of the
XXarchive being put into the file $OUT. Stop him doing such strange things :-(
XX
XXAs all the CLI's for the ST (at least all I know of) don't do wild card
XXexpansion, I have included a routine of my own. Drive specs, directories and
XXambigous path names are accepted. Say 'a:', 'a:\', 'a:*.*', or 'a:\*.*' to
XXshar all regular files on drive A. Or say 'megamax\headers', 'megamax\headers\',
XX'megamax\headers\*.*', or 'megamax\headers\*.h' to pack all header files of
XXthe Megamax compiler into an archive.
XX
XXShar output usually goes to stdout and can be redirected when calling the
XXTTP-application from the desktop. As everyone probably knows by now,
XXMegamax and Lattice programs want to do I/O-redirection of their own and
XXcome into real problems when the redirection is done by a CLI. That's why
XXI've added an additional -o option to the shell archiver. Use '-o outfile'
XXinstead of '>outfile' and you're not going to have any problems. (Well,
XXdon't flame me, iff you do get some problems. Send mail instead.)
XX
XXI'm including the README file of the original posting, too. Maybe someone
```

```
XXis having a ST [real workhorse] and an Amiga [nice game machine].
XX
XXMichael Doerr    University of Kaiserslautern (West Germany)
XX        uucp: ...!seismo!unido!uklirb!mdoerr
XX
SHAR_EOF
if test 2645 -ne "`wc -c SHAR.DOC`"
then
echo shar: error transmitting SHAR.DOC '(should have been 2645 characters)'
fi
echo shar: extracting SHAR.C
sed 's/^XX//' << \SHAR_EOF > SHAR.C
XX/*
XX *  Shar puts readable text files together in a package
XX *  from which they are easy to extract.
XX *
XX *  v 860712 D. Wecker for ULTRIX and the AMIGA
XX *  - stripped down.. does patterns but no directories
XX *  - added a -u (unshar) switch
XX *  v 860715 DBW
XX *  - fixed bug with leading white space in unshar command recognition
XX *  - fixed bug in getting sh paramaters with quotes
XX *
XX *  13.10.86 started work on Atari ST Version - msd
XX *
XX */
XX
XX#define ATARI
XX#define MEGAMAX
XX
XX#include <stdio.h>
XX
XX#ifdef  AMIGA
XX#include <exec/types.h>
XXextern char *getenv(),*scdir(),*malloc(),*index();
XX#endif
XX
XX#ifdef  ULTRIX
XX#include <sys/types.h>
XXextern char *getenv(),*scdir(),*malloc(),*index();
XX#endif
XX
XX#ifdef  VMS
XX#include <types.h>
XXextern char *getenv(),*scdir(),*malloc();
XX#endif
XX
XX#ifdef  ATARI
XX#include <osbind.h>
XX
XX#ifdef  MEGAMAX
XX#define BUFSIZ   _BUFSIZE
XX#define WORD     int
```

```
XX#endif
XX
XX#ifdef LATTICE
XX/* Don't use the library of version 3.03 or you'll get bombs when opening
XX * the 21st file after 20 files have been opened AND CLOSED.
XX */
XX#define WORD    short
XX#define index   strchr
XX#define rindex  strrchr
XX#endif
XX
XX#ifdef DRI
XX/* DON'T use wildcards (* or ?) on the command line of a DRI-C program.
XX * The startup code tries to expand the wildcards in CP/M-68K fashion.
XX * That's a guaranteed way to get bombs.
XX */
XX#define WORD    short
XXextern char *fopen();
XX#endif
XX
XXextern char *malloc(),*index(),*rindex();
XX
XXtypedef struct {
XX    char reserved[21];    /* bytes 0-20 */
XX    char attrib; /* byte  21   */
XX    WORD time;        /* bytes 22-23     */
XX    WORD date;        /* bytes 24-25  */
XX    long size;        /* bytes 26-29     */
XX    char fname[14];   /* bytes 30-43     */
XX} DTA;
XX#endif
XX
XX
XX#define BADCH   ((int)'?')
XX#define EMSG    ""
XX#define tell(s)  {fputs(*nargv,stderr);fputs((s),stderr); \
XX       fputc(optopt,stderr);fputc('\n',stderr);return(BADCH);}
XX#define rescanopts() (optind = 1)
XX
XXint    optind = 1,   /* index into parent argv vector */
XX   optopt;       /* character checked for validity */
XXlong   fsize;        /* length of file */
XXchar   *optarg; /* argument associated with option */
XXchar   *sav[100];    /* saved file names */
XXint    savind;       /* save index */
XXFILE   *OutPut;
XX
XX/* OPTIONS */
XXint    Verbose = 0;       /* provide append/extract feedback */
XXint    Basename = 0;      /* extract into basenames */
XXint    Count = 0;         /* count characters to check transfer */
XXchar   *Delim = "SHAR_EOF";    /* put after each file */
XXchar   Filter[100] = "cat";    /* used to extract archived files */
```

```
XXchar   *Prefix = NULL;        /* line prefix to avoid funny chars */
XXint    UnShar = 0;        /* do we unshar an input file? */
XX
XX#define SED "sed 's/^%s//'"    /* used to remove prefix from lines */
XX#define USAGE    "[-u archive] [[-a] [-p prefix] [-d delim] [-bcv] [-o archive]
files]"
XX#define OPTSTRING "U:u:AaP:p:D:d:BbCcVvO:o:"
XX
XX#ifdef VMS
XXchar *index(s,c)
XXchar   *s;
XXchar   c;
XX{
XX    while (*s != 0 && *s != c) s++;
XX    if (*s == 0 && *s != c) s = 0;
XX    return(s);
XX}
XX#endif
XX
XX#ifdef ATARI
XXtime(clock)
XXlong *clock;
XX{
XX    *clock = Gettime();
XX}
XX
XXchar *ctime(clock)
XXlong *clock;
XX{
XX    char datetime[50];
XX    static char *month[] =
XX    {   "Jan", "Feb", "Mar", "Apr", "Mai", "Jun",
XX   "Jul", "Aug", "Sep", "Oct", "Nov", "Dec"    };
XX    sprintf(datetime, "%s %d, %d -- %d:%02d:%02d\n",
XX       month[((*clock >> 21) & 0xf) - 1],
XX       (int) (*clock >> 16) & 0x1f,
XX       (int) ((*clock >> 25) & 0x7f) + 1980,
XX       (int) (*clock >> 11) & 0x1f,
XX       (int) (*clock >> 5) & 0x3f,
XX       (int) (*clock & 0x1f) * 2);
XX    return &datetime;
XX}
XX#endif
XX
XXint header(ppchFiles)
XXchar   *ppchFiles[];
XX{
XX    extern char *ctime();
XX    auto long clock;
XX    register char **ppchList;
XX#ifdef ATARI
XX    char *pchOrg = "using that wonderful machine :-";
XX    char *pchName = "a friendly ATARI ST hacker";
```

```
XX#else
XX    register char *pchOrg = getenv("ORGANIZATION");
XX    register char *pchName = getenv("NAME");
XX#endif
XX
XX    fputs("# This is a shell archive.\n", OutPut);
XX    fputs("# Remove everything above and including the cut line.\n", OutPut);
XX    fputs("# Then run the rest of the file through sh.\n", OutPut);
XX    fputs("#----cut here-----cut here-----cut here-----cut here----#\n",
OutPut);
XX    fputs("#!/bin/sh\n", OutPut);
XX    fputs("# shar:\tShell Archiver\n", OutPut);
XX    fputs("# Run the following text with /bin/sh to create:\n", OutPut);
XX    for (ppchList = ppchFiles; *ppchList; ++ppchList)
XX   fprintf(OutPut, "#\t%s\n", *ppchList);
XX    time(& clock);
XX    fprintf(OutPut, "#\n# This archive created:  %s", ctime(&clock));
XX    if (pchName)
XX   fprintf(OutPut, "# By:\t%s  (%s)\n#\n", pchName,
XX        pchOrg ? pchOrg : "Dave Wecker Midnight Hacks");
XX    return(0);
XX}
XX
XXint archive(input, output)
XXchar   *input, *output;
XX{
XX    auto char line[BUFSIZ];
XX    register FILE *ioptr;
XX    register char *ctrl_z;
XX
XX    if (ioptr = fopen(input, "r")) {
XX   fprintf(OutPut, "%s << \\%s > %s\n", Filter, Delim, output);
XX   while(fgets(line, BUFSIZ, ioptr)) {
XX#ifdef ATARI
XX       /* My TVX usually appends ^Z to a file. */
XX       if (ctrl_z = index(line, '\032')) {
XX        *ctrl_z++ = '\n';
XX        *ctrl_z = '\0';
XX       }
XX#endif
XX       if (Prefix) fputs(Prefix, OutPut);
XX       fputs(line, OutPut);
XX       if (Count) fsize += strlen(line);
XX   }
XX   fputs(Delim, OutPut);
XX   fputc('\n', OutPut);
XX   fclose(ioptr);
XX   return(0);
XX    }
XX    else {
XX   fprintf(stderr, "shar: Can't open '%s'\n", input);
XX   return(1);
XX    }
```

```
XX}
XX
XXshar(file)
XXchar   *file;
XX{
XX    register char *basefile = file;
XX    if (!strcmp(file, "."))
XX   return;
XX    fsize = 0;
XX    if (Basename) {
XX   while(*basefile)
XX       basefile++;         /* go to end of name */
XX   while (basefile > file &&
XX#ifdef ATARI
XX       *(basefile-1) != '\\' && *(basefile-1) != ':')
XX#else
XX       *(basefile-1) != '/')
XX#endif
XX       basefile--;
XX    }
XX    if (Verbose) fprintf(OutPut, "echo shar: extracting %s\n", basefile);
XX    if (archive(file, basefile)) exit(66);
XX    if (Count) {
XX   fprintf(OutPut, "if test %ld -ne \"`wc -c %s`\"\n",fsize,basefile);
XX   fprintf(OutPut, "then\necho shar: error transmitting %s ",basefile);
XX   fprintf(OutPut, "'(should have been %ld characters)'\nfi\n",fsize);
XX    }
XX}
XX
XXint main(argc, argv)
XXint    argc;
XXchar   **argv;
XX{
XX    auto char *ppchFiles[256];
XX    register int  C;
XX    register char **ppchList = ppchFiles;
XX    register int errflg = 0;
XX
XX    OutPut = stdout;
XX    while(EOF != (C = getopt(argc, argv, OPTSTRING))) {
XX   switch(tolower(C)) {
XX   case 'v':
XX       Verbose++;
XX       break;
XX   case 'c':
XX       Count++;
XX       break;
XX   case 'b':
XX       Basename++;
XX       break;
XX   case 'd':
XX       Delim = optarg;
XX       break;
```

```
XX   case 'a': /* all the options */
XX       optarg = "XX";
XX       Verbose++;
XX       Count++;
XX       Basename++;
XX       /* fall through to set prefix */
XX   case 'p':
XX       sprintf(Filter, SED, Prefix = optarg);
XX       break;
XX   case 'o':
XX       if (!(OutPut = fopen(optarg, "w"))) {
XX        fprintf(stderr, "shar: Can't open '%s'\n", optarg);
XX        exit(1);
XX       }
XX       break;
XX   case 'u':
XX       UnShar++;
XX       dounshar(optarg);
XX       break;
XX   default:
XX       errflg++;
XX   }
XX    }
XX
XX    if (UnShar) exit(0);
XX
XX    C = getarg(argc, argv);
XX    if (errflg || EOF == C) {
XX   if (EOF == C)
XX       fprintf(stderr, "shar: No input files\n");
XX   fprintf(stderr, "usage: shar %s\n", USAGE);
XX   exit(1);
XX    }
XX
XX    savind = 0;
XX    do {
XX   if (getpat(optarg)) exit(2);
XX    }
XX    while (EOF != (C = getarg(argc, argv)));
XX
XX    sav[savind] = 0;
XX    header(sav);
XX    for (ppchList = sav; *ppchList; ++ppchList) shar(*ppchList);
XX    fputs("# End of shell archive\n", OutPut);
XX    fputs("exit 0\n", OutPut);
XX    exit(0);
XX}
XX
XXint getpat (pattern)
XXchar   *pattern;
XX{
XX#ifdef ATARI
XX/* include normal, read-only, hidden, system and updated files */
```

```
XX#define all_files 0x27
XX
XX    DTA  dta, *old_dta;
XX    char lead_in[256], path[256];
XX
XX    old_dta = (DTA *) Fgetdta();
XX    Fsetdta(&dta);
XX    if (fix_path(pattern, &lead_in, &path))
XX    {
XX   if (!Fsfirst(&path, all_files))
XX   {
XX       do {
XX        sav[savind] = malloc(strlen(lead_in)+strlen(dta.fname)+1);
XX        strcpy(sav[savind], lead_in);
XX        strcat(sav[savind++], dta.fname);
XX       } while (!Fsnext());
XX   }
XX    }
XX    Fsetdta(old_dta);
XX#else
XX    register char *ptr;
XX
XX#ifdef AMIGA
XX    while (ptr = scdir(pattern)) {
XX#else
XX    ptr = pattern;
XX    {
XX#endif
XX   sav[savind] = malloc(strlen(ptr)+1);
XX   strcpy(sav[savind++],ptr);
XX   if (access(ptr,4)) {
XX       fprintf(stderr, "No read access for file: %s\n",ptr);
XX       return(-1);
XX   }
XX    }
XX#endif
XX    return(0);
XX}
XX
XX/*
XX * get option letter from argument vector
XX */
XXint getopt(nargc, nargv, ostr)
XXint    nargc;
XXchar   **nargv, *ostr;
XX{
XX    register char *oli;        /* option letter list index */
XX    static char *place = EMSG; /* option letter processing */
XX
XX    if(!*place) {         /* update scanning pointer */
XX   if(optind >= nargc || *(place = nargv[optind]) != '-' || !*++place)
XX       return(EOF);
XX   if (*place == '-') {   /* found "--" */
```

```
XX      ++optind;
XX      return EOF;
XX   }
XX    }                /* option letter okay? */
XX    if ((optopt = (int)*place++) == (int)':' || !(oli = index(ostr,optopt))) {
XX   if(!*place) ++optind;
XX   tell(": illegal option -- ");
XX    }
XX    if (*++oli != ':') {  /* don't need argument */
XX   optarg = NULL;
XX   if (!*place)
XX      ++optind;
XX    }
XX    else {            /* need an argument */
XX   if (*place) {      /* no white space */
XX      optarg = place;
XX   }
XX   else if (nargc <= ++optind) {    /* no arg */
XX      place = EMSG;
XX      tell(": option requires an argument -- ");
XX   }
XX   else {
XX      optarg = nargv[optind]; /* white space */
XX   }
XX   place = EMSG;
XX   ++optind;
XX    }
XX    return optopt;        /* dump back option letter */
XX}
XX
XXint getarg(nargc, nargv)
XXint    nargc;
XXchar   **nargv;
XX{
XX    if (nargc <= optind) {
XX   optarg = (char *) 0;
XX   return EOF;
XX    }
XX    else {
XX   optarg = nargv[optind++];
XX   return 0;
XX    }
XX}
XX
XXdounshar(ArcNam)
XXchar   *ArcNam;
XX{
XX    register int i,j,strt;
XX    register FILE *inptr,*outptr;
XX    auto char line[BUFSIZ];
XX    int DirNum = -1;
XX    int Prefix = 0;
XX    char Dirs[5][40],FilNam[128],Delim[40],ScrStr[128];
```

```
XX    char *ptr;
XX
XX    if (!(inptr = fopen(ArcNam,"r"))) {
XX   fprintf(stderr,"shar: Can't open archive '%s'\n", ArcNam);
XX   return;
XX    }
XX    while (fgets(line,BUFSIZ,inptr)) {
XX   for (strt = 0; line[strt] == ' ' || line[strt] == '\t'; strt++) ;
XX   if (strncmp(&line[strt],"sed ",4) == 0) {
XX       Prefix = 0;
XX       if (!(ptr = index(&line[strt],'/'))) goto getfil;
XX       if (*++ptr == '^')
XX        if (*++ptr == '@') goto getfil;
XX       while (*ptr++ != '/') Prefix++;
XX       goto getfil;
XX   }
XX   else if (strncmp(&line[strt],"cat ",4) == 0) {
XX       Prefix = 0;
XX       ;
XXgetfil:
XX
XX#ifdef VMS
XX       strcpy(FilNam,"[");
XX#else
XX       FilNam[0] = 0;
XX#endif
XX
XX       for (i = 0; i <= DirNum; i++) {
XX
XX#ifdef VMS
XX        strcat(FilNam,".");
XX        strcat(FilNam,Dirs[i]);
XX#else
XX        strcat(FilNam,Dirs[i]);
XX        strcat(FilNam,"/");
XX#endif
XX
XX       }
XX
XX
XX#ifdef VMS
XX       strcat(FilNam,"]");
XX#endif
XX
XX       getshpar(line,">",ScrStr);
XX       strcat(FilNam,ScrStr);
XX       getshpar(line,"<<",Delim);
XX       fprintf(stderr,"Creating %s ...",FilNam);
XX       fflush(stderr);
XX       outptr = fopen(FilNam,"w");
XX       while (fgets(line,BUFSIZ,inptr)) {
XX        if (strncmp(line,Delim,strlen(Delim)) == 0) break;
XX        if (outptr)
```

```
XX           if (strlen(line) <= Prefix)
XX            fputs(line,outptr);
XX           else
XX            fputs(&line[Prefix],outptr);
XX       }
XX       if (outptr) {
XX        fclose(outptr);
XX        fprintf(stderr,"...done\n");
XX       }
XX       else fprintf(stderr,"...error in creating file\n");
XX   }
XX   else if (strncmp(&line[strt],"mkdir ",6) == 0) {
XX       fprintf(stderr,"Need to make directory:\t%s\n",&line[strt+6]);
XX   }
XX   else if (strncmp(&line[strt],"chdir ",6) == 0) {
XX       if (line[strt+6] == '.' && line[strt+7] == '.') DirNum--;
XX       else strcpy(Dirs[++DirNum],&line[strt+6]);
XX       if (DirNum < -1) DirNum = -1;
XX   }
XX   else if (strncmp(&line[strt],"cd ",3) == 0) {
XX       if (line[strt+3] == '.' && line[strt+4] == '.') DirNum--;
XX       else strcpy(Dirs[++DirNum],&line[strt+3]);
XX       if (DirNum < -1) DirNum = -1;
XX   }
XX    }
XX    fclose(inptr);
XX}
XX
XXgetshpar(line,sea,par)
XXchar *line,*sea,*par;
XX{
XX    register char *scr1,*scr2;
XX
XX    while (*line) {
XX   scr1 = line;
XX   scr2 = sea;
XX   while (*scr1 && *scr2 && *scr1 == *scr2) {
XX       scr1++;
XX       scr2++;
XX   }
XX   if (*scr2 == 0) {
XX       if (*scr1 == 0) {
XX        *par = 0;
XX        return;
XX       }
XX       while ( *scr1 == ' ' || *scr1 == '\t' ||
XX        *scr1 == '\\' || *scr1 == '\'' || *scr1 == '"') {
XX        if (*scr1 == '\'' || *scr1 == '"') {
XX            scr2 = scr1++;
XX            break;
XX        }
XX        scr1++;
XX       }
```

```
XX       if (*scr2 != 0) {
XX        while (*scr1 != *scr2 && *scr1 != 0) *par++ = *scr1++;
XX        *par = 0;
XX        return;
XX       }
XX       while ( *scr1 != 0 && *scr1 != ' ' && *scr1 != '\t' &&
XX        *scr1 != '\n' && *scr1 != '\r') {
XX        if (*scr1 != '\\') *par++ = *scr1++;
XX        else            scr1++;
XX       }
XX       *par = 0;
XX       return;
XX   }
XX   line++;
XX    }
XX    *par = 0;
XX}
XX
XX#ifdef ATARI
XXint fix_path (pattern, lead_in, path)
XXregister char *pattern, *lead_in, *path;
XX{
XX    register int  pat_len, state, attrib;
XX    register char *ptr;
XX
XX    if ((!(pat_len = strlen(pattern)))       ||
XX   ((pat_len == 2) && (pattern[1] == ':'))   ||
XX   (pattern[pat_len-1] == '\\')         )
XX   state = 1;
XX    else
XX    {  /* get attrib of path */
XX   attrib = Fattrib(pattern, 0, 0);
XX   if (attrib == -33 /* file not found */)
XX       state = 3;
XX       /* Very strange feature (??? - bug ?) of GEMDOS:
XX        * This happens, when looking at non existing files and
XX        * *DIRECTORIES*. I've expected Fattrib returning 0x10,
XX        * but directories don't seem to be files to GEMDOS.
XX        * Assume we're looking at a directory.
XX        */
XX   else if (attrib < 0 /* other errors */)
XX       state = 0;
XX   else if (!(attrib & 0x10) /* not a directory */)
XX       state = 2;
XX   else if ((attrib & 0x10) /* is a directory */)
XX       state = 3;
XX   else /* catch unexpected results */
XX       state = 0;
XX    }
XX    switch (state)
XX    {
XX    case 0:
XX   *lead_in = '\0';
```

```
XX   *path = '\0';
XX   break;
XX    case 1:
XX   strcpy(lead_in, pattern);
XX   strcpy(path, pattern);
XX   strcat(path, "*.*");
XX   break;
XX    case 2:
XX   strcpy(path, pattern);
XX   if ((ptr = rindex(pattern, '\\')) ||
XX       (ptr = rindex(pattern, ':'))  )
XX   {
XX       strcpy(lead_in, pattern);
XX       lead_in[(ptr-pattern)+1] = '\0';
XX   }
XX   else
XX       *lead_in = '\0';
XX   break;
XX    case 3:
XX   strcpy(lead_in, pattern);
XX   strcat(lead_in, "\\");
XX   strcpy(path, pattern);
XX   strcat(path, "\\*.*");
XX   break;
XX    default:
XX   return 0;
XX    }
XX    return (state != 0);
XX}
XX#endif
XX
SHAR_EOF
if test 13843 -ne "`wc -c SHAR.C`"
then
echo shar: error transmitting SHAR.C '(should have been 13843 characters)'
fi
echo shar: extracting README.AMG
sed 's/^XX//' << \SHAR_EOF > README.AMG
XX
XXEnclosed is a first version of "shar.c" (v 860712 DBW) that will run on
XXULTRIX (U**X 4.n), VMS and the AMIGA. I finally got fed up with ARCV
XXMKARCV and decided to do things right.
XX
XXThe main item of interest is that it handles wild-cards on the AMIGA and will
XXalso UNSHAR a file (for the AMIGA and VMS which don't necessarly have
XXthe Bourne Shell). It will NOT create a SHAR file with sub directories. The
XXAmiga version was done with MANX-Aztec-C, it probably needs some changes to
XXrun under Lattice.
XX
XX/* Moderators note:  This program will allow interchanging shar formats from
XX * Unix and the Amiga.  I have tried several Unix shar formats and they have
XX * all successfully unshared using this program on the amiga, and this will
XX * also create shar files that will unshar under Bourne Shell without any
```

```
XX * problems.
XX */
XX
XX                regards,
XX                dave (ucbvax!decwrl!cookie.dec.com!wecker)
XX
XXCreating a shar file:
XX
XX   AMIGA:   shar >foo.shar -a makefile *.h *.c
XX
XX   VMS: create a batch job that executes:
XX        $ shar -a makefile *.h *.c
XX        edit the batch .LOG file (which is your shar file)
XX
XX   U**X:    shar -a makefile *.h *.c >foo.shar
XX
XX        (P.S. the -a switch means do all options)
XX
XXExtracting from a shar file:
XX
XX   AMIGA:   shar -u foo.shar
XX
XX   VMS: shar -u foo.shar
XX
XX   U**X:    shar -u foo.shar   or    sh foo.shar
XX
XX
XXInstallation:
XX
XX   AMIGA:   cc -DAMIGA shar.c
XX        ln -o shar shar.o -lc
XX
XX   VMS: cc/DEFINE=VMS shar.c
XX        link shar,sys$library:vaxcrtl/lib
XX        shar :== $dev:[dir]shar
XX
XX   U**X:    cc -O -DULTRIX -o shar shar.c -lc
XX
XX
XXJust typing "shar" will yield a usage line. (Doc: thanks for the code to
XXbase this off of).
XX
XX
SHAR_EOF
if test 1580 -ne "`wc -c README.AMG`"
then
echo shar: error transmitting README.AMG '(should have been 1580 characters)'
fi
# End of shell archive
exit 0


From -198379360728420408
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,db5898702c5cf6fb
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 08:22:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Computer Sci Club)
Newsgroups: net.micro,net.micro.atari16
Subject: Re: New way to post binaries - discussion on format
Message-ID: <2844@watmath.UUCP>
Date: Tue, 21-Oct-86 11:22:12 EDT
Article-I.D.: watmath.2844
Posted: Tue Oct 21 11:22:12 1986
Date-Received: Wed, 22-Oct-86 04:12:35 EDT
References: <2035@dalcs.UUCP>
Reply-To: csc@watmath.UUCP (Computer Sci Club)
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 61
Xref: watmath net.micro:15803 net.micro.atari16:2721
Summary:

I mentioned in a previous article that I had written some arbitrary 8 bit encoding programs that I could easily turn into an archiver specifically designed for network transfer. Since there seems to be some interest in the topic in general, I'll tell you what my programs do.

In the most general case, my encoding routines are given a list of characters that the transmission medium does not want to see. It will then never generate those characters. It accepts a stream of arbitrary 8 bit bytes, and produces an encoded or decoded stream.

The actual encoder operates in two modes: eight bit encoding (M8) and seven bit encoding (M7). The encoder decides what mode it should be running in, depending on the cost of the mode.

In seven bit encoding mode, any seven bit character can be transmitted. Any character the encoder has been told is pathological is mapped into a two character escape code. This mode is obviously very cheap for text. Any transmittable character is sent as itself.

In eight bit mode, the encoder can accept any 8 bit value. Each group of three input bytes is turned into four output 6 bit values. These six bit values are then mapped onto the ASCII characters "a-zA-Z,.".

Run length encoding is performed in both modes.

The archive format I was considering would have a special archive control character (something non-controversial) which would never be generated by the encoder. The archive control characters would signal the beginning

of easily parse text strings that would describe the beginning and end
of archived files, their CRC's and lengths. It would be possible to
generate checkpoints in the archive. The archiver could extract all
undamaged files from an damaged archive.

The checkpoints could be used for retransmitting parts of the archive. If
an archive was damaged, the archiver could tell the user what part of the
archive it needed replaced. Anyone else who had a complete archive could use
that information to generate just the data needed to repair the broken archive.

The archiver will treat a set of unordered files as an archive. Each
file would be searched for a header. The header would identify the archive
and be used to order the parts. It would then read the files in the
correct order. The archive creation command would automatically generate
a numbered set of files for posting, according to a maximum size constraint.
No more editing and cat'ing of news articles.

My experiments show me that this program encodes a.out files slightly more
cheaply than uuencode, text files are very cheap. The experimental version
does not transmit any of the following characters: all control characters,
"<>{}[]^|\\~", and del.

If there is any interest, myself and another fellow here, Mike Gore, will
put this together out of code we already have (for encoding, CRC checking)
and we will post the source (for UNIX and Atari) and uuencoded versions for
the Atari ST.

It would be written to be portable.

Comments?

Tracy Tims
mail to ihnp4!watmath!unit36!tracy

From -1504992276707832039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8a1a4d49d6f704ab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 09:34:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!pyramid!prls!philabs!cmcl2!lanl!unm-
la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Vi Clone Editor Posting
Message-ID: <410@unmvax.UUCP>
Date: Tue, 21-Oct-86 12:34:42 EDT
Article-I.D.: unmvax.410
Posted: Tue Oct 21 12:34:42 1986
Date-Received: Fri, 24-Oct-86 16:56:44 EDT
Distribution: na
Organization: Univ. of New Mexico, Albuquerque

Lines: 30
Keywords: Only ONE try!

OK - in response to many requests, I am posting the binaries to my Vi editor clone VIX. This is one last try at posting a big binary posting on this net group. I WILL NOT repost, I I would request that others do the same. Let's give it a try. If it fails, we will wait till the mod group is formed to do this sort of thing.

The posting will follow in 3 parts. Parts 1 and 2 are a split uuencoded file - about 40K bytes each. This should be well under the choke limits at most places. Since this is a uuencoded file, some sites may barf on the {}'s, but so it goes. Part 3 is some documentation, suitable for printing as is, but without any pagination.

Please direct any comments/suggestions to me. If this posting chokes at too many places, I will wait for the mod group before trying again.

Note that the sources are avaiable on 2 single sided or 1 double sided atari disk. Send me a pre-formatted disk + return postage or $3 handling, and I will send you the complete sources for the VIX version, plus the native TVX version. All the stuff needed for a UNIX or IBM-PC port are included.

--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From -3708544777498274197
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ddb485efa2223cb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 09:41:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!philabs!
cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: VIX - Vi clone part 3/3
Message-ID: <413@unmvax.UUCP>
Date: Tue, 21-Oct-86 12:41:24 EDT
Article-I.D.: unmvax.413
Posted: Tue Oct 21 12:41:24 1986
Date-Received: Sat, 25-Oct-86 05:46:54 EDT
Distribution: na
Organization: Univ. of New Mexico, Albuquerque

Lines: 621
Keywords: Documentation

This is the documentation for VIX. Please note that VIX is NOT an exact work-a-like, but pretty darned close for the most often used commands. You will be comfortable using it.
------------ cut here for documentation ---------------------

VIX Reference Manual

This is the Reference Manual for VIX, a full screen editor written in C by Dr. Bruce E. Wampler. (Current address: Dr. Bruce E. Wampler, University of New Mexico, Department of Computer Science, Farris Engineering Center, Albuquerque, NM 87131; uucp: ...{ucbvax | gatech | ihnp4!lanl}!unmvax!wampler). Any comments, bug reports, or suggestions should be sent to that address. Full source code is also avaiable.

VIX is NOT Vi, but a close emulation based on the editor called TVX. While the majority of the common commands are identical, there are some inherent differences in the way TVX and Vi treat text. Whenever possible, VIX emulates Vi commands exactly. When that wasn't possible, the emulation won't produce a surprise, or will be implemented as a completely different command name. (Mostly as 'q' prefix commands.) None of the underlying ex commands are avaiable.

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********* General Notes

Most commands also take an optional numeric count. The default count is always one. Commands that allow a count value are preceded by the letter 'n' in the following descriptions. Whenever a command produces output or an error message, it appears on the bottom line of the screen.

The BACKSPACE key (Control-H on some terminals) is used to edit input text. When VIX is accepting commands, BACKSPACE will cause the character immediately before the cursor to be deleted.

Vi uses the ':' command to read and write the file (among other things). Vix uses the ':' to set operating parameters such as autoindent, screen size, etc. The 'ZZ' (or 'ZA' to abort without changes) command is used by vix to exit.

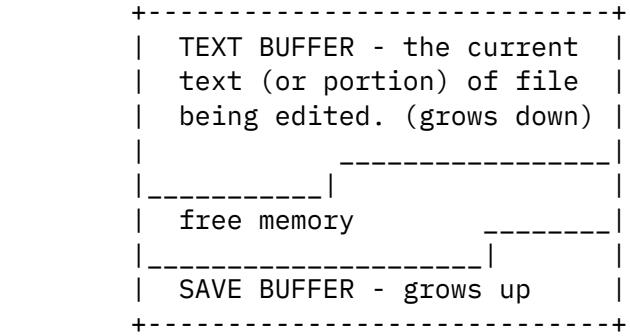
Vix does not have the underlying ex editor, so none of the escape to ex commands work. Vix does have the TVX repeat loop, however, and this compensates to a great extent for the need for ex features. Please consult the TVX manual for examples of using the repeat loop. Note that when using the repeat loop with vix, the commands will be vix commands and not tvx commands.

VIX uses two techniques for protecting the original file from editing mistakes. First, each time a file is edited, a new version is created, and the previous version retained in its original form as a backup. This file will change the original file extension to '.BAK'.

***** The Text Buffer and Moving Text

The VIX emulation works entirely in the available memory for editing. The text from the file which is being edited is held in a buffer in main memory. If a file is particularly large, it may not entirely fit into main memory. The buffer size limit in no way restricts the total size of a file that can be edited by VIX. To make editing large files easier, some commands apply to the entire file and cause automatic cross buffer manipulation.

VIX actually divides the internal memory into two parts: the text buffer and the save buffer. The text buffer (or simply the buffer) is used to hold the file (or part of the file) being edited. There is only one such text buffer. The save buffer is used for moving text, both from one part of the text buffer to the other, as well as to and from external files. The maximum size of the save buffer depends on the amount of text currently residing in the main text buffer. The following diagram shows the internal VIX memory organization:



Text is added to the text buffer when the file is first read in (or created). If the file doesn't fit into one buffer, you will have to manually "page" the text into the buffer. Text is added to the save buffer in one of several ways. VIX has added commands to move text from the text buffer to the save buffer, and move the contents of the save buffer to the text buffer. VIX also has "cut mode". When cut mode is enabled (the default), when lines are killed, they are automatically copied into the save buffer as well as being deleted from the text buffer. When off, deleted lines are not saved.

It is also possible to save the contents of the save buffer to a new external file, and to load the save buffer from an external file.

'P' and 'p' are used with 'y' and '^Y' to move text around. 'P' causes the text in the save buffer to be inserted before the current cursor position. 'p' is used to insert the save buffer after the current line. The saved text remains in the save buffer.

The 'y' command command will yank (save) the current line in the save buffer, and move the cursor down one line. On the screen, 'y' appears to have the same behavior as 'j'. If n is supplied, then n lines will be yanked. 'y' can also be used sequentially. If no other commands intervene, consecutive 'y' commands will continue adding lines to the save buffer. If any other commands are entered between consecutive 'y' commands, the previous contents of the save buffer will be lost, and replaced with the new line. If cut mode is on (the deault), a 'dd' will overwrite the save buffer! The 'Y' command can be used to append lines to the current save buffer without losing the previous contents.

The 'd/' command can be used with 'y' 'Y', 'P' and 'p' to move text. Use 'y' to save the text to be moved, immediately delete the saved text with 'd/', then insert it at the new place with 'p' or 'P'. The last line of the file is can be saved in the save buffer only once, and an error message will be printed if you attempt to save the last line a second time.

A 'qy' is similar to 'y' yank, but the text saved in the save buffer is read in from an external file instead of from the text buffer. When 'qy' is entered, the save buffer is cleared, and the user is prompted for the name of the file to read. VIX then will read as much of the external file into the save buffer as it can. The 'P' or 'p' command can then be used to insert the save buffer text into the current file at the desired location. If there is not enough room in the save buffer to hold the entire file, then only part of the file is read and a diagnostic message printed.

A 'qp' causes the contents of the save buffer will be written to a new file. After 'qp' is entered, you will be prompted for the name of the output file, and then the contents of the save buffer will be written to that file.

The 'qw' command is used to explicitly go from one buffer to the next. By default, when n is >= 0, the entire current buffer is written to the new version of the file being edited, and the next buffer full of the original file (if any) is read in. If a negative n is supplied (any negative value, most easily '-qw'), then only the part of the buffer up to (but not including) the current line is written. Then as much more of the file as possible is read to the end of the current buffer. Thus, a negative n is useful when a file won't fit, and the split point is at an awkward place. It is also useful when a 'qy' yanked file won't fit.

***** Searching

Unlike Vi, end of lines are not special to VIX. Thus all the cursor movement commands and delete single character commands will treat the end of line as just another character. This also means that a <Return> (end of line) is a valid search character, and thus makes it impossible to end a find pattern with a <Return>. The <Escape> key is used to mark the end of a find pattern. VIX also supports find pattern wild cards somewhat different that standard VI.

Another basic concept of VIX is the "last thing." Whenever VIX finds a pattern from the search command, skips over a word, or gets from or puts to the save buffer, that text is considered the "last thing." The 'd/' will delete the "last thing".
While this is this a powerful editing concept, it does have some consequences. First, the cursor will always be placed AFTER the pattern just found.

The search normally ignores the case of the letters in the pattern. If the 'q:f' parameter is set with 0 ('0q:f'), then search command will match only the exact case. If the pattern is found, then the cursor will be placed immediately following the pattern. The pattern may be at most 100 characters long.

VIX supports extensive wild card matching. The 'q:m' set parameter controls whether or not wild card matching is turned on. Normally, it is. The wild card matching in VIX is based on the concept of 'sets of special characters'. VIX predefines 6 sets of characters, and allows the user to define one additional set. When a special control character is included as part of the find pattern, then any character in the specified set will match the pattern. The predefined sets are:

```
^A - Alphanumeric characters: a-z, 0-9
^D - Digits: 0-9
^L - Letters: a-z
^O - Other characters: all characters except a-z, 0-9
^P - Punctuation: '.', ',', '!', '?'
^X - Any character: any printable character
^U - User character: any character in user set, set by ':U'
```

Any of the sets may be specified by entering the proper control character in the find pattern: Control-A for the ^A set. Thus, entering a find pattern of '^L^D' would match any letter followed by any digit. Since it may be desirable to match a sequence of one of the character sets, two prefix characters are supported. A '^W' before one of the above sets will match a 'word' of that set. Thus, '^W^L' will match any word, and '^N^D' will match any number. The find pattern 'st^W^L' would match words starting with 'st'. The '^N' prefix is used to make a 'word' of characters NOT included in the given set. Thus, '^N^L' will match a 'word' of characters NOT including the letters a-z. A match 'word' consists of any sequence of

characters (at least one character long) found in the given set, up to the first character not in the set. End of lines also terminate all wild card patterns. The only real way to adequately understand VIX wild cards is to use them in practice.

The last pattern found with the find command (up to 100 characters) is saved in an internal buffer. The '*' command will insert that pattern into the text at the current cursor location. If the last find pattern included wild card characters, the pattern saved will be the actual text matched, and not the wild cards themselves.

'q/' is the same as '/', except the search will cross buffer boundaries. Whenever a buffer is searched without finding the pattern, the next buffer will be read in. The screen will not change until the pattern is found or the file is exhausted. If the pattern is not found anywhere, then the entire file will have been written out, and there will be an empty buffer. The 'qb' command may be used at that point to get back to the beginning of the file.

***** Repeat loops

Probably the most powerful editing tool provided by VIX is the repeat loop. This allows arbitrary command sequences to be entered, and repeated any number of times. VIX will have at least 5 different repeat buffers. The repeat loop is used instead of the standard Vi macro command facility.

When 'n<' is entered, the editor echoes 'Repeat: n<' at the bottom of the screen. The user then types in any series of commands to be repeated n times. The repeat command is terminated with a matching '>' and a double escape (echoed as $$). Repeat loops may not be nested. The repeat loop has two typical useful functions: one is to replace multiple occurrences of a string with another (e.g., "10</onec/two>$$"), a second is to save a complicated sequence of commands to be repeated as necessary with the '@' command (i.e., a macro facility). Each repeat loop may have up to 100 characters.

When a repeat loop is entered from the keyboard, it is saved in one of 5 repeat loop buffers, each identified by an integer value. The repeat buffer which is currently in use can be set with the 'nq:r' command. Buffer 1 will be used by default.

The '#' command has been provided to simplify the use of the multiple repeat buffers. Entering '23#4' for example, will cause repeat buffer 4 to be executed 23 times

When making repeat loops, it is easy to make a mistake. The 'qe' command allows any of the repeat buffers to be edited, and then the 'qr' command can save the corrected repeat buffer back. If you don't give a value for n, the currently selected buffer is used.

The 'qe' command will insert the contents of the selected repeat buffer into the current text buffer above the current text line. The repeat buffer will start with a sequence of '#n:<', where n will be replaced by the repeat buffer being edited. The '#n:' identifies which buffer you are editing, and is used by the 'qr' store repeat buffer command to identify the buffer to save to. Escapes will be represented by '^[' instead of the '$' used when entering a repeat buffer initially. A '>^[^[' identifies the end of the repeat loop.

After you have edited the repeat buffer, it can be saved with the 'qr' command. You must place the cursor anywhere on the first line of the repeat buffer before using 'qr'. When you press 'qr', the buffer will be saved in the buffer indicated right after the '#'. Thus, unlike 'qe', the 'qr' command accepts no n value.

***** Settable parameters

Many of the basic operating characteristics of VIX are controllable by user settable parameters. These parameters are relevant to all versions of VIX, with the current status of each displayed on the help screen ('=' command). These paramaters are set using 'nq:p', where p is one of the following parameters.

nq:a - set autoindent. A value of 1 turns on autoindent, 0 off. When autoindent is on, each new line started while in insert mode will be indented to the same leading tab/blank space as the previous line. Use blanks or tabs to add indentation, and backspace to backup over indentation.

nq:c - set cut mode. When cut mode is enabled (1), killed lines are also saved in the save buffer. This works for individual kill commands, e.g. 'dd', 'dd', 'dd' will save only the line associated with the 3rd 'dd', while '3dd' will save 3 lines in the save buffer. With cut mode off, lines are not saved in the save buffer.

nq:d - set home "display" line to n. The display line is the line the cursor homes to after a '^L' verify command.

nq:e - Expand tab value. The default value for ':E' is 8, which causes the tab character (^I) to be expanded to multiples of 8 columns. Setting ':E' to 0 will cause tabs to be displayed as '^I' instead. Other values are possible, but less useful.

nq:f - Find case mode: n <= 0 sets find mode to search for exact case of pattern, n > 0 (default) set search mode to ignore upper/lower case.

nq:m - Match wild cards. (default=1). If on, then matching of the VIX wild card sets is enabled. If off, then the wild card control characters will match the actual control characters in the file.

q:o - set output file name. When ':o' is entered, you will be prompted for the name of the edited output file. This overrides the '-o' command line switch, and can be used to change your mind about the name of the edited file. If the output file name is different than the input file name, the input file will not be renamed to the backup file name.

nq:r - select repeat buffer n. (default=1). Repeat buffer n becomes the current repeat buffer executed with the '@' command. The '=' will display the current contents of repeat buffers.

nq:s - scroll lines: This parameter sets how many lines the cursor will move before the screen scrolls. 'q:S' sets how many lines cursor will move above and below home display line before scrolling.

nq:t - tty mode. A 0 is screen mode, a 1 is tty mode. (This command is useless on the Atari, but useful on slow mainframes.)

q:u - set User Wild Cards. After entering :U, you will be prompted for a user wild card set. You can use backspace to correct your entry, and '<Esc><Backspace>' to enter backspace and '<Esc><Esc>' to enter escape.

nq:v - virtual window lines. The 'n:V' will set the virtual window to n lines. N must be between 3 and the number of hardware lines on the terminal. This feature was desinged for busy time sharing systems and slow modems.

n:W - set auto wrap width. The ':W' parameter sets the column number used for auto wrap mode. When the auto wrap is set to a value greater that 1, VIX will automatically insert an end of line when the user types the first blank after the given column.

***** Word Processing Features

VIX has some limited word processing capability. This is the autowrap feature, settable both when you first run VIX, and by the ':w' parameter. Setting autowrap to column 65, for example, will tell VIX to automatically insert a newline whenever you enter text past that column.

The '!' tidy command is specifically designed to improve the appearance of strictly text files. The '!' tidy command will fill source text using the same right margin currently set for auto-wrap. Tidy performs essentially the same operation as a word processor fill function. Word are combined on one line until the auto-wrap

margin is passed. The 'n' count refers to the total number of resulting lines, not the number of original lines. Specifying a large 'n' will tidy large sections of a document. The tidy command recognizes lines beginning with blanks, tabs, or a period, and blank lines as special. It will not fill those lines, thus preserving paragraphs, tables and NROFF-like dot commands.

***** Other Features

For programmers, VIX has an autoindent command. The ':a' parameter controls this feature. When enabled, VIX will automatically match the leading white space at the beginning of the previous line.

The 'q(' command is used to toggle between line resolutions on the Atari ST monochrome monitor. Each 'q(' toggles between 25, 40 and 50 line resolution.

The 'qj' command will cause a "jump" back to the line of the previous cursor position. The major intent of 'qj' is to restore the cursor position if a large cursor movement command is accidentally entered (like when you thought you were in insert mode). It is also useful after using 'qb' to make a backup copy of the file. The sequence 'qb', 'qj' will write the file, then restore the cursor positon.

The 'nm' mark command notes the current line positon. Values of 1 to 9 are allowed for n. 'nM' restores the position. After entering '3m' for example, you can then move around the buffer, and later use '3M' to return to the marked location.

***** Startup and option switches

To edit a file using VIX, enter the following command line (if you have a shell - otherwise provide the parameters to the TTP box):

```
vix filename -switch1 -switch2 ...
```

VIX has several switches which control certain operating characteristics. Each switch begins with a minus (-), and is separated from the file name and other switches by a blank in the standard UNIX/C convention. Some switches may be negated by using a 'nox' form. Thus, '-b' will cause a .bak file to be generated, while a '-nob' causes the .bak file to be deleted on exit from the editor. This capability is indicated by []'s. As many switches as necessary or desired can be used at one time in any order. A ':' may be used instead of a '=' for '-c' and '-o'. The various switches supported include:

```
     -[no]b -- generate a .B[AK] version of the original (the usual
          default).  The -nob option means no .BAK file is generated.
          This latter mode of operation follows the normal Unix
          convention of not keeping past generations of a file.
     -[no]i -- auto indent mode enabled.
     -o=filename -- send edited output to filename.  The output file
          can also be changed at any time during the editing session
          with the ':o' command.
     -r -- read only - file can be read in only
     -s -- big save buffer - leaves more buffer for save file
     -w -- word processing mode - sets autowrap on, margin to 65.
     -# -- entering a number from 3 up to the number of lines on the
          screen will create a smaller VIX editing window.  This is
          most useful for slower baud rates.  A -7 makes a nice, small
          window showing 7 lines.



************************ COMMAND SUMMARY ***************************

     The available VIX commands are summarized below.  The first
column of each entry has a character noting similarities and
differences with the real vi commands in the following fashion:

- means present in vi, not implemented in vix.
= means commands work identically {with possible minor variations}
+ means new or significantly different command
* means "equivalent" command, somewhat different than vi
<space> means command unused in both vi and vix.

  n in front of command means command takes count argument
  [synonyms indicated in brackets]

   ^@: Unused
   ^A: Unused
= n^B: Backward window. {2 lines of continuity not preserved}
   ^C: Unused
= n^D: Down half window.
-  ^E: Not implemented
= n^F: Forward window.
*  ^G: memory status, short info line
= n^H: backspace Command mode: left; Insert mode: del last char
=  ^I: inserts tab in insert mode, not a command.
= n^J: down arrow in column [j,^N]
+ n^K: up in column [k,^P]
=  ^L: verify screen [^R,z]
= n^M: down to beginning of line [+]
= n^N: [j, ^J]
   ^O: Unused
= n^P: [k, ^K]
=  ^Q: Unused (flow control)
=  ^R: Redraw screen [^L,z]
=  ^S: Unused (flow control)
```

```
+  ^T: TVX prefix command - see q [q,Q,T]
* n^U: Up half window.  ** in insert mode, does NOT erase line **
*  ^V: Not a command.  NOT literal quote in insert mode.
*  ^W: Not a command.  NOT used for delete word in insert.
   ^X: Unused
-  ^Y: Not implemented
-  ^Z: Not implemented
=  Escape: forces command mode, safe follow char for d,c,q.
   ^: Unused
-  ^]: Not implemented
-  ^^: Not implemented
   ^_: Unused
=  <space>:  [r]
+  n!: Tidy.  Fills n lines up to wrap margin. [see autowrap]
-   ": Not implemented
+ n#p: execute repeat loop number 'p' 'n' times
=   $: goto end of current line {end is newline, not last char}
-   %: Not implemented
-   &: Not implemented
-   ': Not implemented
-   (: Not implemented
-   ): Not implemented
+   *: insert last matched pattern into text buffer
=  n+: [CR, ^M]
-   ,: Not implemented
*   -: Used in vix for negative counts, use K for up line.
-   .: Not implemented, repeat loops are a substitute
=   /: search {Escape used to end pattern, multi-line patterns ok}
*   0: 0 is used for counts (especially for : parameters)
= 0-9: count value for numeric arguments {may be negative!}
-   :: Not implemented - use ZZ and ZA to exit
-   ;: Not implemented
+  n<: Begin repeat loop. Loop terminated with >$$. ($ = Esc)
+   =: Help screens
+   >: Used to terminate repeat loops.
=   ?: Reverse search {search begins on previous line}
+  n@: execute current repeat loop n times (shorthand for n#p)
=   A: append to end of line
*  nB: back a word {vix's concept of words is different than vi}
=   C: changes rest of line
=   D: delete rest of the line
-   E: Not implemented
-   F: Not implemented
=  nG: goes to line number n, or end of buffer if no n supplied
*   H: Beginning of buffer (first line in buffer)
=   I: inserts at beginning of line
=   J: join lines {not needed since vix treats newlines as chars}
+  nK: Up a line to beginning of line
*   L: bottom line of file
+  nM: return to marked location n (n from 1 to 9, see m)
=   N: like n, but in reverse direction
=  nO: open a line above current line. n opens n blank lines.
=   P: put save buffer above current line {save buffers not named}
```

```
+   T: tvx commands (see q) [^T,q,Q]
*   U: very limited undo!! It only restores the LAST line killed!
    V: Unused
*  nW: Moves forward n words [w] {vix's concept of words not same}
=  nX: delete n characters before cursor
+  nY: append n lines to save buffer (see y), does not change buffer
=+ Zx: exit from vix (ZZ: normal, writes file, ZA: abort, no changes)
-  [[: Not implemented
    : Unused
-  ]]: Not implemented
=   ^: beginning of line {1st char of line, NOT 1st non-white char}
+   _: invoke indirect command file
=   a: append text starting after cursor
*   b: back up a word [see B]
=   c: change c, <sp>, ^, $, or / (delete, enter insert mode)
    =   c - change line
    =   <sp> - change one character
    =   ^ - to beginning of line
    =   $ - to end of line
    *   w - next word {VIX's concept of word different}
    -   b, and any others not mentioned not implemented
    +   / - the last thing found, yanked or put
=  nd: delete d, <sp>, ^, $, or /
    =   d - delete line
    =   <sp> - delete character
    =   ^ - to beginning of line
    =   $ - to end of line
    *   w - next word {VIX's concept of word different}
    -   b, and any others not mentioned not implemented
    +   / - the last thing found, yanked or put
-   e: Not implemented
-   f: Not implemented
    g: Unused
=  nh: Move left n characters [BS,^H] {will move over lines, too}
=  ni: insert (if value n supplied, then that ascii code inserted)
=  nj: down lines, in column [^J,^N]
=  nk: Up lines, in column [^K,^P]
=  nl: right n characters [<space>] {moves over lines, too}
*  nm: mark cur. line as location n.  Use M to return to location.
=   n: find next (in same direction as last ? or /)
=  no: open n following lines
=   p: put save buffer after cur line
+   q: Prefix character for "extended" commands
        b: goto real beginning of the file
        e: edit repeat buffer
        j: jump back to last location
        p: put external file from save buffer (writes file)
        r: restore repeat buffer
        s: print screen
        w: write buffer, read in next page of file being edited
       -n causes a buffer up to current line to be written
        y: yank external file to save buffer (reads file)
        /: cross buffer search (does automatic 'qw' on search)
```

```
     nq:p: set parameter 'p' to value 'n', parameters are:
         a: autoindent (1 means on, 0 off for all "switch" pars)
         c: "cut" mode (means 'dd' saves line in yank buffer, too)
         e: expand tabs to n spaces (8 default)
         d: home display line (where cursor homes after verify)
         f: find case mode (0 is case insensitive, 1 exact match)
         m: match wildcards (1 use ^A, ^L, etc., 0 no wild cards)
         o: requests new name for output file
         r: set current repeat buffer to n
         s: scroll window, cursor moves s lines before scrolling
         t: tty mode - 1: tty, 0: visual (you probably don' need this)
         u: requests entry of user wild card set
         v: virtual window size
         w: autowrap limit

=   r: replace next char with next character entered
=  ns: substitute: delete n characters, enter insert mode
-   t: Not implemented
-   u: Not implemented (see U)
    v: Unused
*  nw: advance word (see W)
=  nx: delete n characters
*  ny: yank text to save buffer - will save n lines into save buffer
       (Only one save buffer, 1st y clears buffer, rest add until
        non y command entered. dd works in a similar fashion, but
        kills as it saves (if cut_mode enabled)).
=   z: refresh screen (^L,^R)
-   {: Not implemented
-   |: Not implemented
=  n~: Change case of next n characters
* nDEL: Same as X, delete previous character

----------------- remove this line and anything following ----
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler


From -7591129326422086206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc7d0df9a21669fe
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 13:35:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!ucbcad!ucbvax!SUMEX-
AIM.STANFORD.EDU!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
```

Subject: Re: More Uemacs troubles
Message-ID: <12248641132.8.LYNN@PANDA>
Date: Tue, 21-Oct-86 16:35:17 EDT
Article-I.D.: PANDA.12248641132.8.LYNN
Posted: Tue Oct 21 16:35:17 1986
Date-Received: Wed, 22-Oct-86 06:35:51 EDT
References: <6384@topaz.RUTGERS.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

I had the same problem with uEmacs 3.7i that Phil Paone did (it
starts up and exits). Unlike Phil, though, I didn't have any
problems with the last version that came across the net.

Help... :-(

--Lynn

From 1804078257223599370
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d9bda1be4742dfb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 13:50:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!pm
From: pm@cwruecmp.UUCP (Prabhaker Mateti)
Newsgroups: net.micro.atari16
Subject: Fforce()
Message-ID: <1639@cwruecmp.UUCP>
Date: Tue, 21-Oct-86 16:50:51 EDT
Article-I.D.: cwruecmp.1639
Posted: Tue Oct 21 16:50:51 1986
Date-Received: Wed, 22-Oct-86 05:24:58 EDT
Reply-To: pm@cwruecmp.UUCP (Prabhaker Mateti)
Organization: CWRU Dept. of Computer Engineering, Cleveland OH
Lines: 20

```
/*
In a program I am writing, I need to redirect input/output.  E.g., to
redirect input from a file, I do  Fforce(0, fd), but then I can't close
the fd and reuse that handle.  The following code demonstrates this.
Any body has a clue as to what is wrong here??
*/

#include <osbind.h>

main()
{
     int  fi, ff, fc, i;
```

```
     for (i=0; i < 81; i++)
     {    fi = Fopen  ("in", 0);
          ff = Fforce(0, fi);
          fc = Fclose(fi);
          printf("fi ff fc %d %d %d \n", fi, ff, fc);
     }
}
```

From 7073022323396737739
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4dd11dd008f37f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 13:53:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!husc6!ut-sally!utah-cs!atwell
From: atwell@utah-cs.UUCP (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Re: Uniterm 1.5c
Message-ID: <3968@utah-cs.UUCP>
Date: Tue, 21-Oct-86 16:53:10 EDT
Article-I.D.: utah-cs.3968
Posted: Tue Oct 21 16:53:10 1986
Date-Received: Wed, 22-Oct-86 06:18:00 EDT
References: <12248365769.8.LYNN@PANDA>
Reply-To: atwell@utah-cs.UUCP (Bart L. Atwell)
Organization: University of Utah CS Dept
Lines: 9

In article <12248365769.8.LYNN@PANDA> Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold) writes:
>The ARC file unpacked fine, and the program booted on my b&w monitor.
>Unfortunately, no matter what I clicked to be the proper buffer size,
>I then got two cherry bombs (bus error).

I got three bombs (mushroom). Could this be the configuration of my system?
I have TOS in RAM on a 520ST.

Bart

From -2762288988828875069
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-Thread: 129c11,db5898702c5cf6fb
X-Google-Attributes: gid129c11,public
X-Google-ArrivalTime: 1986-10-21 14:53:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Computer Sci Club)
Newsgroups: net.micro,net.micro.atari16

Subject: Re: New way to post binaries - discussion on format
Message-ID: <2906@watmath.UUCP>
Date: Tue, 21-Oct-86 17:53:19 EDT
Article-I.D.: watmath.2906
Posted: Tue Oct 21 17:53:19 1986
Date-Received: Wed, 22-Oct-86 03:26:51 EDT
References: <2035@dalcs.UUCP> <2844@watmath.UUCP>
Reply-To: csc@watmath.UUCP (Computer Sci Club)
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 21
Xref: watmath net.micro:15804 net.micro.atari16:2722
Summary:

As a followup to my previous article, I have come across a new encoding
technique (courtesy of the Math Faculty Computing Facility here at
the university) which has the following properties:

- eight bit input data
- very restricted character set
- generally compresses files rather than expanding them
  (including binaries)
- need no bit level twiddling
- involves only table lookup

The encoding system is easy to implement. I am whipping one up now.

This should make the transmittable archive format very easy to implement.
My co-developer, Mike Gore, is planning to do a Basic (gack spew) version
after I write one in C.

Still: comments?

Tracy Tims
mail to ihnp4!watmath!unit36!tracy

From -2949617612753917161
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,345ea2ca63d47144,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 15:47:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!sdcsvax!sdcc6!ix181
From: ix181@sdcc6.ucsd.EDU (John Ogawa)
Newsgroups: net.micro.atari16
Subject: 1st Word
Message-ID: <2957@sdcc6.ucsd.EDU>
Date: Tue, 21-Oct-86 18:47:16 EDT
Article-I.D.: sdcc6.2957
Posted: Tue Oct 21 18:47:16 1986
Date-Received: Wed, 22-Oct-86 22:17:58 EDT
Organization: University of California, San Diego

Lines: 25
Keywords: version 1.06, spacing

>>>>> MMMUUUNNNCCCHHH!!! <<<<<<<

I'm not sure of which version of 1st Word people are calling the "updated" one. I just recently bought a 1040, and the version of 1st Word that came with it was 1.06. This version does not have any _DOCUMENTED_ multi-columnar format, nor does it fix that very anoying exit from the editor when a save is done. To answer the question about double spacing: on my version (1.06) you go to the Style menu and select the Spacing option. Note that this does not change an already existing document to be double spaced, one must Restyle the entire document first.

Hope this helps.

Any questions or comments or corrections should be e-mailed to me.


```
|        |  | ____ ____ ___                                          |
|        |  | |    |___ |  \    John Ogawa                          |
|        |__| |___ ___| |__/    UC San Diego                        |
|                               ix181@sdcc6@sdcsvax                 |
|                                                                   |
|     DISCLAIMER:      My views do not represent those of the       |
|     University of California, nor do theirs represent mine.       |
```


From 2152625453212829925
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d170c9f7e56cc67e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 17:47:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Bob Fortin)
Newsgroups: net.micro.atari16
Subject: Uniterm part 4
Message-ID: <123@ritcv.UUCP>
Date: Tue, 21-Oct-86 20:47:58 EDT
Article-I.D.: ritcv.123
Posted: Tue Oct 21 20:47:58 1986
Date-Received: Wed, 22-Oct-86 22:46:21 EDT
Reply-To: ref0070@ritcv.UUCP (
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 13

Bob Fortin)
Followup-To:
Distribution:
Organization: Rochester Institute of Technology, Rochester, NY

Keywords: Uniterm

Could someone please send to me or post the last part of the recent
version of uniterm ? Once again, my sight didn't recieve the whole thing.
Thanks,

Bob Fortin
{allegra decvax seismo}!rochester!ritcv!ref0070

From -6820890712485464210
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,915a3cec8ab1338d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 18:38:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Beckemeyer's C-Shell Query
Message-ID: <1640@cwruecmp.UUCP>
Date: Tue, 21-Oct-86 21:38:34 EDT
Article-I.D.: cwruecmp.1640
Posted: Tue Oct 21 21:38:34 1986
Date-Received: Wed, 22-Oct-86 05:33:46 EDT
References: <208@tcdmath.uucp>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world
Organization: CWRU Dept. of Computer Engineering, Cleveland OH
Lines: 21

In article <208@tcdmath.uucp> pfoley@tcdmath (Paul Foley) writes:
>
>Does anyone have any experience with Beckemeyers C-Shell ??
>Is it anything like as good as the *real* csh ??
>Info on any of the other products from this company would be appreciated.
It is closest thing to the real thing on the ST. I can highly recommend it
after using it daily for almost a year.
Other products:
     Micro Rtx: a real time kernal, supports multiple procsses with round
robin preemptive priority based scheduling. Interprocess comm using mailboxes
(queus) and interprocess signalling.
     MT -Cshell: even closer to the real thing, uses Micro Rtx.
     Micro Tools : a collection of unix like utilities.
     Micro Make: what you'd expect.
     Hard Disk Accelarator: a write thru cache, handles multiple
partitions. Cache size is configurable.
--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 2724369346763640826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7cf9b1c7d64cb028,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 20:20:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!ucbcad!ucbvax!
ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: GENLIB fix for reading standard input from the keyboard
Message-ID: <8610212152.AA29232@ucbvax.Berkeley.EDU>
Date: Tue, 21-Oct-86 23:20:33 EDT
Article-I.D.: ucbvax.8610212152.AA29232
Posted: Tue Oct 21 23:20:33 1986
Date-Received: Wed, 22-Oct-86 06:36:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 174

This is a fix for gemlib distributed with the toolkit (not the latest version)
that has the problem of not correctly reading standard input from the keyboard.
I did some disassembling with SID and found a fix by changing the routines
read() and _pc_read() in gemlib. Read calls _rdasc() for ASCII files (CRLF->LF
conversion) and _rdbin() for binary files. _rdasc() and _rdbin() call
_pc_read() which (finally) calls the GEMDOS Fread routine.

I know the real fix is to throw all those CPM68K fileio routines out
and replace them completely, but this works for the time being.
It works correctly with and without standard input/output redirection (tested
with Beckemeyers Micro C-Shell, single user version).

Assemble pcrnew.s and rename the object file to pcr.o.
Compile readnew.c and rename the object file to read.o
Replace the modules read.o and pcr.o in gemlib with AR68 or with ARXX (an
AR68 replacement I wrote, which will be posted within the next few days).

```
-----------------cut here----------pcrnew.s---------------------------------
*    pcrnew.s  Together with readnew.c a fix for reading from stdin
*              in original Atari Toolkit gemlib
*
*    Author:  Ton van Overbeek
*         TPC862@ESTEC.BITNET

          .globl    __pc_read
          .globl    __pc_write
          .globl    lmul
          .globl    _trap

          .text

__pc_read:    link a6,#-2
```

```
        movem.l  d5-d7,-(a7)
        move.l   8(a6),a0 fd
        move.w   -$e(a0),-$2(a6)    GEMDOS handle
        move.l   $10(a6),(a7)  buffer
        move.w   $16(a6),a0    # of sectors
        move.l   a0,-(a7)
        move.w   $14(a6),a0    sectorsize
        move.l   a0,-(a7)
        jsr  lmul     # of sectors * sectorsize
        addq.l   #8,a7
        move.l   d0,d6         save count
        move.l   d0,-(a7) count
        move.w   -$2(a6),-(a7) handle
        move.w   #$3f,-(a7)    F_Read
        jsr  _trap
        addq.l   #8,a7

*   Now we test if we deal with stdin from the keyboard
*   This is so if 1. GEMDOS handle = 0
*                 2. F_Read didn't return with an error
*                 3. Handle 0 is not redirected (Tested by
*                    Fseek returning 0 if not redirected)
*              and  4. Read count is less than the max count

        tst.w    -2(a6)        filehandle = 0 ?
        bne  pcrend        no
        tst.l    d0        yes, GEMDOS error ?
        blt  pcrend        yes
        move.l   d0,d7         no, save read count in d7
        move.w   #$1,(a7)  handle 0 redirected ?
        clr.w    -(a7)
        clr.l    -(a7)
        move.w   #$42,-(a7)
        jsr  _trap
        addq.l   #$8,a7
        tst.l    d0        yes, if seek result > 0
        bne  restord0
        cmp.l    d7,d6         read count = max count ?
        beq  restord0 yes, no action

*   Now we are dealing with a read from the keyboard terminated
*   by CR. The CR is not put in the buffer by GEMDOS. Because
*   the C library wants LF, we add a LF to the buffer.
*   To stop the calling routine (__rdasc) from calling us again
*   we also put in ^Z to signal End-Of-File. This is corrected
*   in read again (See readnew.c)

        move.l   #LF,(a7)
        move.l   #$1,-(a7) 1 char to write
        move.w   #-$1,-(a7)    handle -1 is always screen
        move.w   #$40,-(a7)    F_Write
        jsr  _trap
        addq.l   #$8,a7
```

```
          move.l    d7,d0          restore count
          movea.l   $10(a6),a0     buffer
          adda.l    d0,a0          last char in buff + 1
          move.b    #$a,(a0)+ put in '\n'
          move.b    #$1a,(a0) and ^Z to stop __rdasc reading
          addq.l    #$2,d0         adjust # of chars in buffer
          bra  pcrend

restord0: move.l    d7,d0
pcrend:        tst.l     (a7)+
          movem.l   (a7)+,d6-d7
          unlk a6
          rts

          .data
LF:       dc.b $a
          .even

          .text
__pc_write:    link a6,#-6
          move.l    8(a6),a0
          move.w    -$e(a0),-$2(a6)         handle
          move.l    $10(a6),(a7)       buffer
          move.w    $16(a6),a0
          move.l    a0,-(a7)
          move.w    $14(a6),a0
          move.l    a0,-(a7)
          jsr  lmul
          addq.l    #8,a7
          move.l    d0,-(a7)
          move.w    -$2(a6),-(a7)
          move.w    #$40,-(a7)
          jsr  _trap
          addq.l    #8,a7
          unlk a6
          rts
---------------cut here--------end of pcrnew.s--------------------------------

---------------cut here--------readnew.c-------------------------------------
/*
 *   readnew.c  Together with pcrnew.s a fix for reading from stdin
 *              in original Atari Toolkit gemlib
 *
 *   Author:  Ton van Overbeek
 *        TPC862@ESTEC.BITNET
 */

extern int errno;
extern int _errcpm;
extern int __cpmrv;

read(fd, buffer, bytes)
int fd;
```

```
char *buffer;
int bytes;
{
   register int *fp, retval;
   register long count;
   int *_chkc();

   if (!(fp = _chkc(fd))) return -1;      /* check channel */
   if (*fp & 0x20) return 0;              /* End-Of-File bit */
   if (*fp & 0x04) {                  /* Error bit */
      errno = 9;
      _errcpm = __cpmrv;
      return -1;
   }
   if (*fp & 0x10) {                  /* ASCII bit */
      retval = _rdasc(fp, buffer, (count = bytes));
      if (fd == 0 && retval > 0) {        /* if stdin and some chars */
                              /* read, reset the EOF bit */
                              /* set by pcrnew to stop   */
                              /* _rdasc() reading        */
         *fp &= ~0x20;
      }
      return retval;
   } else {                       /* read binary */
      return _rdbin(fp, buffer, (count = bytes));
   }
}
---------------cut here--------end of readnew.c-------------------------------
```

Ton van Overbeek
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Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From 4750184718518666188
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,42b2a4054e6b400e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-21 22:39:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!rocksvax!rocksanne!sunybcs!mesches
From: mesches@sunybcs.UUCP (Scott Mesches)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM V1.5C PART 4 OF 4 (UNITERM.C)
Message-ID: <1221@sunybcs.UUCP>
Date: Wed, 22-Oct-86 01:39:06 EDT
Article-I.D.: sunybcs.1221
Posted: Wed Oct 22 01:39:06 1986

Date-Received: Thu, 23-Oct-86 04:36:26 EDT
References: <8610170006.AA27876@ucbvax.Berkeley.EDU>
Reply-To: mesches@gort.UUCP (Scott Mesches)
Organization: SUNY/Buffalo Computer Science
Lines: 12
Keywords: could someone close re-send?
Summary: missed this one here

We never got UNITERM v1.5 part 4 of 4, and I've been waiting on
this one with baited breath (along with some others here). Could
someone reasonably close forward this to me?

Thanks
Scott

Scott Daniel Mesches @ SUNY/Buffalo Computer Science (716-636-3004)
csnet: mesches@buffalo.CSNET
uucp: ..!{nike,allegra,decvax,watmath}!sunybcs!mesches
bitnet: mesches@sunybcs.BITNET

From 3875421634613265825
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 04:08:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!einode!simon
From: simon@einode.UUCP (Simon Kenyon)
Newsgroups: net.micro.atari16
Subject: Re: LARN
Message-ID: <195@einode.UUCP>
Date: Wed, 22-Oct-86 07:08:13 EDT
Article-I.D.: einode.195
Posted: Wed Oct 22 07:08:13 1986
Date-Received: Thu, 23-Oct-86 22:55:30 EDT
References: <8610172222.AA17261@ucbvax.Berkeley.EDU>
Organization: The National Software Centre, Dublin, Ireland.
Lines: 11

> Should I send uuencoded LARN? Rather many people
> from ARPA has asked this from me.
NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO NO
send the diffs to the original source
this net costs a lot of money, why spend more than we need to
--
Simon Kenyon
EUnet: simon@einode.UUCP
Smail: The National Software Centre, Dublin, IRELAND
Phone: +353-1-716255
EUnet is a registered trademark of the EUUG

From -766055982427394983
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5785626a2a44018,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 05:25:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!clyde!cbatt!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: Re: Crummy Monitors
Message-ID: <458@ihnet.UUCP>
Date: Wed, 22-Oct-86 08:25:19 EDT
Article-I.D.: ihnet.458
Posted: Wed Oct 22 08:25:19 1986
Date-Received: Thu, 23-Oct-86 04:42:54 EDT
Distribution: net
Organization: AT&T Bell Labs, Naperville, IL
Lines: 18

*** DON'T REPLACE THIS LINE WITH YOUR MESSAGE ***

Gold Star also made the old Tu-tone Monitors. The problem
with the new monitors is probably not that the suppliers are
using crummy parts, but that they are not correctly aligned.
It takes 1 Human 15 minutes per monitor to do the job right
at the factory. If you have a crummy monitor get it aligned
under warrenty. If the dealer refuses and says that there is
nothing wrong with it, then demmaned that he/she trade you
there old "Good" show room monitor for your crummy monitor.
If the service centers get flooded with requests for alignment
then Atari will yell at their suppliers to get the quality up.

                  ihnet!bryan

p.s. If the new monitors are crummy then Atari could be in trouble
for false advertising if its dealers use "old" monitors on the
display floor.

From -1581485840741508017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9a184e1ae133a5d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 06:23:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!ll-xn!adelie!axiom!linus!philabs!micomvax!
othervax!z-80
From: z-80@othervax.UUCP (Grant Bonnell)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM V1.5C PART 2 OF 4 (UNITERM.A)
Message-ID: <811@othervax.UUCP>
Date: Wed, 22-Oct-86 09:23:35 EDT

Article-I.D.: othervax.811
Posted: Wed Oct 22 09:23:35 1986
Date-Received: Sat, 25-Oct-86 01:27:14 EDT
References: <8610161545.AA16794@ucbvax.Berkeley.EDU>
Reply-To: z-80@othervax.UUCP (Grant Bonnell)
Organization: Philips Information Systems - St. Laurent P.Q., Canada
Lines: 6
Keywords: HELP
Summary: Arrived truncated

Would some kind soul please mail me a copy of part 2 of the latest posting
of UNITERM (V1.5C). Thanks.

Grant Bonnell
...philabs!micomvax!othervax!z-80

From 2201836154888639874
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,db5898702c5cf6fb
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 06:58:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!thomps
From: thomps@gitpyr.gatech.EDU (Ken Thompson)
Newsgroups: net.micro,net.micro.atari16
Subject: Re: New way to post binaries
Message-ID: <2462@gitpyr.gatech.EDU>
Date: Wed, 22-Oct-86 09:58:37 EDT
Article-I.D.: gitpyr.2462
Posted: Wed Oct 22 09:58:37 1986
Date-Received: Fri, 24-Oct-86 00:16:58 EDT
References: <2035@dalcs.UUCP>
Distribution: net
Organization: Georgia Institute of Technology
Lines: 64
Summary: No new standard
Xref: mnetor net.micro:6303 net.micro.atari16:2709

In article <2035@dalcs.UUCP>, silvert@dalcs.UUCP (Bill Silvert) writes:
> Here are some opinions about the problem of posting binaries, along with
> a draft solution. There should be some discussion on the net before it
> gets implemented.
> Sources are no substitute for binaries, since not everyone has the same
> compiler, or even language, on micros.
> Binaries have to be encoded as ASCII files. But there is no reason why
> we have to use uuencode! There are evidently problems with it, and we
> should feel free to invent an alternate encoding method which avoids the
> problems with uuencode. These problems, aside from the minor one that
> uuencode is designed for th Unix environment, are that some characters

> (such as curly braces {}) do not make it through all nodes unscathed
> (IBM machines and others with EBCDIC codes appear to be the culprits),
> and for long files the posting have to be combined in an editor.
> Another problem is that udecode is a complicated program which a lot of
> users have trouble getting or rewriting.
> I propose that we develop an encoding method for microcomputers that
> meets these requirements:
> > So simple that users can easily learn the protocol and write their own
> version of the decoding program. Uudecode is relatively easy to write
> in C, but gets tricky in languages that do not have low-level bit
> operations.
> > Moderately compact, to keep the traffic volume down.
> > Reasonably good error trapping to check for damaged files.
> > Convenient to use, preferably not requiring the use of an editor even
> for multi-part postings.
>
I, for one, am strongly opposed to trying to develop a new "standard"
decoding scheme. For one thing, it will be next to impossible to get
agreement from such a large group on what it should be. The effort will
cause more problems and confusion than we already have.

I have never experienced the problems with curly braces but it is possible
I suppose that we don't ever get messages that pass through EBCDIC machines
here. Certainly, I have never gotten any C source that had the curly braces
corrupted.

I have versions of uudecode in turbo pascal, c , and microsoft basic. This
is pretty wide availability and the basic while slow should be easily
adaptible to most machines. I don't think there will be too many problems
getting a version. Just ask in net.sources.wanted.

The problem with having to use the editor has nothing to do with uuencode/
uudecode. The problem is that some news software running on some machines on the
net
truncate files longer than 64K bytes. Unless the mail software is changed,
you will always need to get rid of the mail header/signature information
put in by mail as this is ascii too. You will probably have to do this
with an editor. I failed to find this task difficult.

I don't know about other sites, but 99% of the problems we have here are
files which are corrupted in transit, either because the sender posted
files larger than 64K and they got truncated or some of the information
was just corrupted in transit. A new scheme is not going to fix this.

I vote that we stick with uudecode/encode. If you have problems with these,
I am sure someone on the net will be glad to help you get them worked out.
I receive files all the time that have been arced and then uuencoded and
am able to reverse the process without problems.

--
Ken Thompson Phone : (404) 894-7089
Georgia Tech Research Institute

Georgia Insitute of Technology, Atlanta Georgia, 30332
...!{akgua,allegra,amd,hplabs,ihnp4,seismo,ut-ngp}!gatech!gitpyr!thomps

From -4858024179082056106
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,53cb90613407fd71,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 07:17:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Micro-EMACS 3.7i -- bugs and comments
Message-ID: <8610221417.AA09421@Yale-Bulldog.YALE.ARPA>
Date: Wed, 22-Oct-86 10:17:15 EDT
Article-I.D.: Yale-Bul.8610221417.AA09421
Posted: Wed Oct 22 10:17:15 1986
Date-Received: Sat, 25-Oct-86 05:16:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 79

[So you thought there were no bugs left, eh?]

Hi... uEmacs 3.7i works and is wonderful. But, as always, we unsatisfied users want more! Here are 5 bugs and 3 suggestions which I would appreciate your help with:

1. It looks like ^U (control-U) still isn't bindable in 3.7i. I can BIND-TO-KEY something to ^U, and DESCRIBE-KEY shows ^U as being bound to this new thing, but hitting ^U still does an ARG (i.e., I get 4 in the command line, then 16, etc.). I suspect ^U is hardwired into the code at the point where ARG is done, along with the ESC-number sequence.

2a. I'm not sure you'd agree this is a bug, but I think it is. When searching for something, hitting ^J, ^M or RETURN in the command line (in response to the STRING: prompt) all result in <NL> becoming part of the search string (even if I precede it with a ^Q). How, then, can I search for or replace a ^M or a ^J? (Some Kermits, for example, insert spurious ^M's at the end of each line, which one may want to replace.)

2b. Using ESC to delimit search strings is silly. If you really don't want to use RETURN, why not use ENTER? Better still, I would suggest using RETURN, and making ^J insert a ^J in the search string, and ^M a ^M. That way you can use ^J to get a NL in the search string (since ^J is a NL), and RETURN can still delimit the search string which is makes more sense since I think it's more intuitive. In fact, I usually use control-RETURN to delimit search strings since it is faster to type ^S-^RETURN when you want to repeat a search than ^S-RETURN (you don't have to lift your finger off the control key in the former). I would suggest using RETURN and ^RETURN to delimit search strings. If you have ^Q, you can always type ^Q-RETURN anyway to get a NL, though with ^M and ^J you really shouldn't need to. Hitting ESC to

delimit the string is inconvenient.

3. There should be a way to turn off the BIND-TO-KEY echoing when uEmacs reads in the EMACS.RC file.

4. Is there documentation available for 3.7i? I was thinking of the syntax of regular expressions in particular, but a brief description of each function and customizable flags would be nice too.

5. I can't bind ABORT-COMMAND to anything (say, ^G) in the EMACS.RC file. It doesn't bomb; it just doesn't do anything. But if I type BIND-TO-KEY ABORT-COMMAND ^G using ESC-X once I'm in Emacs, the binding does go through, even though the exact same line in EMACS.RC does nothing.

6. The SHELL COMMAND function restores HIREZ mode even if I start out in MEDREZ mode. uEmacs still thinks there are 24 lines, however, so I get a screen that's scrunched up towards the top. (What does the SHELL escape do anyway? What commands does it (and FILTER-REGION) recognize?)

7. uEmacs should provide command completion in the add/delete-mode commands. It's a pain to type out the name of the mode in full.

8. How do I get mouse movement to move my cursor? All I get when I move the mouse are various unbound-key or undefined-macro error messages.

In summary:

```
bug   -- 1.  ^U isn't bindable.
bug   -- 2a. Can't search for ^M and ^J.
sugg  -- 2b. Inconvenient and unnecessary to use ESC for delimiting strings.
sugg  -- 3.  Should be able to turn off BIND-TO-KEY echoing.
query -- 4.  Documentation?
bug   -- 5.  Can't bind ABORT-COMMAND.
bug   -- 6.  SHELL restores HIREZ.
sugg  -- 7.  Command completion for mode names.
bug   -- 8.  Mouse movement doesn't move cursor.
```

That's about all for now (I'm sure I'll think of more later!) Not to detract from your program though -- I think you guys have done an amazing job. 3.7i is definitely and by far the best editor I've used on *any* micro.

Cheers -- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 9019089284002075486
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 12306c,bd3a0b489ef5f552,start
X-Google-Attributes: gid12306c,public
X-Google-Thread: 129fb9,bd3a0b489ef5f552,start
X-Google-Attributes: gid129fb9,public
X-Google-Thread: 129c11,bd3a0b489ef5f552,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 11aab4,bd3a0b489ef5f552,start
X-Google-Attributes: gid11aab4,public
X-Google-Thread: 11d346,bd3a0b489ef5f552,start
X-Google-Attributes: gid11d346,public
X-Google-Thread: 142096,bd3a0b489ef5f552,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,bd3a0b489ef5f552,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 1585e9,bd3a0b489ef5f552,start
X-Google-Attributes: gid1585e9,public
X-Google-ArrivalTime: 1986-10-22 07:52:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!philabs!
sbcs!helm!dlbaer
From: dlbaer@helm.UUCP (Dennis L. Baer)
Newsgroups:
net.lang,net.lang.pascal,net.lang.mod2,net.micro.att,net.micro.atari16,net.micro.a
miga,net.micro,net.micro.hp,net.micro.mac,net.micro.ti,net.micro.trs-80
Subject: THE STRUCTURED PROGRAMMING LANGUAGE NOW IN net.micro.pc
Message-ID: <145@helm.UUCP>
Date: Wed, 22-Oct-86 09:52:54 EST
Article-I.D.: helm.145
Posted: Wed Oct 22 09:52:54 1986
Date-Received: Mon, 27-Oct-86 01:17:39 EST
Reply-To: dlbaer@helm.UUCP (Dennis L. Baer)
Distribution: net
Organization: helm, Public-Access Unix LongIsland, Ny
Lines: 17
Keywords: NEW SHARE WARE PROGRAMMING LANGUAGE, SPL, ALTERNATIVE TO PASCAL AND C
Xref: watmath net.lang:2728 net.lang.pascal:654 net.lang.mod2:677
net.micro.att:1663 net.micro.atari16:2811 net.micro.amiga:5583 net.micro:15826
net.micro.hp:311 net.micro.mac:8447 net.micro.ti:215 net.micro.trs-80:838

I have now posted the Structured Programming Language to net.micro.pc. The reason it is there ONLY is because the article is in 5 parts and is very large. Installations with older software news programs make multiple copies of articles that are posted to more than one conference so I wanted to avoid extra wasted space on those machines. Those of you with atari ST,amiga,apple macintosh computers with hardware or software add ons that allow IBM or msdos compatibility, THIS language will run on your computer also. If you have any questions call me at 516 694 5872.

Dennis Baer
25 Miller Road
Farmingdale,NY 11735

516 694 5872

Any inquiries by US mail should include an SASE.

From 2397784261166556543
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,271b43a529828093,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 08:04:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!inuxc!pur-ee!
beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: UniTerm Documentation?
Message-ID: <4812@pur-ee.UUCP>
Date: Wed, 22-Oct-86 11:04:06 EDT
Article-I.D.: pur-ee.4812
Posted: Wed Oct 22 11:04:06 1986
Date-Received: Thu, 23-Oct-86 07:18:08 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 16
Keywords: UniTerm documentation

<<<<<>>>>>

  I may have missed it, and if I have will someone please mail it to
me, but is there any documentation for UniTerm? I really like the
program, the zoom mode is very nice, but can I zoom back out? How
do I enter the VT100 setup modes? These are two questions I would really
liked answered (especially the zoom).
  Nice program Simon, could you give me a little help on the above
questions, I am sure others would also like to know. Thanks.

                  Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From -5971917811162583163
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 08:45:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!cbmvax!bpa!burdvax!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16

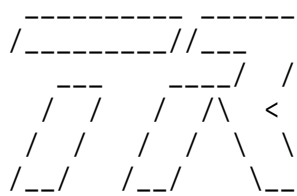
Subject: Re: alite.prg problems
Message-ID: <1372@trwrb.UUCP>
Date: Wed, 22-Oct-86 11:45:24 EDT
Article-I.D.: trwrb.1372
Posted: Wed Oct 22 11:45:24 1986
Date-Received: Sat, 25-Oct-86 01:35:27 EDT
References: <8610151526.AA17642@trwrb.UUCP> <861016-043934-4496@Xerox>
<1364@trwrb.UUCP> <1351@lsuc.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 23

In article <1351@lsuc.UUCP> jimomura@lsuc.UUCP (Jim Omura) writes:
>
>   As far as I can tell, my copy of 'alite' arrived intact. At least it
>un ARC'ed. But when I tried to run it (without a MIDI module attached--
>just to see if it worked) it loaded and then just seemed to return to the
>desktop without displaying the picture. Is this right? There were no
>bombs, just nothing.
>

Alite does not work on monochrome systems (I should have stated this
fact when I posted the beast). If you have a color system, then be sure
to extract both 1alite.pic and 1alite.sng and store them on the same disk
as alite.prg.

-Rich

--



Richard E. Sansom
TRW Electronics & Defense Sector
One Space Park Drive, R3/1028
Redondo Beach, CA 90278
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From -7526821106509525903
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6c73108be05b46f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 08:49:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!philabs!
cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Mark Williams C - A Review
Message-ID: <415@unmvax.UUCP>
Date: Wed, 22-Oct-86 11:49:35 EDT
Article-I.D.: unmvax.415
Posted: Wed Oct 22 11:49:35 1986

Date-Received: Sat, 25-Oct-86 06:34:49 EDT
Organization: Univ. of New Mexico, Albuquerque
Lines: 82
Keywords: !!!!

Mark Williams C for the Atari ST - A Review

Mark Williams has released an EXCELLENT C for the ST. (C for the Atari ST, Version 1.1, Mark Williams, 1-800-MWC-1700, $180).

My first reaction upon receiving my compiler was a REAL C working environment at last! It comes with a shell program (the WEAKEST part of the package) that supports a unix like cc compile sequence. It has environment variables that tells cc where the various parts are (cpp, c0, libraries, etc.). It knows all about paths, and is EASY EASY EASY to use, unlike the developers C.

Included with the package are a large number of Unix-like utilities: ar-archiver/librarian; as-assembler; cat; cmp-compare files; crashdmp-atari crash analyzer; db-symbolic debugger (looks good, and has usable documentation, unlike sid in developer's); df-disk free space; diff; drtomw-convert dri to mw; egrep-pattern matcher, reasonably fast!; help-almost like man!; ls-lots of directory options; make; me-micro emacs; mf-free ram; nm-prints symbol tables; od-dump utility; pr-print; size-size of a file; sort; strip-remove debugger info from .prg files; tail.

The most sorely lacking utility is more. REALLY needed, but if you are fast with ^S.... Their shell is also not as good as you might hope for. The script language is a bit weak. For example, if you don't define one of the parameters ($1, $2, etc., just like Unix), it chokes. There are no if or shift operators to avoid the problem. The history mechanism is also crummy - it work realtive to the current command, so you do '!-3' to re-do the 3rd previous command. Who remembers what they did 3 commands ago, or wants to count lines. Oh well, I hear that Breckmeyer is supposedly working with Mark Williams to settle on a common environment organization, which is essential to smooth operation of cc.

Documentation is excellent, although it appears to be a bit behind of the actual code (I have C Version 1.1). A few missing options (which you see in the usual Unix "usage" fashion anyway), some missing error messages. The documentation is a thick (650+ pages), paper back book.

There is support for all the Atari libraries - VDI, GEM, TOS, ROM, AES. There is NO RCS support however, which may be a major problem for some developers. You could use the developer's RCS. There is no need to escape to assembly ever, as far as I can tell. There is full support for all the easy calls, as well as a nice LINE A interface - you can use LINE A directly from C. All of this is well documented, although the AES and VDI refer you to the Atari GEM

documentation.

This is REAL C, folks. No funny stuff. Most of your UNIX code can port directly with probably the only worry handling the CR/LF problem (which MWC does using "rb", "r+b", etc.). Pointers are 32 bit always. The compiler produces very helpful error messages, and detects some lint-like problems (variable unused, questionable pointer stuff, etc.). Library is richer than developer's C, better documented.

Mark Williams is even friendly on the phone. I called about an undocumented error message I got, and I got through to the technical staff right away (on the 800 number, no less), and they seemed knowledgeable and eager to help. (Try that with Microsoft!).

Too good to be true? Well, not so far. Finally, here are some numbers I gathered on MWC vs. Developer's C on two programs - the sieve benchmark, and my screen editor, TVX, which is several thousand lines long. Compile times are for an atari 20 Mb hard disk.

	program	Compile/link time	Code Size	Run Time
Developer's C	sieve	2:01	9225 Bytes	4.8 sec
Mark Williams C	sieve	:36	7366 Bytes	4.8 sec
Developer's	TVX	20:29	51517 Bytes	----
MWC	TVX	8:40	52472 Bytes	

--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From -1635325002229151819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,728f3a327cc6d735,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 08:50:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!decwrl!kirk.dec.com!
williams
From: williams@kirk.dec.com (John Williams DTN 223-2163)
Newsgroups: net.micro.atari16
Subject: Ram disk
Message-ID: <6052@decwrl.DEC.COM>
Date: Wed, 22-Oct-86 11:50:24 EDT
Article-I.D.: decwrl.6052
Posted: Wed Oct 22 11:50:24 1986
Date-Received: Wed, 22-Oct-86 23:43:57 EDT
Sender: daemon@decwrl.DEC.COM

Organization: Digital Equipment Corporation
Lines: 10

The best I have seen thus far is the public domain intersect ram disk.
It's an accessory that allows you to reconfigure on the fly. I would
be happy to give out copies, IF, I knew what uucoding was. I use it
primarily for two things: 1) copying files (natch!) 2) downloading
with PC Intercomm. I've found that I need it to access Compuserve at all.
The disk access gaps are too long and Xmodem overruns without the ramdisk.

                              John.

decwrl!dec-rhea!dec-kirk!williams

From -4777144463384239331
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 09:55:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!
tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Atari's At Work
Message-ID: <1128@tekigm2.UUCP>
Date: Wed, 22-Oct-86 12:55:14 EDT
Article-I.D.: tekigm2.1128
Posted: Wed Oct 22 12:55:14 1986
Date-Received: Thu, 23-Oct-86 23:46:48 EDT
Organization: Tektronix Inc., Beaverton, Or.
Lines: 28
Xref: mnetor net.micro.atari8:509 net.micro.atari16:2708

From the sounds of recent messages, I am not the only one who would rather be
using an Atari at work rather then an IBM. Whether a ST or a XE/XL is, I
think, a moot point. At work (Tektronix, Clark County) I have two options at
present: I can use a Tek 4107 terminal to a Gould 9000 mainframe, or I can use
an IBM-XT (576k) PC. What is so bloody frustrating about the IBM is that
everything that I can readily do at home on my 130XE takes a change in dip
switch here, a new ... board there, etc. My Atari's are set up for color, the
IBM requires a special color card; the Atari is set up for graphics, the IBM
requires a special graphics card! Who says that the IBM is better? Arghh!!
[The Gould 9000 is down so much as to become almost a non-option.]

I have finally found a good equivalent IBM program that is very similar to
Atariwriter or Atariwriter +. It is pfs:write. Similarly, pfs has equivalent
software to SynCalc, SynGraph, SynFile, etc. I suspect that AW is a clone of
pfs:write or that pfs:write is a clone of AW, and that both are also similar to
Applewriter.   pfs:write is probably not the most sophisticated wordprocessor

in the world, but it is simple (KISS) and works! I have about had it with "enhanced" programs that add more controls, commands, etc. then ten people could use or figure out.

Back to my original point, I just wish that Atari would become respectable enough to allow its use at "work"! Still am tempted someday to bring down a spare 1200XLE (256k upgrade) and use it for my wordprocessing!

--Bill--

==> I hope that the above will generate some discussion, particularly discussion of experiences with using non-IBM in work environments.

From -8063116733720871658
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,929af54a68ffcaff,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 10:19:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!ed.ecn.purdue.edu!maccarle
From: maccarle@ed.ecn.purdue.edu (Carl A Maccarley)
Newsgroups: net.micro.atari16
Subject: Request for ARC copy
Message-ID: <8610221719.AA12902@ed.ecn.purdue.edu>
Date: Wed, 22-Oct-86 13:19:11 EDT
Article-I.D.: ed.8610221719.AA12902
Posted: Wed Oct 22 13:19:11 1986
Date-Received: Wed, 22-Oct-86 23:43:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Not realizing that ARC would become a required utility for downloading future good stuff from the net (like UniTerm5c), I didn't save it when it was posted. Could some kind soul please email it to me, or possibly repost it if others are in a similar situation?
Thanks very much. C. MacCarley (maccarle@ed.ecn.purdue.edu)

From -3758406190100644758
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 12:17:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Re: Re: extra "raw" disk drives
Message-ID: <658@chinet.UUCP>

Date: Wed, 22-Oct-86 15:17:36 EDT
Article-I.D.: chinet.658
Posted: Wed Oct 22 15:17:36 1986
Date-Received: Thu, 23-Oct-86 04:49:44 EDT
References: <8610161411.AA02878@mitre-bedford.ARPA> <619@imagen.UUCP>
<648@chinet.UUCP> <1171@druhi.UUCP>
Reply-To: cabbie@chinet.UUCP (Richard Andrews)
Organization: chi-net, Public Access UN*X, Chicago IL
Lines: 53

In article <1171@druhi.UUCP> lbl@druhi.UUCP (LocklearLB) writes:
>In article <648@chinet.UUCP>, cabbie@chinet.UUCP writes:
>> In article <619@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>> >>
>> >> Paul Swanson of Nite-Lite Systems (617) 663-4221 (BBS line) has done some
>> >> interfacing of "foreign" disk drives to the ST. I think this includes IBM
>> >> PC drives (5.25 inch). He of course would prefer to sell you an interface
>> >> rather than telling you how to design one, but he certainly could answer
your
>> >> questions if he has the time.
>> >>
>> >> -John Sangster
>> >> jhs@mitre-bedford.arpa
>> >
>> >it was written up with only 2 omissions in an old issue of antic (i can give
>> >you the issue # if you want), the first omission was that the atari
>> >disk drives use cmos level signals so you need to stick a buffer chip
>> >in between the drives and second you need to set the access time to 6
>> >ms. there was a pgm called sixms.prg to do that posted to the net, i
>> >have a copy if you need it.
>> >--
>> >----
>> I have interfaced the CDC drives that are sold by BG micro and those drives
>> (Full height DSDD) require at least 10ms step rate. Let the buyer beware!
>> Until someone come up with a 10ms step rate program, Those drives are
>> useless on the ST.
>>
>>
>>   Rich Andrews
>>   ...ihnp4!chinet!cabbie
>
>I've been using a Teac 5.25" drive for about a year now. It works flawlessly
>without changing the access rate or using a buffer chip. This seems like the
>drive to use if you need a 5.25" drive.
>
>If you want to upgrade your original single sided 3.5" Atari drive to a double
>sided drive, I have been told that Epson 3.5" drives work quite well. There are
only
>two problems. First, the busy light is on the wrong side. You'll have to
>remount it, or just listen to the drive if you want to see if it is on. :)
>Second, the disk eject button is too short to reach through the Atari drive's
>cabinet. To fix this, you need to replace the eject button on the new drive
>with the one from the old drive.

>
>I am planning on doing this upgrade soon, so I'll let everyone know how it goes.
>
>Barry Locklear
>AT&T Information Systems Labs
>Denver, CO 80234
>ihnp4!drutx!druhi!lbl

     The 3.5 drives that I have are both epson made. Original equipment
from Atari.
                    Rich Andrews
                    ihnp4!chinet!cabbie

From -8271016468387598048
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5ac731e6c6abb7c7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 12:30:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ubc-vision!mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)
Newsgroups: net.micro.atari16
Subject: Cadenza wanted
Message-ID: <787@mprvaxa.UUCP>
Date: Wed, 22-Oct-86 14:30:12 EST
Article-I.D.: mprvaxa.787
Posted: Wed Oct 22 14:30:12 1986
Date-Received: Sun, 26-Oct-86 02:48:40 EST
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 7

I've managed to erase my copy of 'cadenza' - the checker program that
was posted here a few months back. If someone could mail me a copy, it
would be greatly appreciated.
Thanks

Taylor Jackson

From 8706903872793724480
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,556f3b8e2fd68d9d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 13:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!ULKYVX.BITNET!
RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Scribe -> Proff (not long)
Message-ID: <8610230045.AA22332@ucbvax.Berkeley.EDU>

Date: Wed, 22-Oct-86 16:26:00 EDT
Article-I.D.: ucbvax.8610230045.AA22332
Posted: Wed Oct 22 16:26:00 1986
Date-Received: Thu, 23-Oct-86 07:22:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 64

A week or so ago I posted a program to convert scribble formatted files to proff. Actually the native format is that used by Perfest Software's old Perfect Formatter program, but close enough. Since then I've made a number of improvements to it. The following commands have been added:

```
case:     Include a paragraph if a switch variable is defined.
device:   Choose one of the pre-defined printer types and use
          its escape codes to underline, bold and super/subscript.
note:     Make an endnote and place a note number in the text.
cite:     Make an MLA style endnote and turn on the bibliography
          functions.
```

Other functions that deal with variables and file inclusion have also been added. But I would like to say more about 'cite' and the bibliography functions.

Let us supposed that you have a source text file called CHAPTER1.MSS. In the same directory, you have an additional file called CHAPTER1.BIB. If CHAPTER1.BIB is an ASCII file of the following format:

```
~TYPE   :BOOK (OR JOURNAL, MAGAZINE, INBOOK)
@TAG    :UNIQUEWORD
@AUTHOR :Fred Jones (used for the endnote)
@BIB    :Jones, Fred (this is for the bibliography)
@TITLE  :The world is your oyster (except for the months with an R in them)
@PUBL   :Random House
@CITY   :New York
@DATE   :1985
@PAGE   :20-40 (ignored by cite but may be used by bibdump)
@MEMO   :(completely ignored, but can be used to write summaries)
` <-- that's the data terminator an accent grave.
```

And then suppose you've got 30 or so of these entries each of a similar format. The first time the program sees '@cite(UNIQUEWORD)' (UNIQUEWORD matches the tag field of an entry) . . . The first time @cite() comes along, the program reads the biblio file and installs the values into a structure for each tagged entry. From then on in the document any time it sees @cite(), it searches the structures (dynamically allocated doubly-linked circular list) for whatever tag is between the fences in the @cite() command. When it finds an entry, it creates an endnote for that entry, formatted according to the type. (i.e. if it's a book, the publisher and city are included. If the editor field or translator field is defined, then her name is

included). At the end of processing all of the tags are placed in a large array (allocated by malloc at runtime, based on the total number of entries actually in the bibliography file). The array is passed to qsort and then the sorted bibliography is dumped to the output file, again in MLA format. To change formats all you need to do is change the routines that write the notes and the bib. I think it's a handy little program, and if anyone is interested, I'm willing to mail source and docs in arc/shar format. I would send uuencoded binaries, but I can't find uuencode anywhere.

Finally, if you requested this software earlier, but haven't heard from me, please send another request. Our system has been having air conditioner problems lately and is in the habit of "forgetting" how to reply to mail. Even though we are a BITNET site, ARPA addresses seem to be accepted much easier by our mailer.

Robert Royar

rdroya01@ulkyvx.bitnet

From -2802966756657523942
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d4461d68ad0b1d24,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 13:51:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!ads.ARPA!neville
From: neville@ads.ARPA (Neville Newman)
Newsgroups: net.micro.atari16
Subject: Re: C++ pricing/supported systems
Message-ID: <8610222110.AA19415@ucbvax.Berkeley.EDU>
Date: Wed, 22-Oct-86 16:51:38 EDT
Article-I.D.: ucbvax.8610222110.AA19415
Posted: Wed Oct 22 16:51:38 1986
Date-Received: Thu, 23-Oct-86 02:36:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 39

i quote the AT&T software announcement for C++ :

> "Given a running version of the C++ translator on a system
> mentioned above, it can be ported to a different type of
> system, if the target system has a C compiler that supports
> variable names of arbitrary length, and structure assignment."

The systems "mentioned above" are AT&T Sys V,Release 2.0 on VAX and 3Bx computers. i don't know what system calls are used by the C++ translator itself, so i don't know what mods might be needed for it to run under

BSD systems or v7-like systems (Alcyon C).

The porting procedure is related in the "Release Notes", part of the
C++ distribution.

Educational (source) licensing is $250 per *request*, no limit on # of
CPUs. Commercial (source) licensing is $2000 for the 1st CPU, $1000
for each additional CPU. Binary sublicensing is available for $2000
plus from $50 to $500 per copy sold.

Note that Oasys (Cambridge, MA) also sells C++. Their phone # is
(617) 491-4180. i don't know any particulars about their product,
since i am still waiting for their info to arrive in the mail.

~~~~~~

U.S. Mail: Neville D. Newman
         Advanced Decision Systems
         201 San Antonio Circle, Suite 286
         Mountain View, CA 94040-1289

Phone: (415) 941-3912
Net mail: neville@ads.arpa   (internet-relative)

From 5872262034320793247
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,950d928ccd1b91d1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 13:52:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ubc-vision!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.micro.atari16
Subject: Re: C++ Preprocessor
Message-ID: <467@vaxb.calgary.UUCP>
Date: Wed, 22-Oct-86 15:52:49 EST
Article-I.D.: vaxb.467
Posted: Wed Oct 22 15:52:49 1986
Date-Received: Sun, 26-Oct-86 02:47:52 EST
References: <8610201159.AA03183@mitre.ARPA>
Organization: U. of Calgary, Calgary, Ab.
Lines: 15

In article <8610201159.AA03183@mitre.ARPA>, camis..ajb@MITRE.ARPA (ajb@mitre)
writes:
>
> Is there really a C++ preprocessor available in the Public domain or has
> this whole discussion re: long identifiers just been hypothetical.
~~~~~~

Unfortunately it is largely hypothetical. There are two points of concensus in this discussion. 1) We all want C++ for the ST, and 2) Nobody knows whether it exists.

> Where can I get a copy of C++ (or cfront, or whatever) ? Does C++ also
> exist for the Vax ?
>

Cfront (the C++ "preprocesor") exists for BSD UNIX running on VAXen. (and, I suspect, any other BSD4.2 installation)

From 1176748865215659852
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 13:59:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!ads.ARPA!neville
From: neville@ads.ARPA (Neville Newman)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610222121.AA19551@ucbvax.Berkeley.EDU>
Date: Wed, 22-Oct-86 16:59:58 EDT
Article-I.D.: ucbvax.8610222121.AA19551
Posted: Wed Oct 22 16:59:58 1986
Date-Received: Wed, 22-Oct-86 23:41:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

>i have a copy of xinu for 68000, but before anyone requests it be
>sure that you know what you are getting (e.g. read the book!) xinu
>is not a general purpose os like unix and (here i go shooting my big
>mouth off) is really best suited for 'stand-alone' applications. OTH
... deleted
>Name: James M. Turner

i saw a whole flock of requests for Xinu go by on unix-sources/net.sources a while back, but nobody bothered to say just what it was. What is the book to which you refer? Please also give us a high-points description of Xinu and maybe some comparisons to other common OSs, so that we might dispense with the book if it's really ugly.

-neville

~~~~~~
U.S. Mail: Neville D. Newman
~~~~~~

Advanced Decision Systems
201 San Antonio Circle, Suite 286
Mountain View, CA 94040-1289

Phone: (415) 941-3912
Net mail: neville@ads.arpa   (internet-relative)

From 7539435175708692493
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,306f1aced96f983e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 14:05:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!mit-eddie!ll-xn!nike!sri-spam!sri-unix!
hplabs!tektronix!teklds!cae780!amdcad!decwrl!kirk.dec.com!williams
From: williams@kirk.dec.com (John Williams DTN 223-2163)
Newsgroups: net.micro.atari16
Subject: uucoding
Message-ID: <6058@decwrl.DEC.COM>
Date: Wed, 22-Oct-86 17:05:10 EDT
Article-I.D.: decwrl.6058
Posted: Wed Oct 22 17:05:10 1986
Date-Received: Fri, 24-Oct-86 00:19:19 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 8

Excuse me if I'm the 1,000,000th person to ask this. What is uucoding?
Are there any sources or conversion tables? I have a bunch of stuff I
would like to share with the net, plus, I can place this stuff in the
BCS (Boston Computer Society) Public Domain Library. Thanks.

                                John.

decwrl!dec-rhea!dec-kirk!williams

From 70192622976818075
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a297abdeb28170ed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 15:05:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!houxm!homxc!jdn
From: jdn@homxc.UUCP (J.NAGY)
Newsgroups: net.micro.atari16
Subject: Disk Benchmarks
Message-ID: <1667@homxc.UUCP>
Date: Wed, 22-Oct-86 18:05:56 EDT
Article-I.D.: homxc.1667
Posted: Wed Oct 22 18:05:56 1986
Date-Received: Thu, 23-Oct-86 07:18:39 EDT

Distribution: net.micro.amiga
Organization: AT&T Bell Labs, Holmdel NJ
Lines: 21

In the May '86 issue of BYTE, Webster shows benchmarks comparing the Mac, Amiga, and ST. The disk i/o results look like this:

	Mac Plus	ST	Amiga
Write	2.3 (sec)	30.3	7.3
Read (seq)	1.1	15.9	5.1
Read (random)	4.6	14.2	17.8

Is this possible? How can the ST disk i/o be so much worse than the other two and what is the explantion?

Jonathan Nagy
{ihnp4}!homxc!jdn

From -153030399572162058
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9b593a5961c843b6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 16:13:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cuae2!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Supervisor mode
Message-ID: <660@chinet.UUCP>
Date: Wed, 22-Oct-86 19:13:55 EDT
Article-I.D.: chinet.660
Posted: Wed Oct 22 19:13:55 1986
Date-Received: Thu, 23-Oct-86 07:39:50 EDT
Reply-To: cabbie@chinet.UUCP (Richard Andrews)
Organization: chinet, Public Access UN*X, Chicago IL
Lines: 9
Keywords: Hardware tweaking

I want to do some hardware tweaking and mave been attempting to enter supervisor mode but am still getting bus errors? Does anyone have some general purpose source code to do this?

Thanks,

Rich Andrews

...ihnp4!chinet!cabbie

From 4396541770755182l4
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdb42cec1522259c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 20:28:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!warwick!cvaxa!leilabd
From: leilabd@cvaxa.sussex.ac.uk (Davis)
Newsgroups: net.micro.atari16
Subject: Re: UniTerm V1.4 (at last....) also MicroEmacs v.3.7i
Message-ID: <252@cvaxa.sussex.ac.uk>
Date: Wed, 22-Oct-86 23:28:19 EDT
Article-I.D.: cvaxa.252
Posted: Wed Oct 22 23:28:19 1986
Date-Received: Fri, 24-Oct-86 16:36:06 EDT
References: <8610070729.AA03202@ucbvax>
Organization: Cognitive Studies Programme, U of Sussex, UK
Lines: 12

No parts of the recent postings of UniTerm or MicroEmacs v.3.7i
made it to this site. Did anyone in the UK get them or are we
just unlucky? I'd be glad to hear from anyone on this side of
the Atlantic who could supply them. (Oh, and also Proff - we
did get Part 2 of that but not the rest.)
--
Leila Burrell-Davis, Arts E, University of Sussex, Brighton BN1 9QN, UK

Tel: +44 273 606755 Ext. 2387
JANET: leilabd@uk.ac.sussex.cvaxa
ARPA: leilabd@uk.ac.sussex.cvaxa@ucl-cs.arpa
UUCP: ...!mcvax!ukc!cvaxa!leilabd

From 8633661666080329644
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8f6daf9d388fe8b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-22 21:15:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!sdcsvax!myers
From: myers@sdcsvax.UCSD.EDU (Margaret Myers)
Newsgroups: net.micro.atari16
Subject: Re: StarGlider
Message-ID: <2175@sdcsvax.UCSD.EDU>
Date: Thu, 23-Oct-86 00:15:41 EDT
Article-I.D.: sdcsvax.2175
Posted: Thu Oct 23 00:15:41 1986
Date-Received: Thu, 23-Oct-86 07:23:47 EDT
References: <2956@sdcc6.ucsd.EDU>
Organization: University of California, San Diego

Lines: 10
Keywords: StarGLider
Summary: StarGlider works with monochrome monitor

Yup StarGlider is a great game... sort of like battlezone in the
air.

works with the monochrome monitor too (for those of you without color).
I tried it today.

MM

From -4923701290055099534
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4dd11dd008f37f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 02:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!unido!infbs!loerke
From: loerke@infbs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: Uniterm 1.5c - (nf)
Message-ID: <12100003@infbs.UUCP>
Date: Thu, 23-Oct-86 04:02:00 EST
Article-I.D.: infbs.12100003
Posted: Thu Oct 23 04:02:00 1986
Date-Received: Mon, 27-Oct-86 00:48:07 EST
References: <3968@utah-cs.UUCP>
Lines: 17
Nf-ID: #R:utah-cs:-396800:infbs:12100003:000:515
Nf-From: infbs!loerke   Oct 23 09:02:00 1986

On UniTerm 1.5c and bombs:

We have tried to run uniterm (hardware: 520st+, 1meg, 20MB harddisk)
with GDOS loaded at boot time --> bombs. Then we cancelled GDOS,
and voila, it works fine.

On uniterm: the best terminal emulator i have seen till now. Great Job, Simon.

Tschuess,
     Achim

Achim Loerke, TU Braunschweig, Institut f. Theoretische Informatik, FRG
UUCP: loerke@infbs or ...{seismo|mcvax}!unido!infbs!loerke
BITNET/EARN/NORTHNET/GULFNET: loerke at dbsinf6
DARPA: loerke%infbs.uucp@seismo.css.gov

From 4684540833587743697
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,479793cf6a794f44
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 05:39:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!reading!gordon
From: gordon@sage.cs.reading.ac.uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: 1st WORD Update
Message-ID: <209@sage.cs.reading.ac.uk>
Date: Thu, 23-Oct-86 08:39:33 EDT
Article-I.D.: sage.209
Posted: Thu Oct 23 08:39:33 1986
Date-Received: Fri, 24-Oct-86 16:37:46 EDT
References: <8610161302.AA15149@ucbvax.Berkeley.EDU> <357@uwmacc.UUCP> <3959@utah-cs.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK.
Lines: 66
Keywords: What can it do, eh?

In article <3959@utah-cs.UUCP> atwell@utah-cs.UUCP (Bart L. Atwell) writes:
>
>>Also, it was my understanding that this new release of 1st Word would
>>allow for 2 column output, and the insertion of Degas-format images.
>
I was working on the PCW show on the ATARI stand (helping out) and for one
day was demonstrating 1st word plus, so lets try and help.

1) 1st word plus is a new product, not a new release, and costs about
   90 pounds.
2) i believe the final version will have multi column output, but the press
   release version ddid not, so i dont know for sure
3) it can import graphics, in a special format. (low, medium, or high)
   (if you use the wp in the wrong res the picture is shown on the screen
   as a black rectangle) - the pictures can overlap each other, and the text.
   they provide a snapshot accessory (ie cant be got at in degas or neo)
   which can snap a portion of the screen in there own compact format,
   degas format, doodle format, or neo format - therefore you would need
   to convert degas or neo images to, say, doodle format so that you could
   snap them with the desk accessory.

>I have a few other questions about 1st Word as well:
>
>1) Does the new version have ways to make big moves around the screen
>without using the mouse? In specific does it have an easy beginning of
>line or end of line command (like emacs Ctrl-e)?

4) big moves work as before, by mouse

>2) Is there any way to drive the more "exotic":-) printers like my
>NEC 8023? (A general OS print driver (accessory ?) would be nice so that
>screen dumps to non-Epson printers would turn out)

5) printer driver is altered as before, except there are a few extra options
   to support graphics and rulers (rulers allow blocks of text to be in
   pica, elite, condensed, and expanded elite.

>3) Is hyphenation supported?

6) yes, when it needs to hyphenate a word (if hyph is enabled) then it shows
   you how its going to do it, and allows you to alter the hyphenation position
   if you want to.

>4) Are some of the annoying things about the old vesion corrected like
>
>   a.Outputting a blank page on printing
>   b.Exiting the edit file on save (I guess
>   I'm in the habit of frequently saving)

7) a) yes, infact you can sor that out in version 1.6 of 1st word (update
   free) aswell)
   b) yes, there is a save and resume option.

>For now, 1st Word fills most of my word processing needs but in the future
>I may be needing a more complete (spell checking, hyphenation, footnoting,
>etc) WP. What other WPs are available and what will they offer.

8) it includes a built in spellchecker, with a 40000 word dictionary (if
   i remember the size correctly) - you dont need to drop out of wp to
   check spelling or alter the dictionary.

9) footnoting has also been included.

10) dont know much about any other wps, I like 1st word+

Simon Gordon, Reading university, England.

From 4265663147433460278
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 05:41:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!reading!gordon
From: gordon@sage.cs.reading.ac.uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: LARN
Message-ID: <210@sage.cs.reading.ac.uk>
Date: Thu, 23-Oct-86 08:41:54 EDT
Article-I.D.: sage.210
Posted: Thu Oct 23 08:41:54 1986

Date-Received: Fri, 24-Oct-86 16:38:42 EDT
References: <8610172222.AA17261@ucbvax.Berkeley.EDU>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK.
Lines: 4

In article <8610172222.AA17261@ucbvax.Berkeley.EDU> etu@fingate.BITNET (Esa
Turtiainen) writes:
>Should I send uuencoded LARN? Rather many people

YES PLEASE.................

From -5079514128499553665
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 11:37:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!ucsfcgl!pixar!mgr
From: mgr@pixar.UUCP (Michael Griffin Russell)
Newsgroups: net.micro.atari16
Subject: Re: Megamax C bug
Message-ID: <175@pixar.UUCP>
Date: Thu, 23-Oct-86 14:37:09 EDT
Article-I.D.: pixar.175
Posted: Thu Oct 23 14:37:09 1986
Date-Received: Fri, 24-Oct-86 16:56:08 EDT
References: <14600008@uklirb.UUCP> <1230@batcomputer.TN.CORNELL.EDU>
<1234@batcomputer.TN.CORNELL.EDU>
Reply-To: mgr@pixar.UUCP (Michael Griffin Russell)
Organization: Pixar -- Marin County, California
Lines: 17
Keywords: Megamax

The following causes my recently purchased Megamax C to crash:

```
struct i {
     unsigned short j;
};
main(){}
```

Remove the unsigned or the short and everything is hunky-dory. Can
anyone else verify this problem? Please mail directly to me rather
than to the net and I'll post a summary if appropriate.

Nonetheless, I recommend Megamax C and its documentation very highly.

While I'm at it - the Beckenmeyer Micro C Shell ($50) is hot stuff
as well. People who are used to BSD unix will find it a familiar
and rich environment - history substitution, aliases, smart shell
scripts, and a lot more. Micro Tools, at $24, is well worth it.

From -7146016179577089521
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a98c9715fe102585,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 11:47:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Robert Fortin)
Newsgroups: net.micro.atari16
Subject: Gem-kermit and Uniterm
Message-ID: <131@ritcv.UUCP>
Date: Thu, 23-Oct-86 14:47:57 EDT
Article-I.D.: ritcv.131
Posted: Thu Oct 23 14:47:57 1986
Date-Received: Sat, 25-Oct-86 05:30:58 EDT
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 12

If anyone has a working copy of Uniterm and Gem-Kermit
preferably with docs, (and is willing) I would like to send you a
disk with return postage to get a copy of these two great PD
programs. I have a modem on order, and will need some software
with download capability (hopefully kermit) to take advantage of all
the stuff floating around on the net.

Just send me your name and address if you are willing to do this
for me.

Bob Fortin
{allegra decvax seismo}!rochester!ritcv!ref0070

From 4368188636409421545
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dbe2a204a1c3bdf0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 11:48:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ubc-vision!alberta!sask!long
From: long@sask.UUCP
Newsgroups: net.micro.atari16
Subject: MandlBox Problems
Message-ID: <472@sask.UUCP>
Date: Thu, 23-Oct-86 13:48:21 EST
Article-I.D.: sask.472
Posted: Thu Oct 23 13:48:21 1986
Date-Received: Mon, 27-Oct-86 01:36:29 EST
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 22

I'm having problems with MandlBox. The program appears to load and
starts to run alright. I can play with the pull-down menus, and draw
a box in the coloured window (it's always orange), but as soon as I
let it start calculating, the screen goes blank, then approx. 15 secs
later, I get a small block of the window that is under the arrow,
two bombs appear and I'm back to the Desktop. (2 bombs --> bus error)

Is it my machine?? 520 with ROM TOS + 1 Meg.?? Its hard to beleive
that a program could be corrupted so that it almost runs...

Warren

-=-
Warren Long   78 Carleton Dr.
University of Saskatchewan   Saskatoon
Canada   Saskatchewan, S7H 3N6

@ long!sask!alberta!ihnp4!ucbvax!...
home ph# (306)-955-1237
-=-

From -6064430362337328371
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c345a42160272c19
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 12:20:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: mod.atari16.sources - PLEASE READ !!!!!!
Message-ID: <627@imagen.UUCP>
Date: Thu, 23-Oct-86 15:20:46 EDT
Article-I.D.: imagen.627
Posted: Thu Oct 23 15:20:46 1986
Date-Received: Sat, 25-Oct-86 06:42:18 EDT
References: <24200005@maggot>
Organization: The Houses of the Holy
Lines: 39

> Nf-ID: #R:imagen.UUCP:-61500:maggot:24200005:000:935
> Nf-From: maggot.applicon.UUCP!barada   Oct 20 12:30:00 1986
>
>
>>
>>In article <615@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>>>... therefore (deep breath taken) i propose to moderate
>>>mod.sources.atari16 with associated archives...

>>>... (what am i getting myself into??).
>
> I volunteered about two months ago. I even have a batch of votes that I posted
> to this group and net.news.group. But with the impending reorg, it
> was decided to postpone the creation until the reorg was in effect.
>
> Once that is done, I'll start up the group.
> --
> Peter Barada | (617)-671-9905
> Applicon, Inc. A division of Schlumberger Ltd. | Billerica MA, 01821
>
> UUCP: {allegra|decvax|mit-eddie|utzoo}!linus!raybed2!applicon!barada
>   {amd|bbncca|cbosgd|wjh12|ihnp4|yale}!ima!applicon!barada
>
>   Sanity is yet another perversion of reality.

in light of Peter's having beaten me to the punch, i withdraw, all comments,
votes etc. should be direct towards him. i may still serve as a west coast
archiver, we shall see...
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -4784305521200594116
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec4b84a88b612bd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 13:38:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: 520 ST memory map request
Message-ID: <628@imagen.UUCP>
Date: Thu, 23-Oct-86 16:38:37 EDT
Article-I.D.: imagen.628
Posted: Thu Oct 23 16:38:37 1986
Date-Received: Sat, 25-Oct-86 06:42:36 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 18

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

does anyone have a memory map for the 520 ST ??? i find bits and
pieces and vague hints in the dev doc, but not a definitive map

A t D h V a A n N k C s E
--

         These are days for the locust to eat
                      - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -6123442626076703884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 14:31:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!mordor!ehj
From: ehj@mordor.ARPA (Eric H Jensen)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <16246@mordor.ARPA>
Date: Thu, 23-Oct-86 17:31:35 EDT
Article-I.D.: mordor.16246
Posted: Thu Oct 23 17:31:35 1986
Date-Received: Fri, 24-Oct-86 00:43:03 EDT
References: <8610222121.AA19551@ucbvax.Berkeley.EDU>
Reply-To: ehj@mordor.UUCP (Eric H Jensen)
Organization: S-1 Project, LLNL
Lines: 28

In article <8610222121.AA19551@ucbvax.Berkeley.EDU> neville@ads.ARPA (Neville
Newman) writes:
>i saw a whole flock of requests for Xinu go by on unix-sources/net.sources
> ...
>of Xinu and maybe some comparisons to other common OSs, so that we might
>dispense with the book if it's really ugly.

In my opinion the book is nothing short of excellent! It was the
first OS text I read that allowed me to associate well known
abstractions with very clean, readable, high level, REAL code. I liked
Comer's writing style - fast reading (well organized and succinct),
lots of information.

The book...

Library of Congress stuff

      Comer, Douglas
        Operating System Design, the XINU Approach
     (Prentice-Hall software series)
     ...
     QA76.6.c6275   1984   001.64'2 83-19270
     ISBN 0-13-637539-1

--
eric h. jensen   (S1 Project @ Lawrence Livermore National Laboratory)
Phone: (415) 423-0229 USMail: LLNL, P.O. Box 5503, L-276, Livermore, Ca., 94550
ARPA: ehj@angband   UUCP: ...!decvax!decwrl!mordor!angband!ehj

From 6683933171984217510
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,479793cf6a794f44
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 20:31:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!lll-lcc!qantel!intelca!amd!amdcad!
decwrl!sun!imagen!atari!neil

From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: 1st WORD Update
Message-ID: <443@atari.UUcp>
Date: Thu, 23-Oct-86 22:31:18 EST
Article-I.D.: atari.443
Posted: Thu Oct 23 22:31:18 1986
Date-Received: Sun, 26-Oct-86 01:30:46 EST
References: <3959@utah-cs.UUCP> <861020-140353-168@Xerox>
Organization: Atari Corp/Mktg
Lines: 20

In article <861020-140353-168@Xerox>, Bicer.ES@XEROX.COM writes:
>
> In 1st WORD Update (V1.06), how can you double space?

Select SPACING from the menu. That's it!

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -2956607995280658530
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 21:09:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!rochester!cornell!batcomputer!
braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: New way to post binaries - discussion on format
Message-ID: <1275@batcomputer.TN.CORNELL.EDU>
Date: Thu, 23-Oct-86 23:09:58 EST
Article-I.D.: batcompu.1275
Posted: Thu Oct 23 23:09:58 1986
Date-Received: Sun, 26-Oct-86 01:54:06 EST
References: <2035@dalcs.UUCP> <2844@watmath.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 23
Summary: Any ideas on efficient coding of B&W line drawings?

[]

I've been thinking recently about transferring ST screen-dumps (32K
bit-maps, one bit deep in "hires" (monochrome) mode) over the modem
(to a VAX running UNIX, to print the graphics on a laser-printer).

Since my applications are concerned with B&W line drawings which are
mostly white space, it would be very inefficient to send the whole
32K. Also I'd like some compression method to compress it before I
ever save it on the ST disk.

I guess I could use ARC or some other standard, general purpose
compression program. But it seems that an algorithm designed
especially for this purpose should beat general ones handily!
I am thinking about an algorithm that would compare bytes (or words)
VERTICALLY DOWN THE SCREEN, rather than along consecutive RAM.
Such an algorithm would find more runs of identical bytes. It should
also work for color.

Is such a thing available (preferably PD)? Is anybody working on one?
Or should I do it myself?

- Moshe Braner

From -3180403552630139328
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-23 21:40:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!rochester!cornell!batcomputer!
braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: 1040ST questions (C compilers)
Message-ID: <1277@batcomputer.TN.CORNELL.EDU>
Date: Thu, 23-Oct-86 23:40:30 EST
Article-I.D.: batcompu.1277
Posted: Thu Oct 23 23:40:30 1986
Date-Received: Sun, 26-Oct-86 01:54:19 EST
References: <1978@ihuxl.UUCP> <2875@islenet.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 28
Summary: MWC good for "developers", not "personal" use!

[]

From what I've heard, Mark Williams C is great. The remaining
problems are supposed to be solved in the next release.

BUT: (THE CATCH!!!) You HAVE to have a hard disk to make any
serious use of it!!! It is FAR too slow on floppies (to my taste).
(And you HAVE to have TWO DOUBLE-SIDED floppies if you want to go
that way...) It is too slow on a hard disk, too!

So in my opinion Megamax is still the only viable option for
"personal" (low-budget) use, and is superior to MWC in speed
of compilation which is important to all users.

Consider: Megamax is so compact I put the compiler, linker, libraries,
microEMACS, utilities (from micro-C-Shell) in a (576K) RAM disk,
and still have some 250K free RAM disk space left! In the rest of my
1040's RAM I have micro-C-Shell resident, and enough space to run
all those things one at a time. Compiling and linking (all the way to a
.prg file) a small (2-page) program takes about 15 seconds, all done in RAM.
(MWC on a hard disk is an order of magnitude slower.) I can
put the source for microEMACS (180K) on the RAM disk, and compile
it completely in RAM!

Now if only somebody would figure out how to make Megamax and I/O redirection
from within Micro-C-Shell work together...

- Moshe Braner

From -5680882171678446858
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51baefc67c0cf4c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 04:20:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: Bug in HDX (SH-204 hard disk own - (nf)
Message-ID: <96100031@exunido.UUCP>
Date: Fri, 24-Oct-86 06:20:00 EST
Article-I.D.: exunido.96100031
Posted: Fri Oct 24 06:20:00 1986
Date-Received: Mon, 27-Oct-86 00:46:55 EST
References: <441@atari.UUCP>
Lines: 44
Nf-ID: #R:atari:-44100:exunido:96100031:000:2442
Nf-From: exunido!uh   Oct 24 11:20:00 1986

>In article <96100026@exunido.UUCP>, uh@exunido.UUCP writes:
>> >it before letting it out again. It will be distributed *soon* on
>> >Compuserve, on the Atari BSS, and to dealers. [Not on usenet, though,
>> >for obvious reasons.]
>>
>> What reasons, pardon. We developers here in Europe would be also very
>> interested in such updates
>
>The reason is that Usenet is supposed to be used for non-commercial things.
>We reasoned that the hard disk driver violates that. Right or wrong?

What is commercial in posting an update of existing software? Do you want to
take money for this driver? If so, than you're right, it's commercial.

>> About a year ago I was flamed very much by members of Atari (US) and other
>> people, because I have posted the CP/M-Emulator (here in Germany public
>> domain) to usenet. Now neil@atari says that Atari (US) will put this
>> emulator also into the public domain --- and now he asks us kids here
>> in Europe, how to put the utilities onto CP/M disks.
>
>Uwe, lets take off the gloves. If you had not posted the program to the
>net, we would have had a viable product that we could sell and support. Our
>eventual decision to make the CP/M emulator available as a free program was
>based on the fact that everyone had it already anyway! A big manual and
>support will not be available, sorry, but we just can't afford it.

May I remember you, that we were explicit allowed by Atari Germany to post
that CP/M emulator to USENET. Only two weeks after my posting, a new
release of the emulator was published here in Germany. In the meantime
there are n+1 new releases of the emulator (many corrected bugs, works
with ROM-TOS and so on). I have not posted even one of this new releases.

With the hard disk the current emulator still doesn't work. So I would say
IT IS STILL IN A NON-SELLABLE PRODUCT. And so the emulator is still
PD in Germany. But the newest news, a final version is on the schedule,
it will also support the hard disk and this product WILL BE SOLD (no PD)
here in Germany. And final, if we hadn't posted the emulator, you could be
shure any other her in Germany had done it. Today in the age of international
computer networks you cannot make a program PD in one country and sell it
in another country.

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From -332671698194081933
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c438f935fc5cc938,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 04:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ARCSHELL part 1 - (nf)
Message-ID: <96100032@exunido.UUCP>
Date: Fri, 24-Oct-86 06:26:00 EST
Article-I.D.: exunido.96100032
Posted: Fri Oct 24 06:26:00 1986
Date-Received: Mon, 27-Oct-86 00:47:48 EST
References: <20225722@Yale-Bul.UUCP>
Lines: 6
Nf-ID: #R:Yale-Bul:20225722:exunido:96100032:000:187
Nf-From: exunido!uh   Oct 24 11:26:00 1986

We too!

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From 4397907449114185619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51baefc67c0cf4c8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 04:50:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: Bug in HDX (SH-204 hard disk own - (nf)

Message-ID: <96100033@exunido.UUCP>
Date: Fri, 24-Oct-86 06:50:00 EST
Article-I.D.: exunido.96100033
Posted: Fri Oct 24 06:50:00 1986
Date-Received: Mon, 27-Oct-86 00:47:20 EST
References: <441@atari.UUCP>
Lines: 24
Nf-ID: #R:atari:-44100:exunido:96100033:000:941
Nf-From: exunido!uh   Oct 24 11:50:00 1986

Also from my last posting:

>We get the update here always half a year later or even longer.
>Last week I heard, that the official version of GDOS is published to
>the developers in the US over a month ago, and here in Germany:
>The German subsidary even doesn't know, that something like that exists,
>though Atari himself always proudly tells, that the German market is one of
>the best for the ST series.

And one of the responses:

>/***** exunido:net.micro.at16 / ucbvax!bammi / 7:43 pm Oct 18, 1986*/
>Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
>
>Barry,
>   GDOS is available, and has been for some time now to ANY registered
>developer. If you want more info, just call Cindy Clavern @ Atari.

Where is your answer on this, Neil?!? Can you mail us a uudecoded version of
the GDOS update?

     Uwe Hoch
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From -5250992914966523132
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 09:38:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!seismo!mcvax!ukc!einode!simon
From: simon@einode.UUCP (Simon Kenyon)
Newsgroups: net.micro.atari16
Subject: Re: 23alite.uur (WARNING - LONG)
Message-ID: <198@einode.UUCP>
Date: Fri, 24-Oct-86 11:38:20 EST
Article-I.D.: einode.198
Posted: Fri Oct 24 11:38:20 1986
Date-Received: Mon, 27-Oct-86 00:42:16 EST
References: <1364@trwrb.UUCP>
Organization: The National Software Centre, Dublin, Ireland.

Lines: 22

>
> In article <861016-043934-4496@Xerox> Ulrich.wbst@XEROX.COM writes:
>>I'll take whatever you are willing to send.
>
> Well, most of the responses I got suggested that I ignore the complaints
> about volumes of kr*p. So, for those of you who don't want to read this,
> NOW IS YOUR CHANCE TO BAIL OUT.

i don't object to volumes of crap (thats what usenet is all about)
what i don object to is the cost of the volumes of crap
the "three people asked for it so here it is all 2,500 machines" syndrome
do any of you guys have ANY idea what this costs the 95% percent of usenet
who are not interested?
[as an aside i should point out that i am interested in the 520 et al -
i'm just concerned about people mentality when it comes to glibly spending
hundreds of other people hard earned dollars/pounds/dmarks/franks/etc]
--
Simon Kenyon
EUnet: simon@einode.UUCP
Smail: The National Software Centre, Dublin, IRELAND
Phone: +353-1-716255
EUnet is a registered trademark of the EUUG

From -3213585554490734090
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 10:54:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Megamax C bug
Message-ID: <1645@cwruecmp.UUCP>
Date: Fri, 24-Oct-86 13:54:56 EDT
Article-I.D.: cwruecmp.1645
Posted: Fri Oct 24 13:54:56 1986
Date-Received: Sat, 25-Oct-86 06:47:59 EDT
References: <14600008@uklirb.UUCP> <1230@batcomputer.TN.CORNELL.EDU>
<1234@batcomputer.TN.CORNELL.EDU> <175@pixar.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. of Computer Engineering, Cleveland OH
Lines: 15
Keywords: Megamax

In article <175@pixar.UUCP> mgr@pixar.UUCP (Michael Griffin Russell) writes:
>The following causes my recently purchased Megamax C to crash:

>struct i {
>   unsigned short j;

Both Megamax and Lattice treat unsigned as a type rather than a type modifier. I think your problem is stemming from this (yet another custom interpertation of C) assumption.

--
usenet: .....!decvax!cwruecmp!bammi jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -81819518768138393
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 11:04:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!lll-lcc!qantel!intelca!amd!amdcad!decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: GDOS availability
Message-ID: <444@atari.UUcp>
Date: Fri, 24-Oct-86 13:04:06 EST
Article-I.D.: atari.444
Posted: Fri Oct 24 13:04:06 1986
Date-Received: Sun, 26-Oct-86 01:30:59 EST
References: <8610190113.AA06242@ucbvax.Berkeley.EDU> <1170@druhi.UUCP> <396@uwmacc.UUCP>
Organization: Atari Corp/Mktg
Lines: 16

GDOS will be available to users (as opposed to developers) once a few more fonts are completed. Then it will be packaged and sold to everyone.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
  1196 Borregas Ave.
  Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -3421867148055645026
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,a68fd4b8214f9134
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 11:14:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: crummy Atari monitors.
Message-ID: <8610262258.AA00418@ucbvax.Berkeley.EDU>
Date: Fri, 24-Oct-86 13:14:35 EST
Article-I.D.: ucbvax.8610262258.AA00418
Posted: Fri Oct 24 13:14:35 1986
Date-Received: Mon, 27-Oct-86 05:13:43 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

We have several old color monitors, several new color monitors and several
Ps 3000 (color with floppy drive built in). After reading your article
i went and took a closer look at them. Frankly, i find NO big difference.
I suspect that you have gotten a piece that is slightly misaligned or
something.
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -1849355260100606422
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 11:16:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: 23alite.uur (WARNING - LONG)
Message-ID: <8610262310.AA00608@ucbvax.Berkeley.EDU>
Date: Fri, 24-Oct-86 13:16:24 EST
Article-I.D.: ucbvax.8610262310.AA00608
Posted: Fri Oct 24 13:16:24 1986
Date-Received: Mon, 27-Oct-86 05:14:09 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 2

Alite only runs on a low rez color mode. What monitor/rez were you
using?

From -6398920493988334807
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 12:40:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!
philabs!linus!raybed2!applicon!bambi!maggot!barada
From: barada@maggot.applicon.UUCP
Newsgroups: net.micro.atari16
Subject: Re: New way to post binaries - disc
Message-ID: <24200008@maggot>
Date: Fri, 24-Oct-86 14:40:00 EST
Article-I.D.: maggot.24200008
Posted: Fri Oct 24 14:40:00 1986
Date-Received: Mon, 27-Oct-86 20:10:14 EST
References: <2906@watmath.UUCP>
Lines: 127
Nf-ID: #R:watmath.UUCP:-290600:maggot:24200008:000:4497
Nf-From: maggot.applicon.UUCP!barada   Oct 24 14:40:00 1986

>
>As a followup to my previous article, I have come across a new encoding
>technique (courtesy of the Math Faculty Computing Facility here at
>the university) which has the following properties:
>
>   - eight bit input data
>   - very restricted character set
>   - generally compresses files rather than expanding them
>   (including binaries)
>   - need no bit level twiddling
>   - involves only table lookup
>
>The encoding system is easy to implement. I am whipping one up now.
>
>This should make the transmittable archive format very easy to implement.
>My co-developer, Mike Gore, is planning to do a Basic (gack spew) version
>after I write one in C.
>
>Still: comments?
>
>Tracy Tims
>mail to ihnp4!watmath!unit36!tracy

Tracy, I followed your idea of last posting to do strange things with
restricted character sets, and I think I have found a nice way to do encoding/
decoding without too much overhead. I'll send you the sources if you want.

Encoding scheme:

     Assumptions:

          The character set contains the digits 0-9,
          and at LEAST the letters A-P.

The letters A-P are the Hex values 0-15. Two hex "digits" are always together. So AA is 0, and PP is 255 (standard hex, with different characters). The digits 0-9 are used as a decimal repeat count. The count is 1 less than the number of characters to repeat. This implies that a repeat count of 1 is interpreted as "two of the following"(obviously no repeatcount implies that there is only one of the following).

Caching is implemented by using other characters (except whitespace) as "cache" values of the most frequently used values. This requires a two-pass encoding scheme, but a one pass decoder.

The encoded file has a series of lines at the head seperated from the body of the encoded test by a blank line. This is the only whitespace dependency. Each line in the head contains three characters (plus the newline):
a character for the cached representation, and a two hex digit code that the cache character represents. Since the caches can be anything besize 0-9,A-P and whitespace, that leaves a lot of choices. Plus it can even be dynamic. No caching leads right to a hex encoder(with its two for one expansion), but with caching characters enabled, the size of the encoded output is smaller.

An example of encoding:

The line:

This is a test of the emergency broadcasting system <52 characters>

Becomes:

<blank line>
FEGIGJHDCAGJHDCAGBCAHEGFHDHECAGPGGCAHEGIGF
CAGFGNGFHCGHGFGOGDHJCAGCHCGPGBGEGDGBHDHEGJ
GOGHCAHDHJHDHEGFGNAK   <108 characters>

Which is like BinHex(in a way), but if I use the letters
Q-Z as caching values, the file changes to:

QCA   <Q is caching the hex value CA>
UGB   <U is caching the hex value GB>
WGD   < Etc... >
RGF
XGH
YGI
VGJ
ZGN
SHD
THE

FEYVSQVSQUQTRSTQGPGGQTYRQRZRHCXRGOWHJQGCHC
GPUGEWUSTVGOXQSHJSTRZAK

Which is the same size (108 characters) But since the input is short,

it does not give the caching a chance to be effective.

I'll compare my encoding scheme to uuencode and report on the results.
On to gigantic programs, and since its for binary, I used my Sun 3.0
Kernel as the acid test:

```
-rwxr-xr-x  1 root       493853 Apr  8  1986 /pub/vmunix
     <plain>
-rw-r--r--  1 barada     680443 Oct 24 14:05 vmunix.uuencoded
     <uuencode>
-rw-r--r--  1 barada     670910 Oct 24 14:07 vmunix.encoded
     <encoded>
     Note, The cache values used were Q-Z and a-z (36 cache values)
-rw-r--r--  1 barada     600208 Oct 24 14:31 vmunix.encoded
     <encoded>
     Note, The cach values used were  Q-Za-Z and:
          !@#$%^&*()-_+=|{[}]:;<>,./       (62 cache values)
```

As can be seen, my encoding scheme can produce a smaller output that
uuencode, but I don't have any checksums in my scheme.

Compressing the above encodings produce the following results:

```
-rw-r--r--  1 barada     387571 Oct 24 14:05 vmunix.uuencoded.Z
-rw-r--r--  1 barada     346875 Oct 24 14:07 vmunix.encoded.Z
```

So my encoding scheme expands a binary file by 35.85% compared to
uuencodes 37.78% which isn't much different.

What is really useful is the ability to limit the caching values to only
those that can pass through the networks, and to be almost completely
whitespace independant. It also doesn't perform so bad either.

Any comments or ideas???

--
Peter Barada | (617)-671-9905
Applicon, Inc. A division of Schlumberger Ltd. | Billerica MA, 01821

UUCP: {allegra|decvax|mit-eddie|utzoo}!linus!raybed2!applicon!barada
      {amd|bbncca|cbosgd|wjh12|ihnp4|yale}!ima!applicon!barada

     Sanity is only a state of mind.

From 8149504545866853380
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f5731e34bade0c86
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 12:47:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP

Path: utzoo!watmath!watnot!cgoudeseune
From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.micro.atari16
Subject: Re: recursion in megamax C
Message-ID: <12110@watnot.UUCP>
Date: Fri, 24-Oct-86 15:47:10 EDT
Article-I.D.: watnot.12110
Posted: Fri Oct 24 15:47:10 1986
Date-Received: Sat, 25-Oct-86 01:30:24 EDT
References: <36100001@pbinfo.UUCP> <12066@watnot.UUCP> <1125@druhi.UUCP>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Organization: U of Waterloo, Ontario
Lines: 31
Summary:

In article <1125@druhi.UUCP> lbl@druhi.UUCP (LocklearLB) writes:
>In article <12066@watnot.UUCP>, cgoudeseune@watnot.UUCP writes:
>> ...
>> Does anyone out there know how to make the stack as big as you want?
>> It seems to me that some other code internal to megamax didn't realize
>> i'd changed STACKSIZE from the original 8K, if that's any help.
>> ...
>
>After you changed the init.c program and compiled it, are you sure the new
>verion was used when you linked your program? To use a new init you must
>do one of two things:
>
>1) Specify init.o on the command line to the linker along with the other
>.o's for your program. This will tell the linker that you want to override
>the init.o found in the system library.
>
>2) Replace the init.o in the 'syslib' library with your altered one. Now
>the altered one will be used automatically.
>
>If you already tried these two methods and it still doesn't work, then I'm
>not sure what the problem is. If this is the case, let me know the answer
>when you find out! :)
>
>Barry Locklear
>ihnp4!drutx!druhi!lbl

Thanks, I knew it was something silly like that. Option no. 1 didn't seem
to work, but no. 2 works just dandy. I'll post the source to the net once
i've commented it a wee bit.

    Camille Goudeseune

From -2117624923444490418
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af2d417ef5f8cfd2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 12:50:15 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Megamax bugs and queries
Message-ID: <381@cernvax.UUCP>
Date: Fri, 24-Oct-86 14:50:15 EST
Article-I.D.: cernvax.381
Posted: Fri Oct 24 14:50:15 1986
Date-Received: Wed, 29-Oct-86 09:15:07 EST
Reply-To: jmg@cernvax.UUCP ()
Distribution: world
Organization: CERN, Geneva/Switzerland
Lines: 139

Let's start with the bugs. First, the easy one:-

```
   while (!(isalpha(f1 = getchar()))) ;
```

where f1 is a char variable, fails to compile under megamax. Agreed, I should probably use ~ rather than !, but it is OK on other compilers.

Mention of ~ reminds me that when I sent over my programs via kermit from this 4.2bsd vax the various ^L put in to force a newline on the listings got translated to something which megamax did not like, but which printed as ~ on the ST. I thus deleted the various ~ by hand (on my C64 I have a program to do it!), including some ~ which were meant to be there! Can megamax have an equivalent/identical character, or at least ignore whatever ^L becomes?

Now the main course, which has caused much gnashing of teeth and wails from the family (are you STILL on that bloody computer?). My favourite program (a chess problem solver) works on several machines, but not (yet) on the ST. One of the reasons is shown by the following program.

```
#include <stdio.h>

typedef         char    unsn7;          /* 0 to 127        */
typedef         char    void;           /* no return()     */

typedef         unsn7   piecear[65];
typedef         piecear piecemv[8];
typedef         piecear *piecept;

     piecemv king;
     piecept mset[8];

void    main(argc,argv)

     unsigned argc;
     char    **argv;
```

```
{
     unsn7   mysqr;
     unsn7   dir;
     piecept piecemat;
     unsn7   *pieceset;

 mysqr = 15;
 dir = 0;
 king[dir][mysqr] = 24;
 mset[5] = king;
 piecemat = mset[5];
 pieceset = piecemat[dir];

 printf("\npieceset[%2d]=%2d piecemat[%1d][%2d]=%2d king[%1d][%2d]=%2d",
 mysqr,pieceset[mysqr],dir,mysqr,piecemat[dir][mysqr],
 dir,mysqr,king[dir][mysqr]);
```

gives the following output

```
pieceset[15]=24 piecemat[0][15]= 1 king[0][15]=24
```

Having disassembled, the reason is essentially that the code takes piecemat to be the matrix itself, rather than a pointer to it. The disassembled code for piecemat[dir][mysqr] is

```
     move.b  -1(a6),d0       mysqr into d0
     move.b  -2(a6),d1       dir into d1
     ext     d1              extend d1 to 16 bits
     muls    $65,d1          65*dir in d1
!!!     lea     -6(a6),a0       address of piecemat
     add.l   a0,d1           add 65*dir to d1
     ext     d0              extend d0
     move.l  d1,a0           shift d1 to a0
     adda    d0,a0           add mysqr to a0
     move.b  (a0),d0         the (false) value
```

There are many ways round this, of which one is to change the typedef for unsn7 to int (yes, this is better anyway, but on 8-bit computers like the C64 I gain a lot with using char). The code then is correct

```
     move    -2(a6),d0
     move    -4(a6),d1
     muls    $130,d1
     add.l   -8(a6),d1       using the content of piecemat == -8(a6)
     asl.l   $1,d0
     move.l  d1,a0
     adda    d0,a0           now a0 really has the right address.
```

I am pretty sure that there are other bugs to do with use of char
for small integers, but I don't have the courage to look for them:
I have simply changed to int. Incidentally, the definition of void
as a typedef is necessary: what a pain.

Next problem: my program sometimes goes into suspended animation
(loops somewhere), sometimes mushrooms and sometimes shoots back to
the desktop. When it loops then I know where it has got to according
to the output, but I hoped that the recently-distributed watcher
program might get me out: it has no effect. Does it work for anyone?

For the cases where the program mushrooms or returns to the desktop
I would like to see what was printed right up to the fatal instant, by
forcing standard output onto my printer. The manual talks about
redirecting output, but I cannot find a way of doing this by a >?
parameter to a .ttp program. Anyone done it? Of course, I can send it
to a file, but if the program loops the file is never closed, so stays
empty. Also, of course, file output is buffered, so that I miss the
end part.

Another minor grouse is that of missing library routines. I needed
bcopy, bcmp and ffs (even the C64 has these). Of course I can easily
hack them, but has anyone started a supplementary library?

Yet another problem concerns dynamic allocation. I need to build up
linked structures (not big, but lots of them), so I use malloc and
free. The manual talks about malloc getting 8 kB chunks, but does
not explain if these are automatically split for many smaller mallocs.
I thought that I could see by printing out a pointer in %x8 format.
However, what is printed is only 16 bits (try printing king[0] and
king[1] in the above program!). Is there a way?
Also, should I try Malloc (possibly increasing the heap size)?

Final question (are you asleep yet?): can I link from a RAM disk
(containing megamax folder but not the source/object files)?
If yes, does it need the RAM disk specified in the list of object
files. Which reminds me that the program is split into about a dozen
modules, which is too many to link by using the shell and pointing
to the files one by one, or even listing them in a link program
call. It would have saved me some time if the manual had told me that.
(the above means can I do the library search, of course).

Just as a point of interest, this program always gives problems when
moving to a new compiler. That is because I use it to teach myself
about C constructs. If I were trying to write a portable C program I
should be much more careful about writing "simple" C.

Mike Gerard

From 6861900823178628909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bbaf9cbe5dc6574e,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 12:53:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!nike!ucbcad!ucbvax!sdcsvax!sdcc6!ix181
From: ix181@sdcc6.ucsd.EDU (John Ogawa)
Newsgroups: net.micro.atari16
Subject: Lotsa things . . .
Message-ID: <2962@sdcc6.ucsd.EDU>
Date: Fri, 24-Oct-86 15:53:30 EDT
Article-I.D.: sdcc6.2962
Posted: Fri Oct 24 15:53:30 1986
Date-Received: Sat, 25-Oct-86 07:17:44 EDT
Organization: University of California, San Diego
Lines: 55
Keywords: hard disks, clocks, games, kudos, uuencode

** Oh No! It's the line ea

Hi. This will be a many faceted posting so get ready to skip parts:

1) Does anybody have either C code or uuencoded binary of the uuencode/uudecode programs that were posted on the net a little while ago? If so, write me mail please. It'd be nice to have them on my Atari and I don't have a Pascal compiler.

2) I'm thinking of buying a (much needed) hard disk and I am soliciting any reviews/comments in email about them. Are the Atari and Supra the only two out there? Do either of them have an automatic (on power-down) head park?

3) Anything on DRI multitasking GEM?

4) I just acquired Silent Service by MicroProse. Let me say that this is an interesting game that is halfway between an arcade game and a strategy game. Realistsic movement and control, and intelligently planned graphics make it a fun diversion. Submarines have never been so fun. A neat feature is the time scale setter. If you think the games is going too slow, set the time scale to be 2, 4, or 8 times normal. The only major problem is . . .

FLAME ON ->
I really hate it when companies protect their software, and then charge money for backup disks. I have already paid for the program, and if I am being legal, and not copy-breaking it, I don't want to pay $10 more for a backup disk for when (in this case) the original disk starts making funny noises when the drive is running.
FLAME OFF ->

I realize the utility of copy protection (being a writer myself), but occasions like this are frustrating. Maybe there is some better way . . .

5) The clock setting program I got from the net didn't work (bombed

out). Is there anybody nearby that can send me one?

6) Kudos to the authors of Uniterm and Arc. They are great and useful programs. Long live the Public Domain and the authors that support it!!

That's it folks. Poke the guy next to you if he's fallen asleep . . :-).


```
|        |  | ____ ____ ___                                          |
|        |  | |    |___ |  \    John Ogawa                          |
|        |__| |___ ___| |__/    UC San Diego                        |
|                               ix181@sdcc6@sdcsvax@ucbvax           |
|                                                                    |
|     DISCLAIMER:      My views do not represent those of the       |
|     University of California, nor do theirs represent mine.       |
```



```
From -4654724918681964984
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,66139a870a60f4d8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 13:28:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Peek/poke/asm/maillist
Message-ID: <100600003@uiucuxa>
Date: Fri, 24-Oct-86 15:28:00 EST
Article-I.D.: uiucuxa.100600003
Posted: Fri Oct 24 15:28:00 1986
Date-Received: Sun, 26-Oct-86 02:12:21 EST
Lines: 26
Nf-ID: #N:uiucuxa:100600003:000:658
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309    Oct 24 14:28:00 1986
```


> I know this may sound infinitely stupid to some of you, but I still don't understand how basic's peek and poke work with the 68K computer. I can program 8 bit assembly, but I haven't taken the time to learn 16 yet. If someone knows of a good book or booklet or can explain it to me, I would appreciate it.
>
> What is the best assembler to learn on and are there any in public domain? I have an ASM68K file saved, but i don't know how to download and get rid of the M's and b's.

Sorry if I sound stupid,

Gregory L Kerr
University of Illinois

glk309@uiucuxa

Thanks in advance

P.S. Could I be added to the mailing list?

From 2937923319079143313
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,db5898702c5cf6fb
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 17:52:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!andromeda!argus!ken
From: ken@argus.UUCP (Kenneth Ng)
Newsgroups: net.micro,net.micro.atari16
Subject: Re: New way to post binaries
Message-ID: <543@argus.UUCP>
Date: Fri, 24-Oct-86 20:52:03 EDT
Article-I.D.: argus.543
Posted: Fri Oct 24 20:52:03 1986
Date-Received: Sat, 25-Oct-86 06:55:43 EDT
References: <2035@dalcs.UUCP>
Distribution: net
Organization: NJ Inst of Tech., Newark NJ
Lines: 29
Xref: watmath net.micro:15819 net.micro.atari16:2786

In article <2035@dalcs.UUCP>, silvert@dalcs.UUCP (Bill Silvert) writes:
> Here are some opinions about the problem of posting binaries, along with
> a draft solution. There should be some discussion on the net before it
> gets implemented.
>
> Binaries have to be encoded as ASCII files. But there is no reason why
> we have to use uuencode! There are evidently problems with it, and we
> should feel free to invent an alternate encoding method which avoids the
> problems with uuencode. These problems, aside from the minor one that
> uuencode is designed for th Unix environment, are that some characters
> (such as curly braces {}) do not make it through all nodes unscathed
> (IBM machines and others with EBCDIC codes appear to be the culprits),
> and for long files the posting have to be combined in an editor.

The problem is square brackets, which do not exist in EBCDIC in any
standard form. This becomes a real pain even with source programs

written in C and Pascal.

--
Kenneth Ng: Post office: NJIT - CCCC, Newark New Jersey 07102
uucp !ihnp4!allegra!bellcore!argus!ken
     ***   WARNING: NOT ken@bellcore.uucp ***
     !psuvax1!cmcl2!ciap!andromeda!argus!ken
bitnet(prefered) ken@orion.bitnet

McCoy: "This won't hurt a bit"
Chekov: "That's what you said last time"
McCoy: "Did it?"
Chekov: "Yes"

From -8952519791332776584
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 18:24:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Ataris At Work
Message-ID: <429@utcsscb.UUCP>
Date: Fri, 24-Oct-86 20:24:12 EST
Article-I.D.: utcsscb.429
Posted: Fri Oct 24 20:24:12 1986
Date-Received: Mon, 27-Oct-86 20:03:21 EST
References: <1128@tekigm2.UUCP> <405@uwmacc.UUCP>
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 36
Xref: utcs net.micro.atari8:519 net.micro.atari16:2783
Summary:

>And speaking of software, the IBM has just about every micro I know about
>beat cold in both public domain software and commercial software, in both
>quality and quantity. That may be only because of the perceived usage of
>the respective machines, but frankly, I would not even *think* of trying

Come on! Thats an AWFULLY BIG statement!
I agree that the PC has a LOT of public domain software (quantity) but I
bet it would STILL lose to CP/M in the quantity department. CP/M was
developed and nutured on PD stuff.
I certainly don't agree that it beats the MacIntosh in the quality
department. I will admit that this has a lot to do with the Mac user
interface. But in both commercial and public domain software, I would say
that the Mac has the PC beat hands down. (Especially in terms of USEABILTY).

>expressed), but it's a plain and simple fact that the 8-bit microprocessor
>is nowhere near the present state of the art in cheap microcomputing.
>For some uses, the 8-bit micros can perform as well as the owner of the
>machine wants or expects it too; however, I personally could not tolerate
>using most of today's 8-bit offerings for the kind of things I do, both
>here at the office and while "playing" at home.
>]]

This is another BIG statement. I always love hearing from PC users bragging about there 16 bit machines. It remains a fact that ALL software designed for the PC is designed to be able to run on the original PC using the 8088. It is also a fact that INTEL(!) describes the 8088 as an 8(!!) bit processor with some 16 bit facilities. Even the Z80 (8 bit and proud) can do 16 bit math. - No I'm not an 8 bit user (anymore. I have a 1040ST), but I refuse to be blind to 8 bit processors

---

Pete Santangeli
BIX:psantangeli
USENET:pete@utcsscb.UUCP

From -6946958302440647151
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2cc3320ad0cc42e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 20:57:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: RE: shar (really Lattice C)
Message-ID: <200@druxu.UUCP>
Date: Fri, 24-Oct-86 23:57:47 EDT
Article-I.D.: druxu.200
Posted: Fri Oct 24 23:57:47 1986
Date-Received: Sun, 26-Oct-86 01:47:25 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 98
Keywords: Lattice libraries

Upon reading the code for the shar/unshar program recently posted to the net, I noticed the warnings about the Lattice C libraries. Since Lattice has released version 3.03.04 (the comments apply to version 3.03.02), I felt I had better post a copy of a letter I sent to Lattice regarding problems in the newer library. The 20 file problem has been fixed, but some other problems have been introduced that will affect compiling shar.
- -

Sept. 13, 1986

METACOMCO
5353E Scotts Valley Drive
Scotts Valley, CA 95066

Dear Sirs:

I have your Lattice C compiler, version 3.03.04, serial number xxxx for the Atari 520ST and have some comments on the product. First, the bugs.

Try running the following program (enclosed is the output).

```
/*This program tests a bug in the Lattice compiler, version 3.03.04*/
#define SIZE 12
main()
{
        char db[SIZE], *tmp;
        int r1, r2, r3, r4, zero=0;
        tmp=db+SIZE-1;
        r1=db-tmp;
        r2=tmp-db;
        r3=db-tmp+zero;
        r4=tmp-db+zero;
        printf(" db-tmp=%x tmp-db=%x\n db-tmp+0=%x tmp-db+0=%x\n",
                r1,r2,r3,r4);
        r1=0+db-tmp;
        r2=0+tmp-db;
        printf(" 0+db-tmp=%x 0+tmp-db=%x\n", r1, r2);
}
```

Here is the output:

```
 db-tmp=0 tmp-db=FFF09042
 db-tmp+0=F6FBE tmp-db+0=B
 0+db-tmp=F6FBE 0+tmp-db=FFF09042
```

I find the results to be somewhat inconsistent and confusing, even for C! It looks like there is a serious problem with pointer arithmetic.

Try to write anything to stderr (printf(stderr,...). or puts(stderr,..), or even write(2,...)). The cursor drops down a couple lines and everything stops. I found touching control C at least got me out of the program. Version 3.03.02 did not have this problem.

I opened an ASCII text file for level 1 input (open() and read()) and read it in. I got EOF before the file had been completely read. Setting ORAW in the open mode cleared things up.

In the area of clarification, I think there are a few things that must be made explicit in your manual:

> I/O redirection on a program's command line must be done before any commands to the program (close examination of

your manual shows this, but many people familiar with systems like UNIX(tm), don't have that restriction).

> redirects stdout and < redirects stdin (see page 14)

There can be no spaces between the redirection symbol and the file name.

When compiling a program that uses AES and VDI calls through the Lattice library, do not use the -n option (31 character symbol names), because the library only has 8 chararacter symbols; thus, the entries won't be found.

Finally, a couple of questions. How do you pass definitions to a compile? The -D option can set flags for #ifdef and #ifndef, but the compiler chokes on parsing -dsymbol=value. Last, but not least, when is the next improved version due?

- -

The important point is that shar writes to stderr. I found that changing the fprintf(stderr,...) calls to cprintf(...) and fputs(...,stderr) to cputs(...) solved things.

One last question for anyone on the net. I heard at a users group meeting that a patch exists for the Lattice library that permits I/O redirection under the Beckemeyer Micro C-Shell. Does anyone have that patch and if so, could I get a copy?

Rodney Black
AT&T Information Systems
11900 North Pecos
Denver, CO 80234
..ihnp4!druxu!rwb

From 6768292906631577851
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a68fd4b8214f9134
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 21:47:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Re: crummy Atari monitors.
Message-ID: <678@chinet.UUCP>
Date: Fri, 24-Oct-86 23:47:06 EST
Article-I.D.: chinet.678
Posted: Fri Oct 24 23:47:06 1986
Date-Received: Sun, 26-Oct-86 01:10:12 EST
References: <861019173034.000001A0.ANLH.MA@UMass> <633@ssc-bee.UUCP>
Reply-To: cabbie@chinet.UUCP (Richard Andrews)

Organization: chi-net, Public Access UN*X, Chicago IL
Lines: 16

In article <633@ssc-bee.UUCP> eve@ssc-bee.UUCP (Michael Eve) writes:
>> Well, folks, I just picked up a brand-new SC1224 color monitor, to supplement
>> ... The new, Goldstar-supplied monitor is, to put it quite
>> bluntly, the pits. The video quality is a disaster.
>> ...It looks even worse than an Amiga in
>> 80-column mode, if such a thing is possible.
>>
>
I would suggest that you get your monitor or console repaired. I have one
of the new monitors and they don't look bad. It looks a lot better than
IBM's monitors. From the symptoms that you describe, it sure sounds like
the monitor or the console blanking is either missing or weak.

Rich Andrews
...ihnp4!chinet!cabbie

From -5384899965119709457
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 22:13:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: LARN
Message-ID: <244@bath63.UUCP>
Date: Sat, 25-Oct-86 01:13:27 EDT
Article-I.D.: bath63.244
Posted: Sat Oct 25 01:13:27 1986
Date-Received: Fri, 24-Oct-86 16:40:18 EDT
References: <8610172222.AA17261@ucbvax.Berkeley.EDU> <195@einode.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 7

YES YES YES YES YES

Sorry, a lot of us (I expect) don't have the original (or any other)
source, and don't have access to the source archives (wherever they
are). Or, someone tell me who I can send some blank disks and money
to for an M-mail copy of LARN...

From -1830644276174616174
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,27a996c91bee857d

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-24 22:18:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM problems?
Message-ID: <245@bath63.UUCP>
Date: Sat, 25-Oct-86 01:18:58 EDT
Article-I.D.: bath63.245
Posted: Sat Oct 25 01:18:58 1986
Date-Received: Fri, 24-Oct-86 16:41:07 EDT
References: <8610180000.AA19057@ncsc.ARPA> <505@carina.noao.UUCP>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 4

Our site got only parts 3 (twice) and 4 of the Uniterm V1.5c posting.
Howabout a repost of the lot? Or, as with LARN, an address to which
I could send disks and return postage money, or just money for disks...

From 242023275048835469
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9752283d0e3ec392,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 09:50:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Atari Explorer
Message-ID: <6085@ut-sally.UUCP>
Date: Sat, 25-Oct-86 11:50:04 EST
Article-I.D.: ut-sally.6085
Posted: Sat Oct 25 11:50:04 1986
Date-Received: Sun, 26-Oct-86 01:51:35 EST
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Distribution: net
Organization: U. Texas CS Dept., Austin, Texas
Lines: 17
Keywords: -on newsstands near you now-

I've heard alot of talk for the past months about the mysterious
Atari Explorer magazine. I've been on the look-out for it at the
bookstore, but never saw it. Well, it's finally out.
The Sept/Oct issue I have is 80 pages of software/hardware/program reviews
and news for the ST. Atari, it was a long wait, but it looks like it was
worth it.

Now, I have a question: Does anybody know anything about a mag called
STart. I saw an issue, I don't know how old, in my bookstores junk box,

evidently there because of, as the note on top said, 'fault disk'. So,
I assume that STart includes an ST disk with each issue, full of interesting
things. Anyone know what I'm talking about (I sure don't :-)).

                                Maurice T. Franklin
                                CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

From 4909015998318735311
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,705a0db9f1affe60
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,705a0db9f1affe60
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 10:37:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekgen!
tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Ataris At Work
Message-ID: <1142@tekigm2.UUCP>
Date: Sat, 25-Oct-86 12:37:31 EST
Article-I.D.: tekigm2.1142
Posted: Sat Oct 25 12:37:31 1986
Date-Received: Mon, 27-Oct-86 00:34:06 EST
References: <1128@tekigm2.UUCP> <405@uwmacc.UUCP>
Organization: Tektronix Inc., Beaverton, Or.
Lines: 121
Xref: watmath net.micro.atari8:531 net.micro.atari16:2803

In article <405@uwmacc.UUCP>, oyster@uwmacc.UUCP (Vicarious Oyster) writes:
> In article <1128@tekigm2.UUCP> wrd@tekigm2.UUCP (Bill Dippert) writes:
> >From the sounds of recent messages, I am not the only one who would rather be
> >using an Atari at work rather then an IBM. Whether a ST or a XE/XL is, I
> >think, a moot point.
>
>   I don't think it's such a moot point.
>
>
>   As a workstation, the 8-bit Atari lacks one thing that is essential: 80
> characters per line. Unless things have changed since I bought an 8-bit
> Atari, you still need to get "a special card." Color is nice (I don't like
> doing without it), but that's just icing on the cake for a workstation.
You have two choices here: one buy the new XEP80 80 column adapter device or
two, buy software that allows 80/132 wide screens (with horizontal scrolling).
Admittedly horizontal scrolling is the pits but it beats 80 columns interlaced
into 38 columns.
>   But what about the capabilities as a microcomputer, you ask? Well, the
> IBM has the 8-bit beat here, too. Say you want to hook a standard printer
> up to your 1200XL; what do you do? Call mail-order place after mail-order

> place, trying to find somebody who knows what kind of cable you need; then
> pay $59.95, only to discover that the 1200XL is different somehow than the
> rest of Atari's 8-bit machines, so you have to go through the whole cycle
> again. Oh, and what about a modem-- you know, a standard Hayes-compatible.
While I was no getting into modems, I will admit that you need an 850 interface for almost anything, be it modem or printer. (Or another 850 equivalent--except that Atari is providing an RS232 port on the new XEP80 for printer or whatever. And trying to find cables to connect a IBM into anything as simple as a Epson printer can be just as much a pain. I have an easier time locating Atari cables then IBM cables unless I go to mailorder.
> Well, you can spend another $59.95 for a gizmo that you stick in the
> joystick ports, but you need to use the software that comes with the gizmo.
> And speaking of software, the IBM has just about every micro I know about
> beat cold in both public domain software and commercial software, in both
> quality and quantity. That may be only because of the perceived usage of
> the respective machines, but frankly, I would not even *think* of trying
> to market a serious program for the 8-bit Atari, if only because of what
> I know about the, um, "habits" of local Atari users with regard to software
> piracy.
I think that there is as much public domain software out there for the Atari 8 bitter as there is for IBM. And the software that you buy at the dealer (read: commercial software) is a heck of a lot cheaper for Atari then IBM. Although they are getting closer! Atariwriter+ costs $49.95, pfs:write costs $89.99.
> There's a guy who gets pissed when, for example, Analog states
> that there isn't much Atari software because of piracy, but who has a
I agree that piracy is deplorable, but I doubt that anyone does not have some pirated software. My feeling is that if it is still available at the dealer, then you should pay for it. (Dealer being anything from your local computer store, to mailorder, to the publisher of the software). But, and this is a big but, if it no longer is available anywhere legitimately, then I will used a socalled "pirated" copy. This generally applies to games, as they seem to be the most pirated software. I don't think that I have ever seen real useful software pirated (ala Syncalc, SynFile, etc.), these are currently available and are reasonably priced so there is no incentive to pirate them. Or am I being undully naive?
>
>   However, after all that, I'd much rather have an ST on my desk. It
> solves all the terribly frustrating connectivity problems I had with my
> 1200XL, has (or at least had) an *extremely* crisp 80-column color monitor,
> and has software and hardware capabilities unquestionably more sophisticated
> than the 8-bit line.
I am glad that you like the ST line, personally I hate mice and windows with a passion. But admittedly the ST line is fairly well thought out line. It should get more software as time goes on. And you have to admit that the 1200XL was an aberrition. I have two of them as well as my 800XL and my 130XE. So I have had experience with them -- I have never had any software that I could not use on all four machines, albeit some on the 800XL requires the translator disk and more on the 1200XL require it. Apparenly the 130XE OS has been corrected as it seems to take software that the XL's require the translator for. Two of the machines (800XL and one of the 1200XL s) have had the Newell 256k upgrades installed. For all practical purposes, they are the equivalent of the 130XE now, except that they still sometimes require the translator disk. Example: the new Atari Planetarium program (which I recently

purchased) will load up on all of the machines. The 1200XLE requires the translator, the 800XLE does not. However, during the time that the program is calculating, the 130XE shows the correct screen , the XLE's show gibberish. Apparently the Planetarium program uses a different form of bank selection or something.

At anyrate, getting back to my original discussion: I have purchased AW+, SynCalc, SynFile, SynGraph, etc. and they would suit my "business" needs just as well as the software I have at work for my IBM-XT. Maybe I don't have quite the memory available, but it is adequate for what I need. There is even a form of CAD available now for the XE (albeit somewhat crude). So I say that the XL/XE series are just as useful in business as the ST (unless you really need the .5 -- 1 Meg of memory). [And the 130XE can be pumped up to 1 MEG if you need it!]

> Short digression: Owners of 8-bit machines can take that as snobbery
> if they wish (somebody always does, regardless of how tactfully it's
> expressed), but it's a plain and simple fact that the 8-bit microprocessor
> is nowhere near the present state of the art in cheap microcomputing.
> For some uses, the 8-bit micros can perform as well as the owner of the
> machine wants or expects it too; however, I personally could not tolerate
> using most of today's 8-bit offerings for the kind of things I do, both
> here at the office and while "playing" at home.
Not snobbery, but your only advantage is memory and possible IBM compatibility.
> And now, back to the ST:
>   It still doesn't have as much good, cheap software as the IBM PC (unless
> somebody can show me an emulation/communications program as good and
> cheap as ProComm), but it's got enough already to do most of what I do
> every day, it's cheaper, and I like the environment better (using
> Micro C-Shell, not the standard GEM desktop). If Atari could afford to
> provide a bit of IBM-style support, it would be an ideal machine. Instead,
> it's "merely" the best thing around in terms of cheap home computing.
> Unfortunately, my superiors don't want to believe it, so I'm using this
> XT. As you so eloquently stated above: Arghh!
Having never used C or Pascal or Action! I cannot testify to the usefulness of the 8bitter machines, but these languages are available for the XL/XE's.

> - Joel Plutchak, former 1200XL owner
>   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
>   ARPA: oyster@unix.macc.wisc.edu
>
> Can you say "opinion"? I *knew* you could!

   - Bill Dippert, current owner of 130XE/800XLE/1200XLE/1200XL
     uucp: tektronix!tekigm2!wrd

Just the facts, ma'am, just the facts. (Jack Friday, Dragnet)

From -2986388972296846287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67dbfee832fce903,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 12:26:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!sri-unix!hplabs!nsc!oblio!paf
From: paf@oblio.UUCP (Paul Fronberg)
Newsgroups: net.micro.atari16
Subject: Problems with Beckemeyer C-Shell
Message-ID: <329@oblio.UUCP>
Date: Sat, 25-Oct-86 14:26:50 EST
Article-I.D.: oblio.329
Posted: Sat Oct 25 14:26:50 1986
Date-Received: Mon, 27-Oct-86 01:35:19 EST
Organization: Counterpoint Computers, San Jose
Lines: 15

Warning. Beckemeyer MT C-Shell will NOT work with Lattice C. Execution of
      Lattice-C binaries will cause a panic and the ST will lock up,
      requiring reboot. I have talked with Beckemeyer about this and they
      recognize the incompatibility and are working with Metacomco to
      resolve the problem.

I have also experience problems with PC/InterComm from Mark of the Unicorn.
This involves loss of the curser when I return to the shell. A few times I
have gotten ASSERT errors and a stack trace. I am still trying to rediscover
what I did so I can forward the information back to Beckemeyer.

Beside these two difficulties, the MT C-Shell seems to be a reasonable
environment for ST programmers who come from a UNIX background and want
something familiar. I have found only a few annoyances and differences
(for example ^Z/carriage return for eof instead of ^D).

From 7810415955141669165
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9752283d0e3ec392
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 13:20:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!husc2!chabris
From: chabris@husc2.UUCP (chabris)
Newsgroups: net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <993@husc2.UUCP>
Date: Sat, 25-Oct-86 15:20:25 EST
Article-I.D.: husc2.993
Posted: Sat Oct 25 15:20:25 1986
Date-Received: Sun, 26-Oct-86 02:49:46 EST
References: <6085@ut-sally.UUCP>
Reply-To: chabris@husc2.UUCP (christopher chabris)
Distribution: net
Organization: Harvard University Science Center
Lines: 26
Keywords: -on newsstands near you now-

STart, the ST Quarterly, is a new quarterly magazine about the ST (and future high-end Atari computers ...) published by Antic Publishing. The first two issues, Summer and Fall 1986, have been out and available for some time; the third is scheduled for early December publication. The magazine costs $14.95 per copy, including a disk of all source code, executable programs, and datafiles required for the articles. No program listings appear in the text of the magazine -- all are given on the disk.

The magazine is highly recommended, but don't just believe a Contributing Editor :-) Go to B. Dalton, Waldenbooks, or any other vendor and decide for yourself!

--
-- Christopher F. Chabris
   Dunster F-61
   Harvard University
   Cambridge, MA   02138

   [HOME: 15 Sterling Road, Armonk, NY, 10504]

   CompuServe: 73277,305
         UUCP: ...!harvard!husc4!chabris
         ARPA: chabris%husc4@harvard.ARPA
       BITNET: chabris@HARVUNXU.BITNET
         AT&T: (617) 498-2239

From 1228718924437215379
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 14:59:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!ENEEVAX.UMD.EDU!iarocci
From: iarocci@ENEEVAX.UMD.EDU (Bill Dorsey)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610252059.AA04565@eneevax.umd.edu>
Date: Sat, 25-Oct-86 16:59:32 EST
Article-I.D.: eneevax.8610252059.AA04565
Posted: Sat Oct 25 16:59:32 1986
Date-Received: Sun, 26-Oct-86 04:04:59 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 2

Please add me to the mailing list. Thanks.
                                -Bill

From 7517831887179298922

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2c3645d343ac60b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 21:10:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!decwrl!kirk.dec.com!williams
From: williams@kirk.dec.com (John Williams DTN 223-2163)
Newsgroups: net.micro.atari16
Subject: Some points
Message-ID: <6095@decwrl.DEC.COM>
Date: Sat, 25-Oct-86 23:10:26 EST
Article-I.D.: decwrl.6095
Posted: Sat Oct 25 23:10:26 1986
Date-Received: Mon, 27-Oct-86 01:03:45 EST
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 44

After sifting through the mail, two thoughts came to mind:

First, I think an enhancement to uucoding is warranted. A simple checksum at the end would do the trick, and would be compatible with earlier versions. An earlier version would simply ignore the checksum at the end, with no further complications. It would a least help to zero in on network problems. As it is, most versions I have seen add a character at the end of the lines so that spaces are not truncated. Why not replace this with a simple checksum?

Second, the ST is an excellent work machine. The 68000 blows away the 8086 types. The lack of software, as has been pointed out, is only because the machine is only one year old. I held out until the ST came out, I have one of the first machines. I have done all sorts of work with it (at home, where I can find peace and quiet) from editing to graphics for presentations. I am completely satisfied with the performance. I have had absolutely no problems of any kind using the ST. I will admit that I am still awaiting a good symbolic debugger, perhaps Mark Williams is what I am looking for (You really need a hard drive to use it).

I am writing this article from an ST right now, using PC Intercom through an Avatex modem, as reliably as if I were in front of my VT100. As far as software piracy goes, people with money to burn on outdated PC's probably have money to burn on useless software. Anything super-expensive belongs on a mainframe anyways. Here is a list on things I want to be able to do on my ST, all which I am completely satisfied with:

Word processing
Telecommunications
Graphic illustrations
Games
Programming languages (with the exception of the symbolic debugger)
Spreadsheet analysis

All this stuff is available. Now. I'm not looking for a turn-key system

to run my business for me. (which is a dangerous prospect, to say the least, refer to the court case against lotus)

Anything a manager has against the ST in favor of the PC is purely ignorant bias. He most certainly has been watching too many TV commercials.

John.

decwrl!dec-rhea!dec-kirk!williams

From -8317942548804471750
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,10a6700492d3777,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-25 23:46:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!decwrl!kirk.dec.com!williams
From: williams@kirk.dec.com (John Williams DTN 223-2163)
Newsgroups: net.micro.atari16
Subject: Champagne bottle effigy
Message-ID: <6097@decwrl.DEC.COM>
Date: Sun, 26-Oct-86 01:46:50 EST
Article-I.D.: decwrl.6097
Posted: Sun Oct 26 01:46:50 1986
Date-Received: Mon, 27-Oct-86 01:03:57 EST
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 3

A toast to Usenet. Thanks for the replies. Look for an excellent ram disk to follow.

John.

From -349463676359758897
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5824ff515079148,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 00:51:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!clyde!cbatt!ihnp4!inuxc!pur-ee!
j.cc.purdue.edu!i.cc.purdue.edu!afo
From: afo@i.cc.purdue.edu (Alan Davis)
Newsgroups: net.micro.atari16
Subject: Printer Problems :-(
Message-ID: <1619@i.cc.purdue.edu>
Date: Sun, 26-Oct-86 02:51:12 EST
Article-I.D.: i.1619
Posted: Sun Oct 26 02:51:12 1986
Date-Received: Mon, 27-Oct-86 23:22:56 EST
Organization: Purdue University Computing Center
Lines: 27

Keywords: Epson MX100 screen dumps

HELP PLEASE!!

I just bought an Atari 1040 ST and hooked up my ancient
Epson MX100. Everything works fine on it (1st Word, print
files) but when I press ALT-HELP to dump the screen, I get
strange results. It prints the graphics ok, but for each
line of graphics it also prints 3 blank lines in between.
Can somebody give me a clue as to what I need to do. I've
configured the "install printer" accessory correctly (not
much choice in that) and I've set the dipswitch 2-3 to "on"
instead of off. The switches were the same as from factory
otherwise but that still doesn't help. And as some may know,
the manual for this printer is far from good.

Can anyone help me. How about Neil? How about Epson? Are you
listening/watching?

Thanks in advance,

Alan Davis
Purdue University Computing Center
:-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-) :-)
USENET: {seismo, decvax, ucbvax, ihnp4}!pur-ee!i.cc!afo
BITNET: ADAVIS@PURCCVM

Disclaimer: My boss has opinions too but I can't express them in public.
Therefore, I thought up my opinions all by myself.

From 4802972480083321626
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2c3645d343ac60b9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 07:27:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!sri-spam!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!
jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Some points
Message-ID: <8610261514.AA10946@mitre-bedford.ARPA>
Date: Sun, 26-Oct-86 10:27:01 EST
Article-I.D.: mitre-be.8610261514.AA10946
Posted: Sun Oct 26 10:27:01 1986
Date-Received: Mon, 27-Oct-86 01:30:47 EST
References: <6095@decwrl.DEC.COM>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 3

In summary, if you want to be a Clown, buy an IBM PC.

-John S.

From 1572537552857878633
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 13ba0e,c00d53085dfa5e28,start
X-Google-Attributes: gid13ba0e,public
X-Google-Thread: f9532,c00d53085dfa5e28,start
X-Google-Attributes: gidf9532,public
X-Google-Thread: 129c11,c00d53085dfa5e28,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 12c65a,c00d53085dfa5e28,start
X-Google-Attributes: gid12c65a,public
X-Google-Thread: 15c82e,c00d53085dfa5e28,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,c00d53085dfa5e28,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,c00d53085dfa5e28,start
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-26 10:21:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ubc-vision!alberta!cavell!gail
From: gail@cavell.UUCP
Newsgroups:
net.micro.cbm,misc.wanted,net.micro,net.micro.amiga,net.micro.atari8,net.micro.ata
ri16,net.periphs
Subject: Wanted (Alive): Commodore 1541 disk drive.
Message-ID: <947@cavell.UUCP>
Date: Sun, 26-Oct-86 13:21:55 EST
Article-I.D.: cavell.947
Posted: Sun Oct 26 13:21:55 1986
Date-Received: Mon, 27-Oct-86 22:24:33 EST
Organization: U. of Alberta, Edmonton, AB
Lines: 16
Keywords: Sell that dusty old thing.
Xref: mnetor net.micro.cbm:1412 misc.wanted:102 net.micro:6320
net.micro.amiga:5484 net.micro.atari8:519 net.micro.atari16:2769 net.periphs:585

If you have upgraded to a better system, and have an old 1541 disk drive
lying around (or if you know of someone who does), I would like to buy
the drive from you.

If the drive has been serviced to permanently avoid the famous
"head knock disalignment" problem, all the better.

The cable and power cord are essential, I need them both.

I will pay shipping - reply with your selling price either by email, or
write:
            Disk Drive

#6, 10755 81 Avenue,
Edmonton, Alberta
T6E 1Y2

From -8111257580565547823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 10:26:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!seismo!umcp-cs!eneevax!iarocci
From: iarocci@eneevax.UUCP (Bill Dorsey)
Newsgroups: net.micro.atari16
Subject: Re: 1040ST questions (C compilers)
Message-ID: <232@eneevax.UUCP>
Date: Sun, 26-Oct-86 13:26:36 EST
Article-I.D.: eneevax.232
Posted: Sun Oct 26 13:26:36 1986
Date-Received: Mon, 27-Oct-86 05:17:26 EST
References: <1978@ihuxl.UUCP> <2875@islenet.UUCP>
<1277@batcomputer.TN.CORNELL.EDU>
Reply-To: iarocci@eneevax.UUCP (Bill Dorsey)
Distribution: net
Organization: never
Lines: 63

In article <1277@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>[]
>
>From what I've heard, Mark Williams C is great. The remaining
>problems are supposed to be solved in the next release.
>
>BUT: (THE CATCH!!!) You HAVE to have a hard disk to make any
>serious use of it!!! It is FAR too slow on floppies (to my taste).
>(And you HAVE to have TWO DOUBLE-SIDED floppies if you want to go
>that way...) It is too slow on a hard disk, too!
>
Depends on what you mean by slow. Mark Williams C is about two and a half
time faster than Alcyon C. While not nearly as fast as Megamax C, at least
it doesn't resrict you to 32k code segments!

You DO NOT have to have two double-sided floppies. Mark Williams has
released a version that runs on two single-sided floppies. And if you have
a 1040ST or a 520ST w/ 1 meg, you only need one drive (either single-sided
or double sided) to use the compiler. To do this, you put the compiler disk
in the floppy and put your source code on a ramdisk along with whatever
other programs you want that will fit.

>So in my opinion Megamax is still the only viable option for
>"personal" (low-budget) use, and is superior to MWC in speed
>of compilation which is important to all users.

>
Speaking of low-budget use, Mark Williams C lists for $20 less than Megamax C. And Mark Williams Company gives dealers a larger margin on their product than Megamax; I bought Mark Williams C for $130 (list=$180) whereas I have yet to see Megamax for less than $190 (list=$199).

>Consider: Megamax is so compact I put the compiler, linker, libraries,
>microEMACS, utilities (from micro-C-Shell) in a (576K) RAM disk,
>and still have some 250K free RAM disk space left! In the rest of my
>1040's RAM I have micro-C-Shell resident, and enough space to run
>all those things one at a time. Compiling and linking (all the way to a
>.prg file) a small (2-page) program takes about 15 seconds, all done in RAM.
>(MWC on a hard disk is an order of magnitude slower.) I can
>put the source for microEMACS (180K) on the RAM disk, and compile
>it completely in RAM!
>
>Now if only somebody would figure out how to make Megamax and I/O redirection
>from within Micro-C-Shell work together...
>
>- Moshe Braner

Nice, but with Mark Williams C you get a powerful Make utility, a small but useful shell program, and an assortment of unix-like utilities to round off the package into a powerful full-featured development system.

I'm not disputing that the Megamax C compiler is a good compiler, but I do disagree with Moshe's conclusion that Mark Williams C is only good for developers. If compiling speed isn't the only consideration you buy a C compiler for, then I would highly recommend Mark Williams C compiler.

--

| Bill Dorsey |
| 'Imagination is more important than knowledge.' |
| - Albert Einstein |
| ARPA : iarocci@eneevax.umd.edu |
| UUCP : [seismo,allegra,rlgvax]!umcp-cs!eneevax!iarocci |

From -4801384837010576805
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9e0e12aae6fa4896,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 11:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: disk drive question
Message-ID: <8610272023.AA15421@ucbvax.Berkeley.EDU>
Date: Sun, 26-Oct-86 14:18:00 EST
Article-I.D.: ucbvax.8610272023.AA15421

Posted: Sun Oct 26 14:18:00 1986
Date-Received: Mon, 27-Oct-86 23:34:40 EST
Sender: citrin@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

I finally got the one meg upgrade to my 520 working, or so I thought for about an hour. When I tried to rebuild it into the case I had trouble booting. The drive failed to recognize that it hed a disk and just clunked at me every few seconds. This problem was at first intermittent happening about every other time I tried to use he drive but has since become perpetual. I have chked for shorts and can see noe and had the same experience with the dealer's functional drive. Could someone send me a few suggestions? Please write directly to my electronic address as I am no longer on the distribution list. Thank you very much.

peter lorraine (qbzj@cornella.bitnet)

From -1994225383578031586
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc93f1e53bbcbad3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 15:12:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!husc6!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.gatech.EDU (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: HELP! problems with bammi's MAKE
Message-ID: <2501@gitpyr.gatech.EDU>
Date: Sun, 26-Oct-86 18:12:16 EST
Article-I.D.: gitpyr.2501
Posted: Sun Oct 26 18:12:16 1986
Date-Received: Mon, 27-Oct-86 05:33:17 EST
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Distribution: net
Organization: Georgia Institute of Technology
Lines: 28

Help!

I'm trying to compile bammi's MAKE on the new Alcyon (developer's) C compiler, but apparently don't have enough memory. Here's the error message:
  make: not enough memory for macro.

  It's happening on one of the macros defined by Make itself, so even if I don't define any macros myself, Make won't run. I'm a Modula2 user, and thus have very little experience with Alcyon C. Can someone tell me what to do? Is there a modification I can make in GEMSTART.S, or do I need to free up some memory... Any advice (no matter how basic) will be appreciated...

AtDhVaAnNkCsE

Steve Tynor
tynor@gitpyr

=-=
No problem is so formidable that you can't just walk away from it.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From -1402529090453768887
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db5898702c5cf6fb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-26 18:01:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!lll-crg!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Robert E. Fortin)
Newsgroups: net.micro.atari16
Subject: Re: New way to post binaries - discussion on format
Message-ID: <150@ritcv.UUCP>
Date: Sun, 26-Oct-86 21:01:03 EST
Article-I.D.: ritcv.150
Posted: Sun Oct 26 21:01:03 1986
Date-Received: Mon, 27-Oct-86 05:24:15 EST
References: <2035@dalcs.UUCP> <2844@watmath.UUCP>
<1275@batcomputer.TN.CORNELL.EDU>
Reply-To: ref0070@ritcv.UUCP ()
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 25
Keywords: compression

In article <1275@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>[]
>
>I've been thinking recently about transferring ST screen-dumps (32K
>bit-maps, one bit deep in "hires" (monochrome) mode) over the modem
>(to a VAX running UNIX, to print the graphics on a laser-printer).
>
>Since my applications are concerned with B&W line drawings which are
>mostly white space, it would be very inefficient to send the whole
>32K. Also I'd like some compression method to compress it before I
>ever save it on the ST disk.
>

I have the C - source for a compression algorithm that reduces files to

about 20-30% of their original size. It uses the LZW algorithm (if you know what that is - I don't). It would be great to compress your files, but you might want to uuencode them before transmitting them. The only problem is that I don't have a C-compiler yet. If anyone is interested, I could get it to work on Unix 4.3 and then someone could translate it to the ST. You would need to keep the uncompress algorithm on your host system anyway.

Bob Fortin
{allegra seismo decvax}!rochester!ref0070

From 4846579404684563932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc98d63bd6ef160d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 01:56:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uklirb!mdoerr
From: mdoerr@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: UNITERM problems? - (nf)
Message-ID: <14600011@uklirb.UUCP>
Date: Mon, 27-Oct-86 04:56:00 EST
Article-I.D.: uklirb.14600011
Posted: Mon Oct 27 04:56:00 1986
Date-Received: Wed, 29-Oct-86 09:19:36 EST
References: <20245408@ncsc.UUCP>
Lines: 5
Nf-ID: #R:ncsc:20245408:uklirb:14600011:000:178
Nf-From: uklirb!mdoerr   Oct 27 10:56:00 1986

We've got part 3 twice and part 4 once, too. Parts 1 and 2 didn't make it to our site.

Michael Doerr @ Uni. Kaiserslautern @ West Germany
(uucp: ...!seismo!unido!uklirb!mdoerr)

From 6333632229374884409
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4035b8b44b8ebf0f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 04:20:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!sunybcs!leo
From: leo@sunybcs.UUCP (Leo Wilson)
Newsgroups: net.micro.atari16
Subject: WANTED: back article
Message-ID: <1268@sunybcs.UUCP>
Date: Mon, 27-Oct-86 07:20:08 EST
Article-I.D.: sunybcs.1268

Posted: Mon Oct 27 07:20:08 1986
Date-Received: Tue, 28-Oct-86 03:22:24 EST
Reply-To: leo@sunybcs.UUCP (Leo Wilson)
Distribution: world
Organization: guest at SUNY/Buffalo Computer Science
Lines: 13
Keywords: ST to 800xl communications using joystick ports

********** EAT ME **********

Hi,

I remember seeing an article awhile back about using the joystick ports
on the ST and an 8-bit for some kind of interfacing. I wasn't interested
at the time, but suddenly I want to use my 8-bit for SOMETHING again
(other than as a paper-weight) and I haven't got the article. Does anyone
out there have it, or does anyone know how to do this? Advance thanks,
-Leo

BTW, my memory is finally working and MAN am I glad I didn't buy an IBM
clone or a macintosh.... 8^)

From -2442245189507507522
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c54c7cd06553042,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 04:22:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: copy protection flame
Message-ID: <246@bath63.UUCP>
Date: Mon, 27-Oct-86 07:22:47 EST
Article-I.D.: bath63.246
Posted: Mon Oct 27 07:22:47 1986
Date-Received: Wed, 29-Oct-86 09:18:36 EST
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: AUCC c/o University of Bath
Lines: 27

Distribution:
Organization: AUCC c/o University of Bath
Keywords:

Both Sundog (Software Heaven Inc, aka FTL) and Rogue (Epyx) are copy protected.
Worse, though, both insist on being run with the disks write-enabled.
This is a real ***** .

FTL, at least, tell you in the instructions that this is the case,
and offer an address from which one can (for $10) buy a single backup

copy. Epyx do neither.

I had a go at copying the Epyx disk. It appears to work, but when you try to run the copy, you get put into what appears to be an infinite 'put disk A into drive A; put disk B into drive A' loop. I actually gave that a try for a bit over 80 swaps, figuring that, since they hadn't said it was copy-protected, they might have simply made it 'unattractive' to copy by requiring that you somehow 'validate' the 80 tracks individually. Finally decided that's not the case. It annoyed me enough to decide that I think I'll try to crack that one, though.

Before I get flamed in turn, let me make it clear that I have bought, from authorised dealers, still shrink-wrapped copies of both at the proper price for real money; and that I want backups for my own use -- since I'm not convinced that I can run a write-enabled disk indefinitely without managing to have an accident with it.

From -8298650744848734516
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab361087f2a71b5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-27 05:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!rutgers!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Another version of uue/decode offered (repost)
Message-ID: <8610280040.AA03726@ucbvax>
Date: Mon, 27-Oct-86 08:51:00 EST
Article-I.D.: ucbvax.8610280040.AA03726
Posted: Mon Oct 27 08:51:00 1986
Date-Received: Tue, 28-Oct-86 03:34:39 EST
Sender: jordan@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 42

I have a version of uue/decode that I have been testing and that seems to avoid some of the problems with the present setup. I added some code to the original programs to do some error checking. The format of the files the encoder uses is similar to the current version. If you have the current version, you can delete the extra information with your word processor. My version adds the following things:

1. It breaks up long files so that each uuencoded file is no more than 300 lines long.

2. It places and include directive at the end of each file at the break so the companion program can reassemble the files into a program.

3. It adds a key table at the beginning of each file so that

the decoder can index into this table to find the value for letters in the file. I discovered that the errors I had with uudecode were often because a mailer had changed each instance of a character to something else. This solves that problem.

4. It checks the key table for integrity before it decodes the file. This way if both 'H' and 'Z' have been changed to ' ', it will exit and tell you.

5. If it finds a letter in the file that was not in the key table, it issues a warning telling what the character was, the filename, and the current file position.

6. It appends a 'part' letter (a-z) at the end of each output line to avoid truncation problems.

This program makes uue/decoding somewhat simpler than it has been because it breaks the files up into parts automatically and reassembles them. It actually is smaller and runs faster than the net version of the program because I used freopen() to cut down on file pointers and I used register variables where possible. If you are interested in this program, drop me a line and I will post it to you.

Robert Royar

rdroya01@ulkyvx.bitnet

From -3969154035217239781
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f966f644ea8c2e9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 20:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!LLL-MFE.ARPA!
PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: KILO CHARS OF...
Message-ID: <8610180435.AA22311@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 23:47:00 EDT
Article-I.D.: ucbvax.8610180435.AA22311
Posted: Fri Oct 17 23:47:00 1986
Date-Received: Tue, 21-Oct-86 08:06:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I happen to think most of the stuff posted here is great! I understand the dilemma of those whose mailboxes end up too full, but for those who are planning

a solution, please keep in mind those of us who don't have interactive access to the network. I for one haven't found a way to get at "public access" archives.
--Patrick Simon
  PSIMON%PPC.MFENET@LLL-MFE.ARPA

Just one of THOSE days!

From 2546721307676512805
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9511305a5a32ce8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 20:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!LLL-MFE.ARPA!
PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: WHAT DID I MISS?
Message-ID: <8610180501.AA22542@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 23:55:00 EDT
Article-I.D.: ucbvax.8610180501.AA22542
Posted: Fri Oct 17 23:55:00 1986
Date-Received: Tue, 21-Oct-86 08:07:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Did I really see FORMAT+ for ROM TOS mentioned? CLI.ACC? I was not connected Wed. or Thurs. Could someone fill me in to what programs were posted. thanx.
--Pat
  PSIMON%PPC.MFENET@LLL-MFE.ARPA

From -9000498609785028466
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 21:58:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Interrupt running programs
Message-ID: <1230@batcomputer.TN.CORNELL.EDU>
Date: Sat, 18-Oct-86 00:58:19 EDT
Article-I.D.: batcompu.1230
Posted: Sat Oct 18 00:58:19 1986
Date-Received: Tue, 21-Oct-86 05:47:29 EDT

References: <14600008@uklirb.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 95
Summary: a short program that seems to work

[]

Finally, it seems I am on the right track towards writing a program
that will stop other programs. The following, after running, sits
in RAM invisibly, until you hold down Control, Alternate and BOTH
shift keys and press another key (e.g. Return). The program in
progress at the time will be terminated.

One problem I had to solve was how to avoid OS calls from
inside the interrupt handler. I did that by using direct
peeking of the shift keys status, and by doing the actual
termination of the program AFTER the RTE.

WARNING: This program uses some addresses that are essential
but not official. I found them out by snooping around in the
ROM code. They may be changed in future versions of TOS.
Atari will send their death squads after you if you use these
addresses in a commercial program!

Here is the heart of the routine, in commented assembly syntax:

```
asm {
/*
 * call supexec() to install our thing
 */
    PEA  install(PC)
    MOVE.W   #38,-(A7)
    TRAP #14
    ADDQ.L   #6,A7
/*
 * terminate and stay resident
 */
    CLR.W    -(A7)
    MOVE.L   #0x00000200,-(A7)
    MOVE.W   #0x31,-(A7)
    TRAP #1
install:
/*
 * install our keyboard interrupt handler
 * (has to be done in supervisor mode)
 */
    PEA  handler(PC)
    MOVE.L   (A7)+,0x118   /* pointer to kbd intrpt subr */
    RTS
handler:
/*
 * check keyboard shift status
```

```
 */
    CMPI.B   #0x0F,0xE1B   /* shift status variable */
    BCS.S    normal
/*
 * overwrite return address with our posthandler
 */
    PEA  killer(PC)
    MOVE.L   (A7),6(A7)
    ADDQ.L   #4,A7
normal:
/*
 * go do the usual thing, usually return to interrupted program
 */
    JMP  0xFC281C /* where $118 pointed to */
killer:
/*
 * RTE to here to terminate program
 */
    CLR.L    -(A7)
    TRAP #1
/*
 * should not come back, but: 6 bombs if you do
 */
    CHK  #-1,D0
}
```

Here is a hex dump of the complete program (140 bytes):

```
60 1A 00 00 00 70 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 FF FF 2A 4F 2A 6D
00 04 20 2D 00 0C D0 AD 00 14 D0 AD 00 1C D0 BC
00 00 01 00 2F 00 2F 0D 3F 00 3F 3C 00 4A 4E 41
DF FC 00 00 00 0C 48 7A 00 1A 4E 71 3F 3C 00 26
4E 4E 5C 8F 42 67 2F 3C 00 00 02 00 3F 3C 00 31
4E 41 48 7A 00 08 21 DF 01 18 4E 75 0C 38 00 0F
0E 1B 65 0A 48 7A 00 0E 2F 57 00 06 58 8F 4E F9
00 FC 28 1C 42 A7 4E 41 41 BC FF FF
```

Please try it out and comment on its performance under various circumstances. Remember: the object is a clean break, with no after effects, avoiding RESETs when possible.

- Moshe Braner

<braner@amvax.tn.cornell.edu>

P.S. I have not tried "Watcher" yet - it may be similar or better?

From 3368154932230633433
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d4e6d021dc15af5e,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 23:32:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utcsscb!pete
From: pete@utcsscb.UUCP
Newsgroups: net.micro.atari16
Subject: UniTerm Gremlins
Message-ID: <426@utcsscb.UUCP>
Date: Sat, 18-Oct-86 02:32:21 EDT
Article-I.D.: utcsscb.426
Posted: Sat Oct 18 02:32:21 1986
Date-Received: Sat, 18-Oct-86 03:14:30 EDT
Reply-To: pete@utcsscb.UUCP (Peter Santangeli)
Organization: Univ. of Toronto - Scarborough Campus "B" VAX
Lines: 16
Keywords: UniTerm
Summary: Here we go again!

********** Ashes to Ashes, Dust to Dust, Beware the Line Eater! **********

Guess What?
I just received the distribution of UniTerm, and it was all truncated. Is this just a problem at my site, or has anyone (preferable in the Toronto area) got it to work?. If so, could you be kind enough to mail me a copy?

Thanks a bunch in advance,
Pete Santangeli

I Claim no Disclaimers!
"Remember, This is only a work of Fiction.
The Truth, as Always, will be far more strange." A.C.Clarke

From -2239430674236413432
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8771fe5e053b6f0e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 23:42:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: How to get Special Characters from 1ST Word with Panasonic 1091
Message-ID: <8610180642.AA06687@ohio-state.ARPA>
Date: Sat, 18-Oct-86 02:42:48 EDT
Article-I.D.: ohio-sta.8610180642.AA06687
Posted: Sat Oct 18 02:42:48 1986
Date-Received: Tue, 21-Oct-86 20:37:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I've finally figured out how to get most of the special characters in the
1ST Word font table printed out by a Panasonic 1091 printer.

First, turn off the printer. Remove the clear plastic cover above the
dip switches. Flip dip switch #2 to the off position. Replace the cover.

Then install the pana1091.hex printer driver. I'll post this next.

Now you should be able to print out just about every character in the font
table (no Hebrew).

Hope this is useful,

Eric Bergman-Terrell

From 8309992760347314554
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 23:42:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610180642.AA06692@ohio-state.ARPA>
Date: Sat, 18-Oct-86 02:42:58 EDT
Article-I.D.: ohio-sta.8610180642.AA06692
Posted: Sat Oct 18 02:42:58 1986
Date-Received: Tue, 21-Oct-86 20:38:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 259

```
*****************************************************************
*
*    Panasonic 1091 Dot Matrix Printer Driver Configuration Table
*
*    This file contains tables defining the code sequences
*    to be sent to the printer to perform various functions
*    and to access the characters from codes in the Atari
*    character set.
*
*****************************************************************

*
* Name of printer
* ===============
*
Panasonic 1091
```

```
*
* Miscellaneous configurable variables
* ====================================
*
* 1: printer type, 0=dot matrix, 1=daisy wheel
*    Note if printer type is 0 the following 4 variables are never used.
* 2: unit width of one character
* 3: unit height of one line
* 4: Approximate middle of carriage after formfeed
* 5: Carriage shift for bold overstrike
* 6: 1 to pause between pages
*
0, 0, 0, 0, 0, 0

*
* Printer characteristics
* =======================
*
* This table specifies the printer command sequences.
* If the top bit of a code is set, then this indicates the position
* of a parameter passed to the printer. The code whose top bit is set
* in this table is added to the parameter passed before being sent to the
* printer. It is not used in all command sequences, only in those where
* the printer requires  a variable value such as the length of a vertical
* tab.
*
* 0            * Character width
1, D, A        * Linefeed WITH return
* 2            * Forward print
* 3            * Reverse print
4, 1B, 42, 80, 0, B                * Vertical tab to line (FX or LX)
* 5            * Absolute horizontal tab
6, 1B, 45      * Draft bold on
7, 1B, 46      * Draft bold off
8, 1B, 45      * Near Letter Quality (NLQ) bold on (LX80)
9, 1B, 46      * NLQ bold off
A, 1B, 34      * Draft italic on
B, 1B, 35      * Draft italic off
C, 1B, 78, 0, 1B, 34, 1B, 47       * NLQ italic on
D, 1B, 48, 1B, 35, 1B, 78, 1       * NLQ italic off
* E            * Draft light on
* F            * Draft light off
10, 1B, 78, 0  * NLQ light on
11, 1B, 78, 1  * NLQ light off
12, 1B, 53, 0  * Draft superscript on
13, 1B, 54     * Draft superscript off
14, 1B, 78, 0, 1B, 53, 0           * NLQ superscript on
15, 1B, 54, 1B, 78, 1              * NLQ superscript off
16, 1B, 53, 1  * Draft subscript on
17, 1B, 54     * Draft subscript off
18, 1B, 78, 0, 1B, 53, 1           * NLQ subscript on
19, 1B, 54, 1B, 78, 1              * NLQ subscript off
```

```
1A, 1B, 2D, 1  * Draft underline on
1B, 1B, 2D, 0  * Draft underline off
1C, 1B, 2D, 1  * NLQ underline on
1D, 1B, 2D, 0  * NLQ underline off
1E, C          * Formfeed
1F, 12         * Horizontal initialisation
20, C          * Vertical initialisation
21, 1B, 40     * Termination: printer reset
0              * NULL termination byte

*
* Translation Table
* =================
*
* This table provides translation from single Atari input bytes into
* multiple Epson printer codes, and is useful for printing extraneous
* characters such as accented characters etc. All characters are
* subjected to translation, but if there is no entry in the table for
* a particular code, then the original code is sent to the printer.
*
* The entries must be arranged in ascending order of Atari input
* code. The table is NULL terminated.
*

0                                  * NULL: print a space
1, 1B, 52, 0, 7C, 8, 5E            * Up arrow: USA | backspace USA ^
2, 1B, 52, 0, 7C, 8, 76            * Down arrow: USA | backspace USA v
3, 2D, 8, 3E  * Right arrow: - backspace >
4, 3C, 8, 2D  * Left arrow: - backspace <
5             * No close box
6             * No size box
7             * No full box
8             * No tick
9             * No clock
A             * No bell
B             * No musical note
E             * No LH Atari symbol
F             * No RH Atari symbol
10, 30        * LCD 0
11, 31        * LCD 1
12, 32        * LCD 2
13, 33        * LCD 3
14, 34        * LCD 4
15, 35        * LCD 5
16, 36        * LCD 6
17, 37        * LCD 7
18, 38        * LCD 8
19, 39        * LCD 9
23, 1B, 52, 0, 23        * # from USA fount
24, 1B, 52, 0, 24        * $ from USA fount
40, 1B, 52, 0, 40        * @ from USA fount
5B, 1B, 52, 0, 5B        * [ from USA fount
5C, 1B, 52, 0, 5C        * \ from USA fount
```

```
5D, 1B, 52, 0, 5D       * ] from USA fount
5E, 1B, 52, 0, 5E       * ^ from USA fount
60, 1B, 52, 0, 60       * ' from USA fount
7B, 1B, 52, 0, 7B       * { from USA fount
7C, 1B, 52, 0, 7C       * | from USA fount
7D, 1B, 52, 0, 7D       * } from USA fount
7E, 1B, 52, 0, 7E       * ~ from USA fount
7F                      * no triangle
80, 43, 8, 2C           * capital C cedilla: C backspace ,
81, 1B, 52, 2, 7D       * lower case u umlaut from German fount
82, 1B, 52, 1, 7B       * lower case e acute from French fount
83, 1B, 36, 83          * lower case a circumflex
84, 1B, 52, 2, 7B       * lower case a umlaut from German fount
85, 1B, 52, 1, 40       * lower case a grave from French fount
86, 1B, 52, 4, 7D       * lower case a boll from Danish 1 fount
87, 1B, 52, 1, 5C       * lower case c cedilla from French fount
88, 1B, 36, 88          * lower case e circumflex
89, 1B, 36, 89          * lower case e umlaut
8A, 1B, 36, 8A          * lower case e grave
8B, 1B, 36, 8B          * lower case i umlaut
8C, 1B, 36, 8C          * lower case i circumflex
8D, 1B, 36, 8D          * lower case i grave
8E, 1B, 36, 8E          * capital A umlaut
8F, 1B, 52, 4, 5D       * capital A boll from Danish 1 fount
90, 1B, 36, 90          * capital E acute
91, 1B, 36, 91          * lower case ae dipthong
92, 1B, 36, 92          * capital AE dipthong
93, 1B, 36, 93          * lower case o circumflex
94, 1B, 36, 94          * lower case o umlaut from German fount
95, 1B, 36, 95          * lower case o grave from Italian fount
96, 1B, 36, 96          * lower case u circumflex
97, 1B, 36, 97          * lower case u grave
98, 1B, 36, 98          * lower case y umlaut
99, 1B, 36, 99          * capital O umlaut
9A, 1B, 36, 9A          * capital U umlaut
9B, 1B, 36, 9B          * cents
9C, 1B, 52, 3, 23       * pound sterling from UK fount
9D, 1B, 52, 8, 5C       * yen from Japanese fount
9E, 1B, 52, 2, 7E       * esszet from German fount
9F, 1B, 36, 9F          * lower case swash f
A0, 1B, 36, A0          * lower case a acute
A1, 1B, 36, A1          * lower case i acute
A2, 1B, 36, A2          * lower case o acute
A3, 1B, 36, A3          * lower case u acute
A4, 1B, 36, A4          * lower case n tilde
A5, 1B, 36, A5          * capital N tilde from Spanish fount
A6, 1B, 36, A6          * lower case a underline
A7, 1B, 36, A7          * lower case o underline
A8, 1B, 36, A8          * Inverted ?
A9, 1B, 37, A9          * top left corner
AA, 1B, 37, AA          * top right corner
AB, 1B, 37, AB          * 1/2 fraction
AC  1B, 37, AC          * 1/4 fraction
```

```
AD, 1B, 36, AD           * inverted !
AE, 1B, 37, AE           * <<
AF, 1B, 37, AF           * >>
B0, 61, 8, 1B, 52, 0, 7E * Lower case a tilde: a backspace USA ~
B1, 6F, 8, 1B, 52, 0, 7E * Lower case o tilde: o backspace USA ~
B2, 1B, 52, 4, 5C        * Capital crossed O from Danish 1 fount
B3, 1B, 52, 4, 7C        * Lower case crossed o from Danish 1 fount
B4                       * No lower case oe dipthong
B5                       * No capital OE dipthong
B6, 41                   * No capital A grave: print A
B7, 41                   * No capital A tilde: print A
B8, 4F                   * No capital O tilde: print O
B9, 1B, 52, 1, 7E        * Umlaut from French fount
BA, 27                   * Acute: print '
BB                       * No dagger
BC                       * No paragraph symbol
BD                       * No copyright symbol
BE                       * No Registered symbol
BF                       * No Trademark symbol
C0, 79, 8, 1B, 52, 1, 7E * ij ligature: y backspace French umlaut
C1, 59                   * Capital IJ ligature: print Y
C2                       * No Hebrew
C3
C4
C5
C6
C7
C8
C9
CA
CB
CC
CD
CE
CF
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
DA
DB
DC
DD, 1B, 52, 2, 40   * Section mark from German fount
DE                  * No dropped circumflex
DF, 1B, 37, EC      * infinity
E0, 1B, 37, E0      * little alpha
E1, 1B, 37, E1      * little beta
```

```
E2, 1B, 37, E2      * big gamma
E3, 1B, 37, E3      * little pi
E4, 1B, 37, E4      * big sigma
E5, 1B, 37, E5      * little sigma
E6, 1B, 37, E6      * little mu
E7, 1B, 37, E7      * little gamma
E8, 1B, 37, E8      * big phi
E9, 1B, 37, E9      * big theta
EA, 1B, 37, EA      * big omega
EB, 1B, 37, EB      * little delta
EC, 1B, 36, 15      *
ED, 1B, 37, ED      * little phi
EE, 1B, 37, EE      * little epsilon
EF, 1B, 37, EF      * intersection
F0, 1B, 37, F0      * equivalence
F1, 1B, 37, F1      * +-
F2, 1B, 37, F2      * >=
F3, 1B, 37, F3      * <=
F4, 1B, 37, F4      * integral top piece
F5, 1B, 37, F5      * integral bottom piece
F6, 1B, 37, F6      * division sign
F7, 1B, 37, F7      * twiddly = symbol
F8, 1B, 37, F8      * degree symbol
F9                  * No superior bullet
FA                  * No inferior bullet
FB, 1B, 37, FB      * square root sign
FC, 1B, 37, FC      * superior n
FD, 1B, 37, FD      * superior 2
FE, 1B, 37, FE      * superior 3
FF                  * No macron
0
```

```
From -2309534133683625023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67caef7c0c994b17
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 03:45:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: MicroEmacs 3.7i
Message-ID: <620@imagen.UUCP>
Date: Sat, 18-Oct-86 06:45:05 EDT
Article-I.D.: imagen.620
Posted: Sat Oct 18 06:45:05 1986
Date-Received: Tue, 21-Oct-86 22:46:37 EDT
References: <MDCG.WAYNE.12246443018.BABYL@MIT-OZ> <612@imagen.UUCP>
<414@husc6.HARVARD.EDU>
Organization: The Houses of the Holy
Lines: 25
```

> More questions regarding shell escapes:
>
> In 3.7i, M-X ! prompts for a command to send to a CLI. It seems to do
> something, but not very useful. Why do you have to know which CLI is
> going to get the command? Even being able to do M-X ! dir would be
> quite useful to me, and COMMAND.TOS from the developers kit does that
> (admittedly, that's about all it does, but...)
>
> -Eric

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
ok, how bout a compromise, if a command.tos exists it is executed,
otherwise the command (request) is ignored ????
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7283803783266410355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5c4e79ddbcb357b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 04:06:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: uEmacs3.7i
Message-ID: <621@imagen.UUCP>
Date: Sat, 18-Oct-86 07:06:14 EDT
Article-I.D.: imagen.621
Posted: Sat Oct 18 07:06:14 1986
Date-Received: Tue, 21-Oct-86 22:46:51 EDT
References: <8610140050.AA01925@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 40

>
>
>
> Question on uE3.7i. What does the command 'add-global-mode' do? I had assumed
> this was to change the text color, but nothing happens. Also note that mode

> blue is no longer defined.
>
> --Pat

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
..... It supports both b/w and color monitors by
adding three new modes for the four screen resolutions as follows:

```
mode monitor type  screen resolution  colors
------   ------------ ----------------- ----------------
HIREZ    black & white 40 lines x 80 cols none
MEDREZ   black & white 25 lines x 80 cols none
MEDREZ   color         25 lines x 80 cols black,red,green,yellow
                                          ^^^^^^^^^^^^^^^^^^^^^

LOREZ    color         25 lines x 40 cols black,red,green,yellow,
                           blue,magenta,cyan,white
```

modes may be set by the sequence ^xm (cntrl-x m) and typing the mode as
shown. If a color is not one of the valid colors for that rez, then
the command is ignored, plz don't flame me yet, dan and i are
working on a method to change the pallette in a machine independant
manner
--

         These are days for the locust to eat
                       - Winston Churchill


```
Name:    James M. Turner
Mail:    Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T:    (408) 986-9400
UUCP:    ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie     : D-ARCANGEL
```



```
From -1537381210734770811
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,db5898702c5cf6fb,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,db5898702c5cf6fb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 07:59:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro,net.micro.atari16
Subject: New way to post binaries
Message-ID: <2035@dalcs.UUCP>
Date: Sat, 18-Oct-86 10:59:09 EDT
Article-I.D.: dalcs.2035
```

Posted: Sat Oct 18 10:59:09 1986
Date-Received: Mon, 20-Oct-86 00:31:24 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 108

Here are some opinions about the problem of posting binaries, along with a draft solution. There should be some discussion on the net before it gets implemented.

Sources are no substitute for binaries, since not everyone has the same compiler, or even language, on micros.

Binaries have to be encoded as ASCII files. But there is no reason why we have to use uuencode! There are evidently problems with it, and we should feel free to invent an alternate encoding method which avoids the problems with uuencode. These problems, aside from the minor one that uuencode is designed for th Unix environment, are that some characters (such as curly braces {}) do not make it through all nodes unscathed (IBM machines and others with EBCDIC codes appear to be the culprits), and for long files the posting have to be combined in an editor. Another problem is that udecode is a complicated program which a lot of users have trouble getting or rewriting.

I propose that we develop an encoding method for microcomputers that meets these requirements:

> So simple that users can easily learn the protocol and write their own version of the decoding program. Uudecode is relatively easy to write in C, but gets tricky in languages that do not have low-level bit operations.

> Moderately compact, to keep the traffic volume down.

> Reasonably good error trapping to check for damaged files.

> Convenient to use, preferably not requiring the use of an editor even for multi-part postings.

One possibility would be to post hex files, but these are very bulky, at least twice as long as the binary being posted. However, a generalization of posting hex will work -- if we encounter the letter G in a hex file we know it is an error, but we can also adopt the convention that the letters G-Z do not have to be encoded, so that they are represented by one byte in the encoded file instead of two. This can save a lot of space. Based on this, here is my proposal:

*** TO ENCODE A FILE ***

Read through the file a byte at a time, and classify each byte as follows:

>OK, pass through unchanged

>TRANSFORM to a single byte

>ENCODE as a pair of bytes

The encoding I propose is a modified hex, using the letters A-P instead of the usual hex 0-9A-F -- the reason for this is that it is trivial to map this way, e.g., value = char - 'A'. The rest of upper case letters, Q-Z, can be used for error checking and for 1-byte transformations of common non-graphic bytes, such as NULL and NEWLINE. Thus the actual encoding rules could be:

>OK includes digits 0-9, lower case alphabet, and punctuation marks.

>TRANSFORM \0 -> Q, \r -> R, space -> S, \t -> T, etc.

>ENCODE all upper case letters and other characters into modified hex codes, AA to PP.

I have done this encoding on a number of files using a crude set of programs that I wrote a while back when I didn't have xmodem working on my net machine and couldn't get uudecode working on my micro -- the files were generally no larger than uuencoded files, often smaller.

To avoid very long lines, adopt the convention that white space is ignored, so that you can put in newlines wherever you want (probably not in the middle of a hex pair though).

To decode a file, one simply reverses the process. Read through the file a byte at a time, and use switch or a set of ifs to do the following:

>letter A-P? Read next byte and output 16*(first-'A') + (second - 'A')

>letter Q-Z? Output \0, \r, etc., according to above table.

>anything else? Output it as stands.

*** REFINEMENTS ***

I haven't said anything yet about error checking, convenience, etc. Note that there are several byte combinations that are not used in this scheme of things, specifically a letter A-P followed by Q-Z. These can be used to add these features. For example, an encoded file should begin with the pair AZ and end with PZ, similar to the begin and end lines used by uuencode. However, we could also adopt the convention that when a file is broken into parts, the first part ends with BZ, the next begins with CZ, and so on. This way one could simply decode a set of files without first combining them -- the program would start at the AZ flag, and stop when it found BZ. Then it would go on to the next file and search for CZ, etc. If it didn't find PZ at the end of the last file, or if the codes were out of order, it would complain.

Further refinements would be to add various checksums, set off by other unused code pairs. I'll pass on this one, since it sounds like a good idea, but adds to the complication. Perhaps it could be made optional, such as writing a checksum after each termination code like BZ ... PZ.

If this idea seems reasonable, perhaps net moderators could carry the ball from here. Unfortunately this site is not very reliable for news and mail.

From 661257362314276695
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd5e374f7172e37c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 09:40:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Uniterm 1.5C
Message-ID: <1349@lsuc.UUCP>
Date: Sat, 18-Oct-86 12:40:28 EDT
Article-I.D.: lsuc.1349
Posted: Sat Oct 18 12:40:28 1986
Date-Received: Sat, 18-Oct-86 16:18:01 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: na
Organization: Barrister & Solicitor, Toronto
Lines: 11
Summary: Another failure

     The recent posting of Uniterm 1.5C didn't make it to our site. ARC unpacked the 1st file but choked on the .PRG file. I don't know for sur at this point what went wrong but I expect it was a truncated message.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 7631356304369742617
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eb6c94af87806817,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 10:07:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!lll-crg!nike!ucbcad!ucbvax!
DDATHD21.BITNET!XBR1Y049

From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht c/o HRZ TH Darmstadt, Germany)
Newsgroups: net.micro.atari16
Subject: ALITE, ARC
Message-ID: <8610181706.AA01356@ucbvax.Berkeley.EDU>
Date: Sat, 18-Oct-86 13:07:10 EDT
Article-I.D.: ucbvax.8610181706.AA01356
Posted: Sat Oct 18 13:07:10 1986
Date-Received: Tue, 21-Oct-86 05:45:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I'd like to know if someone on a Bitnet-Site has successfuly used ALITE.
The ARC-Utility claims all files (1alite.sng,1alite.pic,alite.prg) beeing
OK. Klicking ALITE.PRG --> the ST is rebooting.

Any hints ? This programs seems verry nice.

Stephan

Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
Bitnet : XBR1Y049@DDATHD21

From 1585657707522448851
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cd04dfc96f4122a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 10:30:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!convex!mic!l50001
From: l50001@mic.UUCP
Newsgroups: net.micro.atari16
Subject: Mail List - Add
Message-ID: <48700002@mic>
Date: Sat, 18-Oct-86 13:30:00 EDT
Article-I.D.: mic.48700002
Posted: Sat Oct 18 13:30:00 1986
Date-Received: Tue, 21-Oct-86 22:41:17 EDT
Lines: 5
Nf-ID: #N:mic:48700002:000:100
Nf-From: mic.UUCP!l50001   Oct 18 12:30:00 1986

Please add me to the 16-bit Atari mailing list.

Gary Lewin {texsun!rrm, convex!mcomp}!mic!l50001

From -8784591332906356955

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7e2cb2363fde1530,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 10:46:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!lll-crg!nike!ucbcad!ucbvax!
DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht c/o HRZ TH Darmstadt, Germany)
Newsgroups: net.micro.atari16
Subject: Uniterm & ARC & uudecode
Message-ID: <8610181745.AA01710@ucbvax.Berkeley.EDU>
Date: Sat, 18-Oct-86 13:46:12 EDT
Article-I.D.: ucbvax.8610181745.AA01710
Posted: Sat Oct 18 13:46:12 1986
Date-Received: Tue, 21-Oct-86 05:46:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

The new Version UNITERM 1.5c works very fine after downloading,
uudecoding and finaly ARCed. It's getting my favorite terminal
emulator.

Stephan

Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
Bitnet : XBR1Y049@DDATHD21

From 2939865164635330947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f39ebb637932e326,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 11:08:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: OSS Personal Pascal and Micro-Emacs
Message-ID: <8610181808.AA25906@Yale-Bulldog.YALE.ARPA>
Date: Sat, 18-Oct-86 14:08:58 EDT
Article-I.D.: Yale-Bul.8610181808.AA25906
Posted: Sat Oct 18 14:08:58 1986
Date-Received: Tue, 21-Oct-86 05:49:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

A tip for OSS Personal Pascal users who swear by Emacs like I do -- if you
copy uEMACS.TTP onto a disk with the Pascal system and rename it to

EDITOR.PRG, Pascal will quite happily invoke Emacs when you edit a file, and
uEmacs will quite happily return you to the Pascal desktop when you quit.

-- Ashwin Ram.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From -5737227422780237652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,69db8964e603ffa1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 11:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!lll-crg!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Uniterm Vs. Flash
Message-ID: <MDCG.WAYNE.12247828135.BABYL@MIT-OZ>
Date: Sat, 18-Oct-86 14:09:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12247828135.BABYL
Posted: Sat Oct 18 14:09:00 1986
Date-Received: Tue, 21-Oct-86 05:49:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

My current communications program, with which I am generally pleased, is
Flash. I haven't yet uudecoded Uniterm or examined its docs. Can anyone
explain why one might prefer to use Uniterm over Flash?

Thanks,

Wayne McGuire
(ARPA:wayne@oz.ai.mit.edu / CIS:71330,2074 / GENIE:W.MCGUIRE)

From 4173852555433436770
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 11:43:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <8610190113.AA06242@ucbvax.Berkeley.EDU>
Date: Sat, 18-Oct-86 14:43:30 EDT

Article-I.D.: ucbvax.8610190113.AA06242
Posted: Sat Oct 18 14:43:30 1986
Date-Received: Tue, 21-Oct-86 21:04:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Barry,
     GDOS is available, and has been for some time now to ANY registered
developer. If you want more info, just call Cindy Clavern @ Atari.

From -4016704021594677761
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 13:59:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!YALE.ARPA!MARKS-ROGER
From: MARKS-ROGER@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610182059.AA04014@ucbvax.Berkeley.EDU>
Date: Sat, 18-Oct-86 16:59:43 EDT
Article-I.D.: ucbvax.8610182059.AA04014
Posted: Sat Oct 18 16:59:43 1986
Date-Received: Tue, 21-Oct-86 20:56:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <MARKS-ROGER@YALE.ARPA>
Organization: The ARPA Internet
Lines: 9

I recently came across the address info-atari16. Not knowing exactly what
it is, I assume that it's a bulletin board for ST users. Is this the case?
If so, can I get on the mailing list or access the information by some other
means? In contrast to the Bay Area, the ST seems be be a rare beast in our
part of the world, and it would be useful to have people to communicate with.

Thanks,
              Roger Marks

From -3151151492509073414
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,27a996c91bee857d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 18:45:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!hao!noao!
bull
From: bull@noao.UUCP (Frank Bull   CCS)
Newsgroups: net.micro.atari16

Subject: Re: UNITERM problems?
Message-ID: <505@carina.noao.UUCP>
Date: Sat, 18-Oct-86 21:45:05 EDT
Article-I.D.: carina.505
Posted: Sat Oct 18 21:45:05 1986
Date-Received: Tue, 21-Oct-86 06:44:03 EDT
References: <8610180000.AA19057@ncsc.ARPA>
Reply-To: bull@carina.UUCP (Frank Bull   CCS)
Organization: Natl. Optical Astronomy Observatories, Tucson, AZ USA
Lines: 28

In article <8610180000.AA19057@ncsc.ARPA> moore@NCSC.ARPA (Moore) writes:
>
>Has anyone gotten the latest version of UNITERM to work? I decoded the ARC
>file okay, but when I try to extract the files, I get a "Failed CRC check"
>on both UNITERM.PRG and .RSC. I tried downloading the thing twice, just to
>make sure. No go. Any help?
>
>
>Jim
>moore@ncsc.arpa

Ok, on some machine somewhere the line-eater still survives. UNITERM
arrived here with a truncated part 2 and 3(three) different part 3s.
Fess up, who has been harboring and feeding the line-eater.
Could some kind soul re-post or e-mail parts 2 & 3(A &B) of UNITERM?

--
"Facts are finite, but ignorance is as boundless
 as the Universe"

     noao!bull
     Frank Bull
     Central Computer Services
     National Optical Astronomy Observatories
     PO Box 26732
     Tucson, Arizona 85726
     (602) 325-9208

From 2899173424124740972
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7e2cb2363fde1530
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 19:50:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Computer Sci Club)
Newsgroups: net.micro.atari16
Subject: New Archive Format, Uniterm/ARC blues
Message-ID: <2706@watmath.UUCP>

Date: Sat, 18-Oct-86 22:50:36 EDT
Article-I.D.: watmath.2706
Posted: Sat Oct 18 22:50:36 1986
Date-Received: Tue, 21-Oct-86 20:50:58 EDT
References: <8610181745.AA01710@ucbvax.Berkeley.EDU>
Reply-To: csc@watmath.UUCP (Tracy Tims)
Organization: U of Waterloo, Ontario
Lines: 32
Summary:

It's all very nice that Uniterm is so wonderful, and that Arc is easy to use, but I haven't been able to get any Uniterm working yet. The latest release arrived here with Part 2 (UNITERM.A) truncated. I ran arc anyway, and it told me that a header was bad, and then it got a bus error. Not terribly impressive. I had hoped it could get one file out.

Could someone please repost or send me a copy of Uniterm Part 2?

Does arc really calculate a CRC on the members in the archive? I was planning to write a network transfer archive program (with no compression) which would:

- encode into a very (very!) restricted character set
- be much more efficient than uuencode for ascii text
- be as efficient for arbitrary 8 bit wide data
- perform proper CRC checking
- automagically split the archive into chunks for posting
- automagically assemble chunks from raw mail and news
- be fairly immune to added control characters (CR, LF, etc)
- be able to extract undamaged files from a damaged archive

This program could be used for transmitting anything. It would even be useful for text, as it would offer assurance of correctness, and would be cheap as transmitting text raw.

Any point it this? I already have the encoding part written for another project and the CRC stuff I stole, so it's not a huge amount of work. Arc's biggest problem is that you have to uuencode it, and uuencode is not robust (read: sucks the big one). If you think I should do this, let me know, and I will. It won't be a large program.

Tracy Tims
mail to ihnp4!watmath!unit36!tracy

From -5646187257628960653
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7644f1c163a4fb1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 22:11:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!nike!ucbcad!zen!
buddy.Berkeley.EDU!c9c-bg
From: c9c-bg@buddy.Berkeley.EDU (James Landay)

Newsgroups: net.micro.atari16
Subject: arc
Message-ID: <645@zen.BERKELEY.EDU>
Date: Sun, 19-Oct-86 01:11:18 EDT
Article-I.D.: zen.645
Posted: Sun Oct 19 01:11:18 1986
Date-Received: Tue, 21-Oct-86 21:23:13 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c9c-bg@buddy.Berkeley.EDU (James Landay)
Organization: University of California, Berkeley
Lines: 7

Can someone please send me ARC and the docs. My version doesn't seem
to work.

Thanks,

James A. Landay
c9c-bg@buddy.berkeley.edu

From 3174750037988720526
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 22:28:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: Re: Lattice C and UUDECODE
Message-ID: <242@bath63.UUCP>
Date: Sun, 19-Oct-86 01:28:04 EDT
Article-I.D.: bath63.242
Posted: Sun Oct 19 01:28:04 1986
Date-Received: Fri, 17-Oct-86 23:59:15 EDT
References: <8609160140.AA10538@ucbvax.Berkeley.EDU>
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Organization: Bath University, England
Lines: 24

I've found several problems with uudecode, which are caused by
the uuencoded file being munged by 'terminal handlers' enroute to me.
The symptoms sound like some I've seen complained about, specifically
that the file appears to decode, but bombs. On looking at the files,
I found 2 different sorts of problem.

First, spurious 'control chars' get inserted in some cases. In fact,
these appear to always be NULs (0x0) put in as 'delay padding' by
someones term handling software.

Second, trailing spaces get stripped.

It is fairly trivial to modify uudecode to ignore all control chars
(less that ASCII space) -- and harmless, as they should not be in
a uuencoded file. Then, pad the line out to an arbitrarily large length
using spaces (I simply tack 64 spaces on the end, in my buffer, before
decoding a line). Appending 64 spaces is crude and inelegant, I know, but
it insures that there will be enough in all circumstances, and is a much
simpler mod than actually looking to see how many are needed -- especially
since the line may contain as yet unprocessed control chars to be thrown away.

Since making these trivial changes I've had no problems with uudecoded fils.

Hope this helps someone...

From -3354337832562818671
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 22:37:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-
beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Interrupt running programs
Message-ID: <1234@batcomputer.TN.CORNELL.EDU>
Date: Sun, 19-Oct-86 01:37:35 EDT
Article-I.D.: batcompu.1234
Posted: Sun Oct 19 01:37:35 1986
Date-Received: Tue, 21-Oct-86 22:07:16 EDT
References: <14600008@uklirb.UUCP> <1230@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 96
Summary: Improved version

[]

Recently I posted here a program that, after running it once,
was supposed to kill any program in progress upon pressing
Ctrl-Alternate-both_Shifts-Return. Turns out that the program
did not work outside of micro-C-Shell, and poorly even there!

I took a careful look at WATCHER.S (also posted here recently) and
noticed there that a kill is NOT done if the interrupted program
was in supervisor mode. I don't know why, maybe because that
signals that another interrupt handler (or TRAP!) is in progress.
Incorporating that idea, jumping to the last part of the ROM
bomb handler to do the termination, and some streamlining yielded
the following program which seems to work a lot better.
(you have to press Ctrl-Alt-both_Shifts-Return several times
sometimes, probably in order to catch it in user mode...)

Mystery remaining:

When it terminates, two bombs are displayed. WHY?

WARNING:

This program uses some addresses that are essential
but not official. I found them out by snooping around in the
ROM code. They may be changed in future versions of TOS.
Atari will send their death squads after you if you use these
addresses in a commercial program!

Here is the heart of the routine, in commented assembly syntax:

```
asm {
/*
 * call supexec() to install our thing
 */
    PEA  install(PC)
    MOVE.W   #38,-(A7)
    TRAP #14
    ADDQ.L   #6,A7
/*
 * terminate and stay resident
 */
    CLR.W    -(A7)
    MOVE.L   #0x00000200,-(A7)
    MOVE.W   #0x31,-(A7)
    TRAP #1
install:
/*
 * install our keyboard interrupt handler
 * (has to be done in supervisor mode)
 */
    PEA  handler(PC)
    MOVE.L   (A7)+,0x118   /* pointer to kbd intrpt subr */
    RTS
handler:
/*
 * check mode of interrupted program and keyboard shift status
 */
    BTST #5,(A7)       /* check for super mode */
    BNE.S    normal
    CMPI.B   #0x0F,0xE1B   /* kbd state variable */
    BCS.S    normal
/*
 * overwrite return address with fatal address
 */
    MOVE.L   #0xFC0A5A,2(A7)    /* near end of _term */
normal:
/*
```

```
 * go do the usual thing, usually return to interrupted program
 */
     JMP  0xFC281C  /* where $118 pointed to */
}
```

Here is a hex dump of the complete program (92 bytes):

```
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
60 1A 00 00 00 70 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 FF FF 48 7A 00 18
3F 3C 00 26 4E 4E 5C 8F 42 67 2F 3C 00 00 02 00
3F 3C 00 31 4E 41 48 7A 00 08 21 DF 01 18 4E 75
08 17 00 05 66 10 0C 38 00 0F 0E 1B 65 08 2F 7C
00 FC 0A 5A 00 02 4E F9 00 FC 28 1C
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```

Any comments/experiences welcome!

- Moshe Braner

<braner@amvax.tn.cornell.edu>

DISCLAIMER: The mention of "death squads" was not meant to discredit Atari, Corp in any way. Also, I do not want to trivialize the grim reality of death sqauds in some parts of "civilization".

From -7865717202643450272
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f7ce9ec459328283,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 22:44:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!bath63!pes
From: pes@bath63.UUCP (Paul Smee)
Newsgroups: net.micro.atari16
Subject: RCS by Kuma and RCSFIX
Message-ID: <243@bath63.UUCP>
Date: Sun, 19-Oct-86 01:44:29 EDT
Article-I.D.: bath63.243
Posted: Sun Oct 19 01:44:29 1986
Date-Received: Sat, 18-Oct-86 00:00:10 EDT
Reply-To: pes@ux63.bath.ac.uk (Paul Smee)
Distribution: net.micro.atari16
Organization: Bath University, England
Lines: 22

I've just gotten K-Resource, a resource construction set put out by Kuma (for lack of cooperation by Atari UK when I enquired about the developer's kit some months ago -- note, Atari, don't try to sell me one now, I've already spent the 400 quid on substitutes).

As an RCS, it looks fine (though they could do with hiring a
tech writer, a tech editor, and a photo-composition expert for their
docs). However all it makes is the completed resource 'object',
and the header (C .h) file (in a choice of 4 languages, of which
C is all I recall, cause it's all that interests me).

This would seem to rule out my use of RCSFIX technology, as you
don't get a 'source' for the .rsc file. Anyone out there have a
tool that will convert a .rsc 'object' file into a C source file
for same? Or a description of the .rsc structure in terms that
I could use to make a C-source generator with?

   (Replies to address in header, or to:
       Smee at AUCC.AC.UK via UCL-CS.ARPA
            or
                        via UKC

From 7506703419088470183
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3603254327e42925,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-18 23:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
JULIET.CALTECH.EDU!ccl
From: ccl@JULIET.CALTECH.EDU (Curtis C. Ling)
Newsgroups: net.micro.atari16
Subject: Anything interesting at Atari Expo?
Message-ID: <861018233100.01o@Juliet.Caltech.Edu>
Date: Sun, 19-Oct-86 02:31:00 EDT
Article-I.D.: Juliet.861018233100.01o
Posted: Sun Oct 19 02:31:00 1986
Date-Received: Tue, 21-Oct-86 21:16:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Was there anything worth mentioning at the Atari Expo at Portland OR
October 11-12, 1986? What is the status of the custom graphics chip,
2080ST and 68020? What specifically does the graphics chip do? Any
ROM port modifications? Any information is appreciated.

Curt

From -5669514234800866948
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f2c108fe88681e3a
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f2c108fe88681e3a

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 00:29:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!tektronix!tekcrl!
vice!tekfdi!mikeb
From: mikeb@tekfdi.UUCP (Mike Boyce)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: Passin' thru...
Message-ID: <561@tekfdi.UUCP>
Date: Sun, 19-Oct-86 03:29:35 EDT
Article-I.D.: tekfdi.561
Posted: Sun Oct 19 03:29:35 1986
Date-Received: Tue, 21-Oct-86 21:32:33 EDT
References: <2872@islenet.UUCP>
Distribution: net
Organization: Tektronix Inc., Beaverton, Or.
Lines: 32
Xref: watmath net.micro.atari16:2689 net.micro.amiga:5505
Summary: PC magazines <=> rags

In article <2872@islenet.UUCP>, jons@islenet.UUCP (Jonathan Spangler) writes:
> This from Personal Computing, Oct. '86:
>
> 10 Unexpected Personal Computing Flops
> or Under-Achievers
>
 ...
> 9) Amiga
 ...

> Does this tell us something? Does anyone know (preferable not
> connected with Atari or Commodore) what the *actual* figures
> are for machines (ST vs. Amiga) are thru 3rd quarter '86?

Sounds like sloppy journalism to me. To paraphrase a famous American author.
'Rumors of Amiga's death are greatly exagerated.' :^} I suggest that item 9
be changed to:

     9) Personal Computing Magazine. (Midnight Enquirer Award)

I'm tempted to buy the magazine just so I can get the address to write
the author a letter. Personal computer mags are (with a few notable
execptions such as DDJ) garbage. I definately would not trust some
bozo like this author to tell me which computer to buy. If I did I would
have an IBM PC/XT/AT compatable in front of me. After all that's what
everybody else has.

                        Mickey Mick Mick,
                        At your ....

     Every word of this is my personal opinion and does not reflect
     the views of my employer.

From -6585888327993043131
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2c108fe88681e3a
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,f2c108fe88681e3a
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-19 01:03:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!lll-crg!lll-lcc!well!tenney
From: tenney@well.UUCP (Glenn S. Tenney)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: Passin' thru...
Message-ID: <1953@well.UUCP>
Date: Sun, 19-Oct-86 04:03:00 EDT
Article-I.D.: well.1953
Posted: Sun Oct 19 04:03:00 1986
Date-Received: Tue, 21-Oct-86 21:25:06 EDT
References: <2872@islenet.UUCP>
Reply-To: tenney@well.UUCP (Glenn S. Tenney)
Distribution: net
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 10
Xref: watmath net.micro.atari16:2686 net.micro.amiga:5503

re: numbers of ST's
I just heard that in their prospectus Atari had to state how many
ST's they've ACTUALLY sold worldwide. I haven't actually read it myself,
but was told that the number in the prospectus was 125,000.

-- Glenn Tenney
UUCP: {hplabs,glacier,lll-crg,ihnp4!ptsfa}!well!tenney
ARPA: well!tenney@LLL-CRG.ARPA   Delphi and MCI Mail: TENNEY
As Alphonso Bodoya would say... (tnx boulton)
Disclaimers? DISCLAIMERS!? I don' gotta show you no stinking DISCLAIMERS!

From 5817760172603905625
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b8d3ecff5d3d440,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 02:31:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Format prg and rsc
Message-ID: <642@chinet.UUCP>
Date: Sun, 19-Oct-86 05:31:47 EDT
Article-I.D.: chinet.642
Posted: Sun Oct 19 05:31:47 1986
Date-Received: Tue, 21-Oct-86 21:30:46 EDT
Organization: chinet, Public Access UN*X, Chicago, IL

Lines: 10
Keywords: truncated

The file for format.prg and format.rsc was badly truncated at this site (chinet). Could we have a re-post? Even direct e-mail would be ok too.

Thanks,

Rich Andrews
....ihnp4!chinet!cabbie

From -5824658787343750764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b134f81e22aa3b99,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 03:23:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: MONST prg
Message-ID: <643@chinet.UUCP>
Date: Sun, 19-Oct-86 06:23:38 EDT
Article-I.D.: chinet.643
Posted: Sun Oct 19 06:23:38 1986
Date-Received: Tue, 21-Oct-86 21:31:02 EDT
Organization: chinet, Public Access UN*X, Chicago, IL
Lines: 7
Keywords: oops

Could someone re-post the file monst? I wiped out my only copy. Not only that the latest version was garbaged up at this site. Uudecode says it is a short file.

Rich Andrews
....ihnp4!chinet!cabbie

From 4494255169957798035
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a74228cfbede18f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 04:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!husc6!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16

Subject: Re: No Available 1040's - (nf)
Message-ID: <96100028@exunido.UUCP>
Date: Sun, 19-Oct-86 07:39:00 EDT
Article-I.D.: exunido.96100028
Posted: Sun Oct 19 07:39:00 1986
Date-Received: Wed, 22-Oct-86 04:25:40 EDT
References: <21269@rocheste.UUCP>
Lines: 6
Nf-ID: #R:rocheste:21269:exunido:96100028:000:151
Nf-From: exunido!uh   Oct 19 12:39:00 1986

>The 1040 sells very well (at least in Holland it does).

As I have heard from our dealer not in Germany. But now it should be
best-selling.

uh@unido

From -2342603078681906567
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fea7f76cea8e4db7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 07:34:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!pyramid!amdahl!fai!wjvax!qubix!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: XINU
Message-ID: <622@imagen.UUCP>
Date: Sun, 19-Oct-86 10:34:11 EDT
Article-I.D.: imagen.622
Posted: Sun Oct 19 10:34:11 1986
Date-Received: Thu, 23-Oct-86 04:37:35 EDT
References: <8610171723.AA12438@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 29

>
> Can anyone tell me where I can get a copy of XINU for the 68000?
> Has anyone ported this Operating System to the ST?
>
> BTW: XINU stands for Xinu Is Not Unix .
>
>
> Thanks in advance,
> maroC ddoTodd Coram

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

i have a copy of xinu for 68000, but before anyone requests it be
sure that you know what you are getting (e.g. read the book!) xinu

is not a general purpose os like unix and (here i go shooting my big
mouth off) is really best suited for 'stand-alone' applications. OTH
i could be very wrong
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6453079085389791705
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 07:42:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!pyramid!amdahl!fai!wjvax!qubix!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: LARN
Message-ID: <623@imagen.UUCP>
Date: Sun, 19-Oct-86 10:42:30 EDT
Article-I.D.: imagen.623
Posted: Sun Oct 19 10:42:30 1986
Date-Received: Thu, 23-Oct-86 04:37:48 EDT
References: <8610172222.AA17261@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 34

>
> More fire to dicussion about program postings:
>
> Should I send uuencoded LARN? Rather many people
> from ARPA has asked this from me.
>
> Esa Turtiainen
> Helsinki Univ. of Technology
> ETU@FINGATE.BITNET   (UNIX 4.2)
> LK-ET@FINHUTC.BITNET (VM/SP)

~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~

as some people may have noticed i am setting up mod.sources.atari16,
to that end i would appreciate it if people could start sending me
sources, binaries and DOCUMENTATION so that i can start filling
~~~~~~~~~~~~~~

up the library. for now mail them to the address in my signature

A t D h V a A n N k C s E

--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 5741035802547337076
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f2c108fe88681e3a
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f2c108fe88681e3a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 11:16:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!j.cc.purdue.edu!doc
From: doc@j.cc.purdue.edu (Craig Norborg)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: Passin' thru...
Message-ID: <2351@j.cc.purdue.edu>
Date: Sun, 19-Oct-86 14:16:05 EDT
Article-I.D.: j.2351
Posted: Sun Oct 19 14:16:05 1986
Date-Received: Tue, 21-Oct-86 21:54:34 EDT
References: <2872@islenet.UUCP>
Reply-To: doc@j.cc.purdue.edu.UUCP (Craig Norborg)
Distribution: net
Organization: Purdue University Computing Center
Lines: 28
Xref: watmath net.micro.atari16:2690 net.micro.amiga:5506

In article <2872@islenet.UUCP> jons@islenet.UUCP (Jonathan Spangler) writes:
>This from Personal Computing, Oct. '86:
>
>10 Unexpected Personal Computing Flops
>or Under-Achievers
>
>1) PCjr
...cut...
>9) Amiga

>10) Ovation
>
>Does this tell us something? Does anyone know (preferable not
>connected with Atari or Commodore) what the *actual* figures
>are for machines (ST vs. Amiga) are thru 3rd quarter '86?
    I looked at this article and saw an awful lot of IBM biases myself
along with ALOT of inconsistancies between their figures. Look at the
one place where they have the best selling software part and compare
its figures with the figures under the subcategories "Best selling
DBM", etc. I think its funny that they can have totally different
figures for the same package, in the same year, from the same survey.
I would really like to see reprinted in full the survey that they took
their figures from.
    Craig Norborg (aka Doc Pierce)
    mod.amiga.{sources|binaries} moderator
    ihnp4!pur-ee!j.cc.purdue.edu!doc

    USnail: 539 N. Grant Street
         W. Lafayette IN 47906

From -2158741410862053527
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a68fd4b8214f9134,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 14:30:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: crummy Atari monitors.
Message-ID: <861019173034.000001A0.ANLH.MA@UMass>
Date: Sun, 19-Oct-86 17:30:34 EDT
Article-I.D.: UMass.861019173034.000001A0.ANLH.MA
Posted: Sun Oct 19 17:30:34 1986
Date-Received: Tue, 21-Oct-86 22:04:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Well, folks, I just picked up a brand-new SC1224 color monitor, to supplement
my trusty monochrome. Now, one thing we all know is that the quality of
Atari's color monitor is excellent, right? Wrong-o. The quality of Atari's
color monitor WAS excellent. The old, Panasonic-supplied monitor had
fantastic quality. The new, Goldstar-supplied monitor is, to put it quite
bluntly, the pits. The video quality is a disaster. In medium-res, it
doesn't even look like the monitor is CAPABLE of handling the resolution.
Individual pixels are blurred, and the medium resolution display, in general,
looks like low-res looks on a TV set. It looks even worse than an Amiga in
80-column mode, if such a thing is possible.

I've always thought that one of the Atari ST's chief advantages over other

computers was the great video it produces. No more. This monitor is barely capable of handling 320x200, let alone 640. Atari has made a major, major mistake in switching suppliers. They are being penny wise and pound foolish, because this WILL hurt sales. The computer looks a lot worse on the Goldstar monitor. If I were shopping for a new computer, I sure would not buy one with such lousy video quality. Thank heavens for my SM124.

From -7525862396607777935
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,679d109951ac5e11,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 15:38:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht c/o HRZ TH Darmstadt, Germany)
Newsgroups: net.micro.atari16
Subject: UUDECODE difficulties / Translation tables
Message-ID: <8610192238.AA17133@ucbvax.Berkeley.EDU>
Date: Sun, 19-Oct-86 18:38:51 EDT
Article-I.D.: ucbvax.8610192238.AA17133
Posted: Sun Oct 19 18:38:51 1986
Date-Received: Tue, 21-Oct-86 22:05:04 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 22

eat eat eat eat eat eat eat eat eat eat eat eat eat eat eat eat eat eat eat

I found my troubles in being not able to run some uuencoded programs
comming over the net.

The translation of the not-Char/circumflex(^)-Char is not unique.

Translating it to EBCDIC 5Fhex and sending it over some gateways,
it not always returns as EBCDIC 5Fhex, sometimes it returns
as EBCDIC 71hex. (I saw it sending it to ucbvax and return)
Now I have told our translation table to recognize 71hex as 5Fhex too.

Strange !

Maybe that this is a hint for those having no success in uudecoding.

      Stephan

        Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
      Bitnet : XBR1Y049@DDATHD21
                                insert all usual & unusual disclaimers here -->

From 6041593370353526535

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5ca48e692bd0b81,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-19 16:44:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!apteryx
From: apteryx@ucbvax.BERKELEY.EDU (Brian Peterson)
Newsgroups: net.micro.atari16
Subject: want info on ramdisks (or want ramdisks)
Message-ID: <16190@ucbvax.BERKELEY.EDU>
Date: Sun, 19-Oct-86 19:44:08 EDT
Article-I.D.: ucbvax.16190
Posted: Sun Oct 19 19:44:08 1986
Date-Received: Tue, 21-Oct-86 22:06:09 EDT
Organization: University of California at Berkeley
Lines: 25

I am looking for a ramdisk and would like some recomendations.

If you could mail (or post) info, I would be very happy.

Name,
Source of it,
cost, (or in Public Domain)
flexibility
    specify drive letter? without byte-editing the disk?
    specify size of ramdisk?
    can dynamically change its size?
any other features, like ease of use?
reliability,
documentation,etc.

Also, if you have a little one which I could create (through
BASIC file writes, etc .... I don't yet have a modem)
maybe you could send that also.

Also, know about any disk viewer/editors?

Thanks a bunch!
Brian Peterson
(ihnp4, etc) !ucbvax!apteryx

From -7522644405638338635
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,950d928ccd1b91d1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 04:59:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!MITRE.ARPA!
camis..ajb
From: camis..ajb@MITRE.ARPA (ajb@mitre)

Newsgroups: net.micro.atari16
Subject: C++ Preprocessor
Message-ID: <8610201159.AA03183@mitre.ARPA>
Date: Mon, 20-Oct-86 07:59:58 EDT
Article-I.D.: mitre.8610201159.AA03183
Posted: Mon Oct 20 07:59:58 1986
Date-Received: Tue, 21-Oct-86 23:38:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Washington, D.C.
Lines: 9

Is there really a C++ preprocessor available in the Public domain or has
this whole discussion re: long identifiers just been hypothetical.
Where can I get a copy of C++ (or cfront, or whatever) ? Does C++ also
exist for the Vax ?

Alan J. Broder
ajb@mitre.arpa   <------ use this address
     ignore address in header

From 7917558591925897710
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e35ed4c8dcfe7be4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 06:48:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM V1.5C SOME ANWSERS TO SOME PROBLEMS....
Message-ID: <8610201348.AA26374@ucbvax.Berkeley.EDU>
Date: Mon, 20-Oct-86 09:48:58 EDT
Article-I.D.: ucbvax.8610201348.AA26374
Posted: Mon Oct 20 09:48:58 1986
Date-Received: Tue, 21-Oct-86 23:38:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

A few remarks to some problems with my recent posting:
         - KeyEdit.Prg: the numeric keypad and the cursor keys in UniTerm are
                        'hardwired'..that means you can't change the meaning
                         of these keys except in keypad numeric mode! This is
                         not my fault, this is the way a VT100 works!!!!
                         The keypad has following modes:
                            VT100 numeric keypad
                            VT100 application keypad
                            VT52 numeric keypad
                            VT52 application keypad
                         The cursor keys:

VT100 cursor mode
VT100 cursor application mode
VT52 cursor mode

The strings sent are predefined and not user changeable!

-Kermit: I've tried UniTerm with GEM-Kermit and have had no problems with sending, receiveing and server mode (BTW a particular good combination seems to be UniTerm, Kermit and K-Switch which I was able to borrow for a few days). If anybody has had problems pls mail them to me (I consider this important!).

-Truncated postings: please don't post to the whole net! If you are on arpanet or bitnet mail to me and I will send you the missing parts a.s.a.p. (the only problem is that this is slowly turning in to a full time job (without any pay)). If you are on an other network pls give me a full description of network and node, I will the mail you a test msg.

Simon Poole
K538915@CZHRZU1A.BITNET

From 8632038792770876486
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1584f896297833ff,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 07:30:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: AUTOCOPY, Utility to copy files at system boot
Message-ID: <8610200843.AA23209@ucbvax.Berkeley.EDU>
Date: Mon, 20-Oct-86 10:30:59 EDT
Article-I.D.: ucbvax.8610200843.AA23209
Posted: Mon Oct 20 10:30:59 1986
Date-Received: Tue, 21-Oct-86 22:47:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 145

Here a utility I made to use in the AUTO folder on boot disks without the Micro C-Shell or similar. It copies a number of files from e.g. floppy to ramdisk. It is not the utmost of sophistication (no wildcarding), but it works.
Enjoy.
----------cut here-----autocopy.doc----------
PROGRAM
   AUTOCOPY - Auto program to copy files at system boot

```
FUNCTION
   This program is to be placed in the \AUTO folder on the boot disk.
   It can be used to copy your favourite files to a ramdisk (which of
   course must exist before this program is run).
   It looks for the file \AUTO\AUTOCOPY.DAT which describes the files
   to be copied. The format of a line in AUTOCOPY.DAT is:

      <source file>  <destination file>

   An example :

      a:\xemacs.tos   d:\xemacs.tos
      a:\make.prg     d:\make.prg
      a:\gemstart.o   d:\gemstart.o
      a:\osbind.o     d:\osbind.o
      a:\gemlib       d:\gemlib
      a:\aesbind      d:\aesbind
      a:\vdibind      d:\vdibind
      a:\libf         d:\libf

CAVEATS
   Source and destination files must be specified with full path names
   in AUTOCOPY.DAT. No wildcards allowed.
   AUTOCOPY will not overwrite existing files (no extra copy at reset
   when files are still in the ramdisk).
   Linelength in AUTOCOPY.DAT is limited to 80 characters, so no very
   long path names.
----------------cut here-----end of autocopy.doc------------------------------

And now the program written with Alcyon C. Link with gemstart.o, osbind.o and
gemlib.

----------------cut here-----autocopy.c---------------------------------------
/*
 * autocopy.c - Program to copy files on startup
 */

#include <stdio.h>
#include <ctype.h>
#include <osbind.h>

int cp(linebuf)
register char *linebuf;
{
   char source[128], dest[128];
   char buf[4096];
   register char *p;
   register int fsource, fdest;
   register long count;

   while(isspace(*linebuf)) linebuf++;
   if (*linebuf == '\0') {       /* no source specified */
      return 1;
```

```
   }

   for (p = source; !isspace(*linebuf) && (*linebuf != '\0');
        *p++ = *linebuf++) /* copy */ ;
   *p = '\0';

   while (isspace(*linebuf)) linebuf++;
   if (*linebuf == '\0') {       /* no destination specified */
      fprintf(stderr,"No destination file specified\n");
      return 2;
   }

   for(p = dest; !isspace(*linebuf) && (*linebuf != '\0');
       *p++ = *linebuf++) /* copy */ ;
   *p = '\0';

   if ((fdest = Fopen(dest, 0)) > 0) {
      fprintf(stderr, "Will not overwrite %s\n", dest);
      Fclose(fdest);
      return 3;
   }

   if ((fsource = Fopen(source, 0)) < 0) {
      fprintf(stderr, "%s: no such file\n", source);
      return 4;
   }

   if ((fdest = Fcreate(dest, 0)) < 0) {
      fprintf(stderr, "%s: cannot open for write\n", dest);
      Fclose(fsource);
      return 5;
   }

   printf("Copying %s to %s\n", source, dest);
   while ((count = Fread(fsource, 4096L, buf)) > 0) {
      if (Fwrite(fdest, count, buf) != count) {
         fprintf(stderr, "Error writing %s\n", dest);
         Fclose(fsource);
         Fclose(fdest);
         return 6;
      }
   }
   if (count < 0) {
      fprintf(stderr, "Error reading %s\n", source);
   }

   Fclose(fsource);
   Fclose(fdest);

   return 0;
}

main()
```

```
{
   FILE *fsource;
   FILE *fopen();
   char buf[82];

   printf("\033E                AUTOCOPY V1.0\n\n");

   if ((fsource = fopen("\\AUTO\\AUTOCOPY.DAT", "r")) == (FILE *)0) {
      fprintf(stderr,"\\AUTO\\AUTOCOPY.DAT not found\n");
      return 3;
   }

   while (!(feof(fsource))) {
     fgets(buf, 82, fsource);
     if ferror(fsource) break ;
     else               cp(buf);
   }
   fclose(fsource);

   printf("\nAUTOCOPY finished\n");
}
----------------cut here-----end of autocopy.c---------------------------------
```

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From 7165845721300320522
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3918aa79d64e89ee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 07:56:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: keyboard spontaneous repeats
Message-ID: <1916@utecfa.UUCP>
Date: Mon, 20-Oct-86 10:56:57 EDT
Article-I.D.: utecfa.1916
Posted: Mon Oct 20 10:56:57 1986
Date-Received: Sat, 25-Oct-86 16:44:16 EDT
Organization: Engineering Computing Facility, University of Toronto
Lines: 35

> Newsgroups: net.micro.atari16

> Subject: Re: Keyboard probles, spontanious repetitions
> References: <8610170023.AA28211@ucbvax.Berkeley.EDU>

> Subject: Keyboard probles, spontanious repetitions
> Date: Thu, 16-Oct-86 20:24:06 EDT

> Hello,
> I have upgraded my 520-ST to 1Mb and installed the TOS PROMS myself.
> Since this I sometimes have a spontanious keyboard repeat. Also
> when no key is pressed. This sometimes resulted in sentences
> with a lot of charrrrrrrrrrrrrracters extra. The major problem
> is that also KERMIT get hang up (or XMODEM) and I suspect this
> keyboard problem. The repetition stops when a , no matter wich, key
> is pressed.

> Who has also had such problems and knows what to do with it.
> With my 1Mb upgrate a heve not use any 68kOhm resistors. Could this
> be the cause?

> Greetings,
> Berend F. de Vries
> U00170@HASARA5.BITNET

This problem could be due to a loose keyboard connector.
Open up your ST and push the keyboard connector down so that it is
firmly connected.

-anees

--
Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfb!munshi

From -6841143987577127946
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c345a42160272c19
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 09:30:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!
philabs!linus!raybed2!applicon!bambi!maggot!barada
From: barada@maggot.applicon.UUCP
Newsgroups: net.micro.atari16
Subject: Re: a new moderated newsgroup - mod.sou
Message-ID: <24200005@maggot>
Date: Mon, 20-Oct-86 12:30:00 EDT
Article-I.D.: maggot.24200005
Posted: Mon Oct 20 12:30:00 1986
Date-Received: Wed, 22-Oct-86 23:25:35 EDT
References: <615@imagen.UUCP>

Lines: 33
Nf-ID: #R:imagen.UUCP:-61500:maggot:24200005:000:935
Nf-From: maggot.applicon.UUCP!barada   Oct 20 12:30:00 1986

>
>In article <615@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>>... therefore (deep breath taken) i propose to moderate
>>mod.sources.atari16 with associated archives...
>>... (what am i getting myself into??).
>
>Thanks for volunteering James.
>
>-Rich
>--
> _________ ______ ____ _____ ___
>/_________//___ ||__|/____|/__/   Richard E. Sansom
>

     Rich and James,

I volunteered about two months ago. I even have a batch of votes that I posted
to this group and net.news.group. But with the impending reorg, it
was decided to postpone the creation until the reorg was in effect.

Once that is done, I'll start up the group.

--
Peter Barada | (617)-671-9905
Applicon, Inc. A division of Schlumberger Ltd. | Billerica MA, 01821

UUCP: {allegra|decvax|mit-eddie|utzoo}!linus!raybed2!applicon!barada
      {amd|bbncca|cbosgd|wjh12|ihnp4|yale}!ima!applicon!barada

     Sanity is yet another perversion of reality.

From 1711915860346581158
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 09:31:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!husc6!seismo!rochester!cornell!batcomputer!
braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Interrupt running programs
Message-ID: <1242@batcomputer.TN.CORNELL.EDU>
Date: Mon, 20-Oct-86 12:31:01 EDT
Article-I.D.: batcompu.1242

Posted: Mon Oct 20 12:31:01 1986
Date-Received: Wed, 22-Oct-86 03:56:49 EDT
References: <14600008@uklirb.UUCP> <1230@batcomputer.TN.CORNELL.EDU>
<1234@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 30
Summary: Final version (hopefully)

[]

Reminder: after running this program ONCE, holding down
Control, Alternate and BOTH Shift keys and pressing any
other key will stop the program running at the time, as long
as it is in user mode. Since programs call OS routines
which execute in supervisor mode, and since this program will
act only if the interrupted program is in user mode, you may
have to repeat pressing the last key several times.

The two bombs were due to the RTE to $FC0A5A in user mode,
where a MOVE.L #$93A,$4A2 is attempted. Here is a corrected
version with BSET #5,(A7) added before the RTE, to keep it
in supervisor mode.

(Hex dump of the complete program - 96 bytes):
```
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
60 1A 00 00 00 70 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 FF FF 48 7A 00 18
3F 3C 00 26 4E 4E 5C 8F 42 67 2F 3C 00 00 02 00
3F 3C 00 31 4E 41 48 7A 00 08 21 DF 01 18 4E 75
08 17 00 05 66 14 0C 38 00 0F 0E 1B 65 0C 08 D7
00 05 2F 7C 00 FC 0A 5A 00 02 4E F9 00 FC 28 1C
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
```

Have a clean break!

- Moshe Braner

<braner@amvax.tn.cornell.edu>

From 632389125759452940
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f7ce9ec459328283
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 09:45:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!rutgers!nike!ucbcad!ucbvax!sdcsvax!sdcc6!
sdcc12!st69
From: st69@sdcc12.UUCP (st69)
Newsgroups: net.micro.atari16
Subject: Re: RCS by Kuma and RCSFIX
Message-ID: <620@sdcc12.UUCP>

Date: Mon, 20-Oct-86 12:45:24 EDT
Article-I.D.: sdcc12.620
Posted: Mon Oct 20 12:45:24 1986
Date-Received: Wed, 22-Oct-86 03:24:20 EDT
References: <243@bath63.UUCP>
Reply-To: st69@sdcc12.UUCP ()
Distribution: net.micro.atari16
Organization: U.C. San Diego, Academic Computer Center
Lines: 6

.
Does anyone know more about this "K-Resource" by Kuma? Do you have
their address, phone, price?? I am using Mark Williams C and am dying
for a RCS. Are there any other RCSs out there?

Tom Erbe (ucbvax!sdcarl!tre)

From 135233722913904269
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff1af9bff57e8988,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 09:50:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!zen!
buddy.Berkeley.EDU!c9c-bg
From: c9c-bg@buddy.Berkeley.EDU (James A. Landay)
Newsgroups: net.micro.atari16
Subject: gem-kermit
Message-ID: <652@zen.BERKELEY.EDU>
Date: Mon, 20-Oct-86 12:50:30 EDT
Article-I.D.: zen.652
Posted: Mon Oct 20 12:50:30 1986
Date-Received: Tue, 21-Oct-86 23:42:42 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c9c-bg@buddy.Berkeley.EDU (James A. Landay)
Organization: University of California, Berkeley
Lines: 5

Could someone please send me Gem-kermit or repost it.

Thanks,

James Landay

From -7638773423113009202
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,636db66c4db82ba7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 10:08:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!NDSUVM1.BITNET!UD040164

From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: Policy of Disinformation?
Message-ID: <8610210225.AA10198@ucbvax.Berkeley.EDU>
Date: Mon, 20-Oct-86 13:08:00 EDT
Article-I.D.: ucbvax.8610210225.AA10198
Posted: Mon Oct 20 13:08:00 1986
Date-Received: Wed, 22-Oct-86 01:19:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

In <1953@well.UUCP>, Glenn Tenney writes...

>re: numbers of ST's
>I just heard that in their prospectus Atari had to state how many
>ST's they've ACTUALLY sold worldwide. I haven't actually read it myself,
>but was told that the number in the prospectus was 125,000.

I have read the prospectus, and I believe the number given was about
150,000 , which rather made me a bit upset -- I have been suggesting
the investment to others on the basis of 250,000 sold. Is the diff-
erence do to an inflated "rumor" rate, or old data? I go the feeling
that some of the data in the prospectus was rather old. Just a hunch
though....   Neil?

a.d. jensen
Department of Geography
University of North Dakota
Grand Forks, ND

"Forty below keeps out the riff-raff" -- North Dakota state motto

From 4449061104418508179
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b7e01fd28891969,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 10:12:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
NDSUVM1.BITNET!UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: Emacs Docs
Message-ID: <8610210000.AA06655@ucbvax.Berkeley.EDU>
Date: Mon, 20-Oct-86 13:12:00 EDT
Article-I.D.: ucbvax.8610210000.AA06655
Posted: Mon Oct 20 13:12:00 1986
Date-Received: Wed, 22-Oct-86 01:15:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 20

>the basic function are the same as mince or the microemacs that came with the
>dev kit, but there significant extensions.if there are enuff requests i'll
>repost the doc's

Count me in as wanting them...

<Bitnet : UD040164%NDSUVM1.BITNET@WISCVM.WISC.EDU>
          UOJENSEN%NDSUVAX.BITNET@WISCVM.WISC.EDU>
<UUCP   : Have no idea of the address, but:
          Name - UOJENSEN
          Site - NDSUVAX
          If someone sends me the path, I can include it so that mail
          goes directly to me instead of cluttering the net. Thanks. >

a.d. jensen
Department of Geography
University of North Dakota
Grand Forks, ND

"Forty below keeps out the riff-raff" -- North Dakota state motto

From -6391357659522217252
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dd63681ccf304e0b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 10:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!sdcsvax!sdcc6!ir648
From: ir648@sdcc6.ucsd.EDU (Chet Koblinsky)
Newsgroups: net.micro.atari16
Subject: Could somebody send me a ARC for ST?
Message-ID: <2955@sdcc6.ucsd.EDU>
Date: Mon, 20-Oct-86 13:58:00 EDT
Article-I.D.: sdcc6.2955
Posted: Mon Oct 20 13:58:00 1986
Date-Received: Wed, 22-Oct-86 01:31:14 EDT
Organization: University of California, San Diego
Lines: 5
Keywords: ARC ST

I tried use my ARC for the first time for Uniterm, but it did'nt
work. Could somebody send me a uuencoded ARC for me?
Thanks in advance.
-John Lee
{ucbvax}!sdscvax!sdcc6!ir648

From -7648392056126474823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,55362bffe098dbaa,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 11:01:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!buchanan
From: buchanan@utcsri.UUCP (John Buchanan)
Newsgroups: net.micro.atari16
Subject: floppies a la 410 k per side
Message-ID: <3504@utcsri.UUCP>
Date: Mon, 20-Oct-86 14:01:45 EDT
Article-I.D.: utcsri.3504
Posted: Mon Oct 20 14:01:45 1986
Date-Received: Sat, 25-Oct-86 16:43:57 EDT
Distribution: net
Organization: CSRI, University of Toronto
Lines: 17

This is my first posting.

I recently picked up a program that formats floppies with an extra 50 k per side. This is probably old news but if it isn't and you let me know then I'll attempt to post it.

I am going to be writting a desk accessory that will act as a normal address book with a few plus. I hope to post it when I'm done. If there exists any suggestions please mail them to me.

buchanan@utcsri

john Buchanan
Dept of Computer Science
U of Toronto
Toronto Canada

From -3118748954290503755
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,128a03fd7f485a59,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 11:07:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!zen!
zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: What do I do after I uudecoded Uniterm?
Message-ID: <653@zen.BERKELEY.EDU>
Date: Mon, 20-Oct-86 14:07:43 EDT
Article-I.D.: zen.653
Posted: Mon Oct 20 14:07:43 1986
Date-Received: Tue, 21-Oct-86 23:44:37 EDT
Sender: news@zen.BERKELEY.EDU

Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 3

After I uudecoded UNITERM, I got UNITERM.ARC. Now what do I have to do to get
Uniterm.prg? Any suggestion is welcome and thanks in advance.
                                Duy

From -2495368272920141455
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4dd11dd008f37f4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 12:22:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!SUMEX-AIM.STANFORD.EDU!
Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Uniterm 1.5c
Message-ID: <12248365769.8.LYNN@PANDA>
Date: Mon, 20-Oct-86 15:22:40 EDT
Article-I.D.: PANDA.12248365769.8.LYNN
Posted: Mon Oct 20 15:22:40 1986
Date-Received: Tue, 21-Oct-86 06:51:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

The ARC file unpacked fine, and the program booted on my b&w monitor.
Unfortunately, no matter what I clicked to be the proper buffer size,
I then got two cherry bombs (bus error).

--Lynn

From 8489540062334147524
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-20 12:27:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: Re: Re: extra "raw" disk drives
Message-ID: <648@chinet.UUCP>
Date: Mon, 20-Oct-86 15:27:50 EDT
Article-I.D.: chinet.648
Posted: Mon Oct 20 15:27:50 1986
Date-Received: Tue, 21-Oct-86 23:52:44 EDT
References: <8610161411.AA02878@mitre-bedford.ARPA> <619@imagen.UUCP>

Reply-To: cabbie@chinet.UUCP (Richard Andrews)
Organization: chi-net, Public Access UN*X, Chicago IL
Lines: 27

In article <619@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>>
>> Paul Swanson of Nite-Lite Systems (617) 663-4221 (BBS line) has done some
>> interfacing of "foreign" disk drives to the ST. I think this includes IBM
>> PC drives (5.25 inch). He of course would prefer to sell you an interface
>> rather than telling you how to design one, but he certainly could answer your
>> questions if he has the time.
>>
>> -John Sangster
>> jhs@mitre-bedford.arpa
>
>it was written up with only 2 omissions in an old issue of antic (i can give
>you the issue # if you want), the first omission was that the atari
>disk drives use cmos level signals so you need to stick a buffer chip
>in between the drives and second you need to set the access time to 6
>ms. there was a pgm called sixms.prg to do that posted to the net, i
>have a copy if you need it.
>--
>----
I have interfaced the CDC drives that are sold by BG micro and those drives
(Full height DSDD) require at least 10ms step rate. Let the buyer beware!
Until someone come up with a 10ms step rate program, Those drives are
useless on the ST.

Rich Andrews
...ihnp4!chinet!cabbie

From -5217433476999570548
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f101871485b5240
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 07:56:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: kilo chars of krap
Message-ID: <527@cci632.UUCP>
Date: Thu, 16-Oct-86 10:56:14 EDT
Article-I.D.: cci632.527
Posted: Thu Oct 16 10:56:14 1986
Date-Received: Thu, 16-Oct-86 22:48:41 EDT
References: <8610151508.AA01134@yale-celray.YALE.ARPA>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 40
Summary: Time for net.sources.atari16?

It's beginning to look like it might be time to get
a net.sources.atari16. There are already net.sources.mac
and net.sources.amiga, along with some general 'C' type
source groups.

We might also be able to get a "bin" group as well?

Our "peculiar" format, unlike binhex or S-record formats
can be decoded on either the Unix host or an ST. Sources
have been posted for BASIC, C, Pascal, and Modula 2
versions. One of them seems to be incompatible with
the Unix version.

There are also versions of uuencode and uudecode available
for VMS, IBM PC's, and Amiga's. In other words, unpacking
should not be too difficult.

One concern is the net.sources.XX vs. the net.XX.sources
issue. Many S.A.'s do not want people putting net.sources
files in their personal accounts, but don't mind them transferring
files to their micro. The typical method of stopping access
is to make the directory (net/sources) executable and readable
only by the owning demeon. This effectively shuts of access
to all sources.

On the flip side, many sites archive net.sources.* to tape,
which makes this alternative attractive to sites with no
sources restrictions.

Since the newer news programs link rather than send multiple
copies, it might not be a bad idea to have both groups with
implied or explicit cross-posting.

One possible solution is to change net.sources to net.sources.general
and/or some further specific groups, so that there is no net.sources
group.

Feel free to forward this suggestion to any appropriate group.

Rex B.

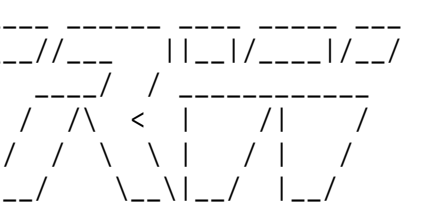
From 7480045070194062097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c345a42160272c19
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 08:15:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16

Subject: Re: a new moderated newsgroup - mod.sources.atari16
Message-ID: <1362@trwrb.UUCP>
Date: Thu, 16-Oct-86 11:15:53 EDT
Article-I.D.: trwrb.1362
Posted: Thu Oct 16 11:15:53 1986
Date-Received: Thu, 16-Oct-86 23:35:29 EDT
References: <615@imagen.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 15

In article <615@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>... therefore (deep breath taken) i propose to moderate
>mod.sources.atari16 with associated archives...
>... (what am i getting myself into??).

Thanks for volunteering James.

-Rich
--



Richard E. Sansom
TRW Electronics & Defense Sector
One Space Park Drive, R3/1028
Redondo Beach, CA 90278
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From 7373631899587672348
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 08:34:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <1222@batcomputer.TN.CORNELL.EDU>
Date: Thu, 16-Oct-86 11:34:41 EDT
Article-I.D.: batcompu.1222
Posted: Thu Oct 16 11:34:41 1986
Date-Received: Fri, 17-Oct-86 05:50:48 EDT
References: <2939@sdcc6.ucsd.EDU> <397@mntgfx.mntgfx.UUCP> <12069@watnot.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 8
Keywords: Atari C-source
Xref: mnetor net.lang.c++:374 net.micro.atari16:2546

[]

Filtering long identifiers into short (but not mnemonic) forms would work, I guess. But since we also have a Megabyte, it is not reasonable to limit identifiers to anything less than 255 chars! Come on, compiler makers: it's 1986!

- Moshe Braner

From -7288189390781306821
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67caef7c0c994b17
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 08:36:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: MicroEmacs 3.7i
Message-ID: <414@husc6.HARVARD.EDU>
Date: Thu, 16-Oct-86 11:36:07 EDT
Article-I.D.: husc6.414
Posted: Thu Oct 16 11:36:07 1986
Date-Received: Thu, 16-Oct-86 22:44:10 EDT
References: <MDCG.WAYNE.12246443018.BABYL@MIT-OZ> <612@imagen.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University
Lines: 9

More questions regarding shell escapes:

In 3.7i, M-X ! prompts for a command to send to a CLI. It seems to do something, but not very useful. Why do you have to know which CLI is going to get the command? Even being able to do M-X ! dir would be quite useful to me, and COMMAND.TOS from the developers kit does that (admittedly, that's about all it does, but...)

-Eric

From -6472778075706098524
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f101871485b5240
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 08:56:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: kilo khars of krap

Message-ID: <1223@batcomputer.TN.CORNELL.EDU>
Date: Thu, 16-Oct-86 11:56:09 EDT
Article-I.D.: batcompu.1223
Posted: Thu Oct 16 11:56:09 1986
Date-Received: Fri, 17-Oct-86 05:51:21 EDT
References: <12246680556.26.EGK@OZ.AI.MIT.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 24
Summary: Complain to your mail system!

In article <12246680556.26.EGK@OZ.AI.MIT.EDU> "Edjik" writes:
>
> ... getting sick of getting many masgs of
>tens of kilo chars in size of ... (programs)
>
> ... My poor mail file blows up and chokes MM more frequently with such
>stuff... It used to be
>considered anti-social to send such masssive files unsolicited...

I here apologize to anybody who was inconvenienced.

The real problem, though, is with your mail system: every person on the
machine, subscribing to the same stuff, gets a personal copy mailed,
and has to edit it with a text editor to read it. As I use a nifty
program to sort this stuff out and read SOME, and the (UN*X) system
here gets just one copy of each, the other method seems, well...

Complain to your system administrators! I believe it is possible
to achieve modest levels of convenience even on HAL machines!

- Moshe Braner

(apologies to anybody who will make less money if these suggestions
will be acted upon :-)

From -3451766496082806487
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 10:47:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cuae2!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <1151@druhi.UUCP>
Date: Thu, 16-Oct-86 13:47:08 EDT
Article-I.D.: druhi.1151
Posted: Thu Oct 16 13:47:08 1986
Date-Received: Fri, 17-Oct-86 05:45:38 EDT
References: <432@atari.UUCP> <96100026@exunido.UUCP>

Organization: AT&T Information System Labs, Denver, Co
Lines: 25
Summary: GDOS has NOT been delivered to developers in the US

> Last week I heard, that the official version of GDOS is published to
> the developers in the US over a month ago, and here in Germany:
> The German subsidary even doesn't know, that something like that exists,
> though Atari himself always proudly tells, that the German market is one of the
> best for the ST series.
>
> Greetings
>
>   Uwe Hoch
>   Computer Science Department, University of Dortmund
>   4600 Dortmund 50, P.O. Box 500500, W.-Germany
>   E-mail address: uh@exunido.uucp, uh@exunido.bitnet

Sorry Uwe,

GDOS has NOT been officially released to anyone. There are one or two
unofficial versions floating about out there among a FEW developers.
Unfortunately, I am not one of the fortunate few. Supposedly, GDOS will
be officially released any day now - I'll believe it when I see it.

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80241
ihnp4!drutx!druhi!lbl

From -286165218228253885
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d401484ec9b4e61f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 11:06:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: net problems ???
Message-ID: <906@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 16-Oct-86 14:06:43 EDT
Article-I.D.: cbmvax.906
Posted: Thu Oct 16 14:06:43 1986
Date-Received: Fri, 17-Oct-86 03:41:23 EDT
References: <8610101736.AA05159@ncsc.ARPA> <1212@batcomputer.TN.CORNELL.EDU>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 22

In article <1212@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>[]

>
>I keep getting things "rejected, discarded" from ubc at csnet.relay
>and/or 'CDN-gateway' - I suspect it is stuff I sent to the net.
>It just says "time expired". What does that mean?
>
>- Moshe Braner

It probably means that net.micro.atari is being gatewayed into a mailing list
on some other network. When one of the (typically) many sites on such a
mailing list is down or otherwise inaccessable, some of the problem messages
work their way back to the originator.

Actually they should be going to the mailing list or gateway coordinator,
and can usually be ignored...

--
George Robbins - now working for,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 7940512770844607569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54f65f8b5dd4c0e3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 11:50:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Bob Fortin)
Newsgroups: net.micro.atari16
Subject: Re: games and the RF modulator
Message-ID: <100@ritcv.UUCP>
Date: Thu, 16-Oct-86 14:50:08 EDT
Article-I.D.: ritcv.100
Posted: Thu Oct 16 14:50:08 1986
Date-Received: Thu, 16-Oct-86 23:11:00 EDT
References: <8610160153.AA21840@ncsc.ARPA>
Reply-To: ref0070@ritcv.UUCP (PUT YOUR NAME HERE)
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 15

In article <8610160153.AA21840@ncsc.ARPA> moore@NCSC.ARPA (Moore) writes:
>
>I would be very interested in hearing from you if you've successfully or
>unsuccessfully run a commercial package, game or otherwise, on a home TV.
>Thanks for your comments.
>
>
>Jim Moore

I too have only a monochrome monitor. The only program that I have run
on my TV is Neochrome, and it is very blurred. The text is also hard

to read. I don't think that using your TV for a monitor is a very
workable idea. If anyone has experienced otherwise, let us know.

Bob Fortin

From -4582159252726279494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,89f6ef3e04ab9a00,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 12:56:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!RYERSON.BITNET!FCTY7284
From: FCTY7284@RYERSON.BITNET (Peter Hiscocks)
Newsgroups: net.micro.atari16
Subject: MONST
Message-ID: <8610170153.AA29764@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 15:56:06 EDT
Article-I.D.: ucbvax.8610170153.AA29764
Posted: Thu Oct 16 15:56:06 1986
Date-Received: Fri, 17-Oct-86 03:32:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Is there anyone out there who would be willing to copy MONST if I sent
out a disk and a self addressed envelloppe? No one in the Toronto area
seems to have it, and I'd like to post copies to the local boards.
Any help greatly appreciated.
Peter Hiscocks
55 Grandview Avenue
Toronto Ontario
M4K 1J1
(416) 465-3007

From 4570678780979294699
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f2c108fe88681e3a,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f2c108fe88681e3a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 14:22:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!lll-crg!lll-lcc!unisoft!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Passin' thru...
Message-ID: <2872@islenet.UUCP>
Date: Thu, 16-Oct-86 17:22:25 EDT
Article-I.D.: islenet.2872
Posted: Thu Oct 16 17:22:25 1986
Date-Received: Fri, 17-Oct-86 22:51:54 EDT

Distribution: net
Organization: Islenet Inc., Honolulu
Lines: 27
Xref: mnetor net.micro.atari16:2569 net.micro.amiga:5336

This from Personal Computing, Oct. '86:

10 Unexpected Personal Computing Flops
or Under-Achievers

1) PCjr
2) Lisa
3) IBM Portable
4) Jazz
5) Apple III
6) Tandy 2000
7) DEC Rainbow
8) VisiON
9) Amiga
10) Ovation

Does this tell us something? Does anyone know (preferable not
connected with Atari or Commodore) what the *actual* figures
are for machines (ST vs. Amiga) are thru 3rd quarter '86?

I shall change my name to George... curious George, that is.

Aloha,

Jonathan Spangler
UUCP: {ihnp4,vortex,dual}!islenet!jons
CIS: 71560,322

From 1267765340395430003
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aec48235fcd9c4b2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 14:45:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Windowing
Message-ID: <92@its63b.ed.ac.uk>
Date: Thu, 16-Oct-86 17:45:36 EDT
Article-I.D.: its63b.92
Posted: Thu Oct 16 17:45:36 1986
Date-Received: Fri, 17-Oct-86 23:49:58 EDT
Reply-To: csan@its63b.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 12
Keywords: vsf_interior

I wonder if anyone out there can help me .
I have written a program in M68000 that allows me to open and manipulate a window . Not very hard I must admit but there was one thing I found strange. When I moved the window , the background where the window originally was changes to black instead of the usual grey . Then when I move the window up to the top right , the whole screen goes black . Next , I move the window down to the bottom left and the screen reverts to its normal status .
Sizing the window is fine in the Y direction but not in the X direction .
Its all very strange.
I would appreciate any light that could be cast on this .
Thanks in advance.....(?)
--Andie Ness

From -1414205002675619439
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2289ce9d280c088c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 16:02:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!clutx.BITNET!l40a
From: l40a@clutx.BITNET (DeCorte Michael R)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610162302.AA26640@clutx.CLARKSON.EDU>
Date: Thu, 16-Oct-86 19:02:18 EDT
Article-I.D.: clutx.8610162302.AA26640
Posted: Thu Oct 16 19:02:18 1986
Date-Received: Fri, 17-Oct-86 03:56:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

The complaint was the ?Megamax C? had problems with the following code
unsigned x;
while ((x=getchar) != EOF) {   ... }

the complaint was the it went into an infinite loop.
while if x was just an int everything was fine.

He gave an idea that it may have had to do with the
sign extending of char to int.

well the problem acctully is I believe (I don't
have or use magamax c so this is an educated guess)
if you look in STDIO.H you will see that
EOF is declared to be -1.
some c systems use -1 others use 0 i believe.
well the whole point is that -1 is legal and
SOMEWHERE in KR it says so you can have the fun
looking for the little blurb. I seem to
remember it being in the second chapter and

never did see it in the definition if you
really want to find it.
Michael DeCorte
fi46@clutx
l40a@clutx

From 2306862000035808967
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 16:10:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cuae2!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: 1040ST questions
Message-ID: <2875@islenet.UUCP>
Date: Thu, 16-Oct-86 19:10:37 EDT
Article-I.D.: islenet.2875
Posted: Thu Oct 16 19:10:37 1986
Date-Received: Tue, 21-Oct-86 20:35:46 EDT
References: <1978@ihuxl.UUCP>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Distribution: net
Organization: Islenet Inc., Honolulu
Lines: 25

In article <1978@ihuxl.UUCP> walt2@ihuxl.UUCP (Walt Kurszewski) writes:
>My other options for a C compiler are Lattice (slow, but I can get it for ~$125)
>or Megamax (fast but I don't know how buggy or how much it costs). I'll need
>an assembler that I can link with the C compiler. Is there any public domain
>C/assembler/linker?
>
Saw an add for the Mark Williams C for the ST. Sells for $179.95 and includes
MicroEMACS, 600 pages of docs, assembler, linker and archiver, and the
Microshell Command Processor (is this Beckmeyer Tools?)

Also: complete K/R "C" + extensions, 8 register variables, full AES & VDI
libraries, UNIX-compatible libraries for portability, 300 Atari-specific
routines, one-step linking & compiling with cc command, English error messages
link-link error checking.

Includes utilites: egrep,sort,diff,cmp,pr,tail,uniq,wc and more.

Don't have it, but it looks really good. PLEASE do not ask me anything else
about this -- I am just passing information along.

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From -5073054839969234519
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36d1768fd825f3a7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 16:46:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: xmodem acc ????
Message-ID: <8610162346.AA11954@ncsc.ARPA>
Date: Thu, 16-Oct-86 19:46:38 EDT
Article-I.D.: ncsc.8610162346.AA11954
Posted: Thu Oct 16 19:46:38 1986
Date-Received: Thu, 16-Oct-86 23:39:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Has anyone out there heard of or written an accessory to perform xmodem file transfers? It seems kinda backwards to me to run a file transfer program in the "foreground" and pull down the emulator program.

Jim Moore
moore@ncsc.arpa

From 504655382486267314
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae00f2abfd8387b7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 17:23:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!slacvm.BITNET!KJBSF
From: KJBSF@slacvm.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Re: This is getting ridiculous
Message-ID: <8610170121.AA29203@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 20:23:10 EDT
Article-I.D.: ucbvax.8610170121.AA29203
Posted: Thu Oct 16 20:23:10 1986
Date-Received: Fri, 17-Oct-86 03:27:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@forsythe.stanford.edu
Organization: The ARPA Internet
Lines: 26

Date: 16 October 86 17:19-PST
From: KJBSF@SLACVM

To: INFO-ATARI16@SCORE
Subject: Re: Re: This is getting ridiculous

Date: 16 October 1986, 17:12:36 PST
From: Kevin J. Burnett x3330 <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD>
Subject: Re: Re: This is getting ridiculous

In response to bammi%case.csnet@CSNET-RELAY.ARPA:

I don't live on a unix system; the size of my directory and reader are small (I have a 2-cylinder disk for IBMers), so I am always in need of as much space as possible for many things besides info-atari16. I didn't want to get into an argument about this, but I thought I should just emphasize the fact that the people on this list are on MANY different kinds of computers, not just unixes and DEC-20's with +INF directories. There are also many different mail reading programs around; did you notice that I said that there is a program I have tha automatically takes all the info-atari16 files and puts them into a pseudo-digest form for other people to read on my system?

Well, enough of this. I see someone has volunteered to moderate a mod.atari16.sources (or whatever), which might just solve the whole problem.

- Kevin Burnett

From -7555670284634101815
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6faf8537fd1c5b8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 17:24:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET
Newsgroups: net.micro.atari16
Subject: Keyboard probles, spontanious repetitions
Message-ID: <8610170023.AA28211@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 20:24:06 EDT
Article-I.D.: ucbvax.8610170023.AA28211
Posted: Thu Oct 16 20:24:06 1986
Date-Received: Fri, 17-Oct-86 03:21:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Hello,
I have upgraded my 520-ST to 1Mb and installed the TOS PROMS myself.
Since this I sometimes have a spontanious keyboard repeat. Also
when no key is pressed. This sometimes resulted in sentences
with a lot of charrrrrrrrrrrrrracters extra. The major problem
is that also KERMIT get hang up (or XMODEM) and I suspect this
keyboard problem. The repetition stops when a , no matter wich, key

is pressed.

Who has also had such problems and knows what to do with it.
With my 1Mb upgrate a heve not use any 68kOhm resistors. Could this
be the cause?

Greetings,
Berend F. de Vries
U00170@HASARA5.BITNET

From -5339839576646612086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 17:40:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: extra "raw" disk drives
Message-ID: <8610161411.AA02878@mitre-bedford.ARPA>
Date: Thu, 16-Oct-86 20:40:47 EDT
Article-I.D.: mitre-be.8610161411.AA02878
Posted: Thu Oct 16 20:40:47 1986
Date-Received: Fri, 17-Oct-86 03:23:57 EDT
References: <1214@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

Paul Swanson of Nite-Lite Systems (617) 663-4221 (BBS line) has done some
interfacing of "foreign" disk drives to the ST. I think this includes IBM
PC drives (5.25 inch). He of course would prefer to sell you an interface
rather than telling you how to design one, but he certainly could answer your
questions if he has the time.

-John Sangster
jhs@mitre-bedford.arpa

From 3591135247131224323
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 17:57:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!uwvax!rutgers!sri-spam!sri-unix!hplabs!
pyramid!decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <441@atari.UUcp>

Date: Thu, 16-Oct-86 20:57:55 EDT
Article-I.D.: atari.441
Posted: Thu Oct 16 20:57:55 1986
Date-Received: Sat, 18-Oct-86 23:42:08 EDT
References: <432@atari.UUCP> <96100026@exunido.UUCP>
Organization: Atari Corp/Mktg
Lines: 36

In article <96100026@exunido.UUCP>, uh@exunido.UUCP writes:
> >it before letting it out again. It will be distributed *soon* on
> >Compuserve, on the Atari BSS, and to dealers. [Not on usenet, though,
> >for obvious reasons.]
>
> What reasons, pardon. We developers here in Europe would be also very
> interested in such updates

The reason is that Usenet is supposed to be used for non-commercial things.
We reasoned that the hard disk driver violates that. Right or wrong?

> About a year ago I was flamed very much by members of Atari (US) and other
> people, because I have posted the CP/M-Emulator (here in Germany public
> domain) to usenet. Now neil@atari says that Atari (US) will put this
> emulator also into the public domain --- and now he asks us kids here
> in Europe, how to put the utilities onto CP/M disks.

Uwe, lets take off the gloves. If you had not posted the program to the
net, we would have had a viable product that we could sell and support. Our
eventual decision to make the CP/M emulator available as a free program was
based on the fact that everyone had it already anyway! A big manual and
support will not be available, sorry, but we just can't afford it.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -4628174631163186406
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae00f2abfd8387b7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 20:27:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19

From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: Re: Re: This is getting ridiculous
Message-ID: <8610170343.AA01393@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 23:27:56 EDT
Article-I.D.: ucbvax.8610170343.AA01393
Posted: Thu Oct 16 23:27:56 1986
Date-Received: Fri, 17-Oct-86 03:56:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I like it just the way it is, also living on an IBM system. I don't have the time or patience to track down all sorts of different groups. Half of which I don't receive on the 3B20 via USENET. This group via Arpanet insures I get it all.

Mike

From 8330564839216418667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b23e866faeb8539,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 21:41:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!NDSUVM1.BITNET!UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: net.atari16.sources
Message-ID: <8610170612.AA03455@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 00:41:00 EDT
Article-I.D.: ucbvax.8610170612.AA03455
Posted: Fri Oct 17 00:41:00 1986
Date-Received: Fri, 17-Oct-86 06:08:26 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

==========

In <613@imagen.UUCP>, James Turner writes:

>as a major offender, i couldn't agree more, i here by volunteer to
>moderate mod.atari16.sources, any objections ?? comments???

Sounds swell, James, as long as those of us not on the 'net'
can still get to the stuff. (BTW, is there _any_ way, aside
from bugging one of you, of BITNET folks getting at those
archived files? Thanks.)

a.d. jensen

Department of Geography
University of North Dakota
Grand Forks, ND

"Forty below keeps out the riff-raff" -- North Dakota state motto

From -2011202364377718771
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,9d74aa1856dc4701
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,9d74aa1856dc4701
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 03:20:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: Re.: C++ preprocessor wanted
Message-ID: <1197@hoptoad.uucp>
Date: Fri, 17-Oct-86 06:20:14 EDT
Article-I.D.: hoptoad.1197
Posted: Fri Oct 17 06:20:14 1986
Date-Received: Fri, 17-Oct-86 22:16:26 EDT
References: <6174@alice.uUCp>
Organization: Nebula Consultants in San Francisco
Lines: 21
Xref: mnetor net.lang.c++:377 net.micro.atari16:2563

> >   ...you get inheritance and even late binding
> > of sorts with high efficiency (about 100 microSecs for a typical
> > invocation of a method).

In article <6174@alice.uUCp>, bs@alice.UucP (Bjarne Stroustrup) writes:
> This made me curious about what the cost of a C++ virtual function call
> really is so I ran this example on a VAX11/750:
>
>   for (int i = 100000; 0<i; i--) p->f();
>
> It took 4 seconds; that is, about 4 microseconds per iteration.

Uh, if you run a loop 100,000 times in 4 seconds, that is *40* microseconds
per iteration, which sounds a lot more reasonable on a 750. Remember that
this time includes the loop overhead, a function call, and a function return,
and Vaxes are slow about function calls.

Scale all the other "per iteration" numbers by a factor of 10 too.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
(C) Copyright 1986 by John Gilmore.   May the Source be with you!

From 6738715958047069077

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d177ab0e735abef3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 05:06:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!nwo4972
From: nwo4972@ritcv.UUCP (Nicholas W. Oddo)
Newsgroups: net.micro.atari16
Subject: changing font size before draw_string
Message-ID: <104@ritcv.UUCP>
Date: Fri, 17-Oct-86 08:06:13 EDT
Article-I.D.: ritcv.104
Posted: Fri Oct 17 08:06:13 1986
Date-Received: Fri, 17-Oct-86 22:20:39 EDT
Reply-To: nwo4972@ritcv.UUCP (Nick Oddo)
Followup-To: terrell@OHIO-STATE.ARPA (Eric Terrell)
Distribution: net.micro.atari16
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 51

>Is it possible to select a smaller font (than the default) right before
>calling the draw_string procedure.

I assume you are referring to the draw_string procedure included in OSS's Personal Pascal programming package.

Although there is no specific procedure to change the character height before calling the draw_string procedure, there is a generic VDI procedure which allows the programmer to implement his own such procedures as long as the opcode and other types of parameters are known (via Abacus' Atari GEM Programmer;s Reference Manual). The extra documentation needed to learn how to use the generic VDI and AES routines (oh yeah, there's one for AES routines also) can be obtained from OSS for the cost of the postage, or the literature can be downloaded from there bulletin board. Both telephone numbers are included in the original documentation. To get you going, I've included the code I always use when changing the text height. I hope this helps.

Nick Oddo

```
  PROCEDURE Text_Height( height : Integer ) ;

    TYPE
      Ctrl_Parms    = ARRAY [0..11] OF Integer ;
      Int_In_Parms  = ARRAY [0..15] OF Integer ;
      Int_Out_Parms = ARRAY [0..45] OF Integer ;
      Pts_In_Parms  = ARRAY [0..11] OF Integer ;
      Pts_Out_Parms = ARRAY [0..11] OF Integer ;

    VAR
      control : Ctrl_Parms    ;
      int_in  : Int_In_Parms  ;
```

```
      int_out : Int_Out_Parms ;
      pts_in  : Pts_In_Parms  ;
      pts_out : Pts_Out_Parms ;

    PROCEDURE VDI_Call(     cmd, sub_cmd, nints, npts : Integer         ;
                        VAR ctrl                      : Ctrl_Parms      ;
                        VAR int_in                    : Int_In_Parms    ;
                        VAR int_out                   : Int_Out_Parms   ;
                        VAR pts_in                    : Pts_In_Parms    ;
                        VAR pts_out                   : Pts_Out_Parms   ;
                            translate                 : Boolean       ) ;
                        EXTERNAL ;

    BEGIN
      pts_in[0] := 0 ;
      pts_in[1] := height ;
      VDI_Call(12, 0, 0, 2, control, int_in, int_out, pts_in, pts_out, false) ;
    END ;
```

```
From 1674869628397734392
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,915a3cec8ab1338d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 05:08:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!seismo!mcvax!ukc!einode!tcdmath!pfoley
From: pfoley@tcdmath.uucp (Paul F. Foley)
Newsgroups: net.micro.atari16
Subject: Beckemeyer's C-Shell Query
Message-ID: <208@tcdmath.uucp>
Date: Fri, 17-Oct-86 08:08:57 EDT
Article-I.D.: tcdmath.208
Posted: Fri Oct 17 08:08:57 1986
Date-Received: Wed, 22-Oct-86 00:10:29 EDT
Reply-To: pfoley@tcdmath (Paul Foley)
Distribution: world
Organization: School of Mathematics, Trinity College, Dublin.
Lines: 18


Does anyone have any experience with Beckemeyers C-Shell ??
Is it anything like as good as the *real* csh ??

The other CLIs I've used on the ST are not much better than MS-DOS.

Can anyone help ?

Info on any of the other products from this company would be appreciated.

Thanks in advance...

--
```

Paul F. Foley
MD Roddy 'roddy frost' Frost Enterprises

...!mcvax!ukc!tcdmath!pfoley #UUCP
PFFOLEY@IRL.HEA.TCD.CSVAX1 #Janet/Heanet

From 1422500225180042929
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 07:04:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!RELAY.CS.NET!
cgoudeseune%watnot.waterloo.edu
From: cgoudeseune%watnot.waterloo.edu@RELAY.CS.NET (center of gravity)
Newsgroups: net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <8610171404.AA09002@watnot.uucp>
Date: Fri, 17-Oct-86 10:04:28 EDT
Article-I.D.: watnot.8610171404.AA09002
Posted: Fri Oct 17 10:04:28 1986
Date-Received: Tue, 21-Oct-86 08:07:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

I imagined someone had already thought of that idea before (shortc); I'm
no incredible wizard myself. I'll look for it here at waterloo.
oh, my path is cuae2!clyde!watmath!watnot!cgoudeseune in case you
were wondering.
While i'm bothering you, can you foresee anyone porting smalltalk or actor
to the ST? 1 meg might not be enough, & a hard disk would certainly be
necessary. The reason I ask is, i'm wondering what language to learn next.
C++ seems powerful, but so do the other two. and lisp would be neat too.
sigh. And as i'm taking 9 courses this term (6 is an honours load), i
haven't really got the time to learn them all in enough depth that i'll
know which one to master. Life's weird.
Thanks for your time,
     Camille Goudeseune.

From -7717729747891027682
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ed998da12ab5d17,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 07:29:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Help with AUTO folder programs

Message-ID: <8610171429.AA09817@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 10:29:18 EDT
Article-I.D.: ucbvax.8610171429.AA09817
Posted: Fri Oct 17 10:29:18 1986
Date-Received: Fri, 17-Oct-86 22:50:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 18

> Would someone please tell me in what order the programs in the AUTO
> folder run at bootup? I think I've tried every combination possible
> (times, names), but I still can't figure it out - the same program
> *always* boots first! Thanks in advance,

They are supposed to run in the order in which they appear in the folder. This is *not* they order that the desktop lists them, and it is only the order in which they were written if nothing has been deleted. (A deleted file opens up a "slot" into which the next file is placed.) There is no way to list the actual order of files from the desktop, but some command shells have a folder list command that lists the files in their native order rather than sorting them first. So to be safe, start with an empty AUTO folder and then copy in the files in the order that you want them to run.

--Mike Fischer <fischer@yale.arpa>

From -8091537016772451418
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c8fb3388fedea13,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 07:38:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!NSWC-WO.ARPA!tmatrak
From: tmatrak@NSWC-WO.ARPA
Newsgroups: net.micro.atari16
Subject: uniterm.a (V1.5c)
Message-ID: <8610171452.AA10069@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 10:38:25 EDT
Article-I.D.: ucbvax.8610171452.AA10069
Posted: Fri Oct 17 10:38:25 1986
Date-Received: Fri, 17-Oct-86 22:51:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I have accidentally deleted Uniterm.a (part 2 of 4) that was recently posted. Could someone please send me a copy. Thanks.

Ted Matrakas
tmatrak@nswc-wo

From 2403382004817153473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1db7546694c8b0d2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 07:57:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NOSC.ARPA!dobbs%marlin
From: dobbs%marlin@NOSC.ARPA (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: games and RF Modulator
Message-ID: <8610171457.AA04514@marlin.ARPA>
Date: Fri, 17-Oct-86 10:57:07 EDT
Article-I.D.: marlin.8610171457.AA04514
Posted: Fri Oct 17 10:57:07 1986
Date-Received: Fri, 17-Oct-86 23:00:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 47

I have seen a couple of postings on the net about running games on a tv. In the USA, at least, there are several difficulties involved with running high resolution graphics on a television. Almost all the hard places involve stacks of money :-)

In the early days of television the technology was, by todays standards, very poor. Because of the tremendous popularity of "GOLDEN AGE" offerings, millions of dollars were tied up in operating equipment at both ends of the RF path. The resolution of early TV was disgustingly poor. Upgrading the resolution has been a very slow process.

Some of the new receivers available to day can double as a color monitor with very good resolution, but the RF circuitry is still behind the power curve of technology. The biggest problem to overcome in this area is bandwidth. The RF modulators currently available (for reasonable cost) have a bandwidth much to narrow to provide the kind of resolution required by general purpose computers. (Some special purpose computers have been built to provide special effects on television.)

There are ways to "fix" the bandwidth problem, but it would be MUCH cheaper to buy a color monitor from ATARI. If you have a TV that can accept RGB inputs (the current, generally accepted method of overcoming narrow bandwidth problems) it may be possible to extract these signals from the ATARI computer BEFORE the RF modulator. With proper line buffers, thses signals can drive the video portion of the TV. However, unless you can also get at the sync signals, it will be necesary to drive the system through the RF monitor for sync. That means blocking the video signals (preferably at the TV) provided by the RF path and replacing them with the RGB signals.

Bottom Line: Today's Televison Receivers can not do justice to a general purpose computer's capability to draw and print. Computers provide on/off signalling to very small dots (pixels) on the screen. Television signals don't. Computer signals don't try to "fool" the brain as much as TV! :-)

```
--------------------------------------------------------------------------------
 GGGGG   OOOOO     N    N      A    V       V Y     Y  dobbs@marlin.Nosc.ARPA
G       O     O    NN   N     A A   V       V Y     Y  dobbs%marlin@Nosc.ARPA
G  GGG  O     O    N N  N    A   A   V     V   Y   Y   noscvax!dobbs%marlin
G     G O     O    N  N N   AAAAAAA   V   V     YYY
 GGGGG   OOOOO     N   NN  A       A   V V       Y       Still serving and
                   N    N  A       A    V        Y          proud of it.

   "An ADVENTURE is the result of bad planning."   Admiral Richard E. Byrd
--------------------------------------------------------------------------------
-------
```

From 701632492878274284
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2b363bd3c235445,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 08:09:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!elbereth!paone
From: paone@elbereth.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Re: fast formatter for ROM TOS ONLY!
Message-ID: <151@elbereth.RUTGERS.EDU>
Date: Fri, 17-Oct-86 11:09:14 EDT
Article-I.D.: elbereth.151
Posted: Fri Oct 17 11:09:14 1986
Date-Received: Fri, 17-Oct-86 22:48:42 EDT
References: <8610160044.AA04564@ucbvax.Berkeley.EDU>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 4

We got it truncated here. Could someone try a re-post?

Phil Paone
paone@topaz.rutgers.edu

From -7567410868291056329
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,39d6cb9f8734e922,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 08:21:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht c/o HRZ TH Darmstadt, Germany)
Newsgroups: net.micro.atari16

Subject: Character-Test
Message-ID: <8610171520.AA10459@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 11:21:33 EDT
Article-I.D.: ucbvax.8610171520.AA10459
Posted: Fri Oct 17 11:21:33 1986
Date-Received: Fri, 17-Oct-86 22:59:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

I'd like to make a little test. In the fact of scrumbled uuencoded
sofware.

In the next lines there are all chars from 0 to 127 in ASCII-Order.
From 00hex to 1Fhex it makes no sence, I know, but for completeness.

 from hex 00

 from hex 10
 from hex 20 !"#$%&'()*+,-./
 from hex 30 0123456789:;<=>?
 from hex 40 @ABCDEFGHIJKLMNO
 from hex 50 PQRSTUVWXYZ[\]^_
 from hex 60 `abcdefghijklmno
 from hex 70 pqrstuvwxyz{|}~

Thanks for the support

                        Stephan Leicht

        Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
      Bitnet : XBR1Y049@DDATHD21

From -5744594303364887603
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,507664cc6db6e101,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 08:37:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Please add me to mailing list
Message-ID: <6285@topaz.RUTGERS.EDU>
Date: Fri, 17-Oct-86 11:37:53 EDT
Article-I.D.: topaz.6285
Posted: Fri Oct 17 11:37:53 1986
Date-Received: Fri, 17-Oct-86 22:49:37 EDT

Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 6

Please add my name to the mailing list.

Thanks,
Phil Paone
paone@topaz.rutgers.edu

From -8427180035201599346
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db454e2e65a79dd9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 09:25:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Add me to list
Message-ID: <6287@topaz.RUTGERS.EDU>
Date: Fri, 17-Oct-86 12:25:45 EDT
Article-I.D.: topaz.6287
Posted: Fri Oct 17 12:25:45 1986
Date-Received: Fri, 17-Oct-86 22:53:32 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 7
Cc: appelbau

Please add me to the list.

Thanks
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbaum

From -2088513910664940341
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db454e2e65a79dd9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 09:34:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: Add me to list
Message-ID: <6290@topaz.RUTGERS.EDU>
Date: Fri, 17-Oct-86 12:34:03 EDT
Article-I.D.: topaz.6290

Posted: Fri Oct 17 12:34:03 1986
Date-Received: Fri, 17-Oct-86 22:54:45 EDT
References: <6287@topaz.RUTGERS.EDU>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 6
Cc: appelbau

Oops, my arpa address should read:

APPELBAUM@blue.rutgers.edu

Thanks,
Marc

From 8099258219345288793
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fea7f76cea8e4db7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 10:36:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16
Subject: XINU
Message-ID: <8610171723.AA12438@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 13:36:11 EDT
Article-I.D.: ucbvax.8610171723.AA12438
Posted: Fri Oct 17 13:36:11 1986
Date-Received: Fri, 17-Oct-86 23:38:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Can anyone tell me where I can get a copy of XINU for the 68000?
Has anyone ported this Operating System to the ST?

BTW: XINU stands for Xinu Is Not Unix .

Thanks in advance,
maroC ddoTodd Coram

From 1279993850216729941
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cd19396078fc66f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 11:12:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01

From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: KEYEDIT.PRG (by Simon Poole)
Message-ID: <8610171844.AA13707@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 14:12:00 EDT
Article-I.D.: ucbvax.8610171844.AA13707
Posted: Fri Oct 17 14:12:00 1986
Date-Received: Fri, 17-Oct-86 23:42:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

I got uniterm 1.5c working fine, but I can't seem to get keyedit to actually save any key definitions. It creates the files, but they always contain the original Atari values. For example I used the program to set up the cursor keys for EMACS on our VAX. I saved the key defs to EMACS.SET. Then I loaded the file back in again just to check on it. The new defs looked like they were installed. I exited the key edit program and entered uniterm, after loading EMACS.SET nothing was changed. I exited uniterm and went back to Keyedit. When I loaded the EMACS.SET file, everything was back to the original Atari values. I tried saving assembly files, standard files, and even creating a program. I tried defining function keys (F1-10) and even the regular keypad keys (a-z). But the files that Keyedit produced always came out with the standard character set values. Even the assembly file showed no changes in the assigned values. What am I doing wrong? I have a 1040 with color, TOS in ROM.

Any help would be appreciated.

rdroya01@ulkyvx.bitnet

From 873933764431927649
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f2c108fe88681e3a
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f2c108fe88681e3a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 11:20:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!princeton!chiu
From: chiu@princeton.UUCP (Kenneth Chiu)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: Passin' thru...
Message-ID: <2075@princeton.UUCP>
Date: Fri, 17-Oct-86 14:20:00 EDT
Article-I.D.: princeto.2075
Posted: Fri Oct 17 14:20:00 1986
Date-Received: Fri, 17-Oct-86 22:58:54 EDT
References: <2872@islenet.UUCP>
Reply-To: chiu@princeton.UUCP (Kenneth Chiu)

Distribution: net
Organization: Princeton University Computer Science Department
Lines: 17
Xref: mnetor net.micro.atari16:2572 net.micro.amiga:5337

In article <2872@islenet.UUCP> jons@islenet.UUCP (Jonathan Spangler) writes:
>This from Personal Computing, Oct. '86:
>
>10 Unexpected Personal Computing Flops
>or Under-Achievers
> . . .
>9) Amiga
>
>Does this tell us something? Does anyone know (preferable not
>connected with Atari or Commodore) what the *actual* figures
>are for machines (ST vs. Amiga) are thru 3rd quarter '86?

This was the result of a survey of business users. Probably an accurate
representation of perceptions in the business world, but no more than that.
--
Kenneth Chiu   UUCP: princeton!chiu
Princeton University Computer Science Department   BITNET: 6031801@PUCC

From -2456162295481907070
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,429e3c30d300b485,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 12:05:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Two wonderful ST Programs
Message-ID: <446@husc6.HARVARD.EDU>
Date: Fri, 17-Oct-86 15:05:28 EDT
Article-I.D.: husc6.446
Posted: Fri Oct 17 15:05:28 1986
Date-Received: Fri, 17-Oct-86 23:02:57 EDT
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Distribution: na
Organization: Bliss and Harmony, Inc.
Lines: 36

> Eat my Line <

OK, OK, I've complained enough about the Atari ST. Now for something
completely different. Praise!

Two WONDERFUL programs for the ST are: Beckmeyer's Multi-Tasking C Shell,
and Uniterm 1.5.

C-Shell:
     The best. Fantastic. What can I say. If you like Unix, you'll love this. Really does multitask. Really does multiuser. (Really wants 1 meg of RAM, but runs barely in 512K). Pipes, I/O redirection, filters, environment variables, paths, shell scripts, history, aliases... it's real! I can barely tell the difference from this and the Unix system upon which I send this message. I love it! Caveat: Have 1 Meg. Have a hard disk. (I don't know at all how well this runs on a floppy, it's probably quite painful).
     Beckmeyer Development Tools
     478 Santa Clara Ave.,
     Oakland, CA 94610
     (415) 452-1129
     MT C Shell - $129.95
     Non-MT C Shell (probably also very good, I don't know) $49.95

Uniterm:
     I'm impressed. Smooth scrolling makes me feel cool. VT100 (VT102) emulation makes things useful. The interface is very good. Again, I'm spellbound. The quality of this piece of software is fantastic, and should be emulated (forgive the pun).

Just thought some praise was due.

I of course, have no connection to anything or anyone anywhere, and never say anything that I thought of myself.

-Eric

From -4686734483143334485
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fea7f76cea8e4db7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 12:21:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!uwvax!rutgers!sri-spam!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16
Subject: XINU
Message-ID: <8610180343.AA21736@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 15:21:15 EDT
Article-I.D.: ucbvax.8610180343.AA21736
Posted: Fri Oct 17 15:21:15 1986
Date-Received: Sat, 18-Oct-86 23:44:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Does anyone know where I can get XINU for the 68000?
Better yet...how about for the ST?

XINU?

XINU stands for Xinu Is Not Unix.

----

maroC ddoTodd Coram

From 8966193610481255995
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28b01c414c720d63,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 12:32:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!husc2!grunau
From: grunau@husc2.UUCP (grunau)
Newsgroups: net.micro.atari16
Subject: Hard disk choices
Message-ID: <981@husc2.UUCP>
Date: Fri, 17-Oct-86 15:32:30 EDT
Article-I.D.: husc2.981
Posted: Fri Oct 17 15:32:30 1986
Date-Received: Fri, 17-Oct-86 23:43:59 EDT
Reply-To: grunau@husc2.UUCP (justin grunau)
Organization: Harvard University Science Center
Lines: 9

Does anybody have any advice as to choosing between available hard disks
for the ST? Specifically, does anybody have any information about a
comparison of quality (and, most importantly, speed) between the Supra
and the Atari 20M drives?

And, out of curiosity, does anybody have any idea how they compare (in
speed) to Mac hard drives and XT (or AT) drives?

JJMG

From -5206471571588287280
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 13:57:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cuae2!ltuxa!we53!sw013b!dj3b1!killer!ndmce!pollux!
infotel!ut-ngp!ut-sally!seismo!think!nike!ucbcad!ucbvax!cartan!brahms!desj
From: desj@brahms@ndmce.uucp (David desJardins)

Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <290@ndmce.uucp>
Date: Fri, 17-Oct-86 16:57:26 EDT
Article-I.D.: ndmce.290
Posted: Fri Oct 17 16:57:26 1986
Date-Received: Tue, 21-Oct-86 05:36:55 EDT
References: <2939@sdcc6.ucsd.EDU> <397@mntgfx.mntgfx.UUCP> <12069@watnot.UUCP>
<173@cbnap.UUCP>
Sender: news@ndmce.uucp
Reply-To: desj@brahms (David desJardins)
Distribution: net
Organization: Math Dept. UC Berkeley
Lines: 13
Keywords: Atari C-source
Xref: watmath net.lang.c++:388 net.micro.atari16:2672

In article <173@cbnap.UUCP> mvh@cbnap.UUCP (M.L. Vonder Haar x4126 3E257) writes:
>   I just hope you never have a bug. Sdb is only fair as a debugger
>   for C++. But if you generated names that could not be easily
>   transformed by programmers to what they wrote in C++ sdb would be
>   just about useless.
>   The way I see it you'll need to write your own debugger at the
>   same time.

   If it were important enough you could keep a table of the correspondences
between symbol names and then write a postprocessor to rewrite the correct
symbolic names into the a.out file; this shouldn't be more than a day's work.

   -- David desJardins

From 9080328804582275462
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,352d6ac3740093c4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 14:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!csd2!mitsolid
From: mitsolid@csd2.UUCP (Thanasis Mitsolides)
Newsgroups: net.micro.atari16
Subject: Re: the FORMATTER
Message-ID: <6670005@csd2.UUCP>
Date: Fri, 17-Oct-86 17:07:00 EDT
Article-I.D.: csd2.6670005
Posted: Fri Oct 17 17:07:00 1986
Date-Received: Fri, 17-Oct-86 23:27:30 EDT
References: <8610170109.AA28955@ucbvax.Berkeley.EDU>
Organization: New York University
Lines: 1

te

From 2600117733730685928
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 14:22:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!
ernie.Berkeley.EDU!phr
From: phr@ernie.Berkeley.EDU (Paul Rubin)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <16174@ucbvax.BERKELEY.EDU>
Date: Fri, 17-Oct-86 17:22:52 EDT
Article-I.D.: ucbvax.16174
Posted: Fri Oct 17 17:22:52 1986
Date-Received: Sat, 18-Oct-86 00:51:02 EDT
References: <2939@sdcc6.ucsd.EDU> <397@mntgfx.mntgfx.UUCP> <12069@watnot.UUCP>
<1222@batcomputer.TN.CORNELL.EDU>
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: phr@ernie.Berkeley.EDU.UUCP (Paul Rubin)
Distribution: net
Organization: University of California, Berkeley
Lines: 13
Keywords: Atari C-source
Xref: mnetor net.lang.c++:381 net.micro.atari16:2584

In article <1222@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>[]
>
>Filtering long identifiers into short (but not mnemonic) forms would
>work, I guess. But since we also have a Megabyte, it is not reasonable
>to limit identifiers to anything less than 255 chars! Come on, compiler
>makers: it's 1986!

If anyone is interested, note that the past few GNU Emacs distributions have
included a simple program that reads C source code and produces a file of
#define statements to map long identifiers into short ones. It also
includes a replacement C Preprocesor (cpp) in case the one you are
currently using doesn't handle arbitrarily long identifiers.

From 6700152901143139424
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f7960da43b51195,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 15:23:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!
fingate.BITNET!etu

From: etu@fingate.BITNET (Esa Turtiainen)
Newsgroups: net.micro.atari16
Subject: LARN
Message-ID: <8610172222.AA17261@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 18:23:08 EDT
Article-I.D.: ucbvax.8610172222.AA17261
Posted: Fri Oct 17 18:23:08 1986
Date-Received: Sat, 18-Oct-86 00:52:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

More fire to dicussion about program postings:

Should I send uuencoded LARN? Rather many people
from ARPA has asked this from me.

Esa Turtiainen
Helsinki Univ. of Technology
ETU@FINGATE.BITNET   (UNIX 4.2)
LK-ET@FINHUTC.BITNET (VM/SP)

From 4246233823230303398
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,479793cf6a794f44
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 15:54:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!utah-cs!atwell
From: atwell@utah-cs.UUCP (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Re: 1st WORD Update
Message-ID: <3959@utah-cs.UUCP>
Date: Fri, 17-Oct-86 18:54:38 EDT
Article-I.D.: utah-cs.3959
Posted: Fri Oct 17 18:54:38 1986
Date-Received: Sat, 18-Oct-86 00:30:57 EDT
References: <8610161302.AA15149@ucbvax.Berkeley.EDU> <357@uwmacc.UUCP>
Reply-To: atwell@utah-cs.UUCP (Bart L. Atwell)
Organization: University of Utah CS Dept
Lines: 32
Keywords: What can it do, eh?

>Also, it was my understanding that this new release of 1st Word would
>allow for 2 column output, and the insertion of Degas-format images.
>Now, however, I am getting mixed signals that this is not true. Could
>someone please elaborate on what the enhancements will do?

I have a few other questions about 1st Word as well:

1) Does the new version have ways to make big moves around the screen
without using the mouse? In specific does it have an easy beginning of
line or end of line command (like emacs Ctrl-e)?

2) Is there any way to drive the more "exotic":-) printers like my
NEC 8023? (A general OS print driver (accessory ?) would be nice so that
screen dumps to non-Epson printers would turn out)

3) Is hyphenation supported?

4) Are some of the annoying things about the old vesion corrected like

     a.Outputting a blank page on printing
     b.Exiting the edit file on save (I guess
       I'm in the habit of frequently saving)

For now, 1st Word fills most of my word processing needs but in the future
I may be needing a more complete (spell checking, hyphenation, footnoting,
etc) WP. What other WPs are available and what will they offer.

Thanks in advance,

Bart Atwell

From -924806953779219180
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4bfde7d0623a00e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 15:58:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: emacs docs
Message-ID: <618@imagen.UUCP>
Date: Fri, 17-Oct-86 18:58:54 EDT
Article-I.D.: imagen.618
Posted: Fri Oct 17 18:58:54 1986
Date-Received: Tue, 21-Oct-86 20:41:44 EDT
References: <632@chinet.UUCP>
Organization: The Houses of the Holy
Lines: 23

>
>
>   Now that I have the new emacs for the ST, does anyone
> have the documentation for it or do I use the docs for the version that came
> with the development stuff?
>
>   Rich Andrews

> ...ihnp4!chinet!cabbie
the basic function are the same as mince or the microemacs that came with the dev kit, but there significant extensions.if there are enuff requests i'll repost the doc's
--

These are days for the locust to eat
- Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie : D-ARCANGEL

From 5004181743926574536
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,22e9794c4a68c25a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 16:08:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: MONST line expansion
Message-ID: <8610180449.AA22403@ucbvax.Berkeley.EDU>
Date: Fri, 17-Oct-86 19:08:17 EDT
Article-I.D.: ucbvax.8610180449.AA22403
Posted: Fri Oct 17 19:08:17 1986
Date-Received: Tue, 21-Oct-86 08:06:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Well, it seems as though the mailer somewhere (I haven't traced it down yet) is expanding the literal $TZ to CST6CDT
(In case it does it to this note, that is dollar sign capital T capital Z, or $ T Z without the spaces)

aka. $TZ (as in REXX variable) is time zone (only guessing, but it makes sense to me) and is being translated to CST (Central Savings Time) 6 (from Greenwich Mean Time difference) CDT (Central Daylight Time). This is a guess, but I will bet that it is either the new version of mail we are using, or a bug in the mailer.

What this means is:
If you received MONST and had long lines, replace the CST6CDT with $TZ and all should be honky-dory.

Let me know,

Mike

p.s. I just sent this to myself with mail and it didn't do it, so
check with your postmaster. I noticed the same problem when I transferred the
file from the 3B20 to the AS/9000N, and just received it without using the
mail exec.

From 9003682674593927014
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 16:16:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: extra "raw" disk drives
Message-ID: <619@imagen.UUCP>
Date: Fri, 17-Oct-86 19:16:57 EDT
Article-I.D.: imagen.619
Posted: Fri Oct 17 19:16:57 1986
Date-Received: Tue, 21-Oct-86 20:42:13 EDT
References: <8610161411.AA02878@mitre-bedford.ARPA>
Organization: The Houses of the Holy
Lines: 28

>
> Paul Swanson of Nite-Lite Systems (617) 663-4221 (BBS line) has done some
> interfacing of "foreign" disk drives to the ST. I think this includes IBM
> PC drives (5.25 inch). He of course would prefer to sell you an interface
> rather than telling you how to design one, but he certainly could answer your
> questions if he has the time.
>
> -John Sangster
> jhs@mitre-bedford.arpa

it was written up with only 2 omissions in an old issue of antic (i can give
you the issue # if you want), the first omission was that the atari
disk drives use cmos level signals so you need to stick a buffer chip
in between the drives and second you need to set the access time to 6
ms. there was a pgm called sixms.prg to do that posted to the net, i
have a copy if you need it.
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101

        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7776940644772414340
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,27a996c91bee857d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 17:00:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!uwvax!rutgers!sri-spam!nike!ucbcad!
ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: UNITERM problems?
Message-ID: <8610180000.AA19057@ncsc.ARPA>
Date: Fri, 17-Oct-86 20:00:14 EDT
Article-I.D.: ncsc.8610180000.AA19057
Posted: Fri Oct 17 20:00:14 1986
Date-Received: Sat, 18-Oct-86 23:39:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Has anyone gotten the latest version of UNITERM to work? I decoded the ARC
file okay, but when I try to extract the files, I get a "Failed CRC check"
on both UNITERM.PRG and .RSC. I tried downloading the thing twice, just to
make sure. No go. Any help?

Jim
moore@ncsc.arpa

From -5487474880505533465
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d5df612587942bd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 17:46:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!uwvax!rutgers!sri-spam!nike!ucbcad!
ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: cli.acc
Message-ID: <8610180046.AA20827@ncsc.ARPA>
Date: Fri, 17-Oct-86 20:46:49 EDT
Article-I.D.: ncsc.8610180046.AA20827
Posted: Fri Oct 17 20:46:49 1986

Date-Received: Sat, 18-Oct-86 23:39:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Can anyone give me a summary of the commands available with the CLI.ACC?
About all I can get is a -33 error or some such. Thanks in advance.

Jim
moore@ncsc.arpa

From -245914898248995575
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c5905e9223c3b46,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 17:57:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!uwvax!rutgers!nike!ucbcad!ucbvax!
UMass.BITNET!drukman
From: drukman@UMass.BITNET (Jonathan S. Drukman)
Newsgroups: net.micro.atari16
Subject: Composite to RGB
Message-ID: <861017205703.00000D53.ABXX.MA@UMass>
Date: Fri, 17-Oct-86 20:57:03 EDT
Article-I.D.: UMass.861017205703.00000D53.ABXX.MA
Posted: Fri Oct 17 20:57:03 1986
Date-Received: Sat, 18-Oct-86 23:42:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

On the flip side of the coin, I have a VCR that I would
very much like to hook into my RGB monitor - of course,
it only generates NTSC Composite signals. Is it possible
to convert this signal? All I have is a black & white
TV for the VCR, and it would be great to have just one
screen for two things (what with space up here being
at a premium and all)

Thanks,
Jon

From 7224450387879228199
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1ff76dee8910050c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-17 19:11:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!YALE.ARPA!ram-ashwin

From: ram-ashwin@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: UniTerm
Message-ID: <8610180211.AA04061@yale-celray.YALE.ARPA>
Date: Fri, 17-Oct-86 22:11:35 EDT
Article-I.D.: yale-cel.8610180211.AA04061
Posted: Fri Oct 17 22:11:35 1986
Date-Received: Tue, 21-Oct-86 08:06:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 45

The latest posting of UniTerm works fine -- thanx a lot, Simon. I also like the ARC program; it makes downloading easier since the files are (a) collated into one file, and (b) compressed.

I have a question about a weird bug(?) that seems related to UniTerm. When I use UniTerm to connect to a remote machine, I can't use Kermit to Send files from my Atari to the remote machine. I can Get files all right, and I can Send files using the same Kermit if I use any other terminal emulator. But if I've used UniTerm in a particular session, then even if I use another emulator without resetting the Atari, this bug appears. What happens is that somewhere between 1500 and 2000 bytes of the file get sent, after which Kermit hangs and eventually times out. I can see it sending some sort of signal periodically, but the remote Kermit doesn't seem to respond, not even to a Quit request. The only way to kill the remote Kermit is to connect to the remote machine, hit a control-Q (upon which I get several error messages from the remote Kermit), undo back to my Kermit, try Quit again (resulting in an "unexpected packet type" message), and finally do Quit again (which brings everything back to normal). This always happens if (and only if) I have used UniTerm to connect to any remote machine before using Kermit.

However, I can use UniTerm to do everything else, such as run a display editor on the remote machine, and even Get files using Kermit; it's only Send that dies.

I suspect what is happening is that UniTerm is redefining some obscure RS232 parameter that no-one else cares about, or perhaps it is redefining something that causes a particular control character to get swallowed up or changed (the character being one that Kermit in one of its protocol sequences). The effect of whatever UniTerm is doing lasts even after it has been exited.

I don't know enough about UniTerm or Kermit's protocols to figure out why this is happening. If anyone has any suggestions, please mail them to me. So far I've been using the Emulator accessory to transfer files and UniTerm for everything else, and I would love to get this straightened out so that I can use UniTerm and nothing but.

Thanx a lot -- Ashwin Ram.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin

BITNET: Ram@yalecs

From -2174481699906601920
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82629cda38b60e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 09:06:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: bug in megamax C
Message-ID: <8610141605.AA14752@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 12:06:09 EDT
Article-I.D.: ucbvax.8610141605.AA14752
Posted: Tue Oct 14 12:06:09 1986
Date-Received: Fri, 17-Oct-86 20:11:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 37

From James M. Turner:

    here's a cute bug in megamax C:

    int c;

     while((c = getchar()) != EOF) {
    .
    .
    .
     }

    works fine but:

    unsigned char c;

     while((c = getchar()) != EOF) {
    .
    .
    .
     }

    loops infinately, the problem is that megamax generates the
    following code:

     AND   #0xff,D0   ;D0 has the result of getchar
     CMP   #-1,D0   ;ooppsss should be CMP.B

As well it should! EOF is -1. An "unsigned" number is always
positive and hence can never equal a negative number. The reason
c must be an int and not a char is that getchar() might return any
any of 256 valid bytes as well as the EOF indicator -- 257 values
in all, and they won't fit into 8 bits.

--Mike Fischer <fischer@yale.arpa>

From 6456670180673216786
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 09:14:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: \"shar\" files
Message-ID: <8610170740.AA05068@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 12:14:42 EDT
Article-I.D.: ucbvax.8610170740.AA05068
Posted: Tue Oct 14 12:14:42 1986
Date-Received: Fri, 17-Oct-86 06:04:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

There is an outfit in california that will replace the innards of
a single sided drive, to a double sided one. I cannot offhand remember
their name, but their ads used to appear in ST applications and maybe
in other mags too. I seem to remember they wanted around $100.

From -7330096115458542135
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,7ba33cac6109d142,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,7ba33cac6109d142,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 09:15:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Atari BBS Software list
Message-ID: <6217@topaz.RUTGERS.EDU>
Date: Tue, 14-Oct-86 12:15:09 EDT
Article-I.D.: topaz.6217
Posted: Tue Oct 14 12:15:09 1986

Date-Received: Fri, 17-Oct-86 07:49:17 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8
Xref: watmath net.micro.atari8:508 net.micro.atari16:2546

Cc:appelbaum@blue

Could someone u/l a list of both 8 and 16 bit software on Atari base.
This woul dsave me (and a few others) some money.

Thanks,
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbau

From 5561816264952927217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f5aefba228c7964
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 09:20:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Text & Graphics Packages.
Message-ID: <8610170753.AA05210@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 12:20:23 EDT
Article-I.D.: ucbvax.8610170753.AA05210
Posted: Tue Oct 14 12:20:23 1986
Date-Received: Fri, 17-Oct-86 06:04:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

You will be happy to know that MiGraph now has a PostScript driver. They
said that they will be making it available to existing owners in the
next upgrade, which is due in the first week of November. I alredy sent
in my origonal!

From -8297259450669743926
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 10:55:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!husc4!chabris
From: chabris@husc4.harvard.edu (christopher chabris)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <394@husc6.HARVARD.EDU>

Date: Tue, 14-Oct-86 13:55:42 EDT
Article-I.D.: husc6.394
Posted: Tue Oct 14 13:55:42 1986
Date-Received: Fri, 17-Oct-86 20:08:45 EDT
References: <432@atari.UUCP> <96100026@exunido.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: chabris@husc4.UUCP (christopher chabris)
Organization: Harvard Science Center
Lines: 24

If the rumor about GDOS being distributed to developers in the US is true, I haven't heard anything about it (yes, I am a registered developer). My understanding is that certain developers like MiGraph (EASY-DRAW) received preliminary copies, but that it has not yet been generally released. I do recall reading a series of messages on the ATARIDEV Forum on CompuServe in which several well-known developers complained about not having GDOS. These were Batteries Included and MichTron, I believe. Come on guys, where's the GDOS for the rest of us?

-- Christopher F. Chabris

Dunster F-61
Harvard University
Cambridge, MA 02138

[HOME: 15 Sterling Road, Armonk, NY, 10504]

CompuServe: 73277,305
UUCP: ...!harvard!husc4!chabris
ARPA: chabris%husc4@harvard.ARPA
BITNET: chabris@HARVUNXU.BITNET
AT&T: (617) 498-2239

From 6540522280011563734
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67caef7c0c994b17
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 12:20:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: MicroEmacs 3.7i
Message-ID: <612@imagen.UUCP>
Date: Tue, 14-Oct-86 15:20:50 EDT
Article-I.D.: imagen.612
Posted: Tue Oct 14 15:20:50 1986
Date-Received: Thu, 16-Oct-86 22:03:50 EDT
References: <MDCG.WAYNE.12246443018.BABYL@MIT-OZ>

Organization: The Houses of the Holy
Lines: 56

>
> Three questions regarding MicroEmacs 3.7i:
>
>   (1) What commands will the Parameters Box accept when opening the
> program?
>
     emacs {options} <filelist>

where options may be:

-v   all the following files are in view mode (read only)
-e   all the following files can be edited
-g<n>   go directly to line <n> of the first file
-s<string>   go to the end of the first occurance of <string>
         in the first file

<sfile> execute macro file <sfile> instead of the
         standard startup file

and <filelist> is a list of files to be edited.

for example:

     emacs start1.cmd -g56 test.c -v head.h def.h

>   (2) In MicroEmacs 3.6, the command ^X C opened a path to an
> MS-DOSlike command processor called COMMAND.TOS. In the new version,
> trying to invoke the command processor produces the warning, "Not in
> TOS." Is this easily fixable?
>
if someone will supply me with the SOURCE to a good cli, i'll include it in
the next release
>   (3) Is it possible to store default settings for mode, fill
> column, etc. in an init file (perhaps the rc file)?
>
yes, stuff them into the emacs.rc file, take a look at the sample one i
included in the posting of 3.6

if you don't have it, send me email and i'll send you the doc package

> Thanks,
>
> Wayne McGuire
> (wayne@oz.ai.mit.edu)
--

         These are days for the locust to eat
                      - Winston Churchill

Name: James M. Turner

Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1489600401045228619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8e02a0700a84e79,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 12:23:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!UCONNVM.BITNET!
MOEWS
From: MOEWS@UCONNVM.BITNET
Newsgroups: net.micro.atari16
Subject: uudecode problems
Message-ID: <8610150421.AA26761@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 15:23:52 EDT
Article-I.D.: ucbvax.8610150421.AA26761
Posted: Tue Oct 14 15:23:52 1986
Date-Received: Mon, 20-Oct-86 22:32:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

I have been able to decode most of the recent uuencoded postings- ARC, ARC Lite, Mandlxbox, Clock, Tbug, the Arc shell,EMacs7.1- without too much difficulty even though I am on an IBM machine, a 3084 Q, on bitnet. The only exception was Uniterm. However there were hardware incompatibilities, perhaps there is a hardware problem with the latest version of Uniterm - only works with a hard disk, or with Simon Poole's latest setup.

I have two 1040's one with color monitor, one black and white. Arc Lite only runs with the color monitor, it hangs with the black and white one. Mandlxbox only works for me if I first load a 512K ram disk, its bombs on my 1040 with the full 1 meg of memory available. Uniterm bombs as described by others; however the keyedit program works fine and I see no unusual distribution of characters in the UUencoded files.

In a check of the WISCVM gateway last summer (made by D. Moews) UUencoded files passed OK from Arpanet to Bitnet and from Bitnet to Arpanet. Why then does Keyedit work and not Uniterm?

By the way the spaces in the uucoded emacs and the arc shell were X'79's instead of x'40's I had to convert them for my version of UUdecode.

P. Moews

From 5623854063029635448
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,34c16b603282ebe0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 12:48:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!lll-crg!lll-lcc!pyramid!hplabs!felix!
preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: Re: BAMMI's MAKE and ST <-> CPM
Message-ID: <1651@felix.UUCP>
Date: Tue, 14-Oct-86 15:48:25 EDT
Article-I.D.: felix.1651
Posted: Tue Oct 14 15:48:25 1986
Date-Received: Mon, 20-Oct-86 22:20:07 EDT
References: <8610031214.AA21791@ucbvax.Berkeley.EDU> <1591@cwruecmp.UUCP>
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 29

[lots of deleted text]

>>(is AR68 available for the STyet?).
>
> Yes, a working version comes with the dev. sys. update. there is
>also a Pd version available.

Really?!?? How do I get ahold of a copy?

>>effort to move to the ST. It's ridiculous that there's no equivalent
>>to "real" xmodem i.e 1024 packets, true CRC, batch files, 19200 baud,
>>scripts, etc. in the ST PD library. 19200 is great for moving files
>>between the ST and your other computer, whatever that may be.
>
>   I routinely use xmdm to transfers files and in terminal mode
>at 19.2K. One of the person's here has also implemented
>chuck fosberg's (sp ?) Ymodem protocol (rz/sz) and that handles 1K packets
>pretty well. Hopefully it will have adapting windows one day. I agree that
>we could use PD gems from the Cp/m world too. So as the old saying
>goes "Put your money where your mouth is" and post some!

There is a program called 'bmodem' availible from BIX in source and binary
for the ST that has scripts. It think it has large (1K) packets. I haven't
looked it over yet, so I don't know what other features it may have.

==
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston
BIX: plb

From -6672570171048001937
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e70793f06383457f,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 14:03:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!BFLY-VAX.BBN.COM!aking
From: aking@BFLY-VAX.BBN.COM (Allen King)
Newsgroups: net.micro.atari16
Subject: Mandlbox uses Color only
Message-ID: <8610142333.AA22446@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 17:03:24 EDT
Article-I.D.: ucbvax.8610142333.AA22446
Posted: Tue Oct 14 17:03:24 1986
Date-Received: Mon, 20-Oct-86 22:14:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

The recently posted MANDLBOX demo works with a color monitor (, 512K and
TOS in ROM) I don't have a Black and White, but I'll send sources and
a suggested strategy (actually its pretty simple) to someone who has:
1) a Black and White, 2) Developer's C, and 3) the desire, and I'll strongly
consider back integrateing it.

From -4246906229497523278
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e60fe8e4ade7985,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 17:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!NDSUVM1.BITNET!UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: Micro-Emacs Documentation
Message-ID: <8610150017.AA23179@ucbvax.Berkeley.EDU>
Date: Tue, 14-Oct-86 20:02:00 EDT
Article-I.D.: ucbvax.8610150017.AA23179
Posted: Tue Oct 14 20:02:00 1986
Date-Received: Mon, 20-Oct-86 22:20:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Could someone please send me the documentation for the Micro Emacs
which is included in the STarter kit? Looks like a good deal, but
without docs, I'm pretty much lost. Thanks.

a.d. jensen
Department of Geography
University of North Dakota
Grand Forks, ND

"Forty below keeps out the riff-raff" -- North Dakota State Motto

"Sure we're nobody, but the President is coming on Friday." -- me

From -8085980830165073114
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc56b85ab4ec8a22,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 17:20:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!
G.ABRAMS
From: G.ABRAMS@SCORE.STANFORD.EDU (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Tightening up info-atari operations
Message-ID: <12246847094.31.G.ABRAMS@Score.Stanford.EDU>
Date: Tue, 14-Oct-86 20:20:20 EDT
Article-I.D.: Score.12246847094.31.G.ABRAMS
Posted: Tue Oct 14 20:20:20 1986
Date-Received: Mon, 20-Oct-86 22:20:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

This last week has been a very difficult one for moderating info-atari.
Our input message queue exceeded the size which the mailer could
hndle; so we were unable to process messages for a period.

This problem was caused by some moderators failing to work their assigned
days and by an influx of rejected messages. The first problem can be solved
by more volunteers. I again encourage you to offer to help keep this
service going.

The second problem can be reduced by a more immediate response to
rejected messages. Henceforth messages which indicate that there
is an error in the destination address will result in immediate
removal of the offending address from the list. I7m sorry to have to
do this, but I see no alternative.

     Marshall Abrams, moderator

From -2028004608425948014
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c331eb2b1e389f73,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 18:09:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: A Fix to the SPELL program

Message-ID: <8610150109.AA11826@ohio-state.ARPA>
Date: Tue, 14-Oct-86 21:09:27 EDT
Article-I.D.: ohio-sta.8610150109.AA11826
Posted: Tue Oct 14 21:09:27 1986
Date-Received: Mon, 20-Oct-86 22:22:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

The problem with SPELL 1.1 mentioned earlier has been fixed. I will post SPELL.DOC (user's guide), SPELL.PAS (OSS Personal Pascal source code), and SPELL.PRG (uuencoded executable program).

Thanks for bringing the problem to my attention.

Eric Bergman-Terrell

From -3124239662710023798
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97dbf0c313a31360,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 18:09:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610150109.AA11831@ohio-state.ARPA>
Date: Tue, 14-Oct-86 21:09:36 EDT
Article-I.D.: ohio-sta.8610150109.AA11831
Posted: Tue Oct 14 21:09:36 1986
Date-Received: Mon, 20-Oct-86 22:23:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 88

```
--------------------------
| SPELL 1.3 User's Guide |
--------------------------
```

HOW TO USE THE SPELL PROGRAM:

SPELL is a program that allows you to detect and correct spelling mistakes in disk files. SPELL should work with files produced by just about any word processor. SPELL has been tested on files produced by the 1ST WORD

word processor.

THE WORD LIST:

SPELL uses a disk file named "words.txt". This file contains all words that SPELL recognizes as being correctly spelled. When you start using SPELL, this file will be empty, and SPELL will wonder if every word in your document is misspelled. As you check the spelling of more and more files, SPELL will know about more and more words. Eventually SPELL will have a dictionary containing most of the words that you use, and will only ask you if misspelled and unfamiliar words are misspelled.

RUNNING THE PROGRAM:

When the program is first run, the file "words.txt" is created on the default disk. Make sure that SPELL has write access to the disk on which SPELL is stored.

Then all words stored in the file "words.txt" are loaded into memory. If SPELL is being run for the first time, no words will be loaded.

Now you are asked for the name of the file for which the spelling is to be corrected. Enter the filename that you want checked. SPELL must have write access to this file.

After the file to be spelled is specified, whenever SPELL encounters a word that is not in the file words.txt, you may:

(1) correct the spelling of the word
(2) add the word to the dictionary

To correct the spelling of the word, type in the word as you would like it to appear in the document being checked.

If the word is correctly spelled, or if you've just corrected it, then you may want to insert it into the dictionary. To add the word to the dictionary, place the mouse in the appropriate box and press the left mouse button. When you add a word to the dictionary, whenever SPELL sees that word again, it will know that it is correctly spelled, and will not ask you about it.

UPDATING THE DICTIONARY:

Why do you need to update the dictionary? Well, every time you start the program, the dictionary contains all the words that were in the file "words.txt". As you insert new words into the dictionary they are stored in your computer's main memory, and are NOT placed in the disk file "words.txt".

If you choose to update the dictionary by pressing the left mouse button in the "yes" box, the new words in main memory will be inserted into the

file "words.txt". When the program is done, "words.txt" will contain all the
words it had before running SPELL, and also the new ones you inserted.
When you run SPELL again, it will know that the new words are correct, and
and will not ask you about them when it encounters them.

If you choose not to update the dictionary by pressing the left mouse button
in the "no" box, the file "words.txt" will not be changed - it will have
the same words that it had when you started running SPELL, and will not have
the new words that you inserted when SPELL was running.

FOR MORE INFORMATION:

If you would like more information about SPELL, please send a stamped,
self-addressed envelope to the following address:

Eric Bergman-Terrell
Cadenza Software, Ltd.
1704 Imperial Ridge
Las Cruces, NM 88001
USA

If you are outside the United States, please enclose sufficient international
reply coupons (available at post offices throughout the world).

From 3153198732708450784
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97dbf0c313a31360
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 18:09:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610150109.AA11838@ohio-state.ARPA>
Date: Tue, 14-Oct-86 21:09:55 EDT
Article-I.D.: ohio-sta.8610150109.AA11838
Posted: Tue Oct 14 21:09:55 1986
Date-Received: Mon, 20-Oct-86 22:24:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 975

```
program spell;

const
  {$i gemconst}

  { length of largest possible word }
  max_word_length    =             30;
```

```
  { number of entries in the hash table }
  table_size         =            1000;

  small_length       =               4;
  medium_length      =               8;
  large_length       =              10;
  largest_length     = max_word_length;
  name_of_dictionary =     'words.txt';
  temp_dict_name     =     'words.xxx';

  { Color of text }
  color              =           $1180;

type
  {$i gemtype}

  word_string      = string[max_word_length];
  string_index     = 1..max_word_length;
  hash_index       = 1..table_size;

  length_type      = (small, medium, large, largest);

  small_string     = string[small_length];
  medium_string    = string[medium_length];
  large_string     = string[large_length];
  largest_string   = string[largest_length];

  { pointer to a small, medium, large, or largest string }
  word_pointer     = record

                       case tag_field : length_type of

                         small   : (small_ptr   : ^small_string);
                         medium  : (medium_ptr  : ^medium_string);
                         large   : (large_ptr   : ^large_string);
                         largest : (largest_ptr : ^largest_string);

                     end;

  list             = ^cell;

  cell             = record

                         word : word_pointer;
                         next : list;

                       end;

  hash_table       = array[hash_index] of list;

  word_list        = record

                       words   : hash_table;
```

```
                        changed : boolean;

                      end;

  char_file        = packed file of char;

var
  { memory-resident dictionary }
  dictionary,

  {
  list of words that are spelled correctly but will not be inserted into
  a dictionary.
  }
  secondary_dict   : word_list;

  done,
  cancel,
  out_of_memory    : boolean;
  word             : word_string;
  in_file_name,
  out_file_name,
  in_file_type     : string;
  spell_file,
  spelled_file,
  new_spelled_file : char_file;
  next_char        : char;
  button           : integer;


{$i gemsubs}


procedure io_check(switch : boolean); external;
function io_result : integer; external;


function file_exists(filename : string) : boolean;

{
Return true if the file specified by filename exists on the default disk.
}

const
  { File operation was successfull }
  no_error = 0;

var
  input_file : char_file;

begin

  { Turn off i/o checking. }
```

```
  io_check(false);

  { Attempt to open the named file. }
  reset(input_file, filename);

  { If there was no error opening the file, it is assumed to exist. }
  file_exists := io_result = no_error;

  close(input_file);

  { Turn i/o checking back on. }
  io_check(true);

end;


procedure remove_white(var str : string);

{
Remove all whitespace characters from a character string.  Whitespace
characters are assumed to have character codes less than or equal to
the code for space (' ').
}

var
  new_string : string;
  index      : integer;

begin

  new_string := '';

  for index := 1 to length(str) do
    if str[index] > ' '
      then new_string := concat(new_string, str[index]);

  str := new_string;

end;


procedure read_char(var input_file : char_file; var ch : char);

{
Read a character from a file.
}

begin

  ch := input_file^;
  get(input_file);

end;
```

```
procedure write_char(var output_file : char_file; ch : char);

{
Write a character to a file.
}

begin

  output_file^ := ch;
  put(output_file);

end;


procedure write_word(var output_file : char_file; word : word_string);

{
Write a character string to a file.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    write_char(output_file, word[index]);

end;


procedure get_word(var input_file, output_file : char_file;
             var word : word_string; var next_char : char);

{
Retrieve the next word from the input file.  When the file is completely read,
(word) will be the empty string.
}

var
  ch         : char;
  letters,
  apostrophe : set of char;

begin

  word := '';

  letters := ['a'..'z', 'A'..'Z'];
  apostrophe := [''''];
```

```
  if not eof(input_file)
    then begin

      { Get the initial letter of the word. }
      repeat

        read_char(input_file, ch);

        { Send all letters not in the word to the output file. }
        if not (ch in letters)
          then write_char(output_file, ch);

      until (ch in letters) or eof(input_file);

      { If the initial letter of the word was found, get the other letters. }
      if ch in letters
        then begin

          word := ch;

          repeat

            read_char(input_file, ch);

            if ch in letters + apostrophe
              then word := concat(word, ch)
              else { Save character following word to write to output file. }
                next_char := ch;

          until (not (ch in letters + apostrophe)) or eof(input_file) or
                (length(word) = max_word_length);

        end;

    end;

end;


function min(a, b : integer) : integer;

{
Return the smaller of a and b.
}

begin

  if a < b
    then min := a
    else min := b;

end;
```

```
function capital(ch : char) : char;

{
Return the capital of a lowercase letter.  Return the original
letter otherwise.
}

begin

  if ch in ['a'..'z']
    then capital := chr(ord(ch) - (ord('a') - ord('A')))
    else capital := ch;

end;


function hash(word : word_string) : hash_index;

{
Return an index into the hash table based on a key (word).
}

var
  index       : string_index;
  number      : long_integer;
  power_of_10 : integer;

begin

  { Convert the key to a number. }
  number := 0;
  power_of_10 := 1;

  for index := min(4, length(word)) downto 1 do begin

    number := number + power_of_10 * ord(capital(word[index]));
    power_of_10 := power_of_10 * 10;

  end;

  { Compute a valid hash index. }
  hash := int(number mod table_size) + 1;

end;


procedure get_word_from_dictionary(var word : word_string;
                                       word_cell : list);

{
Retrieve a word from a cell of the hash table.
}
```

```
begin

  case word_cell^.word.tag_field of

    small   : word := word_cell^.word.small_ptr^;
    medium  : word := word_cell^.word.medium_ptr^;
    large   : word := word_cell^.word.large_ptr^;
    largest : word := word_cell^.word.largest_ptr^;

  end;

end;


procedure word_capitalize(var word : word_string);

{
Make all alphabetic characters of a word upper-case.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    word[index] := capital(word[index]);

end;


function words_equal(word_1, word_2 : word_string) : boolean;

{
Return true if two words are equal (alphabetic case of characters is
ignored.
}

begin

  if length(word_1) <> length(word_2)
    then words_equal := false
    else begin

      word_capitalize(word_1);
      word_capitalize(word_2);

      words_equal := word_1 = word_2;

    end;

end;
```

```
function word_in_dictionary(word : word_string; dictionary : word_list) :
                                                                    boolean;

{
Return true when a word is found in the dictionary.
}

var
  index          : hash_index;
  retrieved_word : word_string;
  word_found     : boolean;

begin

  index := hash(word);

  { Single letters will be considered valid words. }
  word_found := length(word) = 1;

  { Search for the word in the hash table. }
  while (dictionary.words[index] <> nil) and (not word_found) do begin

    get_word_from_dictionary(retrieved_word, dictionary.words[index]);
    word_found := words_equal(word, retrieved_word);

    dictionary.words[index] := dictionary.words[index]^.next;

  end;

  word_in_dictionary := word_found;

end;


procedure insert_word(word : word_string; var dictionary : word_list;
                                        var out_of_memory : boolean);

{
Insert a word into the dictionary if it is not already there.
}

const
  min_free_memory = 1024;

var
  index     : hash_index;
  word_cell : word_pointer;
  new_cell  : list;


  procedure get_word_cell(word : word_string; var word_cell : word_pointer);
```

```
  {
  Return a pointer to a word.
  }

  begin

    {
    Depending on the length of the word, allocate the proper amount of
    memory.
    }

    if length(word) in [1..small_length]
      then begin

        word_cell.tag_field := small;
        new(word_cell.small_ptr);
        word_cell.small_ptr^ := word;

      end;

    if length(word) in [small_length + 1 .. medium_length]
      then begin

        word_cell.tag_field := medium;
        new(word_cell.medium_ptr);
        word_cell.medium_ptr^ := word;

      end;

    if length(word) in [medium_length + 1 .. large_length]
      then begin

        word_cell.tag_field := large;
        new(word_cell.large_ptr);
        word_cell.large_ptr^ := word;

      end;

    if length(word) in [large_length + 1 .. largest_length]
      then begin

        word_cell.tag_field := largest;
        new(word_cell.largest_ptr);
        word_cell.largest_ptr^ := word;

      end;

  end;


begin
```

```
  { Find out if memory is getting low. }
  out_of_memory := memavail < min_free_memory;

  if (not out_of_memory) and (not word_in_dictionary(word, dictionary)) and
     (length(word) in [1..largest_length])
    then begin

      { Get a pointer to a cell containing the word. }
      get_word_cell(word, word_cell);

      { Insert the word into the hash table. }
      new(new_cell);
      new_cell^.word := word_cell;

      index := hash(word);

      new_cell^.next := dictionary.words[index];
      dictionary.words[index] := new_cell;

    end;

end;


procedure clear_dictionary(var dictionary : word_list);

{
Initialize the dictionary to empty.
}

var
  index : hash_index;

begin

  for index := 1 to table_size do
    dictionary.words[index] := nil;

  dictionary.changed := false;

end;


procedure load_dictionary(var dictionary : word_list;
                          var out_of_memory : boolean);

{
Load the dictionary with words from a disk file.
}

var
  word_file : text;
  word      : word_string;
```

```
begin

  { Make mouse a "busy bee". }
  set_mouse(m_bee);

  { Load the dictionary into memory. }

  { Make the dictionary empty. }
  clear_dictionary(dictionary);

  { If the dictionary disk file does not exist, create a new (empty) one. }
  if not file_exists(name_of_dictionary)
    then begin

      rewrite(word_file, name_of_dictionary);
      close(word_file);

    end;

  { Prepare to read words from the disk file. }
  reset(word_file, name_of_dictionary);

  out_of_memory := false;

  { Insert each word in the disk file into the dictionary. }

  while (not eof(word_file)) and (not out_of_memory) do begin

    readln(word_file, word);
    insert_word(word, dictionary, out_of_memory);

  end;

  { Make the mouse an arrow again. }
  set_mouse(m_arrow);

end;


procedure update_dictionary(dictionary : word_list);

{
Save all dictionary words in a disk file if the dictionary has changed.
}

var
  index         : hash_index;
  word          : word_string;
  word_file,
  new_word_file : text;
  button        : integer;
```

```
begin

  if dictionary.changed
    then begin

      { Find out if user wants to update the dictionary stored on disk. }
      button := do_alert('[0][Update Dictionary?][YES|NO]', 1);

      if button = 1
        then begin

          { Make the mouse a "busy bee." }
          set_mouse(m_bee);

          { Save dictionary with a temporary filename. }
          rewrite(word_file, temp_dict_name);

          { Save all words stored in each list of the hash table. }
          for index := 1 to table_size do begin

            { Save all words stored in current list of the hash table. }
            while dictionary.words[index] <> nil do begin

              get_word_from_dictionary(word, dictionary.words[index]);
              writeln(word_file, word);

              { Advance to next cell of current list. }
              dictionary.words[index] := dictionary.words[index]^.next;

            end;

          end;

          { Replace old dictionary with new dictionary. }
          rewrite(new_word_file, name_of_dictionary);
          rename(word_file, new_word_file);

          { Return mouse to arrow shape. }
          set_mouse(m_arrow);

        end;

    end;

end;


procedure process_word(var word : word_string; var dictionary,
     secondary_dict : word_list; var out_of_memory : boolean);

{
Process a misspelled word: either
```

```
i.   place word in dictionary
ii.  change spelling of word
iii. don't change word
}

var
  insert_wd : boolean;


  procedure get_option(var word : word_string; var insert_wd : boolean);

  {
  Allow user to correct the spelling of a possibly misspelled word and insert
  it into the dictionary.
  }

  const
    not_in_dict  = 'is not in the dictionary.';
    question     = 'Add this word to dictionary?';

    { Width (in characters) of dialog box }
    box_width    = 40;

  var
    word_line,
    line_2,
    line_3,
    button_pushed,
    no_button,
    yes_button     : integer;
    option_box     : dialog_ptr;
    word_string    : str255;

  begin

    { Get a dialog box. }
    option_box := new_dialog(5, 0, 0, box_width, 7);

    { Place possibly misspelled word in the dialog box. }
    word_line := add_ditem(option_box, g_ftext, editable, 1, 1, 30, 1, 0,
                                                                  color);

    line_2 := add_ditem(option_box, g_text, none, 1, 2, length(not_in_dict),
                                                          1, 0, color);

    line_3 := add_ditem(option_box, g_text, none, 1, 3, length(question),
                                                        1, 0, color);

    { Place YES and NO buttons in the dialog box. }
    yes_button := add_ditem(option_box, g_button, exit_btn | selectable, 10, 5,
                                                 length('YES'), 1, 0, color);

    no_button := add_ditem(option_box, g_button, exit_btn | selectable,
```

```
                                    28, 5, length('NO'), 1, 0, color);

    { Prepare to allow user to correct the spelling of the word. }
    set_dedit(option_box, word_line, '_______________________________',
                                    'aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa',
                                         word, system_font, te_left);

    set_dtext(option_box, line_2, not_in_dict, system_font, te_center);
    set_dtext(option_box, line_3, question, system_font, te_center);

    { Prepare to have the YES or NO buttons pressed. }
    set_dtext(option_box, yes_button, 'YES', system_font, te_center);
    set_dtext(option_box, no_button, 'NO', system_font, te_center);

    center_dialog(option_box);

    { Get user input from dialog box. }
    button_pushed := do_dialog(option_box, word_line);

    { Retrieve the possibly edited word. }
    get_dedit(option_box, word_line, word_string);
    word := word_string;

    insert_wd := button_pushed = yes_button;

    end_dialog(option_box);
    delete_dialog(option_box);

  end;


begin

  {
  Allow user to correct spelling of word, and have him decide if it
  will be inserted into the dictionary.
  }

  get_option(word, insert_wd);

  {
  If the word is to be inserted into the dictionary, do so.  Otherwise
  insert the word into the secondary dictionary so that the user will
  not be asked about the word a second time.
  }
  if insert_wd
    then begin

      insert_word(word, dictionary, out_of_memory);
      dictionary.changed := true;

    end
    else insert_word(word, secondary_dict, out_of_memory);
```

```
end;


procedure get_input_filename(var in_file_name, in_file_type : string;
                                                var cancel : boolean);

{
Get the name the file to be corrected.  If cancel is true after this
procedure is called, the program is exited.
}

const
  fl_type_length = 3;

var
  button   : integer;
  path,
  filename : string;

begin

  { Default path for filename selection }
  path := 'A:\*.DOC';

  {
  Place file selection box on screen and allow user to choose a file or
  to press the cancel button.  Repeat until user enters a valid filename
  or presses the cancel button.
  }

  repeat

    cancel := not get_in_file(path, filename);

    {
    If the requested file does not exist, have the user choose an existing
    file or quit the program.
    }

    if (not cancel) and (not file_exists(filename))
      then begin

        button := do_alert('[2][Not found-Try again?][YES|NO]', 1);
        cancel := button = 2;

      end;

  until cancel or file_exists(filename);

  {
  If the filename of an existing filename has been given, extract
  the name and type of the file.
```

```
  }

  if not cancel
    then begin

      if pos('.', filename) <> 0
        then begin

          in_file_type := copy(filename, pos('.', filename) + 1,
                               length(filename) - pos('.', filename));
          in_file_name := copy(filename, 1, pos('.', filename) - 1);

        end
        else begin

          in_file_type := '';
          in_file_name := filename;

        end;

      remove_white(in_file_name);
      remove_white(in_file_type);

    end;

end;


procedure introduce_program;

{
Introduce the program with a dialog box.
}

const
  { Width (in characters) of dialog box }
  box_width = 64;

  { Strings that will be inserted into dialog box. }
  str_1     = 'Spell 1.3 - A Spelling Correction Program';
  str_2     = 'Written by Eric Bergman-Terrell';
  str_3     = 'of Cadenza Software, Ltd.';
  str_4     = '1704 Imperial Ridge, Las Cruces, NM  88001, USA';
  str_5     = 'Portions of this product are copyright (c) 1986, OSS and CCD';
  str_6     = 'Used by Permission of OSS';
  str_7     = 'This software has been placed in the public domain.';
  start_str = 'BEGIN';

var
  intro_box     : dialog_ptr;
  line_1,
  line_2,
  line_3,
```

```
  line_4,
  line_5,
  line_6,
  line_7,
  start_button,
  button_pushed : integer;
  start_item    : tree_index;

begin

  { Set up the mouse the be an arrow. }
  init_mouse;
  set_mouse(m_arrow);

  { Get a dialog box. }
  intro_box := new_dialog(8, 0, 0, box_width, 16);

  { Insert strings into dialog box. }
  line_1 := add_ditem(intro_box, g_text, none, 1, 1, box_width, 1, 0, color);
  line_2 := add_ditem(intro_box, g_text, none, 1, 3, box_width, 1, 0, color);
  line_3 := add_ditem(intro_box, g_text, none, 1, 4, box_width, 1, 0, color);
  line_4 := add_ditem(intro_box, g_text, none, 1, 5, box_width, 1, 0, color);
  line_5 := add_ditem(intro_box, g_text, none, 1, 7, box_width, 1, 0, color);
  line_6 := add_ditem(intro_box, g_text, none, 1, 8, box_width, 1, 0, color);
  line_7 := add_ditem(intro_box, g_text, none, 1, 11, box_width, 1, 0, color);
  start_button := add_ditem(intro_box, g_button,
                            exit_btn | selectable | default,
                            30, 14, length(start_str), 1, 0, color);

  { Adjust the strings in the dialog box. }
  set_dtext(intro_box, line_1, str_1, system_font, te_center);
  set_dtext(intro_box, line_2, str_2, system_font, te_center);
  set_dtext(intro_box, line_3, str_3, system_font, te_center);
  set_dtext(intro_box, line_4, str_4, system_font, te_center);
  set_dtext(intro_box, line_5, str_5, system_font, te_center);
  set_dtext(intro_box, line_6, str_6, system_font, te_center);
  set_dtext(intro_box, line_7, str_7, system_font, te_center);
  set_dtext(intro_box, start_button, start_str, system_font, te_center);

  center_dialog(intro_box);

  { Introduce the program. }
  button_pushed := do_dialog(intro_box, start_item);

  end_dialog(intro_box);
  delete_dialog(intro_box);

end;


begin

  if init_gem >= 0
```

```
then begin

  introduce_program;

  load_dictionary(dictionary, out_of_memory);

  {
  Initialize list of correctly spelled words that will not be
  inserted into a dictionary.
  }
  clear_dictionary(secondary_dict);

  if not out_of_memory
    then begin

      get_input_filename(in_file_name, in_file_type, cancel);

      if not cancel
        then begin

          out_file_name := concat(in_file_name, '.XXX');

          reset(spell_file, concat(in_file_name, '.', in_file_type));
          rewrite(spelled_file, out_file_name);

          repeat

            get_word(spell_file, spelled_file, word, next_char);

            done := length(word) = 0;

            if not done
              then begin

                if (not word_in_dictionary(word, dictionary)) and
                   (not word_in_dictionary(word, secondary_dict))
                  then process_word(word, dictionary, secondary_dict,
                                                      out_of_memory);

                write_word(spelled_file, word);
                write_char(spelled_file, next_char);

            end;

          until done or out_of_memory;

          close(spell_file);

          { Replace old input file with file that has been corrected. }
          rewrite(new_spelled_file, concat(in_file_name, '.',
                                           in_file_type));
          rename(spelled_file, new_spelled_file);
```

```
              { Update dictionary if it has changed. }
              update_dictionary(dictionary);

            end;

        end;

      if out_of_memory
        then button := do_alert('[1][Out of Memory][CANCEL]', 1);

    end;

end.
```

```
From -8581381069930766791
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 00:36:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!lll-crg!nike!ucbcad!ucbvax!cartan!
brahms!desj
From: desj@brahms (David desJardins)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <17@cartan.Berkeley.EDU>
Date: Wed, 15-Oct-86 03:36:55 EDT
Article-I.D.: cartan.17
Posted: Wed Oct 15 03:36:55 1986
Date-Received: Mon, 20-Oct-86 23:05:51 EDT
References: <2939@sdcc6.ucsd.EDU> <397@mntgfx.mntgfx.UUCP> <12069@watnot.UUCP>
<173@cbnap.UUCP>
Sender: daemon@cartan.Berkeley.EDU
Reply-To: desj@brahms (David desJardins)
Distribution: net
Organization: Math Dept. UC Berkeley
Lines: 13
Keywords: Atari C-source
Xref: watmath net.lang.c++:375 net.micro.atari16:2566

In article <173@cbnap.UUCP> mvh@cbnap.UUCP (M.L. Vonder Haar x4126 3E257) writes:
>    I just hope you never have a bug.  Sdb is only fair as a debugger
>    for C++.  But if you generated names that could not be easily
>    transformed by programmers to what they wrote in C++ sdb would be
>    just about useless.
>    The way I see it you'll need to write your own debugger at the
>    same time.

   If it were important enough you could keep a table of the correspondences
between symbol names and then write a postprocessor to rewrite the correct
```

symbolic names into the a.out file; this shouldn't be more than a day's work.

   -- David desJardins

From -1684257305938793769
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7073cd6b78c89cee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 03:07:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: BROKEN HDX, UPDATES ETC.
Message-ID: <8610151007.AA03232@ucbvax.Berkeley.EDU>
Date: Wed, 15-Oct-86 06:07:24 EDT
Article-I.D.: ucbvax.8610151007.AA03232
Posted: Wed Oct 15 06:07:24 1986
Date-Received: Mon, 20-Oct-86 23:28:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Uwe Hoch writes:
>What reasons, pardon. We developers here in Europe would be also very
>interested in such updates, because the communication between Atari (US)
>and for instance Atari (Germany) is not even poor, it is lousy.
I'll second this and in addition: What about the non-developers? Do we
just never get updates (->HDX). BTW nobody even knows HDX is broken or
that the 40 subdirectory "feature" exists here, I tried to get the local
shop to at least warn the people about these problems...
                      Simon Poole
                      K538915@CZHRZU1A.BITNET

From 876032749752971098
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b46d849042229efe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 05:15:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: Volume of net traffic
Message-ID: <8610151215.AA00607@ncsc.ARPA>
Date: Wed, 15-Oct-86 08:15:30 EDT
Article-I.D.: ncsc.8610151215.AA00607
Posted: Wed Oct 15 08:15:30 1986
Date-Received: Wed, 15-Oct-86 20:26:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 29

I *HAVEN'T* had enough! While I agree that some convention should be established so that a person could tell by the Subject field if the message contains source or UUENCODED executable, I signed up to this news group because it does have such a large volume of information. Maybe people who develop software should just place an announcement on the net, and then collect a list of those who respond, and mail just to them. I don't think so: personally, I very much enjoy getting the quality of software displayed recently by ARC, ARCSHELL, UNITERM, and UEMACS for **Free** and without the hassle of mailing disks to someone to get a copy.

And isn't one of the reasons the news group exists in the first place to teach new users about the capabilities of the machine? If so, you can surely expect some redundancy in message topics, since new folk are added to the list constantly (I imagine).

So, to all those people who have been taking the time to develop, encode, and mail programs to the net, thank you very much. If something comes up again and it's decided that no source or encoded material will be allowed, please go ahead and put my address on your own mailing list: I want the *opportunity* to decide whether I want a copy or not.

Jim Moore
Naval Coastal Systems Center
Panama City, FL
(moore@ncsc.arpa)

P.S. Send any and all sparks to rick@ncsc, 'cause he don't get no mail.

From 137193911914128428
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82629cda38b60e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 05:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!hmm
From: hmm@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: bug in megamax C - (nf)
Message-ID: <96100027@exunido.UUCP>
Date: Wed, 15-Oct-86 08:26:00 EDT
Article-I.D.: exunido.96100027
Posted: Wed Oct 15 08:26:00 1986
Date-Received: Thu, 16-Oct-86 02:42:12 EDT
References: <609@imagen.UUCP>
Lines: 6
Nf-ID: #R:imagen:-60900:exunido:96100027:000:227
Nf-From: exunido!hmm   Oct 15 13:26:00 1986

That's not a bug, that's a feature...
The type of an assignment expression is the type of the variable assigned to,
in this case unsigned char. Now tell me how an unsigned char can EVER have
the value -1 (EOF) ?

     Hans-Martin

From 7459236361436375875
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d401484ec9b4e61f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 07:28:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: net problems ???
Message-ID: <1212@batcomputer.TN.CORNELL.EDU>
Date: Wed, 15-Oct-86 10:28:52 EDT
Article-I.D.: batcompu.1212
Posted: Wed Oct 15 10:28:52 1986
Date-Received: Thu, 16-Oct-86 05:54:10 EDT
References: <8610101736.AA05159@ncsc.ARPA>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 7

[]

I keep getting things "rejected, discarded" from ubc at csnet.relay
and/or 'CDN-gateway' - I suspect it is stuff I sent to the net.
It just says "time expired". What does that mean?

- Moshe Braner

From 865791568781328086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce7bf532c70c94c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 07:37:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!targon!casper
From: casper@targon.UUCP (Casper Jansen)
Newsgroups: net.micro.atari16
Subject: Re: Re: No Available 1040's - (nf)
Message-ID: <111@targon.UUCP>
Date: Wed, 15-Oct-86 10:37:30 EDT
Article-I.D.: targon.111
Posted: Wed Oct 15 10:37:30 1986
Date-Received: Wed, 15-Oct-86 21:49:11 EDT
References: <1159@batcompu.UUCP> <96100025@exunido.UUCP>

Reply-To: casper@targon.UUCP (Casper Jansen)
Organization: Nixdorf Computer BV., OSP, Vianen, The Netherlands
Lines: 14
Keywords: Atari
Summary: price

In a message it was said that the drop in price of the 1040 could be
due to the very bad sales.
This I know not to be true. One of the main reasons for the 1040 to
drop in price both in Holland as in Germany is that official dealers
had (have?) a lot of competition from non-dealers, who imported the
machine 'illegaly' (outside Atari channels). They would sell it for
a few hundred bucks under de official Atari price. Aparently, this was
the solution to the problem.
The 1040 sells very well (at least in Holland it does).

Casper Jansen
Holland
....!mcvax!targon!casper

From 5694083848977042836
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,9d74aa1856dc4701
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,9d74aa1856dc4701
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 07:47:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: Re.: C++ preprocessor wanted
Message-ID: <1213@batcomputer.TN.CORNELL.EDU>
Date: Wed, 15-Oct-86 10:47:20 EDT
Article-I.D.: batcompu.1213
Posted: Wed Oct 15 10:47:20 1986
Date-Received: Thu, 16-Oct-86 05:55:40 EDT
References: <6174@alice.uUCp>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 15
Summary: function call overhead reviewed
Xref: mnetor net.lang.c++:369 net.micro.atari16:2503

[]

If 100000 calls take 4 seconds, that's 40 uS per call, not 4.

BTW, the 100 uS time I mentioned is for sending a method-token
to an object, complete with the lookup and the late binding.
And it is on the Atari ST. For comparision, a standard C function

call (passing an integer both ways) has a 25 uS overhead, approximately.
Of course, any useful function (or method) would take at least another
20 uS to do its thing, and usually a lot longer.

- Moshe Braner

PS: I got many requests for the Object-Oriented C Programming.
I'll prepare a posting, one of these days.

From -1848015927141458717
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 07:52:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: extra "raw" disk drives
Message-ID: <1214@batcomputer.TN.CORNELL.EDU>
Date: Wed, 15-Oct-86 10:52:01 EDT
Article-I.D.: batcompu.1214
Posted: Wed Oct 15 10:52:01 1986
Date-Received: Thu, 16-Oct-86 05:56:34 EDT
References: <5898@decwrl.DEC.COM>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10
Summary: connection data requested

[]

If it is a good idea to connect a cheap, "raw" 3.5" (DS) drive
to the ST, could you hardware experts out there tell us how
(or why it's no good)?

There seem to be DS drives for sale for < $100.
But pinouts? Power requirements?

- Moshe Braner

From 4125006858776307849
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82629cda38b60e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 08:08:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: bug in megamax C

Message-ID: <1215@batcomputer.TN.CORNELL.EDU>
Date: Wed, 15-Oct-86 11:08:25 EDT
Article-I.D.: batcompu.1215
Posted: Wed Oct 15 11:08:25 1986
Date-Received: Thu, 16-Oct-86 05:57:00 EDT
References: <609@imagen.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12
Summary: NOT a bug!!

[]

EOF is NOT a char, not even an unsigned one. Also, all
operations (e.g. the "c==EOF") are done with int's, not
chars. Therefore you should declare c an int, as dictated
by K&R in the bible...

BTW, using chars, signed or unsigned, wastes time: it adds EXT.W
to convert it into an int... (or the AND #0xFF if unsigned).
Use the char type only for arrays, to save RAM.

- Moshe Braner

From 6519128531142980392
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f101871485b5240
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 08:08:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!YALE.ARPA!ram-ashwin
From: ram-ashwin@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Re: kilo chars of krap
Message-ID: <8610151508.AA01134@yale-celray.YALE.ARPA>
Date: Wed, 15-Oct-86 11:08:44 EDT
Article-I.D.: yale-cel.8610151508.AA01134
Posted: Wed Oct 15 11:08:44 1986
Date-Received: Wed, 15-Oct-86 20:45:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 47

> Is anyone else besides me getting sick of getting many masgs of
> tens of kilo chars in size of what looks like a drunk writing
> teco macros?

I don't know --- I kind of like getting free software (and you must admit
that most of the stuff that has been coming over the net recently is both
good and useful -- thanx, guys). I find it a trivial flex of my right finger

to hit "n" if I don't want to read a particular note, and most people are pretty good about warning us about large files coming up in following messages. "Shareware" is a great concept, and I for one would vote for its continuation.

> My poor mail file blows up and chokes MM more frequently with such stuff. why cant people just send a pointer to their program and let those who want it get it or request it individualy. It used to be considered anti-social to send such masssive files unsolicited.
>
> --E+

One problem with sending it to everyone who wants it individually is that that generates a *lot* of net traffic when a lot of people want something large like uEmacs (which a lot of people *do* want). Many sites are set up such that USENET notesfiles are transmitted *once* to the site, and then either (a) individually transmitted to local users (not expensive) or (b) posted on a publicly readable bulletin board or notesfile which individual readers can read using rn/readnews/notes/... (not expensive either). The situation is complex. You may have a point regarding large pieces of software that is interesting to very few people, but it isn't as simple as "don't post shareware, period". For obvious reasons, "getting it yourself" (i.e., FTP, etc.) isn't a practical solution either.

The right way to cut down costs, in my opinion, is to (a) encourage sites to provide a single mailing address for mailing lists in cases when there are several users at that site interested in the mailing list, rather than each user being on the mailing list individually, and (b) reduce the number of bouncebacks (which generate a *lot* of net traffic). Marshall has already taken some positive steps in the latter direction.

-- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: ...!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 3268738716770137970
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 08:26:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: ARC and ALITE comments
Message-ID: <8610151526.AA17642@trwrb.UUCP>
Date: Wed, 15-Oct-86 11:26:42 EDT

Article-I.D.: trwrb.8610151526.AA17642
Posted: Wed Oct 15 11:26:42 1986
Date-Received: Wed, 15-Oct-86 20:45:47 EDT
References: <1098@mhuxl.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

>I guess I'll add my two cents to the ARC/ALITE saga. I was able to
>successfully unpackage ARC and ALITE, uudecode and download to my ST.
>Then I ran ARC.TTP on ALITE.ARC and got the proper files. When I
>double-clicked on ALITE.PRG I saw the introductory slide with instruc-
>tions on how to continue and heard some beautiful Bach-like music.
>However, when I tried to continue (with the "N" or "S" commands)
>nothing happened. So my question is, does 1ALITE.PIC contain only
>the intro slide or is there more? The music was impressive, but I
>expected to see more. The only possible problem I noticed was that
>Xmodem told me it was transferring 192 blocks for ALITE.ARC, but 193
>were actually transferred. Any suggestions Rich, or anyone else???

Finally, someone got it to work! The "problem" is that I sent only
one *.sng and *.pic file with alite.prg. I had thought of distributing
some more of the *.sng/*.pic combos, but decided not to (in light of all
the recent grumblings about large volumes of mail). Those of you wishing
to acquire more of the original alite music should send email to me, and
I'll email the stuff directly to you.

-Rich

 _____________ _______ _____ _____ ____
/_____________//____ ||__|/_____|/__/   Richard E. Sansom
   ____   _____/ / _____________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 4908540709145523849
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,922ddbc9392fe196,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 09:34:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: what a dummy!!!!
Message-ID: <8610160059.AA04804@ucbvax.Berkeley.EDU>
Date: Wed, 15-Oct-86 12:34:41 EDT
Article-I.D.: ucbvax.8610160059.AA04804
Posted: Wed Oct 15 12:34:41 1986
Date-Received: Thu, 16-Oct-86 00:06:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 6

Like a dummy, I discarded both the rcsfix and arcshell (uuencoded) files from my disk on the AS/9000N. Could some kind soul please send them to me again.

Thanks, a bunch. (I grapely appreciate it :-))

Mike

From 8319977577400607249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-ArrivalTime: 1986-10-15 10:28:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!ubc-vision!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <439@vaxb.calgary.UUCP>
Date: Wed, 15-Oct-86 13:28:19 EDT
Article-I.D.: vaxb.439
Posted: Wed Oct 15 13:28:19 1986
Date-Received: Fri, 17-Oct-86 04:00:16 EDT
References: <2939@sdcc6.ucsd.EDU> <429@vaxb.calgary.UUCP> <1117@druhi.UUCP>
Organization: U. of Calgary, Calgary, Ab.
Lines: 16
Keywords: Atari C-source
Summary: I stand corrected (i think)
Xref: mnetor net.lang.c++:373 net.micro.atari16:2543

In article <1117@druhi.UUCP>, lbl@druhi.UUCP (LocklearLB) writes:
>
> If your compiler is capable of handling 32 character variable names, you should
> normally not have any problems with using C++. There may be isolated cases
> where problems would occur, but the names that the C++ compiler generates are
> usually unique in the first 32 characters. Of course, it would be nice if one
> of the C vendors for the ST would provide a true flexname capability. It really
> isn't very difficult to do!
>

    Oops, I guess I stand corrected. Of course, I've always believed that if something dosen't work for certain isolated cases, it simply dosent work, however, I suppose that if it means we *CAN* have C++ on an ST, this is something we could learn to live with. (Provided, of course, that you don't mind not being able to count on a given (correct) program compiling.) Where do I order my Cfront?

From 5768857009729143433
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,53b068a55a40e98a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 11:07:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: arc.ttp - did i get a bad copy ?
Message-ID: <613@imagen.UUCP>
Date: Wed, 15-Oct-86 14:07:30 EDT
Article-I.D.: imagen.613
Posted: Wed Oct 15 14:07:30 1986
Date-Received: Thu, 16-Oct-86 22:04:14 EDT
References: <1199@batcomputer.TN.CORNELL.EDU>
Organization: The Houses of the Holy
Lines: 34

> Summary: let us have SOURCES
>
> []
>
> The recent problems with ARC (& Uniterm?) indicate again that SOURCES
> should be posted. Executables should ALSO be posted for people who
> do not have the appropriate compiler. Note that I'm voting for BOTH.
> (That's because whoever is paying for this e-mail is not me :-)
>
> - Moshe Braner

your point is well taken but allow me to play devil's advocate...

1) the question of size and cost doesn't need restating, the sources for
emacs are about 400K

2) not everybody has the same compilers, but we all have ST's

3) for evolving programs like emacs and others, posting the sources
is an open invitation to chaos, it guarentees that there will be almost
as many versions of the program as there are people with good ideas
making the introduction of new versions a nightmare
--

         These are days for the locust to eat
                      - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner

CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6732324482765038718
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,524ed0803ba4a1a4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 11:21:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!think!nike!sri-spam!sri-unix!hplabs!
pyramid!decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: This is getting Ridiculous
Message-ID: <614@imagen.UUCP>
Date: Wed, 15-Oct-86 14:21:44 EDT
Article-I.D.: imagen.614
Posted: Wed Oct 15 14:21:44 1986
Date-Received: Thu, 16-Oct-86 22:45:10 EDT
References: <8610132351.AA00633@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 25

> atari messages into one file. There is no way to differentiate between a
> 1500 line program and a regular message. It would be nice if one of the
> following could be done:
> a) A separate list for programs is created
> b) we adopt some special Subject: line to differentiate programs
> c) we stop postingg such long things over the net
>
> I don't enjoy getting 9000 lines of proff or whatever and then hearing in
> another message that the whole pile doesn't work, and I'm sure the people
> who run the system here don't like having my reader jammed like this.

as a major offender, i couldn't agree more, i here by volunteer to
moderate mod.atari16.sources, any objections ?? comments???
--

         These are days for the locust to eat
                      - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -3015602250724390941
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,b46d849042229efe
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 11:35:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: Volume of net traffic
Message-ID: <406@husc6.HARVARD.EDU>
Date: Wed, 15-Oct-86 14:35:42 EDT
Article-I.D.: husc6.406
Posted: Wed Oct 15 14:35:42 1986
Date-Received: Wed, 15-Oct-86 20:46:24 EDT
References: <8610151215.AA00607@ncsc.ARPA>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University
Lines: 13

I think the complaint is valid. In the Mac world, we have long
had net.micro.mac and net.sources.mac (a misnomer: there are
about 100 times as many binaries as sources in net.sources.mac).
So why not net.micro.atari16.sources and/or net.micro.atari16.binary?
Then the sites who don't want programs don't even have to have them
uucp'd to themselves.

I also think the original poster may have been complaining about
true garbage, i.e., a few recent uuencodes that went sour somewhere.
This should, of course, be avoided as much as possible, but we're
all only human, after all.

-Eric

From -759161482259733059
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc6e3d4544022b40
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 11:39:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: Computing Flops
Message-ID: <407@husc6.HARVARD.EDU>
Date: Wed, 15-Oct-86 14:39:55 EDT
Article-I.D.: husc6.407
Posted: Wed Oct 15 14:39:55 1986
Date-Received: Wed, 15-Oct-86 21:40:47 EDT
References: <2863@islenet.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University

Lines: 8

>10 Unexpected Personal Computing Flops
>or Under-Achievers...

Let's not forget the Mindset PC!

-Eric

From -4712968454300584496
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dad5ca1c9a2c3fe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 11:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: ST-TeX from Tools Gmbh
Message-ID: <1613@cwruecmp.UUCP>
Date: Wed, 15-Oct-86 14:54:00 EDT
Article-I.D.: cwruecmp.1613
Posted: Wed Oct 15 14:54:00 1986
Date-Received: Thu, 16-Oct-86 06:01:42 EDT
Reply-To: pjd@cwruecmp.UUCP (dr. funk)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 57

Product: ST-TeX
Vendor: Tools Gmbh
         Kaiserstrasse 48
         5300 Bonn 1
Phone: 0228/229791
Price: $150 ($5 shipping)

This is TeX, Version 1.5 for the ST [0.9x] (no format preloaded)

... and they aren't kidding. We just received a preliminary version
of ST-TeX which is being prepared for the American (English speaking)
ST market by Tools Gmbh. It arrived on six double sided floppies
consisting of TeX itself, a DVI GEM-based previewer, TFM files,
font files, LaTeX format and style files, and IniTeX.

We took two LaTeX files, a mathematical screed on timed Petri nets
and a pictorial introduction to digital system synthesis, and ran
both through without problems or modification. Speed with a hard
disk is roughly equivalent to LaTeX on a 780. If you are split
across two or more machines (and most of us here use an ST, VAX
and/or Apollo daily) you might want to standardize your format and

style files as I've noticed subtle differences such as bold
for description items on the ST and italics on the VAX.

The previewer is wonderful. The scroll bars slide the window around
a page so you can examine every nook and cranny. It is faster than
the Apollo previewer from Yale. Currently, FX-85 Epson compatible
printers are supported. The printed output is great given the 9-pin
head. Make sure you have a big print buffer though -- our standard
buffer size Panasonic 1092 truncates each line. Buffer expansion
options are now on order. Print time is about 6-8 minutes per page.

Tools Gmbh emphasizes that this version is preliminary and that a
newer version will be available near the end of the month. There are
a few problems:

1. The version received needs a full 1 Mbyte of RAM. If you own a
   520, it's time to upgrade.
2. Directory searching is not fully implemented. Hence, you need
   to drop a hint to the previewer as to the location of the
   screen or printer files, TEX.TOS must reside in the same
   directory as the TeX input and format files, etc.
3. There are so many files that a single DSDD drive system may
   not cut it. A hard disk is strongly recommended.

Tools Gmbh is currently looking for a USA distributer. Since we're
nice guys in a hurry, we convinced Tools Gmbh to sell us a copy.
They do NOT encourage direct sales right now. (We had to draw an
international bank draft and Federal Express'd the order -- I said
we were in a hurry.)

This product is strongly recommended.

--

paul drongowski   decvax!cwruecmp!pjd
case western reserve university   pjd%Case@CSNet-relay

From -4633114751678063385
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1611e0,c345a42160272c19,start
X-Google-Attributes: gid1611e0,public
X-Google-Thread: 122486,c345a42160272c19,start
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,c345a42160272c19,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 12:06:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ll-xn!mit-amt!mit-eddie!
genrad!decvax!decwrl!sun!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.news.group,net.news.adm
Subject: a new moderated newsgroup - mod.sources.atari16
Message-ID: <615@imagen.UUCP>

Date: Wed, 15-Oct-86 15:06:50 EDT
Article-I.D.: imagen.615
Posted: Wed Oct 15 15:06:50 1986
Date-Received: Thu, 16-Oct-86 06:09:44 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 27
Xref: mnetor net.micro.atari16:2509 net.news.group:3549 net.news.adm:728

this is new to me, so please keep flames to the lit match at 20
paces level

there has been some very real problems with posting source and
binaries to net.micro.atari16, uuencode didn't work properly or a
file was too large and got truncated, and reposts requests and their
answers abound. therefore (deep breath taken) i propose to moderate
mod.sources.atari16 with associated archives. programs will be
unshar'd, uudecoded, downloaded and tested before they are
distributed, also care will be taken to make sure that no posting is
too large and Subject lines will be standardized with catalog
numbers etc. (what am i getting myself into??). if i do not hear an
overwhelming 'nay' vote by Oct 31st i will create the group and
issue specific instruction (where to mail etc.) for the group.

--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7111644617266477601
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7897b7873f19ed4c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 12:30:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Many questions...
Message-ID: <440@atari.UUcp>
Date: Wed, 15-Oct-86 15:30:48 EDT
Article-I.D.: atari.440
Posted: Wed Oct 15 15:30:48 1986

Date-Received: Thu, 16-Oct-86 23:35:11 EDT
References: <8610031818.AA03032@ucbvax> <436@atari.UUcp> <1595@cwruecmp.UUCP>
Organization: Atari Corp/Mktg
Lines: 41

In article <1595@cwruecmp.UUCP>, bammi@cwruecmp.UUCP (Jwahar R. Bammi) writes:

>   We had posted a way to do this from TOS a long time ago, right
> here. If you want it again just holler.

OK, I'm hollering.

> The Cp/m emulator is being passed around on MANY BBSs right here in USA. I
> feel that atari made a bigmistake by distributing it free in europe
> and not here, as it will be quite impossible to convince people to shell
> out $$ for something that you are giving away for free somewhere else.

Who said anything about charging? Once we have the utility we'll post the
real, final version and all the files that go with it. Free.

> ***** FLAME ON ****
>   It is quite evdident that atari has excellent but extremely limited
> resources, to support the ST line. My opinion is that atari should be
> spending these resources on getting out new and wonderful things like the
> TT etc, and providing better support to existing developers...
> Let third party developers put out things such as games, emulators
> and other addon and end user products.

In this case, we feel it is important enough for the total marketability of
the ST to devote the resources to the PC emulator.

That doesn't mean that you or I want them, but lots of business types do.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 287216451953853632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,88340de86d79dce6,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,88340de86d79dce6,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 14:51:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!cbuxc!cblpe!feb
From: feb@cblpe.UUCP (Franco Barber)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Question on Avatek 1200 vs 1200hc modems
Message-ID: <238@cblpe.UUCP>
Date: Wed, 15-Oct-86 17:51:46 EDT
Article-I.D.: cblpe.238
Posted: Wed Oct 15 17:51:46 1986
Date-Received: Fri, 17-Oct-86 03:20:36 EDT
Reply-To: feb@cblpe.UUCP (55216-Franco Barber)
Distribution: na
Organization: AT&T Bell Laboratories - Columbus
Lines: 29
Keywords: modem Avatek Hayes compatible
Xref: mnetor net.micro.amiga:5302 net.micro.atari16:2532

[Is the line eater Hayes compatible ...]

I was in a local discount computer outlet today and saw two versions of the Avatek 1200 modem, one was called the 'Avatek 1200' and the other was called the 'Avatek 1200hc'. They were going for $80 and $140 each, respectively. The salesperson implied that the former was 90% Hayes compatible while the latter was 100% compatible and thus cost more. I picked up and read the manuals for both, and a quick (5 minute) browsing through the sections on command sequences, instructions, and warnings, etc., failed to any difference between the two. There were no other differences that I could see anywhere on the two boxes: just a little 'hc' after the 1200 on the one that was $60 more.

Does anyone out there in netland have any idea what the difference between these two could possibly be? I seem to remember a long discussion on Avatek a couple of months ago, but did not pay any attention to it. Maybe someone remebers and can tell me if it had anything to do with this. Can anyone with an Avatek modem report any results of trying to use it as a Hayes compatible modem?

Please mail replies to me. I will post results to net sometime next week if there is interest. Thanks in advance.

--
Franco Barber
..!cbosgd!cbuxc!cblpe!feb

From -341615621440221050
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6e4cf1ae101f2786,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 18:36:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: ARCSHELL.1
Message-ID: <1347@lsuc.UUCP>
Date: Wed, 15-Oct-86 21:36:02 EDT
Article-I.D.: lsuc.1347
Posted: Wed Oct 15 21:36:02 1986
Date-Received: Wed, 15-Oct-86 22:03:10 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: na
Organization: Barrister & Solicitor, Toronto
Lines: 17
Summary: Truncated file

Our copy of 'ARCSHELL' part 1 was badly truncated. We didn't even receive the 1st of the 3 modules in complete form. Could part 1 be reposted? Also, Upon trying to compile Part 2, I found that I was missing 2 .SYM files (and I would therefore expect also the .LNK files). One, I think was the BIOS.SYM. Assuming this is proper material for posting (I *am* a legal licence holder for the TDI compiler and I did *not* receive the relevant files), could someone send me a copy of the relevant files? Message me via 'mail' and I'll check which files I need.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 2261744678069908206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e3c15286d03a1e1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 18:39:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Uniterm and Uemacs
Message-ID: <1348@lsuc.UUCP>
Date: Wed, 15-Oct-86 21:39:06 EDT
Article-I.D.: lsuc.1348
Posted: Wed Oct 15 21:39:06 1986

Date-Received: Wed, 15-Oct-86 22:03:32 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: na
Organization: Barrister & Solicitor, Toronto
Lines: 10
Summary: We're on a roll here! (2 more bad sends)

As with many other sites, we didn't receive part 1 of Uemacs
nor good copies of Uniterm.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -7284968185397893044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54f65f8b5dd4c0e3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 18:53:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: games and the RF modulator
Message-ID: <8610160153.AA21840@ncsc.ARPA>
Date: Wed, 15-Oct-86 21:53:15 EDT
Article-I.D.: ncsc.8610160153.AA21840
Posted: Wed Oct 15 21:53:15 1986
Date-Received: Thu, 16-Oct-86 02:23:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Has anyone noticed that *very* few reviews of games (and software in general)
for the ST mention what the thing looks like through the RF modulator? For
instance, can anyone tell me if The Pawn is enjoyable on a color TV rather
than the monitor? I doubt any store owner is going to let me borrow a package
for the night in order to test it on my TV, and monochrome is all I could
afford (and besides, I like it).

I would be very interested in hearing from you if you've successfully or
unsuccessfully run a commercial package, game or otherwise, on a home TV.
Thanks for your comments.

Jim Moore
(moore@ncsc.arpa)

Naval Coastal Systems Center
Panama City, FL

From 6512953060641406472
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a980db39837cea3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 19:15:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: This is getting Ridiculous
Message-ID: <8610161125.AA13947@ucbvax.Berkeley.EDU>
Date: Wed, 15-Oct-86 22:15:50 EDT
Article-I.D.: ucbvax.8610161125.AA13947
Posted: Wed Oct 15 22:15:50 1986
Date-Received: Thu, 16-Oct-86 22:18:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

That is what the 'd' key in mail is for!
You don't HAVE to read your mail, just look at the subject line and say
No Thankyou.

From 2891913923213538509
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5f5d12b9d24d22,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 19:27:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <8610161158.AA14361@ucbvax.Berkeley.EDU>
Date: Wed, 15-Oct-86 22:27:58 EDT
Article-I.D.: ucbvax.8610161158.AA14361
Posted: Wed Oct 15 22:27:58 1986
Date-Received: Thu, 16-Oct-86 22:19:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 2

Such a filter called 'shortc' has been over the net at least twice. It works
great on my ST.

From 7073299198260292628
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 163a0f,6353da0c2f8b62f9,start
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 12da6b,6353da0c2f8b62f9,start
X-Google-Attributes: gid12da6b,public
X-Google-Thread: 140593,6353da0c2f8b62f9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 20:11:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16,net.lang.c++,net.lang.c
Subject: Object-oriented programming in C
Message-ID: <1221@batcomputer.TN.CORNELL.EDU>
Date: Wed, 15-Oct-86 23:11:23 EDT
Article-I.D.: batcompu.1221
Posted: Wed Oct 15 23:11:23 1986
Date-Received: Thu, 16-Oct-86 05:58:50 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 545
Summary: Possible, if a bit long-winded.
Xref: mnetor net.micro.atari16:2506 net.lang.c++:370 net.lang.c:6123

[]

Here is my method for object-oriented programming in C.
Please direct comments to <braner@amvax.tn.cornell.edu>
or to the address above.

- Moshe Braner

~~~~~~

Framework for object-oriented programming in C.
==========

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of this document or the code included in it, or parts of either,
in printed or machine-readable form, is expressedly prohibited,
unless given written permission from the author.

Objects are allocated memory at run time. The structure of an
object (an instance of a class):

A pointer to the object's class.

In case the object inherits any properties from a
superclass, a pointer to the object's "superinstance"
(just another object, an instance of the superclass).
~~~~~~

In addition, the object may hold instance variables.

Class definitions are set up at compile time. The structure of a class definition includes:

A "typedef struct" describing the objects in the class (always as above).

A #define giving a symbolic name to each method-token. This may be put in the central header file of the application, for easy cross-reference, or may be left next to the class definition. The token values (positive integers) need not be unique across branches of the tree of classes, but they have to be increasing along the inheritance pathways.

The method functions, which manipulate the objects of this class in the noninherited ways. The names of these functions should not be repeated in the same source file. A method function is always of type "int", and usually returns error codes, but may return other information. It always receives a pointer to the object being manipulated ("receiving the message"), as the first argument, possibly followed by others. Initialization and clean-up methods, if defined, must return ERROR (-1) if errors were encountered, OK (0) otherwise. To reduce the verbosity of the method definitions, three macros are defined in the file objects.h: DefMethod, ArgMethod, and ENDOK.

An array of METHODs (initialized at compile time), each of which contains a token (actually an integer) and a pointer to the actual function. (A typedef struct of the METHOD element is also in the file objects.h.) The last entry in this table has to be {NULL, NULL}. (To reduce the verbosity of this declaration, the macros MTable and ENDMT are in objects.h.) At run time this array is searched sequentially, so the methods to be called more often should be placed at the beginning of the array. Methods may override superclass methods, intentionally or not, simply by taking on the same tokens, or the same token values. (Initialization and clean-up methods, if defined, must be included in this table, are always given the same tokens as any similar functions belonging to any other class: OBINIT and OBCLEAN (#defined in objects.h). This does NOT mask the superclass' counterpart because Create() and Destroy() also call the superclass methods directly.)

An actual "CLASS" structure holding a pointer to the

methods table, a pointer to the superclass, the size of an object of this class, and flag bits indicating whether the objects in this class need to be initialized when created (CFINIT), and whether they have a clean-up method to be called before destroying them (CFCLEAN). (A typedef struct of this construct is in the header file objects.h.)

There are three generic object-manipulating functions, defined in the file objects.c:

Create(class-name) (#defined into cCreate(class-address) creates a new instance of the class, and returns a pointer to the new object (or NULL if allocation failed). Recursively creates the super-instances, automatically.

Destroy(object-pointer) frees up the memory in an object. Recursively destroys all the super-instances, automatically. Returns OK or ERROR.

The call to a method ("sending a message"):

```
    Do(method-token, object-pointer));
```

or

```
    Do(method-token, object-pointer),arguments);
```

(note the unusual syntax with unbalanced parens!). This is actually #defined into the form:

```
    (*FindMethod(token, object))(object,arguments);
```

The generic function FindMethod() searches the method list, pointed to by the object, for the method token. If not found, the superinstances are searched in reverse order of inheritance. FindMethod returns a pointer to the method, which is promptly used to call the method itself. Since FindMethod() is called very often, it might be optimized in assembler language, although my tests (MC68000) show little improvement.

More complicated data structures (such as arrays or lists of objects) are not part of this basic system but may be easily added by defining new classes of objects. For example, an "array of data objects" may be an object holding the dimension of the array and an array of pointers, and would have an auto-initialization method that creates the "data objects", and an auto-clean-up method that destroys them. A "linked list of objects" may be constructed using "ListNode" objects (just pointers to an object and the next node), and "List" objects that only hold a pointer to the first node, but have access to methods for adding nodes to the list, removing them, etc.

Here is the actual C code:

```
--------------------------

/* File: Object.h   - by Moshe Braner, 860813 */
/* --------------   ------------------------ */

/*
 * The basic syntax aid to calling a method:
 */
extern int (*FindMethod())();
#define Do(m,o) (*FindMethod(m,o))(o


/*
 * Kludge to access the elements of as-yet
 *   undefined structures:
 */
#define  Obclass(obj)  obj[0]
#define  Superob(obj)  obj[1]


/* tokens */

#define  OK       0
#define ERROR     (-1)
#define  OBINIT        0x7FFE
#define  OBCLEAN       0x7FFF

#define  CFINIT        0x01
#define  CFCLEAN       0x02


/* macros */

#define DefMethod(name,ptr,type)   int name(ptr) type *ptr; {
#define ArgMethod(nm,p,t,a)        int nm(p,a) t *p; int a; {
#define ENDOK     return(OK); }
#define MTable(name)   METHOD name[] = {
#define ENDMT     NULL, NULL };

#define Create(c)  cCreate(&c)


/*** Structures ***/

typedef struct METHOD {
     int  method_token;
     int  (*method_function)();
} METHOD;

typedef struct CLASS {
     struct METHOD *class_methods;
     struct CLASS  *super_class;
     int      obj_size;
```

```
     int       class_flags;
} CLASS;

#define   Obinit(c) ((c)->class_flags&0x01)
#define   Obclean(c)    ((c)->class_flags&0x02)



/* File: Object.h   - by Moshe Braner, 860813 */
/* --------------   ------------------------- */

/*** Generic functions ***/

char **                /* alias for object pointer */
cCreate(clp)
     register CLASS    *clp;
{
     register char **objptr; /* object pointer */
     register char **supptr; /* super-inst ptr */

     /*
      * Allocate memory for this instance:
      */
     objptr = malloc(clp->obj_size);
     if (objptr == NULL) {
#ifdef DEBUG
          fprintf(stderr, "No memory for object\n");
          exit(0);
#else
          return (NULL);
#endif
     }
     Obclass(objptr) = clp;

     /*
      * Recursively create super-instances:
      */
     if (clp->super_class != NULL) {
          supptr = cCreate(clp->super_class);
          if (supptr == NULL) {
#ifdef DEBUG
               fprintf(stderr, "No memory for object\n");
               exit(0);
#else
               free (objptr);
               return (NULL);
#endif
          }
          Superob(objptr) = supptr;
     }

     /*
      * Initialize the object:
```

```
      */
     if (Obinit(clp))
          if (Do(OBINIT, objptr)) != OK) {
#ifdef DEBUG
               fputs("Obj init failed\n",stderr);
               exit(0);
#else
               free(objptr);
               return (NULL);
#endif
     }

     return (objptr);
}

int
Destroy(obp)
     register char **obp;        /* object pointer */
{
     register CLASS    *clp;

     clp =  (CLASS *) Obclass(obp);

     /*
      * Clean up the object:
      */
     if (Obclean(clp))
          if (Do(OBCLEAN, obp)) != OK) {
#ifdef DEBUG
               fputs("Obj cleanup failed\n",stderr);
               exit(0);
#else
               return (ERROR);
#endif
          }

     /*
      * Recursively destroy super-instances:
      */
     if (clp->super_class != NULL)
          if (Destroy(Superob(obp)) != OK)
               return (ERROR);

     /*
      * Free up memory:
      */
     free(obp);

     return (OK);
}

int (*FindMethod())(token, obp)
     register int  token;     /* of method to find */
```

```
     register char **obp;     /* pointer to object */
{
     register METHOD    *methods;
     register int  c;
     register CLASS     *clp;

     for (;;) {    /* until recursion broken */

          clp = (CLASS *) Obclass(obp);
          methods = clp->class_methods;
          while ((c=methods->method_token) != 0) {
               if (c >  token)
                    break;        /* inherited */
               if (c == token)
                    return (methods->method_function);
               methods++;
          }

          if (clp->super_class == NULL) {
#ifdef DEBUG
               fprintf("Method %d not found\n",token);
               exit(0);
#else
               return (NULL);
#endif
          }

     /*
      * Method not here, look at inherited
      *   methods recursively:
      */
          obp = Superob(obp);

     }             /* end of for(;;): recurse */
}



Here is an example program using these ideas:
----------------------------------------------

/*
     Queue Simulation.
     By Moshe Braner,  860813.

     - a C version of the FORTH program by
     Dick Pountain, BYTE, August 1986.
*/

#include <stdio.h>

/* #define DEBUG */
```

```
#include "objects.h"
#include "objects.c"

int
random(modulus)        /* return a random between 0 & modulus-1 */
{
     return (((rand()&0x7FFF)>>2) % modulus);
}

#define  TRUE 1
#define FALSE 0

#define  TDELAY   10
#define SERVT 5
#define  CDELAY   2
#define BSIZE 10


/* global variables */

int  clock;
int  next_cust;
int  last_cust;


/* Definition of class Customer: */

typedef struct     CUSTOMER
{
     CLASS         *cus_clp;
     int      trans_time;
     int      entry_time;
     int      cus_done;
} CUSTOMER;

#define JOIN       1
#define TRANSACT   2
#define DONECHK         3

DefMethod(cust_join, cust, CUSTOMER)
     cust->entry_time = clock;
     cust->trans_time = TDELAY + random(SERVT);
     cust->cus_done   = FALSE;
ENDOK

DefMethod(cust_trans, cust, CUSTOMER)
     if (--(cust->trans_time) == 0)
          cust->cus_done = TRUE;
ENDOK

DefMethod(cust_done, cust, CUSTOMER)
     return (cust->cus_done);
}                       /* does NOT return OK */
```

```
MTable(cust_methods)
     JOIN,         &cust_join,
     TRANSACT,&cust_trans,
     DONECHK,  &cust_done,
ENDMT

CLASS Customer =
{
     cust_methods,
     NULL,              /* no superclass   */
     sizeof(CUSTOMER),
     NULL          /* no init/cleanup */
};


/* Definition of class Cashq: */

extern CLASS Customer;

#define MAXQ  20

typedef struct CASHQ
{
     CLASS         *cq_clp;
     int       cq_head;
     int       cq_len;
     int       cq_chg;       /* len has changed   */
     struct CUSTOMER    *qbody[MAXQ]; /* could be char *   */
} CASHQ;

#define cq_full(cqp)   (cqp->cq_len == MAXQ)
#define cq_empty(cqp)  (cqp->cq_len == 0)

#define DQ    4
#define NQ    5
#define SERVE 6
#define SHOWQ 7

DefMethod(cq_dq, cqp, CASHQ)
     if (! cq_empty(cqp)) {
          cqp->cq_head = (cqp->cq_head+1) % MAXQ;
          cqp->cq_len--;
          cqp->cq_chg = TRUE;
     }
ENDOK

DefMethod(cq_nq, cqp, CASHQ)
     int  tail;
     if (! cq_full(cqp)) {
          tail = (cqp->cq_head + cqp->cq_len) % MAXQ;
          if (Do(JOIN, cqp->qbody[tail])) != OK)
               return (ERROR);
```

```
          cqp->cq_len++;
          cqp->cq_chg = TRUE;
     }
ENDOK

DefMethod(cq_serve, cqp, CASHQ)
     int       head;
     CUSTOMER *cust;
     head = cqp->cq_head;
     cust = cqp->qbody[head];
     if (Do(TRANSACT, cust)) != OK)
          return (ERROR);
     if (Do(DONECHK, cust)))
          return (Do(DQ, cqp)));    /* or cq_dq(cqp) */
ENDOK

DefMethod(cq_showq, cqp, CASHQ)
     int  i;
     if (cqp->cq_chg) {
          for (i=0; i<cqp->cq_len; i++)
               putchar('#');
          putchar(0x1B);
          putchar('K');      /* erase to eol */
          cqp->cq_chg = FALSE;
     }
     putchar('\n');
ENDOK

DefMethod(cq_init, cqp, CASHQ)
     int  i;
     cqp->cq_head = 0;
     cqp->cq_len  = 0;
     cqp->cq_chg  = TRUE;
     for (i=0; i<MAXQ; i++) {
          if ((cqp->qbody[i]=Create(Customer)) == NULL)
               return (ERROR);
     }
ENDOK

MTable(cq_methods)
     DQ,  &cq_dq,
     NQ,  &cq_nq,
     SERVE,    &cq_serve,
     SHOWQ,    &cq_showq,
     OBINIT,   &cq_init,
ENDMT

CLASS Cashq = {cq_methods, NULL, sizeof(CASHQ), CFINIT};


/* main program */

extern CLASS Cashq;
```

```
main()
{
     char *cashier[BSIZE];
     int  i, j;

     for (i=0; i<BSIZE; i++) {
          if ((cashier[i]=Create(Cashq)) == NULL)
               exit(0);
     }
     clock     = 0;
     last_cust = 0;
     srand(513);            /* seed for rand() */
     next_cust = random(CDELAY);
     putchar(0x1B);
     putchar('E');          /* clear, home */
     putchar(0x1B);
     putchar('f');          /* cursor invisible */

     for (;;) {             /* stop on ^C only */
          ++clock;
          if (clock - last_cust > next_cust) {
               j = random(BSIZE);
               Do(NQ, cashier[j]));   /* ignore errors */
               last_cust = clock;
               next_cust = random(CDELAY);
          }
          for (i=0; i<30000; i++);    /* short delay */
          putchar(0x1B);
          putchar('H');          /* cursor home */
          for (i=0; i<BSIZE; i++) {
               Do(SERVE, cashier[i]));
               Do(SHOWQ, cashier[i]));
          }
     }
}
```

~~~~~~


```
From 5255268505213069864
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,44981d3c2dd000c3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 20:14:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: ARCSHELL part 1
Message-ID: <8610160314.AA03767@Yale-Bulldog.YALE.ARPA>
Date: Wed, 15-Oct-86 23:14:06 EDT
Article-I.D.: Yale-Bul.8610160314.AA03767
```
~~~~~~

Posted: Wed Oct 15 23:14:06 1986
Date-Received: Thu, 16-Oct-86 02:24:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

> From: jimomura@lsuc.UUCP (Jim Omura)
>
> Our copy of 'ARCSHELL' part 1 was badly truncated. We didn't
> even receive the 1st of the 3 modules in complete form. Could part 1
> be reposted?

Ours was badly truncated too. Could we have a repost too?

Thanx -- Ashwin Ram.

ARPA: Ram-Ashwin@yale
UUCP: {decvax,linus,seismo}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 3233004894896215326
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,10f55f1ef231f71a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-15 21:32:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Selecting a Small Font prior to calling draw_string
Message-ID: <8610160432.AA01033@ohio-state.ARPA>
Date: Thu, 16-Oct-86 00:32:49 EDT
Article-I.D.: ohio-sta.8610160432.AA01033
Posted: Thu Oct 16 00:32:49 1986
Date-Received: Thu, 16-Oct-86 06:07:26 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Is it possible to select a smaller font (than the default) right before
calling the draw_string procedure?

Thanks in advance,

Eric Bergman-Terrell

From 1144472985854718819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 04:39:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!XEROX.COM!
Ulrich.wbst
From: Ulrich.wbst@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: ARC and ALITE comments
Message-ID: <861016-043934-4496@Xerox>
Date: Thu, 16-Oct-86 07:39:43 EDT
Article-I.D.: Xerox.861016-043934-4496
Posted: Thu Oct 16 07:39:43 1986
Date-Received: Thu, 16-Oct-86 22:31:33 EDT
References: <8610151526.AA17642@trwrb.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

I'll take whatever you are willing to send.

Denny

From -432531291967082814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,479793cf6a794f44,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 05:03:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!NADC.ARPA!kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: 1st WORD REFORMAT
Message-ID: <8610161302.AA15149@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 08:03:05 EDT
Article-I.D.: ucbvax.8610161302.AA15149
Posted: Thu Oct 16 08:03:05 1986
Date-Received: Thu, 16-Oct-86 22:31:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Would anyone like to expand on how to use 1st Word REFORMAT command?
For example, if I pull in an 80 column ASCII file, and want to reduce it
to, say 62 columns, shouldn't I be able to do this with REFORMAT? It seems
that once I type without wordwrap on, the REFORMATTING no longer is effective.

What's the story??

Thanks in advance, Ron Kushnier

kushnier@nadc.arpa

From -6170209355781139635
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b46d849042229efe
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 06:17:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Volume of net traffic
Message-ID: <8610152229.AA17925@mitre-bedford.ARPA>
Date: Thu, 16-Oct-86 09:17:55 EDT
Article-I.D.: mitre-be.8610152229.AA17925
Posted: Thu Oct 16 09:17:55 1986
Date-Received: Thu, 16-Oct-86 22:32:09 EDT
References: <8610151215.AA00607@ncsc.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 12

I am a non-ST-owner interested in information on STs. I have zero use for actual code. I have generally not saved any of the code that went whizzing by. I figure that when and if I buy an ST, most of what is available now will still be available for the asking, and probably several bug-fix versions later.

I would vote for descriptions of what programs are available and mailing of actual source or object code only to those who care enough to ask. That would also solve the "source vs. object" controversy.

-John Sangster
jhs@mitre-bedford.arpa

From 8980465967701532673
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2f20d0acdaa127c2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 07:00:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM V1.5C ..HERE IT COMES!!!
Message-ID: <8610161359.AA15758@ucbvax.Berkeley.EDU>

Date: Thu, 16-Oct-86 10:00:01 EDT
Article-I.D.: ucbvax.8610161359.AA15758
Posted: Thu Oct 16 10:00:01 1986
Date-Received: Thu, 16-Oct-86 22:32:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

So, here it comes again!!! This is not really a repost since I've changed
a few things from 1.4 to the current version 1.5c. In particular it works
correctlly with a color monitor now (not flashy but it works!). I've
sent this posting to a few people in the US on ARPANET and BITNET and they
all were able to uudecode and unarc it...and I haven't touched it since!!!!!

The complete posting is:
Read.Me
UniTerm.A
UniTerm.B
UniTerm.C

Simon Poole
K538915@CZHRZU1A.BITNET
Simon Poole
K538915@CZHRZU1A.BITNET

From 409878821367329030
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,352d6ac3740093c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 07:09:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!
UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: the FORMATTER
Message-ID: <8610170517.AA02646@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 10:09:38 EDT
Article-I.D.: ucbvax.8610170517.AA02646
Posted: Thu Oct 16 10:09:38 1986
Date-Received: Fri, 17-Oct-86 06:07:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

To answer several people's questions.

The Formatter does not modify the operating system in anyway. It is a
stand-alone program which has the modified format code in it. You can use
the formatted disks just as you would a normal disk. TOS has no idea that the
disks are different, unless one is 80 and the other is 82 tracks. You can do
disk copies or file copies of disks, assumming that the format size (tracks

and sectors) of the two disks are the same.

What the formatting algorithm does is this. Bad sectors are placed at the end of all the tracks formatted. When the WD1772 hits a bad sector, BOOM! the chip stops instantly with an error, and goes to the next track. In this way, the WD1772 doesn't have to wait for synch info, it just goes.

From 881514806182870421
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,352d6ac3740093c4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 07:09:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: the FORMATTER
Message-ID: <8610170109.AA28955@ucbvax.Berkeley.EDU>
Date: Thu, 16-Oct-86 10:09:38 EDT
Article-I.D.: ucbvax.8610170109.AA28955
Posted: Thu Oct 16 10:09:38 1986
Date-Received: Fri, 17-Oct-86 03:25:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

To answer several people's questions.

The Formatter does not modify the operating system in anyway. It is a stand-alone program which has the modified format code in it. You can use the formatted disks just as you would a normal disk. TOS has no idea that the disks are different, unless one is 80 and the other is 82 tracks. You can do disk copies or file copies of disks, assumming that the format size (tracks and sectors) of the two disks are the same.

What the formatting algorithm does is this. Bad sectors are placed at the end of all the tracks formatted. When the WD1772 hits a bad sector, BOOM! the chip stops instantly with an error, and goes to the next track. In this way, the WD1772 doesn't have to wait for synch info, it just goes.

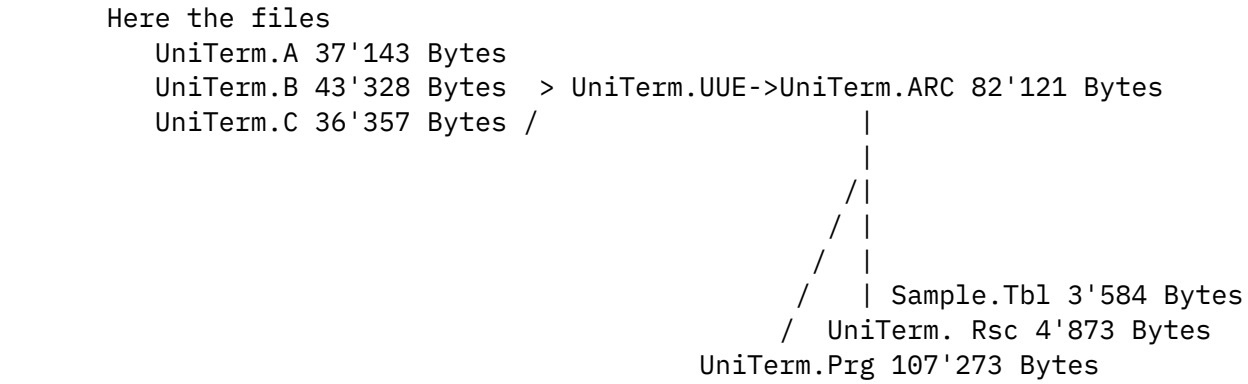
From -8867517500546509892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cb7827a531a900ad,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-16 07:50:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM V1.5C PART 1 OF 4 (READ.ME)
Message-ID: <8610161450.AA16191@ucbvax.Berkeley.EDU>

Date: Thu, 16-Oct-86 10:50:59 EDT
Article-I.D.: ucbvax.8610161450.AA16191
Posted: Thu Oct 16 10:50:59 1986
Date-Received: Thu, 16-Oct-86 22:44:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 91

READ.ME for UniTerm V1.5c

UUDECODING UniTerm

You should have following files:



UniTerm incompatibilities with VT100 software

-only 128*24 (64 in double width/height mode) characters in 132 column mode
 (selecting this mode turns autowrap off to prevent lines wraping around,
 but you can always select autowrap manually or with the proper command
 sequence), no cursor
-no double width characters on color screen and in 49 row mode
-no self tests (do you really want to do this to your computer:
                "Repeat Selected Test(s) indefinitely (until failure
                 or power off)" (C) DEC)
-no interlace
-no autorepeat control
-no smooth scroll down

Other Problems

-DEL as a padding character in Tek alpha mode is not suppressed
             - solution: change padding character to NUL
             - or wait for my binary patch (coming tomorrow)

Differences to V1.2

-proper line drawing character set in 80 and 132 column mode!

-real nice character set in Tek4010 alpha mode
-VT52 mode
-128 columns * 24 rows mode
-input buffer size is 10'000 bytes
- <Alternate><Y> stops screen output
- <Alternate><.> toggles 49 / 24 row mode on monochrome screen
-a keyboardtable is loaded with the setup file
-a GS received in VT... mode switches to Tek4010 vector mode, but a CR,US or
 ESC FF returns to Tek4010 alpha mode (this is the way everybody does it!)
 this means you always have to switch manually back to VT... mode (<Alternate>
 <F6>) except if you get a CAN which always (well nearly always (there's a
 undocumented feature here!)) switches the screen back to the text screen
 and sets VT... mode.
-VTTEST compatible, except for the bug in the terminal reports section
 (I mean the bug in VTTEST)
 (try VTTEST with a real VT100 or with VTCOM on a DEC Pro 380, you'll
  be suprised)
-a lot of bugs fixed, including
    -last character of single-line editor is not lost
    -tab works properly
    -wrap works like on a VT100
    -ANSI insert/delete line and delete character commands
     work properly with scrolling regions
    -shifted function keys work
    ....
    ....
-a lot of other things.............
-one last thing, in a late midnight hack I added a input translation
 table to the file-capture function, beware: it hasn't been tested
 at all!
 <Alternate><O> allows you to select between |Raw|Trans|Load|
 Default is Trans with a default table that has a negative entry
 for NUL and DEL (this means they are ignored!). Load, loads a table
 in the format of the sample table supplied with this posting.
 >>>>I know this is horrible<<<<<

Thanks to all the people which reported bugs and made suggestions
(which naturally are still welcome), if I didn't answer your mail it
probaly was because I have a lot of trouble sending mail to sites
not on Bitnet or Arpanet.

Simon Poole
K538915@CZHRZU1A.BITNET

BTW the + key on the keypad sends a ',' ....

From 3597235121622594521
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70

X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 16:48:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!im4u!oakhill!jmvm
From: jmvm@oakhill.UUCP (John VanMunster)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <788@oakhill.UUCP>
Date: Wed, 8-Oct-86 19:48:18 EDT
Article-I.D.: oakhill.788
Posted: Wed Oct 8 19:48:18 1986
Date-Received: Fri, 10-Oct-86 00:47:06 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<306@husc6.HARVARD.EDU> <427@vaxb.calgary.UUCP>
Reply-To: jmvm@oakhill.UUCP (John VanMunster)
Followup-To: net.micro.mac,net.micro.68k
Organization: Motorola Inc. Austin, Tx
Lines: 21
Keywords: crosspostings,68030,80386
Xref: mnetor net.micro.68k:1369 net.micro.amiga:5187 net.micro.atari16:2424
net.micro.mac:7505

In article <427@vaxb.calgary.UUCP> ingoldsby@calgary.UUCP writes:
>The continuing debate on the relative merits of the MC68030 / 80386......
>....try to restrict postings to actual specific comparisons between the
>two or information which may not yet be generally known.
>
>   Terry Ingoldsby

Agreed. But there is no need to cross-post to all the various pc groups!!
Enough is enough. Lets have more of the useful discussions, relative to
the specific groups, that had given the net its reputation for an excellent
source of fast and pertinent information and news.

--
John VanMunster   (512) 440-2015
Motorola Inc., OakHill, Tx. 78735-8598
path:...{harvard,ihnp4,seismo,gatech,nbires}..!ut-sally!oakhill!jmvm   (uucp)
____
Disclaimer: The views contained herein are my own, not those of my employer or
the administration of any computer sytem which I may be currently using.

____
"Computers aren't inhuman - Only humans can be inhuman"..Revenge of the Nerds.

From 7023454597484713657
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58c7c95228f36c90
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-10-08 17:33:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: ARC repost
Message-ID: <1344@trwrb.UUCP>
Date: Wed, 8-Oct-86 20:33:19 EDT
Article-I.D.: trwrb.1344
Posted: Wed Oct 8 20:33:19 1986
Date-Received: Fri, 10-Oct-86 00:21:16 EDT
References: <432@atari.UUcp>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 987

Well, I've learned my lesson. When posting the net I promise to:

     1) uuencode on my ST
     2) upload to my Pyramid
     3) download to my ST
     4) uudecode on my ST
     5) verify uudecoded program
     6) post to net if ok

So, after having done all of the above, here is ARC again:

```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - arc.doc
sed -e 's/^X//' > arc.doc << '!FaR!OuT!'
XARC Introduction and short docs.
X          ARC (short for archive) is a file library and compression
X          utility.  It may be thought of as an improved version
X          of LU and SQUEEZE all rolled into one program.
X
X          ARC analyzes each file to see which of a number of
X          compression techniques will generate the smallest code.
X          The following estimates give the user a general idea of
X          how much compression may be gained by using ARC.
X
X                ARC Text -            45-55% reduction from original
X                SQUEEZED Text -       30-40% reduction
X
X                ARC Programs -        25-30% reduction
X                SQUEEZED Programs -   15-20% reduction
X
X                ARC Pictures -        45-55% reduction
X                SQUEEZED Pictures -   40-50% reduction
X                TINY Pictures -       40-50% reduction
X
```

X   The user should see that compressing files with ARC
X   will allow easier telecommunications by combining files
X   and shortening their transfer time.
X
X   Usage from TOS
X   - double-click-left on ARC.TTP icon
X   - observe OPEN APPLICATION menu for ARC.TTP parameters
X   - enter switch, archive name and file template
X   (ex: lh arc.arc *.*)
X   - hit return or click-left on OK box to begin execution
X   - "press any key to continue" after completion
X
X   History
X   ARC has been in use in the CP/M and MS-DOS world for many
X   years. Thom Henderson developed the version which I
X   converted for use on the Atari ST. I am not sure but he
X   may also be the original author.
X
X   It is important to note that no matter who developed this
X   program, ARC is based on the file compression theories
X   developed by Huffman, Welch, Knott, Knuth, and many other
X   scientists.
X
X   Bug Reports
X   Since I developed this version of ARC, I will be responsible
X   for any erroneous features. Please relay any problems with
X   a written discription of what happened and the .ARC file
X   which caused the problem to:
X
X   Harvey Johnson
X   2398 Oaklyn St NE
X   Palm Bay, FL 32907
X
X   - or -
X
X   QUILL BBS 305-724-2303
X
X
X   Future Products
X   It would be nice to have a version of ARC written to utilize
X   GEM. I would also like to write a picture display feature
X   that will show compressed pictures directly to the screen.
X   This will be useful in that ARC squeezes file 5 to 10% smaller
X   than TINY format. If anyone has the C source to dump NEO,
X   Degas, or other pictures to the screen please upload a copy
X   to QUILL BBS.
X
X   If you have any ideas for additional capabilities, then send
X   them to me with a detailed explanation. All thoughts are
X   welcome.
X
X   Donations
X   It would be nice to be supported if you think that ARC

```
X          is any good.  Make no mistake, I did NOT write the original
X          version of ARC, but I have spent all my extra time for
X          two months making it a reality on the Atari ST.
X
X          As I do recieve contributions, I will consider improvements
X          more seriously.  Any donations may be sent to address
X          specified in Bug Report section.
X
X          Thank you one and all in advance for considering this
X          request, but if you are like me (lazy) then I don't
X          really expect to ever see a single dime.
X
XARCHIVE (ARC.TTP)
X
X     Usage
X          arc {amdxelvth} <filename.ARC> [<filename> ...]
X
X               a   = add files to archive
X               m   = move files to archive
X               d   = delete files in archive
X               x,e = extract files from archive
X               l   = list files in archive
X               v   = verbose listing of files in archive
X               t   = test archive integrity
X               h   = hold screen before returning to Desktop
X
X     Description
X          This program is a general archive utility, and is
X          used to maintain an archive of files.  An "archive"
X          is a single file that combines many files, reducing
X          storage space and allowing multiple files to be
X          handled as one.
X     Switches
X
X          a - add files to archive.  This switch will force update
X              or addition the indicated reguardless of creation
X              time and date.
X
X          m - move files to archive.  Same as "a" switch except
X              that the files are deleted from the directory as
X              they are moved to the archive.
X
X          d - delete files in archive.  The files are lost forever
X              and the archive is recompacted to remove the data
X              for these files.
X
X          x,e - extract files from archive.  A copy of the files
X              in the archive are created in the current directory
X              in an uncompacted state.
X
X          l - list files in archive.  Limited information listing
X              of files contained in an archive.  Displays only the
X              filename.
```

```
X
X          v - verbose listing of files in archive.  Complete
X              information listing of files contained in an archive.
X              Displays the filename, original length, storage method,
X              storage factor (% savings), compacted size, date, time,
X              and CRC.
X
X          t - test archive integrity.  Check the archive to make sure
X              it does not have any bad files contained.
X
X          h - hold screen before returning to Desktop.  This switch
X              should be used whenever ARC is executed from the
X              Desktop, except in conjunction with file redirection.
X
X     Examples when executed from GEM Desktop:
X
X     ah FILES.ARC *.PRG      Creates a new archive file called FILES.ARC
X                             and puts all files ending in .PRG inside.
X
X     xh FILES.ARC *.*        Extracts all files from FILES.ARC.
X     xh FILES.ARC            ""
X     xh FILES                ""
X
X     xh FILES.ARC *.DOC      Extracts all files ending in .DOC.
X
X     In each case, the 'h' holds the display instead of immediately returning
X     to the GEM Desktop so you can view filenames, messages, etc.
X     These are just to help you get started.  ARC seems to be the most
X     reliable of the 'masher' programs and has the best overall size
X     reduction.
X
!FaR!OuT!
echo x - arc.uue
sed -e 's/^X//' > arc.uue << '!FaR!OuT!'
Xbegin 666 ARC.TTP
XM8!H  'E    1U@  8UX                  $[Y    -D[Y  !73D[Y  !5
XMBD[Y  !7Z$[Y  !6HD[Y  !7-$[Y  !6)$[Y  !5Y$[Y  !S;"I/*FT !" M
XM  S0K0 4T*T '-"\   A "( THW"O/____XN02\ +PU"9S\\ $I.0=_\
XM#"!M !@B;0 8T^T '" M !13@&\&$R!1R/_\(&T $" M !Q3@$(84<C__"AM
XM !#9[0 <*4W__"IM  A.K0 P(&S__$AH (!.NEVF6(\O+/_V/RS_^DZZ !I<
XMCS\\  !.NE!$/SP 03\\  ).05B/3G5.5O_T0B[__PQN  , "&P  CI(;
XM3KIK=EB/2&P .$ZZ:VQ8CTAL %!.NFMB6(](; !R3KIK6%B/2&P F$ZZ:TY8
XMCTAL ,!.NFM$6(](; #R3KIK.EB/2&P!!$ZZ:S!8CTAL 31.NFLF6(](; %(
XM3KIK'%B/2&P!>DZZ:Q)8CTAL 9!.NFL(6(](; '(3KIJ_EB/2&P!W$ZZ:O18
XMCTAL A!.NFKJ6(](; (J3KIJX%B/2&P"8DZZ:M98CTAL G9.NFK,6(](; *H
XM3KIJPEB/2&P"P$ZZ:KA8CTAL OA.NFJN6(](; ,N3KIJI%B/2&P#1DZZ:II8
XMCTAL W).NFJ06(](; .<3KIJAEB/2&P#S$ZZ:GQ8CTAL ^Q.NFIR6(](; 02
XM3KIJ:%B/2&P$.$ZZ:EY8CTAL!&!.NFI46(](; 2*3KIJ2EB/2&P$M$ZZ:D!8
XMCTAL!.!.NFHV6(](; 4:3KIJ+%B/2&P%1$ZZ:B)8CTAL!59.NFH86(](; 5\
XM3KIJ#EB/2&P%L$ZZ:@18CTAL!=A.NFGZ6(](; 8,3KII\%B/2&P&.DZZ:>98
XMCTAL!FQ.NFG<6(](; :63KIITEB/2&P&PDZZ:<A8CTAL!OI.NFF^6(](; <H
XM3KIIM%B/#&X  @ (9EP@;@ *+6@ !/_Z8$@@;O_Z$!!(@+!\ $AG#B!N__H0
XM$$B L'P :&8H2&P'6$ZZ:7I8CTALGN!.NDZN6(\_/  '3KIB_%2/2&P'<DZZ
```

```
XM:5Q8CU*N__H@;O_Z$!!FL$)G3KI-[E2/2&P'=$ZZ!$Q8CRE _^)F#DAL!WQ.
XMN@0\6(\I0/_B/7P  ?_T8!@P+O_TY8 @;@ *T, O$$ZZ()!8CU)N__0P+O_T
XML&X "&W>2&S_>$AL!X(@;@ *+R@ "$ZZ$J#>_  ,2&S^L$AL_WA(; >(3KH2
XMC-[\  Q(;/\42&S_>$AL!XY.NA)XWOP #"!N  HM:  $__I@  %L(&[_^A 0
XM2( _ $AL!Y1.NFS&7(]*@&=H$"[__V=6(&X "BUH  3_]F F(&[_]A 02("P
XM? !(9PX@;O_V$!!(@+!\ &AF!CE\  '_]%*N__8@;O_V$!!FTB!N__H0$$B
XM/P 0+O__2( _ $AL!Z).NA]X4(\@;O_Z'5#__V   .@@;O_Z$!!(@+!\ $AF
XM"CE\  '_]&   - @;O_Z$!!(@+!\ $)F"CE\  '_\F   +@@;O_Z$!!(@+!\
XM %=F"$)L__!@  "B(&[_^A 02("P? !.9@A";/_N8   C"!N__H0$$B L'P
XM1V8>("[_^E* *4#_WF $4J[_^B!N__H0$&;T4Z[_^F!>(&[_^A 02("P? !3
XM9@@Y?  !_^I@2"!N__H0$$B L'P 2V8(.7P  ?_H8#(@;O_Z$!!(@+!\ "UG
XM#B!N__H0$$B L'P +V8"8!0@;O_Z$!!(@#\ 2&P'N$ZZ'H9<CU*N__H@;O_Z
XM$!!F /Z.$"[__V8*2&P'TDZZ'FA8CQ N__](@+!\ $%G%+!\ $UG#K!\ %5G
XM"+!\ $9G F!6$"[__TB L'P 1E? P'P  3\ $"[__TB L'P 55? P'P  3\
XM$"[__TB L'P 35? P'P  3\ (&X "D'H  PO"# N  A70#\ 3KH""M[\  Q@
XM  $.8 BP? !$9P)@'B!N  I!Z  ,+P@P+@ (5T _ $ZZ#EY<CV   .A@%+!\
XM $5G#K!\ %AG"+!\ %!G F P$"[__TB L'P 4%? P'P  3\ (&X "D'H  PO
XM"# N  A70#\ 3KH4C%"/8   I& (L'P 5F<"8 @Y?  !_^Q@"+!\ $QG F <
XM(&X "D'H  PO"# N  A70#\ 3KH>.ER/8&Y@"+!\ %1G F (3KI$&&!>8 BP
XM? !#9P)@'"!N  I!Z  ,+P@P+@ (5T _ $ZZ"PY<CV Z8 BP? !29P)@+B!N
XM  I!Z  ,+P@P+@ (5T _ $ZZ-B)<CV 6$"[__TB /P!(; ?J3KH<[%R/8 )@
XMZC L__1G*$AL" I.NF6>6(](;)[@3KI*TEB//SP !TZZ7R!4CTAL""1.NF6
XM6(\_+/_F3KI*'%2/3EY.=4Y6_^@@;/_\("@ )"E _E0@+@ (9QPO+@ (2&[_
XM[$ZZ:310CTAL""9(;O_L3KIHJE"/(&S^5"UH "S_Z& N("X "&<62&[_["\N
XM_^A.NFC$4(\,0   9@)@&F $4J[_Z"!N_^@0$&;T4J[_Z"!N_^@0$&;*("[_
XMZ$Y>3G5.5O_\+RX "$ZZ_WI8CRU __P@;O_\$!!G&& $4J[__"!N__P0$&;T
XM4J[__" N__Q@!B \     $Y>3G5.5O^"0J[_E$*N_Y!";O^./7P  ?^*#&X
XM 0 (;!(]?  !  A![ @H( @@;@ *((!";O^"8  ""# N_X+E@"!N  K0P"\0
XM2&[_F$ZZ:%!0CS\\ %Q(;O^83KIHRER/+4#_AF8T/SP +TAN_YA.NFBV7(\M
XM0/^&9B _/  Z2&[_F$ZZ:*)<CRU _X9F#$'N_Y@@"%. +4#_AE*N_X8]?  !
XM_XQ"9S N_X+E@"!N  K0P"\03KH-,ER/+4#__&   4Y";O^,4F[_CC N_X[!
XM_  $/P O+O^43KH(8%R/+4#_E# N_X[!_  $/P O+O^03KH(2%R/+4#_D"\N
XM__PO+O^&3KIGFE"/2&[_F$ZZ9ZA8CU) /P!.NEI.5(\R+O^.Y8$@;O^4T,$A
XM0/_\2&[_F# N_X[E@"!N_Y30P"\H__Q.NF=<4(\P+O^.Y8 @;O^4T, @*/_\
XM0>[_F"((D($B+O^&T($R+O^.Y8$@;O^0T,$A0/_\3KH'K R    4 &P  ( _
XM+@ 2/RX $#\N  XO+O^0+R[_E#\N_XY.N@% WOP $#U _XXP+O^*9P@P+O^.
XM5\!* %; P'P  3U _XI@&%-N_XXP+O^.Y8 @;O^4T, O$$ZZ6CQ8CS N_XYF
XMXB\N_Y1.NEHL6(\O+O^03KI:(EB/(#P     +4#_D"U _Y1"9T*G3KH+XER/
XM+4#__"!N__P0$&8 _JPP+O^,9QXP+/_P9Q@P+O^"Y8 @;@ *T, O$$AL""Q.
XMNF* 4(]2;O^","[_@K!N  AM /WP,"[_CF=P/RX $C\N ! _+@ .+R[_D"\N
XM_Y0_+O^.3KH <-[\ ! ]0/^.,"[_BF<(,"[_CE? 2@!6P,!\  $]0/^*8!A3
XM;O^.,"[_CN6 (&[_E-# +Q!.NEEL6(\P+O^.9N(O+O^43KI97%B/+R[_D$ZZ
XM65)8CS N_XIG$# L__!G"DAL"$!.NF'D6(].7DYU3E;_>$)N_YA@  #$,"[_
XMF%) /4#_FF   *8P+O^:Y8 @;@ .T, O$# N_YCE@"!N  [0P"\03KIE2%"/
XM#$   &]X,"[_F.6 (&X "M# +5#_E# N_YKE@"!N  K0P" 0,B[_F.6!(&X
XM"M#!(( P+O^:Y8 @;@ *T, @KO^4,"[_F.6 (&X #M# +5#_E# N_YKE@"!N
XM  [0P" 0,B[_F.6!(&X #M#!(( P+O^:Y8 @;@ .T, @KO^44F[_FC N_YJP
XM;@ (;0#_4E)N_Y@P+O^8,BX "%-!L$%M /\P0F[_F&   0@P+O^8Y8 @;@ *
XMT, O*  $,"[_F.6 (&X "M# +Q!.NF1Z4(]*0&=62&S_># N_YCE@"!N  K0
XMP"\03KID7E"/2D!G.DAL_K P+O^8Y8 @;@ *T, O$$ZZ9$)0CTI 9QY(;/\4
XM,"[_F.6 (&X "M# +Q!.NF0F4(]*0&8  (8P+O^8Y8 @;@ *T, O$$ZZ5\!8
XMCS N_YCE@"!N  [0P"\03KI7K%B//6[_F/^:8$ P+O^:Y8 @;@ *T, @*  $
XM,B[_FN6!(&X "M#!(( P+O^:Y8 @;@ .T, @*  $,B[_FN6!(&X #M#!((!2
```

```
XM;O^:,"[_FC(N  A30;!!;;)3;@ (8 12;O^8,"[_F#(N  A30;!!;0#^[$AL
XM_W@P+O^8Y8 @;@ *T, O$$ZZ8W!0CTI 9SA(;/ZP,"[_F.6 (&X "M# +Q!.
XMNF-44()*0&<<2&S_%# N_YCE@"!N  K0P"\03KIC.%"/2D!F+# N_YCE@"!N
XM  K0P"\03KI6U%B/,"[_F.6 (&X #M# +Q!.NE; 6()3;@ (,"X "&8(,#P
XM &   6!";O^88%8P+O^8Y8 @;@ .T, O*  $,"[_F.6 (&X #M# +Q!.NF+0
XM4()*0&8J,"[_F.6 (&X "M# +R@ !# N_YCE@"!N  K0P"\02&P(5DZZ%CK>
XM_  ,4F[_F# N_Y@R+@ (4T&P06V</SP  4ZZ.W!4CT)N_YA@,#\N !8_+@ 4
XM,"[_F.6 (&X #M# +Q P+O^8Y8 @;@ *T, O$$ZZ ,+>_  ,4F[_F# N_YBP
XM;@ (;<9@(B\L_J1(;O]X3KH3Y%"/+R[_AB\L_J0O+/ZH3KH57M[\  PO+/ZH
XM2&[_>$ZZ$+I0CTI 9LQ"+/_<+RS^I$AN_WA.NA.L4(\_/  !3KH[1E2/,"X
XM$F=.0F[_F& ^,"[_F.6 (&X "M# +Q!.NF+:6()*0&<B,"S_\&<<,"[_F.6
XM(&X "M# +Q!(; AV3KI>#E"/4FS_YE)N_Y@P+O^8L&X "&VX,"X "$Y>3G5.
XM5O^\0F[_O$AL"(@O+@ (3KI,0E"/+4#_Q&8<,"S_\&<2+RX "$AL"(Q.NEW$
XM4()2;/_F8  "("\N  Q(;O_D3KIAE%"/0J[_\D)N__I(;O_X2&[_]B\N_\1.
XMN@M&WOP #" L_JAG  %0+RS^J$ZZ3LA8CRU _\!@  "J2&[_Y$AN_\A.NF$.
XM4()*0&90/7P  ?^\,"X $&8&,"X $F<^,"[_]K!N_]IE%# N__:P;O_:9BHP
XM+O_XL&[_W&(@0F<O+O_ +RS^J$ZZ3BS>_  *+R[_Q$ZZ0@98CV  7I(;O_D
XM2&[_R$ZZ8*Q0CPQ  !M F!$+RS^I$AN_\A.NA)$4(\O+O_6+RS^I"\L_JA.
XMNA.^WOP #"\L_JA.NDX<6(\M0/_ +RS^J$AN_\A.N@\,4()*0&8 _T8P+O^\
XM9RHP+/_N9PXO+@ ,2&P(HDZZ7*)0CS\\  $O+O_6+RS^J$ZZ39;>_  *8$XP
XM+@ 29R)"9R\N_\ O+/ZH3KI-?-[\  HO+O_$3KI!5EB/8  RF F,"S_[F<.
XM+RX #$AL"+I.NEQ04()"9R\N_\ O+/ZH3KI-1M[\  I@*C N !)G$"\N_\1.
XMND$86()@  ",8!0P+/_N9PXO+@ ,2&P(TDZZ7!)0CR\L_J1.NDU06(\M0/_
XM&7P "/_<+RS^I$AN_^1.NA%"4()(;O_D+RS^I"\N_\1.NB;8WOP #$)G+R[_
XMP"\L_J1.NDS2WOP "B\L_J1(;O_D3KH1#E"//SP  2\N__(O+/ZD3KI,L-[\
XM  HO+O_$3KI BEB/3EY.=4Y6  O//____\_/ !(3KI5'%R/3EY.=4Y6__@_
XM+@ ,3KI2(E2/+4#__ RN  (9SI"KO_X8!@@;@ (T>[_^! 0(&[__-'N
XM__@0@%*N__@@+O_X,BX #,*\  #__["!;=8O+@ (3KI2A%B/("[__$Y>3G5.
XM5@  *6S_WOY03EY.=4Y6  @+/Y09R0@;/Y0$!!F!BEL_][^4# N  @@;/Y0
XM4JS^4!802(.W0& &8 0P+@ (3EY.=4Y6_ZX@+/_B9Q8O+/_B2&P(ZDAL_>Q.
XMNEK:WOP #& 42&S][$AL_WA(; CZ3KH$9-[\  P_/  !3KHW,%2/0F[_KF 2
XM,"[_KN. 0>[_L-# 0E!2;O^N,"[_KK!N  AMY"\N  H_+@ (3KHDWER/,"X
XM"&<  )Q@  ""0F[_XD)N_ZY@.# N_Z[E@"!N  K0P"\02&[_Y$ZZ(U!0CTI
XM9Q@]?  !_^(P+O^NXX!![O^PT, PO  !8 Y2;O^N,"[_KK!N  AMOC N_^)G
XM#$AN_^1.N@#"6()@(B\L_J1(;O_D3KH/3%"/+R[_\B\L_J0O+/ZH3KH0QM[\
XM  PO+/ZH2&[_Y$ZZ#")0CTI 9@#_;F >8 I(;O_D3KH ?%B/+RS^J$AN_^1.
XMN@P 4()*0&;D0BS_W"\L_J1(;O_D3KH.\E"//SP  4ZZ-HQ4CS L_^YG0$)N
XM_ZY@,# N_Z[C@$'N_[#0P# 09APP+O^NY8 @;@ *T, O$$AL"09.NEEB4()2
XM;/_F4F[_KC N_ZZP;@ (;<9.7DYU3E;_^$AL"1I(;/WL3KI'GE"/+4#_^&8.
XM2&S][$AL"1Y.NA!@4(\P+/_N9Q(@;@ (0= O"$AL"4).NED.4()(;)[@3KH^
XM0EB/+RX ""\N__@O+/ZH3KHW\-[\  Q"9T*G+R[_^$ZZ2>C>_  *+RS^I$ZZ
XM2AY8CRU __P9?  (_]PO+/ZD+RX "$ZZ#A!0CR\N  @O+/ZD+R[_^$ZZ(Z;>
XM_  ,0F<O+O_\+RS^I$ZZ2:#>_  *+RS^I"\N  A.N@W<4(\_/  !(&X ""\H
XM  XO+/ZD3KI)>M[\  HO+O_X3KH]5%B/2&S][$ZZ70A8CTI 9Q@P+/_P9Q)(
XM;/WL2&P)9$ZZ6$90CU)L_^9.7DYU3E;_KC N  AF"DAL"79.N@]D6()";O^N
XM8!(P+O^NXX!![O^PT,!"4%)N_ZXP+O^NL&X "&WD+RX "C\N  A.NB)F7(\_
XM/  !3KHT?E2/8  H$)N_^)";O^N8#@P+O^NY8 @;@ *T, O$$AN_^1.NB#6
XM4()*0&<8/7P  ?_B,"[_KN. 0>[_L-# ,+P  6 .4F[_KC N_ZZP;@ (;;XP
XM+O_B9RH_/  !+R[_\B\L_JA.NDB.WOP "C L_^YG#DAN_^1(; F@3KI7<E"/
XM8"(O+/ZD2&[_Y$ZZ#+10CR\N__(O+/ZD+RS^J$ZZ#B[>_  ,+RS^J$AN_^1.
XMN@F*4()*0&8 _U!"+/_<+RS^I$AN_^1.N@QZ4(\_/  !3KHT%%2/,"S_[F=
XM0F[_KF P,"[_KN. 0>[_L-# ,!!F'# N_Z[E@"!N  K0P"\02&P)M$ZZ5NI0
XMCU)L_^92;O^N,"[_KK!N  AMQDY>3G5.5O_^#*X  AG0$AL_G@_/  :
```

```
XM3KI03ER//RX #"\N  @_/ !.3KI0/%"//4#__@QN  #__FP20BS^ED'L_G@@
XM"-"\    'F V8"@_/ !/3KI0$E2//4#__@QN  #__FP20BS^ED'L_G@@"-"\
XM    'F ,0>S^>" (T+P    >3EY.=4Y6_Q!(;O^(2&[_CDAN_YA(;O_\+RX
XM"$ZZ 2+>_  42&[_$$AN_Q9(;O\@2&[_A"\N  Q.N@$&WOP %"!N !!"$! N
XM__Q(@+!\  !G$$AN__PO+@ 03KI97%"/8!H0+O^$2("P?   9PY(;O^$+RX
XM$$ZZ64!0CQ N_YA(@+!\  !G$$AN_Y@O+@ 03KI9)E"/8#@0+O\@2("P?
XM9Q!(;O\@+RX $$ZZ60I0CV <(&X $! 02("P?   9PY(; G(+RX $$ZZ6.Q0
XMCQ N_XY(@+!\  !G$$AN_XXO+@ 03KI8TE"/8!H0+O\62("P?   9PY(;O\6
XM+RX $$ZZ6+90CQ N_XA(@+!\  !G$$AN_X@O+@ 03KI8G%"/8!H0+O\02("P
XM?   9PY(;O\0+RX $$ZZ6(!0CTY>3G5.5O_>/7S____^/7S____\/7S____Z
XM/7S____X0F[_]F   (0@;@ (T.[_]A 02("P?  Z9@X,;O____YF!CUN__;_
XM_B!N  C0[O_V$!!(@+!\ %QF#@QN_____&8&/6[_]O_\(&X "-#N__80$$B
XML'P 7&8,/6[_]O_Z/7S____X(&X "-#N__80$$B L'P +F8.#&[____X9@8]
XM;O_V__A2;O_V(&X "-#N__80$$B L'P  &8 _VP@;@ ,0A ,;O____YG)"!N
XM  @0$"!N  P0@"!N  @0*  !(&X #!%   $@;@ ,0B@  B!N !!"$ QN____
XM_&=B,"[_^K!N__QF$$AL"<HO+@ 03KI7YE"/8$A";O_V8!XP+O_VT&[__"!N
XM  C0P! 0(&X $-#N__80@%)N__8P+O_V,B[_^I)N__RP06X(#&X -?_V;<H@
XM;@ 0T.[_]D(H  $@;@ 40A ,;O____IG&C N__@R+O_Z4D&P06<,,"[_^E)
XM/4#_]&!,#&[____Z9A@,;@ !__YF$ QN  +_^&<(/7P  O_T8"P,;O____IF
XM%@QN_____F8.#&X  /_X9P9";O_T8 XO+@ (3KI71%B//4#_]"\N  A.NE<V
XM6(\]0/_H,"[_]+!N_^AL<@QN  #_^&\,,"[_^%- /4#_\F .+RX "$ZZ5PI8
XMCSU __(P+O_TL&[_\FY&0F[_]F >,"[_]M!N__0@;@ (T, 0$"!N !30[O_V
XM$(!2;O_V,"[_]C(N__*2;O_TL$%N" QN  C_]FW*(&X %-#N__9"$"!N !A"
XM$ QN____^&=40F[_]F >,"[_]M!N__@@;@ (T, 0$"!N !C0[O_V$(!2;O_V
XM+RX "$ZZ5GI8CY!N__@]0/_>,"[_]K!N_]YN" QN  3_]FV^(&X &-#N__9"
XM*  !3EY.=4Y6__HO+@ (3KH ;%B//4#_^D)G/R[_^DAN__P_/ !73KI+PM[\
XM  H@;@ 0,*[__"!N  PPKO_^3EY.=4Y6__HO+@ (3KH ,%B//4#_^CUN  [_
XM_#UN  S__C\\  $_+O_Z2&[__#\\ %=.NDMXWOP "DY>3G5.5@  (&X "# H
XM  Q.7DYU3E;_IC N  C!_  $/P!.NDAF5(\M0/^H0F[_IF   )8P+O^FXX!!
XM[O^PT,!"4#\\ %PP+O^FY8 @;@ *T, O$$ZZ5?1<CRU _ZQF4#\\ "\P+O^F
XMY8 @;@ *T, O$$ZZ5=9<CRU _ZQF,C\\ #HP+O^FY8 @;@ *T, O$$ZZ5;A<
XMCRU _ZQF%# N_Z;E@"!N  K0P" 04X M0/^L("[_K%* ,B[_IN6!(&[_J-#!
XM((!2;O^F,"[_IK!N  AM /]B0F=.NBV25(\P+@ (9P  HF   (A";O_B0F[_
XMIF X,"[_IN6 (&[_J-# +Q!(;O_D3KH9XE"/2D!G&#U\  '_XC N_Z;C@$'N
XM_[#0P#"\  %@#E)N_Z8P+O^FL&X "&V^,"[_XF<@/RX #C N_Z;E@"!N  K0
XMP"\02&[_Y$ZZ +;>_  *8!0_/  !+R[_\B\L_JA.ND%ZWOP "B\L_JA(;O_D
XM3KH"KE"/2D!F /]H8"A@%#\N  Y(; G,2&[_Y$ZZ '3>_  *+RS^J$AN_^1.
XMN@*"4(]*0&;:0F=.NBTB5(\P+/_N9T!";O^F8# P+O^FXX!![O^PT, P$&8<
XM,"[_IN6 (&X "M# +Q!(; G.3KI/^%"/4FS_YE)N_Z8P+O^FL&X "&W&+R[_
XMJ$ZZ1S18CTY>3G5.5O\P,"X $&<B+RX "$ALGN O+/ZH3KHNNM[\  Q(; GB
XM3KI/L%B/8  !\"\N  Q(;O\T3KI3A%"//SP 7$AN_S1.NE/^7(\M0/\P9C0_
XM/  O2&[_-$ZZ4^I<CRU _S!F(#\\ #I(;O\T3KI3UER/+4#_,&8,0>[_-" (
XM4X M0/\P(&X "$'0+P@@+O\P4H O $ZZ4R90CS L_^YG#DAN_S1(; GD3KI/
XM+%"/,"S_\&<  ,Q(; GZ2&[_-$ZZ/7I0CRU __QG  "V+R[__$ZZ,_!8CTAN
XM_S1(; G^3KI.]E"/8%I(; H@3KI.ZEB/2&R>S#\\ &1(;O^83KI /M[\  I!
XM[O^8($@0$$B /P!.NC*05(]![O^8($@0@$'N_Y@@2! 02("P? !99Q!![O^8
XM($@0$$B L'P 3F8"8 8P/  !9J!![O^8($@0$$B L'P 3F8J2&[_-$AL"CA.
XMNDYV4(\_/  !(&X ""\H  XO+/ZH3KH_9M[\  I@  ">2&P*3$AN_S1.NCRP
XM4(\M0/_\9C(P+/_P9Q)(;O\T2&P*4$ZZ3C)0CU)L_^8_/  !(&X ""\H  XO
XM+/ZH3KH_'M[\  I@5B\N  @O+O_\+RS^J$ZZ+0#>_  ,+R[__$ZZ,N)8CTAL
XM"F)(;O\T3KH\3%"/+4#__&<D(&X "#\H !0@;@ (/R@ $B\N__Q.NONV4(\O
XM+O_\3KHRJEB/3EY.=4Y6__!";O_P("X #&8(,#P  &   O @;@ ,,"@ "L!\
XM "!G"# \  !@  +:+RX #$ZZ-B18CPQ  !IG  #4,"S_\&<22&S_>$AL"F9.
```

```
XMNDUH4(]2;/_F8$I2;O_P+RX #$ZZ-?18CPQ  !IF-B\N  PO+@ ,3KHUX%B/
XM&4#_W$B /P!.NC6:7(\0+/_<2("P?   ;0X0+/_<2("P?  (;@)@#B!N  PP
XM*  *P'P (&>H(&X ## H  K ?  @9R@P+/WJ9R(O+/ZD3KHQV%B/2&S^L$ZZ
XM48Q8CTAL_WA(; J(3KH$#E"/,"S_\&<./R[_\$AL"IY.NDS 7(\@;@ ,,"@
XM"L!\ "!G"# \  !@  'V+RX #$ZZ-4!8CQE _]P0+/_<2("P?   ; Y(;/]X
XM2&P*M$ZZ [Q0CQ L_]Q(@+!\  !F"# \  !@  &Z$"S_W$B L'P "&\V+RX
XM##\\  T_/  !2&[_\DZZ/&S>_  ,2&S_>$AN__)(; K23KI,.-[\  Q(; L$
XM3KH#9EB/$"S_W$B L'P  68  +0O+@ ,/SP  3\\  T@;@ (0= O"$ZZ/"3>
XM_  ,+RX ##\\  $_/  *(&X "$'0( C0O     XO $ZZ/ #>_  ,(&X ""\H
XM  Y.N@.$6(\@;@ ((4  #B!N  @_*  23KH#N%2/(&X "#%  !(@;@ (/R@
XM%$ZZ Z)4CR!N  @Q0  4(&X "#\H !9.N@.,5(\@;@ (,4  %AE\  +_W"!N
XM  @@*  .(&X ""%  !A@  "P+RX ##\\  $_/  -(&X "$'0+PA.NCMRWOP
XM#"\N  P_/  !/SP #B!N  A!T" (T+P    .+P!.NCM.WOP #"!N  @O*  .
XM3KH"TEB/(&X ""%   X@;@ (/R@ $DZZ P94CR!N  @Q0  2(&X "#\H !1.
XMN@+P5(\@;@ (,4  %"!N  @_*  63KH"VE2/(&X "#%  !8@;@ (+R@ &$ZZ
XM GI8CR!N  @A0  80FS]ZC \  %.7DYU3E8  "\N  P_/  :3KHS>%R/+RX
XM#! L_]Q(@#\ 3KHS9ER/$"S_W&8$8  !7"!N  @O*  .3KH"*EB/(&X ""%
XM  X@;@ (/R@ $DZZ EY4CR!N  @Q0  2(&X "#\H !1.N@)(5(\@;@ (,4
XM%"!N  @_*  63KH",E2/(&X "#%  !8@;@ (+R@ &$ZZ =)8CR!N  @A0  8
XM+RX ##\\  $_/  -(&X "$'0+PA.NCJBWOP #"\N  P_/  !/SP #B!N  A!
XMT" (T+P    .+P!.NCI^WOP #"!N  @O*  .3KH!?%B/(&X ""%   X@;@ (
XM/R@ $DZZ ;!4CR!N  @Q0  2(&X "#\H !1.N@&:5(\@;@ (,4  %"!N  @_
XM*  63KH!A%2/(&X "#%  !8@;@ (+R@ &$ZZ 218CR!N  @A0  8(&X "# H
XM !*P;/ZN8AP@;@ (,"@ $K!L_JYF(B!N  @P*  4L&S^K&,4(&X "#EH !+^
XMKB!N  @Y:  4_JQ.7DYU3E;__F 6+RX #"\N  A.NC&R6(\_ $ZZ !1<CR N
XM !!3K@ 02H!FWDY>3G5.5@  ("X "F<B+RX "A N  E(@#\ 3KHQMER/#$#_
XM_V8*2&P++DZZ  A8CTY>3G5.5@  3EY8CTZZ2+PP+/_T9RA(; M(3KI(KEB/
XM2&R>X$ZZ+>)8CS\\  =.ND(P5(](; MB3KI(D%B//SS__TZZ+2Q4CTY>3G5.
XM5O_\+6X "/_\8!H@;O_\$!!(@#\ 3KHL,E2/(&[__!" 4J[__"!N__P0$&;>
XM3EY.=4Y6   @+@ ()CP    8YZ# O/\    B+@ (X8'"O #_  " @2(N  C@
XM@<*\  #_ ("!(BX ""8\    &.:APKP   #_@(%.7DYU3E8  # N  CA0,!\
XM_P R+@ (X$'"? #_@$%.7DYU3E;_HB \     "U _Z0M0/^H+4#_K$)N_Z)@
XM$C N_Z+C@$'N_[#0P$)04F[_HC N_Z*P;@ (;>0O+@ */RX "$ZZ$@Y<CS L
XM_^AF+C L_^QG*$AL"V1.ND>,6](; N63KI'@EB/2&P+L$ZZ1WA8CTAL"^).
XMND=N6]"9TZZ(_14CS N  AG  "F8   C$)N_^)";O^B8#@P+O^BY8 @;@ *
XMT, O$$AN_^1.NA!$4(]*0&<8/7P  ?_B,"[_HN. 0>[_L-# ,+P  6 .4F[_
XMHC N_Z*P;@ (;;XP+O_B9R0P+/_H9@I(;O_D3KH!3%B/4J[_K" N__S1KO^H
XM("[_\M&N_Z0_/  !+R[_\B\L_JA.NC?8WOP "B\L_JA(;O_D3KKY#%"/2D!F
XM /]D8$Q@.# L_^AF"DAN_^1.N@#\6(]2KO^L("[__-&N_Z@@+O_RT:[_I#\\
XM  $O+O_R+RS^J$ZZ-XC>_  *+RS^J$AN_^1.NOB\4(]*0&:V0F=.NB-<5(\P
XM+/_H9A P+/_L9PI(; O^3KI&4%B/,"S_[&=0+R[_J"\N_ZQ(; PP3KI&.-[\
XM  PO+O^D,#P 9"(\    9"\!(B[_I"\!3KHZY"(?+P$B+O^H+P%.NCID(A]8
XMCY!!/P!(; Q$3KI%_-[\  HP+/_N9T!";O^B8# P+O^BXX!![O^PT, P$&8<
XM,"[_HN6 (&X "M# +Q!(; Q>3KI%QE"/4FS_YE)N_Z(P+O^BL&X "&W&3EY.
XM=4Y6__0@;@ (,"@ $N)(X$C ? !_/4#__B!N  @P*  2ZDC ?  //4#__"!N
XM  @P*  2P'P 'SU __H@;@ (,"@ %.9(X$C ?  ?/4#_^"!N  @P*  4ZDC
XM?  _/4#_]B!N  @P*  4P'P '\#\  (]0/_T(&X "$'0+PA(; RB3KI%*E"/
XM,"S_[&<  6H@;@ (+R@ &$AL#*A.ND404(\0+/_<2("P?  !9PBP?  "9P)@
XM#DAL#+).ND3R6(]@<F (L'P  V<"8 Y(; R\3KI$W%B/8%Q@"+!\  1G F .
XM2&P,QDZZ1,98CV!&8!2P?  %9PZP?  &9PBP?  '9P)@#DAL#-!.ND2D6(]@
XM)& (L'P "&<"8!A(; S:3KI$CEB/8 Y(; SD3KI$@EB/8 )@\B(\    9"!N
XM  @O 2(H  XO 4ZZ.3 B'R!N  @O 2(H !@O 4ZZ.*PB'UB/,#P 9)!!/P!(
XM; SN3KI$0%R/(&X ""\H  Y(; SV3KI$+E"/,"[__M!\ %!(P('\ &1(0#\
```

```
XM,"[__.6 0>S]MM#  +Q  _+O_Z2&P- $ZZ1 #>_   ,(&X "#\H !8,;@ ,__AO
XM!C \ '!@!#  \ &$_ #\N__8,;@ ,__AO"C N__B0?   ,8 0P+O_X/P!(; T.
XM3KI#O-[\   Q(; TB3KI#L%B/3EY.=4Y6__Y";O_^8!(P+O_^(&X "-#  $*X
XM#U)N__XP+O_^L&X #&7D3EY.=4Y6__P@+/U\T+P   "<0*4#"P@RL '____U\
XM;S@@+/UXX( M0/_\#*X      __QF"BU\?______\8!@@+/U\+P @+O_\+P!.
XMNC>.(!]8CRU __Q@&B L_7SA@"\ ("S]>"\ 3KHW<B ?6(\M0/_\("[__+"L
XMPL9O""EN__S"QF P0JS"QC\\ /\_/$XL+RS^9$ZZ_T10CSE\ 0'66CE\   '"
XMRB\N   @_/ $ 3KH "%R/3EY.=4Y6__8];/YN__X];/VT__Q![/VD+4C_^ QN
XM     "&T   90P+O_^YD!(P-&N__@";@ '__X@;O_X$! R+O_^XX%![/V T,%(
XM@,!0,BX "#8N__[G830N__[C@D'L_9+0PL)02(" 02!N__@0@%*N__@P/   (
XMD&[__I%N__PR/   (DF[__C N   CB8#U    @,;@ (__QM'# N   @@;O_X4J[_
XM^!" ,"X ".! /4   "%%N__PP+O_\9PHP+@ ((&[_^!" ,"S]M-%L_FXP+/YN
XM,BS]M.=!L$%F.D'L_:0M2/_X/6S]M/_\,"[__$C T:S]>"\N   H@;O_X4J[_
XM^! 02( _ $ZZ$@!<CU-N__QFXD)L_FXP+-9:L&S]LFX*#&P   ,+*;P   C@QL
XM   #^;F\\0>S]I"U(__@P+/VT/4#_]DC T:S]>& 8+RX "B!N__A2KO_X$!!(
XM@#\ 3KH1JER/,"[_]E-N__9*0&;<0FS^;C LPLIG&C \   $R/   ).4']M.-@
XM4T Y0/VR0FS"RF D4FS]M QL   S]M&8(.6S]L/VR8! P/   !-BS]M.=@4T Y
XM0/VR8$@P+/YN7D!(P('\   @]0/_V2,#1K/UX#&P   /YN;R9@&"\N   H@;O_X
XM4J[_^! 02( _ $ZZ$1Q<CS N__93;O_V2D!FW$)L_FY.7DYU3E;_]D'L_:0M
XM2/_V#&P   ,+*;A8P+,+ L&S"OFP,,"S66K!L_;)O   "P,"S66K!L_;)O)%)L
XM_;0,;   ,_;1F"#EL_;#]LF 0,#P   38L_;3G8%- .4#]L@QL   #"RF\8,#P
XM 3(\   DY0?VTXV!30#E _;)";,+*0FS"OF J+RX "$ZZ(D18CSU __X,0/__
XM9@1@'F .,"[__D'L_:30[,*^$(!2;,*^,"S"OK!L_;1MS QL   #"OFX(,#S_
XM_V    +Y";,+ ,"S"ON= ,BS]M%-!D$$Y0,*^/6S"P/_\/6S]M/_Z,"[__.9
XM2,#1KO_V FX !__\(&[_]E*N__80$$B P'P _S8N__SF8#U __XP/   (D&[_
XM_)%N__HP/   (D&[__#U __P,;@ (__IM(B!N__92KO_V$!!(@,!\ /\V+O_\
XMYV"!;O_^4&[__%%N__H@;O_V$! R+O_ZXX%![/V T,%(@,!0-B[__.=@@6[_
XM_C L_;31;,+ ,"[__DY>3G5.5@   0FS^;D*L_G(I?      ']>$)LPLI"K,+&
XM*7P     !_7PI?    )Q#"PC \   $R/   ).4']M.-@4T Y0/VR.7P! =9:/SP
XM_S\\3BPO+/YD3KK[3%"/.7P "?VT+RX ##\\   Q.N@\:7(\Y?   !UEA.7DYU
XM3E;__# LUEAG5! N   G ? #_.4#]=D)LPK@I?    $XO"NF <4FS"N" LPKHO
XM " \      B\ 3KHS9" ?*4#"N@RL   $   ,*Z;=HP/   (D&S"N#E PKA";-98
XM8   !4%*L_7P0+@ )2(!(P,"\     _^F X8 V+/UVQKP   /__T(,I0,*Z$"X
XM"4B P'P _S8LPKCG8#8L_7:W0#U __XP+O_^Y8 @;/YDT, @$+"LPKIF%C N
XM__[C@$'LUF#0P#E0_79@   #H8!8P+O_^Y8 @;/YDT, ,D      !L F!N,#P3
XMBY!N__X]0/_\#&X   /_^9@8]?   !__PP+O_^D&[__#U __X,0    ; 8&;A.+
XM__XP+O_^Y8 @;/YDT, @$+"LPKIF$C N__[C@$'LUF#0P#E0_79@=C N__[E
XM@"!L_F30P R0      &\"8*PO+@ */RS]=DZZ^K)<CQ N   G ? #_.4#]=C L
XMUEJP;/VP;"@P+-9:4FS66C(N__[C@4'LUF#0P3" ,"[__N6 (&S^9-# (*S"
XMNF 4("S]?+"LPL)M"B\N   I.NOFL6(].7DYU3E8   "\N   @_+/UV3KKZ2ER/
XM+RX "#\\__].NOH\7(\@+/UX3EY.=4Y6__0O+@ (3KH>[EB//4#_^ Q    QG
XM$C\\   P_+O_X2&P-)$ZZ] Y0CSE\   G]M$)LPLHP/   !,CP "3E!_;3C8%-
XM.4#]LCU\ /__^& @,"[_^.. (&S67-# 0E P+O_X(&S^8-#N__@0@%-N__@,
XM;@   __ALV#E\ 0'66B\N   A.NONL6(\]0/_V/4#_^@QN____]F8$8   !4"\N
XM   PP+O_Z2( _ $ZZ';Q<CT'LPLPM2/_\8   !' QN 0#_^&9&/7P ___X8!(P
XM+O_XXX @;-9<T,!"4%-N__@,;@   __ALYCE\   '"RCE\ 0#66B\N   A.NOLZ
XM6(\]0/_X#$#__V8$8    Y#UN__C_]# N__BP;-9:;10P+O_Z(&[__%*N__P0
XM@#UN__;_^& D(&S^8-#N__@0$"!N__Q2KO_\$( P+O_XXX @;-9<T, ]4/_X
XM#&X! /_X;-0@;/Y@T.[_^! 02( ]0/_Z(&[__%*N__P0@"\N   Q3KO_\(&[_
XM_! 02( _ $ZZ'-Y<CR N__Q![,+,L(ANW# LUEH]0/_XL&S]L&PH,"[_^..
XM(&S67-# ,*[_]C N__H@;/Y@T.[_^!" ,"[_^%) .4#66CUN__3_]B\N   A.
XMNOI66(\]0/_X#$#__VX _M).7DYU3E;__# N   @6+@ +QGP _]!#@'P( ,"\
XM   #__RU __P@+O_\+P @+O_\+P!.NB^H(!\M0/_\("[__.R P+P    __3EY.
```

```
XM=4Y6   P+@ (%BX "\9\ /_00\#\.N' ? __3EY.=4Y6__Y@!CUN__X "# N
XM  CG@"!L_FC0P#UH  +__F;F,"X "$Y>3G5.5O_X$"X "TB /P _+@ ((&S"
XMM$Z06(\]0/_^,"[__N> (&S^:-# $!!F"# N__Y@<&!N/R[__DZZ_YY4CSU
XM__XP+O_^T'P 9<!\#_\]0/_\,"[__.> (&S^:-# 0= M2/_X8!Y2;O_\,"[_
XM_ Q $ !F#$)N__PM;/YH__A@!%"N__@@;O_X$!!FVC N__[G@"!L_FC0P#%N
XM__P  C N__Q.7DYU3E;__D)G/SR  " L_F@O $ZZ]B!0CT)N__Y@$C\N__X_
XM//__3KH &EB/4F[__@QN 0#__F7F.7S___VX3EY.=4Y6__P_+@ */RX "$ZZ
XM_PQ8C^> (&S^:-# 0= M2/_\,#P  %? P'P  2!N__P0@"!N__Q":  "(&[_
XM_#%N  @ !# N  H@;O_\$4  !DY>3G5.5O_\#&S___VX9F0O+@ (3KH;-%B/
XM/4#__@Q __]F"# \__]@  "( FX ___^+RX "$ZZ&Q)8CSE _;@,0/__9@8P
XM//__8&8"; #__;@P+O_^Z4# ? _P,BS]N.A)PGP #]!!/4#__ )L  _]N& Z
XM+RX "$ZZ&M!8CSU __X,0/__9@8P//__8"0";@#___XP+O_^,BS]N.%!PGP/
XM -!!/4#__#E\___]N# N__Q.7DYU3E8  # N  A![,+,T.S]MA" 4FS]MC L
XM_;8,0!  ;0I(; U43KKOJEB/3EY.=4Y6   ,;   _;9O&E-L_;8P+/VV0>S"
XMS-# $!!(@,!\ /]@!F $,#S__TY>3G5.5@  ,"X "&<*0?K]:"E(PK1@"$'Z
XM_1@I2,*T0FS]MDZZ_CXY? \ PK(Y?  !PK!.7DYU3E;_]C LPK!G+$)LPK O
XM+@ (3KK^JEB/.4#"KC LPJ[G@"!L_FC0P! H  9(@#E PJQ@  #:,"S]MF8
XM ,XO+@ (3KK^>EB//4#_^CU __P,0/__9@@P//__8   LC N__SG@"!L_FC0
XMP$'0+4C_]B!N__80$&8B/6S"KO_\,"[__.> (&S^:-# 0= M2/_V/RS"K$ZZ
XM_MI4CV N(&[_]A H  9(@#\ 3KK^QE2/(&[_]CUH  3__# N__SG@"!L_FC0
XMP$'0+4C_]B!N__8,:/__  1FQB!N__80*  &2( Y0,*L/P!.NOZ(5(\P+,*R
XM9Q(_+,*L/RS"KDZZ_7!8CU-LPK(Y;O_ZPJY.NOZ23EY.=4Y6   O+@ (3KKN
XM;%B/+RX #$ZZ[F)8CV   ( @;@ ($! @;@ ,$A!(@4B L$%G8B!N  P0$$B
XML'P /V=4(&X #! 02("P?  J9PHP/   8  !"F Z8 12K@ ((&X "! 09PX@
XM;@ ($!!(@+!\ "YFYF $4JX #"!N  P0$&<.(&X #! 02("P?  N9N9@.F (
XM4JX "%*N  P@;@ ($!!G$"!N  @0$$B L'P +F8 _VP@;@ ,$!!G$"!N  P0
XM$$B L'P +F8 _U0@;@ ($!!G$B!N  @0$$B L'P +F8$4JX ""!N  P0$&<2
XM(&X #! 02("P?  N9@12K@ ,8$@@;@ ($! @;@ ,$A!(@4B L$%G+"!N  P0
XM$$B L'P /V<>(&X #! 02("P?  J9P@P/   8"9@!C \  %@'F (4JX "%*N
XM  P@;@ ($!!FL"!N  P0$&:H,#P  4Y>3G5.5O_Z0F[_^F!V/SP 7# N__KE
XM@"!N  K0P"\03KHYY%R/+4#__&8Z/SP +S N__KE@"!N  K0P"\03KHYQER/
XM+4#__&8</SP .C N__KE@"!N  K0P"\03KHYJ%R/+4#__" N__QG%" N__Q2
XM@#(N__KE@2!N  K0P2" 4F[_^C N__JP;@ (;8!.7DYU3E;_BD*N_XH_/(
XM3KHKIE2/*4#^:" L_F@I0/YD("S^:"E _F P+/_J9@  Y# L_^YG"DAL#61.
XMNC3,6](;)[@3KH: %B/("S_XF<62&[_CB\L_^)(; UR3KK>8-[\  Q@%$AN
XM_XY(;/]X2&P-?DZZWDK>_  ,2&P-BDAN_XY.NB+H4(\M0/^*9@Y(;O^.2&P-
XMCDZZZZI0CT)L_G @/      M0/_Z*4#"J$)L_G9.NMDT+R[_BB\N  A.NO4
XM4(].N@A08!Q2KO_Z/R[__DZZ"+A4CR\N_XH_+O_^3KKU5%R/+RX "$ZZ QA8
XMCSU __X,0/__9M!.N@C6+4#_]B\N_XI.NO;>6(\M0/_R8"9"K,*H(#P    !
XM+4#_\BU __8M0/_Z,"S_[F<*2&P-LDZZ,]18CT)G0J<O+@ (3KHDS-[\  H@
XM;@ 0,6S^=@ 6(&X $"%LPJ@ &$)L_G!.NMB&("S"J+"N__IN  "H("S"J+"N
XM__9N  "<("S"J+"N__)N  "0,"S_Z&<4("[_\I"LPJ@O $AL#;1.NC-J4(\P
XM+/_N9PI(; V\3KHS6EB/2&R>X$ZZ&(Y8CQE\  +_W# \   Y0/YV2, I0,*H
XM8 XO+@ ,/R[__DZZ V9<CR\N  A.N@,F6(\]0/_^#$#__V;>(&X $#%L_G8
XM%B LPJ@@;@ 0(4  #B!N ! A0  88  !G" N__JPKO_V;'8@+O_ZL*[_\FQL
XM,"S_Z&<4("[_\I"N__HO $AL#<9.NC+(4(\P+/_N9PI(; W.3KHRN%B/2&R>
XMX$ZZ%^Q8CQE\  /_W"!N ! A;O_Z  Y@#B\N  P_+O_^3KH"R%R/+RX "$ZZ
XM 8!8CSU __X,0/__9MY@  $<("[_]K"N__)L5# L_^AG%" N__*0KO_V+P!(
XM; W83KHR4E"/,"S_[F<*2&P-X$ZZ,D)8CTALGN!.NA=V6(\9?  $_]PO+@ ,
XM+RX "$ZZ#G!0CR!N ! A0  .8   OC L_^AG%" N__:0KO_R+P!(; WL3KHQ
XM_E"/,"S_[F<*2&P-]$ZZ,>Y8CTALGN!.NA<B6(\9?  (_]P@;@ 0(6[_\@ .
XM("[_BF<V0F="IR\N_XI.NB+&WOP "F .+RX ##\N__Y.NNBX7(\O+O^*3KH:
XM1%B//4#__@Q __]FWF \+RX #"\N  A.NO)"4(]@#B\N  P_+O_^3KKRJ%R/
```

```
XM+RX "$ZZ &Q8CSU __X,0/__9MXO+@ ,3KKT.EB/("[_BF<P+R[_BDZZ%CA8
XMCTAN_XY.NC7L6(]*0&<8,"S_\&<22&[_CDAL#@!.NC$J4(]2;/_F+RS^:$ZZ
XM*'18CS L_^YG"DAL#B).NC$,6(].7DYU3E8  # L_G"P?   9P)@&CE\  '^
XM<"\N  A.N@#L6(\Y0,*F8   WF *L'P  6<$8   EC LPJ:P? "09P)@#D)L
XM_G P/   8   NF (L'S__V<"8&XP//__8   J#E\  '"I& $4FS"I"\N  A.
XMN@"86(\Y0,*BL&S"IF8(#&P _\*D;> P+,*DL'P  6<"8 PP+,*B.4#"IF!H
XM8 BP?  "9P)@&CE\  +^<# LPJ9@4CE\  /^<# \ )!@1F "8/!@ F"88 BP
XM?  "9P)@$CE\  '^<# LPJ(Y0,*F8"1@"+!\  -G F 8.7P  OYP,"S"I& .
XM2&P.*DZZYT)8CV "8/).7DYU3E;__B\N  A.NAB26(\]0/_^#$#__V<6/R[_
XM_C\L_G9.N@VX6(\Y0/YV4JS"J# N__Y.7DYU3E8  "\N  H0+@ )2( _ $ZZ
XMU*)4CS\ 3KKFMER/3EY.=4Y6_Q0O+@ *0F=.NOH$7(]";O_>0F[_W# N  AG
XM  &.0F=.N@P.5(]@  #&2&[_%"!N  HO$$AL#D!.NMD>WOP #$AN_Q1(;O_@
XM3KKX9%"/2D!G  "(/7P  ?_<,"S_\&<B2&P.1DAN_Q1.NAV<4(\M0/_\9PY(
XM;O\42&P.2DZZYEY0CTAL#FQ(;O\43KH=>E"/+4#__&8.2&[_%$AL#G!.NN8\
XM4(\P+/_N9PY(;O_@2&P.E$ZZ+NY0CTAN_^ O+O_\+RS^J$ZZ#=K>_  ,+R[_
XM_$ZZ$[Q8CV J8!0_/  !+R[_[B\L_JA.NA_ WOP "B\L_JA(;O_@3KK@]%"/
XM2D!F /\J0F=.N@N25(]"9TZZ"R)4CV!D2&[_>$AL#JH@;@ *+Q!.NM@TWOP
XM#$AN_WA(;O_@3KKW>E"/2D!G*#U\  '_WB!N  I!Z  $+P@P+@ (4T _ $AN
XM_^!.N@",WOP "F H8!0_/  !+R[_[B\L_JA.NA\VWOP "B\L_JA(;O_@3KK@
XM:E"/2D!FBD)G3KH+"E2/,"[_WF80(&X "B\02&P.KDZZ+?Y0CV *2&P.PDZZ
XM+?)8CS N_]QG*$AN_Q1.NC*,6(]*0&<:,"S_\&<42&[_%$AL#MI.NBW*4(\Y
XM?/___^9.7DYU3E;]QB!N  A!T"\(2&[_F$ZZ,9!0CTAN_LY(;O^82&P._$ZZ
XMUT[>_  ,2&[^:DAN_YA(; \"3KK7.M[\  Q(;OX&2&[_F$AL#PA.NM<FWOP
XM#$AN_LY(;O^83KHQ!%"/2D!G0$AN_FI(;O^83KHP\E"/2D!G+DAN_@9(;O^8
XM3KHPX%"/2D!G'#\\  $@;@ (+R@ #B\L_JA.NAXHWOP "F   20P+/_P9R)(
XM; \.2&[_F$ZZ&VQ0CRU __QG#DAN_YA(; \23KKD+E"/2&P/-$AN_YA.NAM*
XM4(\M0/_\9@Y(;O^82&P/.$ZZY Q0CT)N_S)@*DAL#UQ(;O\T3KHP*%"/,"[_
XM,N6 (&X #M# +Q!(;O\T3KHP$%"/4F[_,C N_S*P;@ ,;<PP+/_N9QA(;O\T
XM(&X "$'0+PA(; ]>3KHL?-[\  Q"9TAN_<8_/ !'3KHF %"/+RX ""\N__PO
XM+/ZH3KH+5M[\  PO+O_\3KH1.%B/0J=(;O\T2&[_F$)G/SP 2TZZ)<S>_  0
XM.4#_YDAN_<8_/  [3KHEN%R/2&[_F$ZZ,,)8CTI 9QHP+/_P9Q1(;O^82&P/
XM=$ZZ+ !0CSE\____YDY>3G5.5O_^0F[__F! ,"[__N> 0>RRFM# 0E P+O_^
XMYX!![+*<T,!"4# N__[G@$'LLI[0P#"\__\P+O_^YX!![+*@T, PO/__4F[_
XM_@QN @'__FVX0F[__F 2,"[__N6 0>RJCM# 0I!2;O_^#&X! ?_^;>9.7DYU
XM3E;__ QN__\ "&8&/7P!   (,"X ".> 0>RRFM# 0= @""U __P@0 Q0__]G
XM!B!N__Q24# N  CE@$'LJH[0P%*03EY.=4Y6_?)"KOWT/SS__TZZ_ZQ4CSU\
XM___]^#\N_?A.N@$T5(\P+OWXP+P  /__@/P  CU _?@P/   /4#]^CU __Y@
XM.# N__[G@$'LLIK0P Q0  !G(C N__[G@$'LLIS0P$)0,"[]^E)N_?KC@$'N
XM_?S0P#"N__Y2;O_^#&X! ?_^;< _+OWZ2&[]_$ZZ 9Q<CS\N_?I(;OW\3KH"
XMXER/3KH#XC\LLIA"9TZZ _Q8CPQ __]G /]D0FRJC$)L_FQ";O_^8# P+O_^
XMY8!![*J.T, @$#(N__[C@4'LL);0P2\ ,!!(P"\ 3KH?&" ?T:[]]%)N__X,
XM;@$!__YMR" N_?1>@"\ (#P    (+P!.NAZ (!]8CRU _?0,; $!LIAL!C \
XM  !@"# LLIB0? $ /4#]\C \  (R/  "P^[]\L/\  +004C T:[]]" N_?1.
XM7DYU3E;_]DCG P ^/   /4?__CU'__A@+C 'YX!![+*:T, P$#(N  B2;O_X
XML$%C!%)N__XP!^> 0>RRFM# ,!#1;O_X4D<,1P$!;<PP+O_^4D ]0/_\0B[_
XM]T)'8#@P!^> 0>RRFM# /5#_^C N__HR+O_\L$%D' QN  #_^F<4, ?G@$'L
XMLIK0P#"N__P=?  !__=21PQ' 0%MPA N__=F /]H#&X  ?_\;R1"1V :, ?G
XM@$'LLIK0P# 0P+P  /__@.[__#" 4D<,1P$!;>!,WP# 3EY.=4Y6   _!SXN
XM  Q51TC'C_P  F 6,"X #%- /P _!R\N  A.N@ 24(]31PQ'  !LY#X?3EY.
XM=4Y6  !(YP, /CP  L_N  Q21SPN  SCAB!N  C0QCP0, >P;@ .;GPP![!N
XM  YL)C 'XX @;@ (T, _*  ", ?C@"!N  C0P#\03KH 8%B/2D!G E)', ?C
XM@"!N  C0P#\0/P9.N@!&6(]*0&<V, ?C@"!N  C0P# 0,BX #..!(&X "-#!
XM,( P!^. (&X "-# ,(8_+@ ./P<O+@ (3KK_8%"/3-\ P$Y>3G5.5@  ,"X
```

```
XM".> 0>RRFM#  ,! R+@ *YX%![+*:T,&P4&,&,#P  6!&,"X ".> 0>RRFM#
XM,! R+@ *YX%![+*:T,&P4&8D,"X ".> 0>RRG-#  ,! R+@ *YX%![+*<T,&P
XM4&\&,#P  6 $,#P  $Y>3G5.5O_Z2.<!$#X\ 0%@  #"(&X "#U0__Y3;@ ,
XM,"X #.. (&X "-#  ,! @;@ (,( P+@ ,4T _ $)G+RX "$ZZ_J)0CR!N  @]
XM4/_\, ?G@$'LLIK0P$'0)D@P!U)'(&X "#" -V[__@ $-V[__  &,"[__N>
XM0>RRFM#  ,! R+O_\YX%![+*:T,'04#: ,"[__.> 0>RRG-#  /Q P+O_^YX!!
XM[+*<T, _$$ZZ #Y8CR( ,#P  =!!-T   C N  Q30#\ 0F<O+@ (3KK^%E"/
XM#&X  0 ,;@#_."!N  @Y4+*83-\(@$Y>3G5.5@  ,"X "+!N  IO!C N  A@
XM!# N  I.7DYU3E8  #\'0D=@#C 'XX!![+"6T,!"4%)'#$<! 6WL/A].7DYU
XM3E;_]DCG P ^+@ *YX=![+*>T,<^$#PN  KGAD'LLJ#0QCP0#$?__V98#$;_
XM_V92,"X "N. 0>RPEM#  ,*X "# \__\R/  0DFX ".)H/4#_]C LKI+ ;O_V
XM,BX "N.!0>RNE-#!,( ,;@ 0  AO"# \__](P& &(#P     8&I@8@Q'__]G
XM+# \  $V+@ (YV!&0,%LKI(_!S N  A20#\ 3KK_7%B/#$#__V8&,#S__V V
XM#$;__V<J,#P  38N  CG8(%LKI(_!C N  A20#\ 3KK_+%B/#$#__V8&,#S_
XM_V &(#P     3-\ P$Y>3G5.5@  +RX "C N  C ? #_/P!.NO7$7(\O+@ *
XM,"X ".! /P!.NO6R7(].7DYU3E;_^DCG P ,; $!LIAL!C \  !@"# LLIB0
XM? $ /4#_^B\N  @_+O_Z3KK_IER/,#P  #U __PP+*8/4#__F!P/B[__N>'
XM0>RRGM#'/A \+O_^YX9![+*@T,8\$ Q' 0%L"# '4D!$0& &,"RRF)!'/@ ,
XM1@$!; @P!E) 1$!@!C LLIB01CP +RX "#\'3KK_0%R/+RX "#\&3KK_-%R/
XM4F[__# N__Q3;O_^,"[__C N__RP;O_Z;88P/  ",B[_^L/\  +#_  "T$%(
XMP$S? ,!.7DYU3E;_^D)N__X]?  (__PP+*J,L&[__&U$#&X  /_\9@@P+O_^
XM8   NC LJHHR/  (DF[__.-@@6[__C LJHHV+O_\YF@Y0*J*,"[__)%LJHPP
XM+O_^P'P _V   (8,;   JHQO&C LJHHR/  (DF[__.-@@6[__C LJHR1;O_\
XM#&P! /YL9AQ";*J,#&X "/_\9@8P//__8 @P+O_^T'P  & ^+RX "$ZZ\NQ8
XMCSE _FP,0/__9@8Y? $ _FPP+/YLXX![*Z4T, Y4*J*,"S^;.. 0>RPEM#
XM.5"JC&  _S!.7DYU3E;_^B\N  Q.NOXZ6(\M0/_Z8!(O+@ ,/R[__DZZ\]!<
XMCU*N__HO+@ (3KK^\%B//4#__@Q __]FVB N__I.7DYU3E8  $AL#Y9(;/]X
XM3KH1R%"/*4#^J&8D,"X "&<02&S_>$AL#YI.NB-*4(]@#DAL_WA(; ^T3KK:
XM=%"/,"X "&<B2&P/SDAL_K!.NA&*4(\I0/ZD9@Y(;/ZP2&P/TDZZVDQ0CTY>
XM3G5.5@  ("S^J&<*+RS^J$ZZ!^98CS N  AG  #*+RS^I$ZZ!]18CTAL#_)(
XM;/ZP3KH1/E"/*4#^I&<</RS^K#\L_JXO+/ZD3KK0L%"/+RS^I$ZZ!Z18CR L
XM_JAG8C L__)G0$AL_Q1.NB=,6(](;/\42&S_>$ZZ)9I0CTI 9Q1(;/\42&S_
XM>$AL#_9.NMFXWOP #$AL_Q1(;! .3KHB;E"/8!Q(;/]X3KHG#%B/2D!G#DAL
XM_WA(;! J3KK9BE"/2&S_>$AL_K!.NB5(4(]*0&<42&S_>$AL_K!(;!!*3KK9
XM9M[\  Q.7DYU3E8  # N  C@0,!\ /\R+@ (%BX "TB#MT'"? #_XX%![*B*
XMT,$V$+= 3EY.=4Y6_^!"9TZZ_GI4CS\\  )"IR\L_JA.NA+BWOP "B\L_JA.
XMNA,86(\M0/_@0F="IR\L_JA.NA+$WOP "F!H+RS^J$ZZ$OA8C]"N__*PKO_@
XM;Q9(;O_D2&P08DZZ(9A0CU)L_^9@4F ^2&[_Y$AL$(!.NB&"4(](;)[@3KH&
XMMEB/2&[_Y$*G+RS^J$ZZ &;>_  ,2D!G!E)L_^9@"DAL$)9.NB%26(\O+/ZH
XM2&[_Y$ZZTXY0CTI 9H8,;  !_^9L#$AL$)Q.NB$N6(]@(@QL  '_YF8,2&P0
XML$ZZ(1I8CV ./RS_YDAL$,1.NB$*7(].7DYU3E;__C\\@ !.NA>F5(\I0/YH
XM("S^:"E _F0@+/YH*4#^8$)L_G8@;@ 0*6@ #OYR0FS^<$ZZQ:P0+/_<2("P
XM?  !9PBP?  "9P)@*F .+RX ##\N__Y.N@'F7(\O+@ (3KH"GEB//4#__@Q
XM__]FWF   8I@"+!\  -G F J8 XO+@ ,/R[__DZZ >1<CR\N  A.N@)L6(\]
XM0/_^#$#__V;>8  !6& (L'P !&<"8#0O+@ (3KH"FEB/8 XO+@ ,/R[__DZZ
XM :A<CR\N  A.N@,(6(\]0/_^#$#__V;>8  !'& (L'P !6<"8#)"9TZZY]A4
XMCV .+RX ##\N__Y.N@$^7(\O+@ (3KKG\EB//4#__@Q __]FWF   .)@"+!\
XM  9G F R0F=.NN>>5(]@#B\N  P_+O_^3KH!-%R/+RX "$ZZY[A8CSU __X,
XM0/__9MY@  "H8 BP?  '9P)@,C\\  %.NN=B5(]@#B\N  P_+O_^3KH ^%R/
XM+RX "$ZZYWQ8CSU __X,0/__9MY@;& (L'P "&<"8& O+@ ,+RX "$ZZXF10
XMCV!2,"S_\&<@(&X $$'0+PA(;!#83KH?1%"/2&P0_$ZZ'SI8CU)L_^8_/  !
XM(&X $"\H  XO+@ (3KH0)M[\  HO+/YH3KH6;%B/,#P  6!"8 )@KB\L_FA.
XMNA986(\P+/YV(&X $+!H !9G(C L__!G%B!N !!!T"\(2&P1)DZZ'MI0CU)L
```

```
XM_^8P/  !8 0P/   3EY.=4Y6   0+@ )2( _ #\L_G9.NOR06(\Y0/YV+RX
XM"A N  E(@#\ 3KK5IER/3EY.=4Y6   P+/YPL'P  &<"8#(0+@ )2(# ? #_
XM#$  D&8(.7P  ?YP8!8O+@ *$"X "4B .4"HB#\ 3KK_EER/8$Y@"+!\  %G
XM F!"$"X "6<88 XO+@ */RRHB$ZZ_W1<CU,N  EF[& .+RX "C\\ )!.NO]>
XM7(]";/YP8!(_+/YP2&P12$ZZU4A<CV "8.Y.7DYU3E8  " L_G)F!C \__]@
XM%E.L_G(O+@ (3KH&B%B//P!.NL+.5(].7DYU3E8  "\N  A.NO_,6(\O "\N
XM  A.NO_ 6(\B " ?X4& 04Y>3G5.5O_^.7P 8Z2"+RX "$ZZ_\I8CSE I( ,
XM;   I(!M" QL 0&D@&T*2&P19DZZU+Y8CSE\_O^DA#E\_O^DAD)N__Y@-B\N
XM  A.NO^06(\R+O_^Y8%![*2$T,$P@"\N  A.NO]X6(\R+O_^Y8%![*2$T,$Q
XM0  "4F[__C N__ZP;*2 ;<!.7DYU3E;_]$)N__Y@>E)LI((P+*2"#$  !V]
XM+RX "$ZZ_PI8CSE _FP,0/__9@@P//__8   @D)LI((P/  !P&S^;#(N__[E
XM@4'LI(30P>. 0=#0P#U0__Y@+# L_FSB0#E _FP]0/_T,#P  <!N__0R+O_^
XMY8%![*2$T,'C@$'0T, ]4/_^#&X  /_^; #_?C N__Y20$1 /4#__@QN 0#_
XM_F8&,#S__V $,"[__CU __XP+O_^3EY.=4Y6   _+@ (3KH4O%2/#&Z#   (
XM;@8P/   8!X_+@ (/SP /DZZ%>)8CSE GC)G!C \__]@!# \  !.7DYU3E8
XM  QN &$ "&T4#&X >@ (;@PP+@ (D'P (& &8 0P+@ (3EY.=4Y6__Y(;!&(
XM+RX "$ZZ'Z)0CTI 9V!(;!&.+RX "$ZZ'Y!0CTI 9TY(;!&4+RX "$ZZ'WY0
XMCTI 9SQ"9R\N  @_/  \3KH57%"//4#__@Q   !L##EN__Z>,C \__]@.# N
XM  S ?"  /P _+O_^3KH3I%B/8!XP/  ",BX #,)\( " 03\ +RX "$ZZ%#Y<
XMCSU __XP+O_^3EY.=4Y6   _+@ (/SP 3$ZZ%/A8CTY>3G5.5O_^+PM![)[,
XM)DA@%C K  K ?  #9P@O"TZZ "I8C];\ !0@"T'LGLPB"-*\   %M+"!;=@_
XM+@ (3KK_KE2/)E].7DYU3E8  "\+)FX ""\+3KH 1%B/2D!G!C \__]@,# K
XM  K ?  09PHO*P &3KH2VEB/0FL "C\K  Q.NOYH5(]*0&<&,#S__V $,#P
XM "9?3EY.=4Y6  !(YP$0)FX "# K  K ?  #9@@P//__8   F"X3GJL !C K
XM  K ? " 9U8P*P *P'P  F8&,#S__V!V,"L "L!\  1G$#\\  )"IS\K  Q.
XMN@^D4(\_!R\K  8_*P ,3KH?UE"/#$#__V8&,#S__V!  FO_?P *, =(P-&K
XM  Y@) QK    #&\</SP  3 K  1$0$C +P _*P ,3KH/6%"/)T  #B:K  9"
XM:P $,#P  $S?"(!.7DYU3E;__"\+)FX "# K  K ?  !9@8 :P!   HP*P *
XMP'P 8&<0,#S__V   0 FJP &0FL !&!2,"L "L!\  AG'B +0>R>S)"(@?P
XM%$'LGH#1P$'0( @F@"=   9@*C K !)(P"\ 3KH1>EB/)H G0  &#(
XM9@@ :P (  I@!@!K !  "@RK       &9Z0M2__\/SP  3\K  Q"IS\\ $).
XMNA+VWOP "B!N__PA0  .)JL !@QK@P  #&8*2&R>X$ZZ_GY8CS K  K ? $(
XM9P8P/  !8 0P*P 2/P O$S\K  Q.NAK84(\W0  $4VL !# K  0,0   ;" ,
XM:___  1F" !K "  "F & &L 0  *0FL !# \__]@#"!34I,0$$B P'P _R9?
XM3EY.=4Y6__PO"R9N  I":P $,"L "L!\  )F!@!K $  "C K  K ? ! 9P@P
XM//__8  !"F!2,"L "L!\  AG'B +0>R>S)"(@?P %$'LGH#1P$'0( @F@"=
XM  9@*C K !)(P"\ 3KH03EB/)H G0  &#(      9@@ :P (  I@!@!K !
XM"@RK       &9Z0P*P *P'P "&<0(%-2DQ"N  D :P"   I@/# K  K ? $
XM9S( :P"   H@4U*3$*X "1 N  E(@+!\  IG&" 3D*L !K!K !)L#! N  E(
XM@,!\ /]@5"\+3KK]+%B/2D!G# !K $  "C \__]@/# K  K ? $(9Q)":P $
XM$"X "4B P'P _V B8" P*P 24T W0  $ &L @  *$"X "2!34I,0@$B P'P
XM_R9?3EY.=4Y6   O"R9N  HP*P *P'P @&8((!.PJP &9@8P//__8!!2:P $
XM$"X "5.3(%,0@$B )E].7DYU3E8  "!N  A3:  $,"@ ! Q   !M%"!N  @@
XM$%*0($ 0$$B P'P _V *+RX "$ZZ_2I8CTY>3G5.5@  (&X "E-H  0P*  $
XM#$   &T8$"X "2!N  HB$%*0($$0@$B P'P _V 2+RX "A N  E(@#\ 3KK^
XM%ER/3EY.=4Y6   @ L"\____ &8$0D-@)E-#XX)D^E1#, + ? $ 9Q8P L!\
XM O]G#M2\   " &0&XHI20V#BXHK@BL9\ /_O0TA"A$,P$,!\@ "$0$A"((),
XMWP/_3EY.=4Y6  !.5@  2.?P@"!N  @@&"(0(&X #"08)A!*@&H(1H!&@0C
XM !]*@FH(1H)&@PC" !^2@Y&"3-\!#TY>0.R>:$YU3E8  $CG_\ @;@ ((FX
XM#"00X8+G@@C" !\P*  $ZDB$0#80Z$/&? ?_9P  WBX1X8?GAPC' !\P*0 $
XMZDB.0#H1Z$7*? ?_9P  P)9%UGP#_D*&0H0P/  ?XX&^@F4&9@JXAF(&4D&<
XMA)6'XH_BE%'(_^@D 3 1L5!@  %(3E8  $CG_\ @;@ ()!#A@N>"",( 'S H
XM  3J2(1 -A#H0\9\!_]G9")N  PN$>&'YX<(QP ?,"D !.I(CD Z$>A%RGP'
```

```
XM_V=$EGP#_]9%* )(1"H'2$4R!,+%, + Q\[$Q,5(1TA"0H1"A3@'.@)"1T)"
XMT(?3A-""TX5*@&<$",$  20!,!&Q4&   +Q"@F   +9.5@  2.?_P")N  PP
XM/(  .4">9K%18   $DY6  !(Y__ (FX #$)LGF8@;@ (+!#AAN>&",8 'S H
XM  3J2(Q .!#H1,A\!_]F D*&+A'AA^>'",< 'S I  3J2(Y .A'H1<I\!_]F
XM D*',A#BCN*/) 8V!# $D$5N%&8$O(=L#C@%+ <Z RX"-@0D!C"12H=G'# $
XMD$5G"+!\ !]N$."O,!&S0 @   ]G D2'U(<P+)YFL5$@ L"\____ &8&0H%"
XM@F!(4T/C@F3Z5$,P L!\ 0!G%C "P'P"_V<.U+P   $ 9 ;BBE)#8.+$?/X
XM(@+HBN"*QGP'_^E#2$+$?  /A$,P$,!\@ "$0$A"(,+I04A!0D$@@4S? _].
XM7DYU3E;_]DCGX( P+@ (P'S_ #U __X";@#_  @,;B  __YF("!N  XP$$C
XM+4#_]DAN__9.N@"X6(]![O_V+4@ #F ^#&XH /_^9P@,;A  __YF+B!N  XM
XM4/_V#&XH /_^9@Q(;O_V3KH A%B/8 I(;O_V3KH /EB/0>[_]BU(  XO+@ .
XM+RX "C N  CE@$'LGD+0P"!03I!0CTS? 0=.7B]7  K>_  *1.R>:$YU3EY.
XM=4Y6  !(Y\" (&X "$*!(!!F!$* 8!CB@.*1XH#BD>* XI' O(_____0O#@
XM   @P""!3-\! TY>3G5.5@  2.?_P"!N  @D$&8&0D-"@F 8;@)$@C8\!!T@
XM L"\____ &8&X8*6?  (3OK^>DY>3G5.5O_R2.<',"9N  @D;@ ,0F[_^BU*
XM__P@"R! *5">7BEH  2>8BULGE[_\BULGF+_]D)%1^[_\CX3Z$_.? ?_9P
XM@)Y\ _]*1VX(OGS__6T28"!214ALGG@O"TZZ_%)03V#44T5(;)YX+PM.NOS
XM4$]@Q"83X8/G@S K  3J2(9 ",, 'TI'9P1$1^ZK,#P ,..#9 )20!3 ,"X
XM%$)!XX/C42P#/@'C@^-1XX/C4=:&TT?2?  P%,%1R/_B0A)@!%)N__HP+O_Z
XM9QXD;O_\0H=@!A3\ #!2AR ',BX %$C!L(%M[D(28&(@+O_\-BX %$C#T(-2
XM@"1 (&[__! 02("P?  P9@)2BEHB8 8$$@ *4B(0$DB L'P .6[P(&[__! 0
XM2("P?  P9A D;O_\( I2@"9 %-MF_%-%("[__#8N !1(P]"#($!"$"!N ! P
XMA4S?#.!.7DYU3E;__$CG 3 F;@ ,0F[__! 32("P? !B9@@]?"  __Q2BQ 3
XM2("P? !R9QX0$TB L'P =V<4$!-(@+!\ &%G"B \     &   48@+)X^)$ ,
XM@     !F*D'LGLPD2& 0,"H "L!\  -F F 6U/P %" *0>R>S"((TKP   6T
XML(%MWB *0>R>S"((TKP   6TL(%M"B \     &   /)"K)X^0FH "D)N__X0
XM*P !2("P?  K9@P]?  "__X :@ #  H0$TB L'P =V88/R[__"\N  A.NO2Z
XM7(\^  !J  ( "F!H$!-(@+!\ &%F0C \  * ;O_\/P O+@ (3KH)7%R//@ ,
XM0/__9A _+O_\+RX "$ZZ]'Q<CSX /SP  D*G/P=.N@6N4(\ :@ &  I@'# N
XM__Z ;O_\/P O+@ (3KH)&ER//@  :@ !  H,1___9@Q":@ *(#P     8# U
XM1P ,0FH !" \     "2 )4  !C\\  %"IS\J  Q.N@544(\E0  .-6R>R@ 2
XM( I,WPR 3EY.=4Y6   I;@ 0GCXO+@ 03KKTXEB/+RX #"\N  A.NOY,4(].
XM7DYU3E;__DCG Q F;@ (/BX #L_N  P\!V!.(&X $%-H  0P*  $#$   &T4
XM(&X $" 04I @0! 02(# ? #_8 HO+@ 03KKUEEB//4#__@Q __]F## 'D$9(
XMP('N  Q@(# N__X6P%-&#$8  &ZL#&X    .;P8P+@ .8 0P/   3-\(P$Y>
XM3G5.5@  2.<# #XN  [/[@ ,/ =@+"\N ! @;@ (4JX "! 02( _ $ZZ^ I<
XMCPQ __]F## 'D$9(P('N  Q@&E-&#$8  &[.#&X    .;P8P+@ .8 0P/
XM3-\ P$Y>3G5.5@  +PLF;@ (+PM.NO0J6(]*0&<&,#S__V @ FO_WP */RX
XM$"\N  P_*P ,3KH$ %"/)T  #C \   F7TY>3G5.5@  +PLF;@ (("L #B(3
XMT($B*P &D($F7TY>3G5.5O_^2.< ,"9N  @D2V 0,"[__A3 2("P?  *9@)@
XM2%-N  PP+@ ,#$   &\Z(&X #E-H  0P*  $#$   &T4(&X #B 04I @0! 0
XM2(# ? #_8 HO+@ .3KKT.EB//4#__@Q __]FJ$(2#&[____^9@X@"K"+9@@@
XM/     !@ B +3-\, $Y>3G5.5OY@2.<!,$)N__Q";O_Z0J[_]D*N__(Y?  !
XM__H@;@ (4JX "! 02(# ? #_/4#__B N  @F0"1 0D=@  %4$!-(@+!\ "!G
XM*! 32("P?  )9QX0$TB L'P #6<4$!-(@+!\  IG"A 32("P?  ,9APP+O_Z
XM9@XP+O_\9P1";O_\0AI@!!3\ "!@  #^$!-(@+!\ ")F/ QN  '_^F8&0F[_
XM^F J,"[__&8@,"[_^F8:/7P  ?_Z,"S_^E)L__KE@$'N_F#0P""*8 04_  B
XM8   N! 32("P?  G9CH,;@ "__IF!D)N__I@*C N__QF(# N__IF&CU\  +_
XM^C L__I2;/_ZY8!![OY@T, @BF $%/P )V!R,"[__&9J,"[_^F9D/7P  ?_\
XM$!-(@+!\ #QF"B *4H M0/_V8$H0$TB L'P /F8N( M2@"! $!!(@+!\ #YF
XM$" *5( M0/_R/7P  ?_P8 P@"E* +4#_\D)N__!@$C L__I2;/_ZY8!![OY@
XMT, @BA33( M2BS '4D<P![!N__YM /ZF0A(@+O_V9RQ![)[,($@Q?  !  I!
XM[)[,($@Q? (  !)(;)[,2&P1KB\N__9.NOQ WOP #" N__)G,D'LGN @2#%\
```

```
XM  ( "DALGN P+O_P9PA![!&P( A@!D'L$;(@""\ +R[_\DZZ_ C>_  ,,"S_
XM^E) P?P !$C +P _/ !(3KH%BER/*4#_]CX\  %@&C 'Y8!![OY@T, @$#('
XMY8$@;/_VT,$@@%)', >P;/_Z;=X@;/_V((HP+/_ZY8 @;/_VT,!"D$S?#(!.
XM7DYU3E;__DCG\  D+@ (9@J _   0H!"@6!*(BX #$)N__Y*@6P&5F[__D2!
XM2H)L!E)N__Y$@G8!M(%D!N."XX-@]D* M(%B!("#DH+BBN*+9/(,;@ #__YM
XM D2!XN[__F0"1( M0  (+4$ #$S?  ].7DYU3E;_^B\ 0F[__DJN  AL"%)N
XM__Y$K@ (2JX #&P(4F[__D2N  PP+@ *P.X #BU __HP+@ (P.X #M%N__HP
XM+@ *P.X #-%N__H";@ !__YG!$2N__H@'RUN__H #$Y>+I]*KP $3G5.7DYU
XM3E;_\@QN    "&P*(#S_____8   _C\N  X_+@ (+RX "C\\ $).N@0XWOP
XM"BU __P,@     !M"" N__Q@  #2/SP  3\N  A"IS\\ $).N@0.WOP "BU
XM__@_/  "/RX "$*G/SP 0DZZ _3>_  *+4#_] QN  $ #F8.("[_^-"N  HM
XM0  *8"0,;@ "  YF#B N__30K@ *+4  "F .,"X #F<((#S_____8&(@+@ *
XML*[_]&\>2&[_\B N  J0KO_T+P _+@ (/SP 0$ZZ X[>_  ,0F<_+@ (+RX
XM"C\\ $).N@-XWOP "@R      %W P'P  3E GC)G"B \_____V *8 A";)XR
XM("X "DY>3G5.5@  2.<!,#X\!!@R+@ (TGP$&%-!PKP  /__@OP$&,[!, ?
XM_  &/P!.N@R^5(\F0+?\_____V8((#P     8!@@"R1 -4< !" *7( O $ZZ
XM +I8CR LGC1,WPR 3EY.=4Y6  !(YP$P/CP  3(N  A<05-!PKP  /__@OP
XM!MY!("R>-"1 #(      9A1![)XX( @D0"E GC0I0)XX0FR>/"92,"L !+!'
XM92HP*P $L$=F!"238!0P!Y%K  0P*P $P/P !M? -T< !"E*GC0@"UR 8"P@
XM"["LGC1F&C\'3KK_'%2/)D ,@     !F"" \     & *( LD0" 3)D!@HDS?
XM#(!.7DYU3E8  $CG # @+@ (78 F0"1LGC1@%B *L))M#B +L(IN!B +L))L
XM F .)%(@"["*;^0@"["2;-X@"S(K  3"_  &T(&PDF80(%(P*  $T6L !"!2
XM)I!@ B:2( HR*@ $POP !M"!L(MF## K  31:@ $))-@ B2+*4J>-$S?# !.
XM7DYU3E8  "\N  @_/ !(3KH!K%R/3EY.=4Y6   O+@ (/SP 24ZZ 99<CTY>
XM3G5.5O_^0F[__F V,"[__N6 0>R= M# ,!!F(C N__[E@$'LG0+0P#"N  @P
XM+O_^Y8!![)T$T, PK@ *8 Q2;O_^#&X 3/_^;<).7DYU3E;__D)N__Y@)C N
XM__[E@$'LG0+0P# 0L&X "&8.,"[__N6 0>R= M# 0E!2;O_^#&X 3/_^;=).
XM7DYU3E;__C\'/BX "#U\ 3#__D'LG0(B2-+N__Z^4&<&6$BSR&;V,"@  CX?
XM3EY.=4Y6__Y(;!&T+RX "$ZZ"MA0CTI 9@H]?(, __Y@  ">2&P1NB\N  A.
XMN@J\4(]*0&8*/7R"___^8   @DAL$< O+@ (3KH*H%"/2D!F"#U\@O[__F!F
XM,"X #,!\  %G,"\N  A.N@N&6(]*0&<&,#S__V!@0F<O+@ (/SP /$ZZ %A0
XMCS\ /SP /DZZ $Q8CS N  S ?  #/P O+@ (/SP /4ZZ #10CSU __XY0)XR
XM#$   &P&,#S__V 8,"X #,!\(  _ #\N__Y.NOY^6(\P+O_^3EY.=2E)G/XI
XM2ISZ*5^<]DY!(FR<_B1LG/HO+)SV3G5.5O_62.<!$"9N  Q";O_6,"X "+!\
XM &1G F (/CP "F N8 BP? !U9P)@"#X\  I@'F (L'P ;V<"8 @^/  (8 Y@
XM"+!\ 'AG F $/CP $ RN       0;"H,;@!D  AF%"!34I,0O  M("X $$2
XM+4  $& .,"X "F8( JX  /__ ! ,1P (9@P@+@ 0P+P    '8"8,1P 09@P@
XM+@ 0P+P    /8!0@+@ 0+P P!TC +P!.NOGP6(\@'S(N_]92;O_6XX%![O_8
XMT,$P@ Q'  AF#B N !#F@,"\'____V H#$< $&8.("X $.B P+P/____8!0@
XM+@ 0+P P!TC +P!.NOFB(!]8CRU  ! @+@ 09@#_<&!&4V[_UC N_];C@$'N
XM_]C0P Q0  IM&# N_];C@$'N_]C0P# 0D'P "M!\ $%@$C N_];C@$'N_]C0
XMP# 0T'P ,"!34I,0@# N_]9FM$S?"(!.7DYU3E;_WDCG Q F;@ ,#&X!   *
XM9@8]?  &  HI;@ 0GEXI;@ 4GF)(;!'&2&R>7C\\" 1.NO"67<# ?  !'4#_
XMWC N  I20#\ 2&[_X$AN_^)(;@ 03KKQEM[\  X0+O_>9P@@4U*3$+P +1 N
XM_^)(@+!\ #!F$A N_^-F#"!34I,0KO_B8  !2@QN &8 "&8  . ^+O_@WFX
XM"E)', >P;)YJ;P8P+)YJ8 (P!SX #$<  &P&,#P  6 ", <_ $AN_^!(;O_B
XM2&X $$ZZ\2#>_  .0D9@&# &4D9![O_BT, 0$"!34I,0@%-'4V[_X# '9P@,
XM;@  _^!LW& ,(%-2DQ"\ #!3;O_@#&X  /_@;.PP+@ *9P@@4U*3$+P +F 0
XM(%-2DQ"\ #!2;O_@4VX "C N  IG" QN____X&WB8"(,1P  ;Q P!E)&0>[_
XMXM# $!!(@& $,#P ,"!34I,0@%-',"X "E-N  I*0&;28& @4U*3$*[_XC N
XM  IG""!34I,0O  N/CP  6 2, =21T'N_^+0P! 0(%-2DQ" ,"X "E-N  I*
XM0&;B(%-2DQ"\ $4_+O_@2&P1SB\33KH#.M[\  HO$TZZ!QA8CTC T9-,WPC
XM3EY.=4Y6__Y";O_^8"(P+O_^P?P "B!N  @@4!802(/00Y!\ # ]0/_^(&X
```

```
XM"%*0(&X ""!0$!!(@+!\ #!M$"!N  @@4! 02("P?  Y;[XP+O_^3EY.=4Y6
XM_^9(YP,P)FX #"UN  C__" +($ D4%B+8  "4F *(&X "%*N  @0FA 29PH0
XM$DB L'P )6;H$!)(@+!\ "5F  (L4HI";O_L/7P! /_H0F[_YAU\ "#_[Q 2
XM2("P?  M9@@]?  !_^Q2BA 22("P?  P9@@=?  P_^]2BBU*__!(;O_P3KK_
XM)%B//4#_ZB1N__ 0$DB L'P +F884HHM2O_P2&[_\$ZZ_P)8CSU _^@D;O_P
XM$!)(@+!\ &QF"#U\  '_YE**$!)G!!X:2(<M;@ (__@,1P!D9Q(,1P!O9PP,
XM1P!X9P8,1P!U9D(P+O_F9P@@"R! (!!@"" +($ P$$C +P!(;@ (/R[_YC\'
XM3KK[5M[\  PP+O_F9P8P/  $8 0P/  "2,#7P&   *0,1P!C9A@@"U* ($ 0
XM$"!N  A2K@ ($(!4BV   (8,1P!S9C0@"R! +5#_]%B+/"[_Z& 6(&[_]%*N
XM__00$"!N  A2K@ ($(!31C &9P@@;O_T$!!FWF!*#$< 96<,#$< 9F<&#$<
XM9V8L( L@0"E0GEXI:  $GF(O+)YB+RR>7DAN  @_+O_H/P=.NOP8WOP $%"+
XM8 PP!R!N  A2K@ ($( @+@ (D*[_^+!N_^IL  ".,"[_[&<D/"[_ZB(N  B2
XMKO_XG$%@#B!N  A2K@ ($*[_[U-&, 9F[F!B("[_^#(N_^I304C!T($M0/_T
XM+4#_\"PN  B<KO_X8!P@+O_X,@9304C!T($@0! 0(&[_]%.N__00@%-&, 9F
XMX& ,(&[_^%*N__@0KO_O("[_^+"N__1OZB N__!2@"U   @0$F8 _:P@;@ (
XM0A @+@ (D*[__$S?#,!.7DYU3E;^_B\N  Q(;O\ 3KK]:%"//4#^_B\N  A(
XM;O\ 3KH .%"/,"[^_DY>3G5.5@  2&X "$ALGN!.NO_&4(].7DYU3E8  $AN
XM  PO+@ (3KK])E"/3EY.=4Y6  !@&"\N  P@;@ (4JX "! 02( _ $ZZZ))<
XMCR!N  @0$&;@3EY.=4Y6__P,;H,   AF  $Z,"R<I+!LG*)F  $ ,#P  #E
XMG*(Y0)RD8   Z#\\  =.NOD05(\]0/_\#&X "/_\9BHP+)RD9R!3;)RD/SP
XM&S\\  ).NOCL6(\_/ !$/SP  DZZ^-Y8CV   *@,;@ -__QF,# LG*12;)RD
XM0>R<IM# $+P "C\\  T_/  "3KKXLEB//SP "C\\  ).NOBD6(]@=@QN  /_
XM_&8*/SP  DZZXZ!4CPQN !K__&8R,"[__#(LG*12;)RD0>R<IM#!$( _/  -
XM/SP  DZZ^&98CS\\  H_/  "3KKX6%B/8"HP+O_\,BR<I%)LG*1!(]RFT,$0
XM@#\N__P_/  "3KKX-%B/,#P  68 _Q1!(]RFT.R<HA 02("P?  :9@8P//__
XM8!(P+)RB4FR<HD'LG*;0P! 02(!@'& :#&Z"_P (9@X_/  #3KKW[%2/8 9@
XM!# \__].7DYU3E;__$CG # F;@ *,"X #L"\  #__RU __Q";)XR#&Z#   (
XM;DA"KO_\8!X_+@ (3KK^:E2/%H!(@+!\__]F!& 48 92BU*N__PP+@ .4VX
XM#DI 9M8@+O_\9@@P//__8   XB N__Q@  #:8"XO+@ *+R[__#\N  @_/  _
XM3KKW7-[\  PM0/_\.4">,@Q   !L"# \__]@  "J/RX "$ZZ]C14CTI 9@
XMDB N__P]0  .("X "B9 )$!@;" +D*X "DC L*[__&U*+PHP+@ .P+P  /__
XM+P _+@ (/SP /TZZ]OC>_  ,.4">,@Q   !L!C \__]@2C LGC)F F N,"X
XM#I!LGC+ O   __^1KO_\)DH0$TB L'P #68$4HM@!A3;4VX #C N  YFCB *
XMD*X "DC +4#__$)LGC(@+O_\3-\, $Y>3G5.5@  +RX #"\N  A"9S\\ %9.
XMNO9\WOP ##E GC)G"# \__]@!F $,#P  $Y>3G5.5O_\,"X ","\  #__R\
XM/SP 2$ZZ]DI<CRU __P@+O_\9@@M?/_______" N__Q.7DYU3E;__$CG # F
XM;@ ()&X #"U+__Q@   "$!MF /_\4XM@   "%MIF /_\("[__&    ),WPP
XM3EY.=4Y6  !(YP P)FX ""1N  Q@   &4HM2BA 39P  $! 3$A)(@4B L$%G
XM /_J$!-(@!822(.00V    ),WPP 3EY.=4Y6   @;@ (( @B;@ ,$-EF /_\
XM3EY.=4Y6  !(YP P)FX ""1+8   !%*+$!-F /_Z( N0BF    ),WPP 3EY.
XM=4Y6  !(YP,0)FX "#XN  Q@   $4HL0$QP 9P  #! &2("P1V8 _^X0!F<
XM  @@"V    @@/     !@   "3-\(P$Y>3G5.5@  2.<#,"9N  @^+@ ,)'P
XM    8   $! &2("P1V8   0D2U*+'!-F /_N( I@   "3-\,P$Y>3G5.5@
XM+RX "#\\ $%.NO3>7(\Y0)XR9P@P//__8 9@!# \  !.7DYU3E8  & T(&X
XM"! 02("P?  *9@X_/  -/SP  DZZ]*98CR!N  A2K@ ($!!(@#\ /SP  DZZ
XM](Y8CS N  Q3;@ ,2D!FP$Y>3G5.5@  8!@@;@ (4JX "! 02( _ #\\  1.
XMNO1@6(\P+@ ,4VX #$I 9MQ.7DYU3E8  & 8(&X "%*N  @0$$B /P _/  %
XM3KKT,EB/,"X #%-N  Q*0&;<3EY.=4Y6__)(YP P)FX "B1+0>P1TBU(__8,
XM;H,   AF%C\N  XO"TZZ_S1<CSUN  [__F   4P,;H+_  AF%C\N  XO"TZZ
XM_V!<CSUN  [__F   2X,;H+^  AF%C\N  XO"TZZ_W!<CSUN  [__F   1 M
XM2__Z0F[__C\N  A.NO*:5(]*0&8  *9@  "4$!)(@+!\  IF  "&( J0KO_Z
XML'P  &] ( J0KO_Z2, M0/_R+R[_^B\N__(_+@ (/SP 0$ZZ\US>_  ,.4">
XM,DC L*[_\F<(,#S__V   *@P+)XRT6[__B\N__8O/     (_+@ (/SP 0$ZZ
```

```
XM\R;>_  ,.4">,@Q   )G!C \__]@=%)N__Y2BB *+4#_^F "4HH@"I"+L&X
XM#F4 _V1@$" +-BX #L:\  #__]"#)$ @"I"N__I(P"U __(O+O_Z+R[_\C\N
XM  @_/ ! 3KKRQ-[\  PY0)XR2,"PKO_R9P8P//__8! P+)XRT6[__D)LGC(P
XM+O_^3-\, $Y>3G4Y?   __0Y?   __(Y?  !__ Y?  !_^XY?   _^PY?
XM_^HY?   _^@Y?   _^8Y?  !_>I#[/VZ0>P,<B+(0>P,=B+(0>P,>B+(0>P,
XM?B+(0>P,@B+(0>P,AB+(0>P,BB+(0>P,CB+(0>P,DB+(0>P,EB+(0>P,FB+(
XM0>P,GB+(.7P0 /VP0^S]DC+\ /\R_ #^,OP _#+\ /@R_ #P,OP X#+\ , R
XM_ " ,OP  $/L_8 R_   ,OP  3+\  ,R_  ',OP #S+\ !\R_  _,OP ?S+\
XM /]![-9@*4C67#E\  #"P#E\  #"OD/LJ(HR_   ,OS P3+\P8$R_ % ,OS#
XM 3+\ \ R_ * ,OS"03+\Q@$R_ ; ,OP'@#+\QT$R_ 4 ,OS%P3+\Q($R_ 1
XM,OS, 3+\#, R_ V ,OS-03+\#P R_,_!,OS.@3+\#D R_ H ,OS*P3+\RX$R
XM_ M ,OS) 3+\"< R_ B ,OS(03+\V $R_!C ,OP9@#+\V4$R_!L ,OS;P3+\
XMVH$R_!I ,OP> #+\WL$R_-^!,OP?0#+\W0$R_!W ,OP<@#+\W$$R_!0 ,OS4
XMP3+\U8$R_!5 ,OS7 3+\%\ R_!: ,OS603+\T@$R_!+ ,OP3@#+\TT$R_!$
XM,OS1P3+\T($R_!! ,OSP 3+\,, R_#& ,OSQ03+\,P R_//!,OSR@3+\,D R
XM_#8 ,OSVP3+\]X$R_#= ,OSU 3+\-< R_#2 ,OST03+\/  R_/S!,OS]@3+\
XM/4 R_/\!,OP_P#+\/H R_/Y!,OSZ 3+\.L R_#N ,OS[03+\.0 R_/G!,OSX
XM@3+\.$ R_"@ ,OSHP3+\Z8$R_"E ,OSK 3+\*\ R_"J ,OSJ03+\[@$R_"[
XM,OPO@#+\[T$R_"T ,OSMP3+\[($R_"Q ,OSD 3+\), R_"6 ,OSE03+\)P R
XM_.?!,OSF@3+\)D R_"( ,OSBP3+\XX$R_"- ,OSA 3+\(< R_"" ,OS@03+\
XMH $R_&# ,OQA@#+\H4$R_&, ,ORCP3+\HH$R_&) ,OQF #+\IL$R_*>!,OQG
XM0#+\I0$R_&7 ,OQD@#+\I$$R_&P ,ORLP3+\K8$R_&U ,ORO 3+\;\ R_&Z
XM,ORN03+\J@$R_&K ,OQK@#+\JT$R_&D ,ORIP3+\J($R_&A ,OQX #+\N,$R
XM_+F!,OQY0#+\NP$R_'O ,OQZ@#+\ND$R_+X!,OQ^P#+\?X R_+]!,OQ] #+\
XMO<$R_+R!,OQ\0#+\M $R_'3 ,OQU@#+\M4$R_'< ,ORWP3+\MH$R_'9 ,OQR
XM #+\LL$R_+.!,OQS0#+\L0$R_'' ,OQP@#+\L$$R_%  ,OR0P3+\D8$R_%%
XM,OR3 3+\4\ R_%* ,OR203+\E@$R_%; ,OQ7@#+\ET$R_%4 ,OR5P3+\E($R
XM_%1 ,OR< 3+\7, R_%V ,OR=03+\7P R_)_!,OR>@3+\7D R_%H ,OR:P3+\
XMFX$R_%M ,OR9 3+\6< R_%B ,OR803+\B $R_$C ,OQ)@#+\B4$R_$L ,OR+
XMP3+\BH$R_$I ,OQ. #+\CL$R_(^!,OQ/0#+\C0$R_$W ,OQ,@#+\C$$R_$0
XM,OR$P3+\A8$R_$5 ,OR' 3+\1\ R_$: ,OR&03+\@@$R_$+ ,OQ#@#+\@T$R
XM_$$ ,OR!P3+\@($R_$! 0^R>S"+\     #+\   B_      R_  ),OR# "+\
XM     #+\   B_      R_   (OP     ,OP! C+\@P B_       R_ ( (OP
XM    ,OP  "+\     #+\ 0(R_(, (OP     ,OP" -+\!7@Y? ( GLHI;!&:
XMGG@I;!&>GGPI;!&BGG0I;!&FGFPI;!&JGG Y?  'GFI#[)Y"0>T !B+(0>T
XM'B+(0>T &"+(0>T )"+(0>T *B+(0>T $B+(0>T #"+(*7P     GCXI?
XM  ">-#E\  "<I#E\  "<HDYU*$,I($-/4%E224=(5" Q.3@U+#@V(&)Y(%-Y
XM<W1E;2!%;FAA;F-E;65N="!!<W-O8VEA=&5S.P @04Q,(%))1TA44R!215-%
XM4E9%1 H*  !0;&5A<V4@<F5F97(@86QL(&EN<75I<FEE<R!T;SH*"@  (" @
XM(" @(%-Y<W1E;2!%;FAA;F-E;65N="!!<W-O8VEA=&5S"@ @(" @(" @,C$@
XM3F5W(%-T<F5E="P@5V%Y;F4@3DH@,#<T-S *"@  66]U(&UA>2!C;W!Y(&%N
XM9"!D:7-T<FEB=71E('1H:7,@<')O9W)A;2!F<F5E;'DL   @<')O=FED960@
XM=&AA=#H*   @(" @,2D@("!.;R!F964@:7,@8VAA<F=E9"!F;W(@<W5C:"!C
XM;W!Y:6YG(&%N9  @9&ES=')I8G5T:6]N+"!A;F0* " @(" R*2 @($ET(&ES
XM(&1I<W1R:6)U=&5D($].3%D@:6X@:71S(&]R:6=I;F%L+   ('5N;6]D:69I
XM960@<W1A=&4N"@H  $EF('EO=2!L:6ME('1H:7,@<')O9W)A;2P@86YD(&9I
XM;F0@:70@;V8@=7-E+"!T:&5N('EO=7( (&-O;G1R:6)U=&EO;B!W:6QL"@!B
XM92!A<'!R96-I871E9"X@(%EO=2!M87D@;F]T('5S92!T:&ES('!R;V1U8W0@
XM:6X@80  (&-O;6UE<F-I86P@96YV:7)O;FUE;G0*  !O<B!A(&=O=F5R;FUE
XM;G1A;"!O<F=A;FEZ871I;VX@=VET:&]U="!P87EI;F<@82!L:6-E;G-E "!F
XM964@;V8@)#,U+B @4VET90H ;&EC96YS97,@86YD(&-O;6UE<F-I86P@9&ES
XM=')I8G5T:6]N(&QI8V5N<V5S(&%R90 @879A:6QA8FQE+B @02!P<F]G<F%M
XM"@!D:7-K(&%N9"!P<FEN=&5D(&1O8W5M96YT871I;VX@87)E(&%V86EL86)L
```

```
XM92!F;W(@)#4P+@H   I)9B!Y;W4@9F%I;"!T;R!A8FED92!B>2!T:&4@=&5R
XM;7,@;V8@=&AI<R!L:6-E;G-E+"   "!T:&5N('EO=7(@8V]N<V-I96YC90H
XM '=I;&P@:&%U;G0@>6]U(&9O<B!T:&4@<F5S="!O9B!Y;W5R(&QI9F4N"@H
XM05)#("T@07)C:&EV92!U=&EL:71Y+" U+C$R("T@071A<FD@4U0*"@  57-A
XM9V4Z($%20R![86UU9F1X97)P;'9T8WU;8G-W;FA=6V<\<&%S<W=O<F0^70
XM(#QA<F-H:79E/B!;/&9I;&5N86UE/B N("X@+ET*"@!7:&5R93H@("!A(" @
XM/2!A9&0@9FEL97,@=&\@87)C:&EV90H  " @(" @(" @(&T@(" ](&UO=F4@
XM9FEL97,@=&\@87)C:&EV90H (" @(" @(" @=2 @(#T@=7!D871E(&9I;&5S
XM(&EN(&%R8VAI=F4* " @(" @(" @(&8@(" ](&9R97-H96X@9FEL97,@:6X@
XM87)C:&EV90H  " @(" @(" @(&0@(" ](&1E;&5T92!F:6QE<R!F<F]M(&%R
XM8VAI=F4* " @(" @(" @('@L92 ](&5X=')A8W0@9FEL97,@9G)O;2!A<F-H
XM:79E"@  (" @(" @(" @<B @(#T@<G5N(&]N92!F:6QE('=I=&@@87)G=6UE
XM;G1S(&9R;VT@87)C:&EV90H  " @(" @(" @(' @(" ](&-O<'D@9FEL97,@
XM9G)O;2!A<F-H:79E('1O "!S=&%N9&%R9"!O=71P=70* " @(" @(" @(&P@
XM(" ](&QI<W0@9FEL97,@:6X@87)C:&EV90H (" @(" @(" @=B @(#T@=F5R
XM8F]S92!L:7-T:6YG(&]F(&9I;&5S(&EN(&%R8VAI=F4* " @(" @(" @('0@
XM(" ]('1E<W0@87)C:&EV92!I;G1E9W)I='D*   @(" @(" @("!C(" @/2!C
XM;VYV97)T(&5N=')Y('1O(&YE=R!P86-K:6YG(&UE=&AO9 H (" @(" @(" @
XM8B @(#T@<F5T86EN(&)A8VMU<"!C;W!Y(&]F(&%R8VAI=F4* " @(" @(" @
XM(',@(" ](')-U<'!R97-S(&-O;7!R97-S:6]N("AS=&]R92!O;FQY*0H (" @
XM(" @(" @=R @(#T@<W5P<')E<W,@=V%R;FEN9R!M97-S86=E<PH (" @(" @
XM(" @;B @(#T@<W5P<')E<W,@;F]T97,@86YD(&-O;6UE;G1S"@ @(" @(" @
XM("!H(" @/2!H;VQD('-C<F5E;B!B969O<F4@<F5T=7)N:6YG('1O($1E<VMT
XM;W * " @(" @(" @(&<@(" ]($5N8W)Y<'0O9&5C<GEP="!A<F-H:79E(&5N
XM=')Y"@ *071A<FD@4U0@=F5R<VEO;B!D979E;&]P960@8GD@2&%R=F5Y($IO
XM:&YS;VX*  !P<F5S<R!A;GD@:V5Y('1O(&-O;G1I;G5E  H 05)#5$5-4 !4
XM14U0   N05)#   N)"0D   N0D%+  !!355&1%A%4$Q65$-2 $-A;FYO="!M
XM:7@@)6,@86YD("5C"@ E8R!I<R!A;B!U;FMN;W=N(&-O;6UA;F0* $D@:&%V
XM92!N;W1H:6YG('1O(&1O(0H  $D@9&]N)W0@:VYO=R!H;W<@=&\@9&\@)6,@
XM>65T(0H <')E<W,@86YY(&ME>2!T;R!C;VYT:6YU90 * #T *BXJ $YO(&9I
XM;&5S(&UA=&-H.B E<PH 3F\@9FEL97,@=V5R92!A9&1E9"X* $1U<&QI8V%T
XM92!F:6QE;F%M97,Z"B @)7,*(" E<P  0V%N;F]T('5N<V%V92 E<PH 8G(
XM $-A;FYO="!R96%D(&9I;&4Z("5S"@!5<&1A=&EN9R!F:6QE.B E+3$R<R @
XM  !!9&1I;F<@9FEL93H@(" E+3$R<R @  !!9&1I;F<@9FEL93H@(" E+3$R
XM<R @   E<UQ!4D-414U0+D-65   05)#5$5-4"Y#5E0 1FEL92!N;W0@9F]U
XM;F0Z("5S"@!B=RL 56YA8FQE('1O(&-R96%T92!T96UP;W)A<GD@9FEL92 E
XM<PH 0V]N=F5R=&EN9R!F:6QE.B E+3$R<R @(')E861I;F<L $-A;FYO="!U
XM;G-A=F4@)7,* %EO=2!M=7-T('1E;&P@;64@=VAI8V@@9FEL97,@=&\@9&5L
XM971E(0H  $1E;&5T:6YG(&9I;&4Z("5S"@  1FEL92!N;W0@9F]U;F0Z("5S
XM"@!< %P   !&:6QE(&YO="!F;W5N9#H@)7,*  P 17AT<F%C=&EN9R!F:6QE
XM.B E<PH  &)R  !705).24Y'.B!&:6QE("5S(&%L<F5A9'D@97AI<W1S(0
XM("!/=F5R=W)I=&4@:70@*'DO;BD_(   )7,@;F]T(&5X=')A8W1E9"X*  !B
XM=P  0V%N;F]T(&-R96%T92 E<PH 8G(  $%N(&5N=')Y(&EN("5S(&AA<R!A
XM(&)A9"!H96%D97(N"@ E<R!I<R!N;W0@86X@87)C:&EV90H (" E9"!B>71E
XM<R!S:VEP<&5D+@H  $EN=F%L:60@:&5A9&5R(&EN(&%R8VAI=F4@)7,  $D@
XM9&]N)W0@:VYO=R!H;W<@=&\@:&%N9&QE(&9I;&4@)7,@:6X@87)C:&EV92 E
XM<PH 22!T:&EN:R!Y;W4@;F5E9"!A(&YE=V5R('9E<G-I;VX@;V8@05)#+@H
XM5W)I=&4@9F%I;" H9&ES:R!F:6QL/RD*  !P<F5S<R!A;GD@:V5Y('1O(&-O
XM;G1I;G5E  H 3F%M92 @(" @(" @("!,96YG=&@@(" @4W1O<F%G92 @("!3
XM1B @(%-I>F4@;F]W   @($1A=&4@(" @(" @5&EM92 @("!#4D,* #T]/3T]
XM/3T]/3T]/2 @/3T]/3T]/3T@(#T]/3T]/3T](" ]/3T](" ]/3T]/3T]/0
XM(" ]/3T]/3T]/3T@(#T]/3T]/2 @/3T]/0H  " @(" @(" @/3T]/2 @/3T]
XM/3T]/3T@(" @(" @(" @(" ]/3T](" ]/3T]/3T]/0H 5&]T86P@)39L9" @
```

```
XM)3AL9" @   @(" @(" @(" @)3-D)24@("4X;&0@( H  $9I;&4@;F]T(&9O
XM=6YD.B E<PH 2F%N $9E8@!-87( 07!R $UA>0!*=6X 2G5L $%U9P!397
XM3V-T $YO=@!$96, )2TQ,G, (" E.&QD("   " @("TM(" @   @4&%C:V5D
XM(   4W%U965Z960  &-R=6YC:&5D  !#<G5N8VAE9   56YK;F]W;B$  " @
XM)3-D)24 (" E.&QD("   "4R9" E,W,@)3 R9   (" E,F0Z)3 R9"5C(" E
XM,#1X   * $9I;&4@<&%C:V5D('=I=&@@)60@8FET<RP@22!C86X@;VYL>2!H
XM86YD;&4@)60* %-T86-K(&]V97)F;&]W"@ @86YA;'EZ:6YG+"   $%20U1%
XM35 N0U). $%20U1%35 N0U). &)W*P!5;F%B;&4@=&\@8W)E871E('1E;7!O
XM<F%R>2!F:6QE("5S   @ "@E;&0I(   <W1O<FEN9RP@ "@E;&0I(   <&%C
XM:VEN9RP@ "@E;&0I(   <W%U965Z:6YG+"  *"5L9"D@  !C<G5N8VAI;F<L
XM( !#86YN;W0@9&5L971E('1E;7!O<F%R>2!F:6QE("5S"@  9&]N92X*  !"
XM=6<@+2!B860@;F-R('-T871E"@  +E)30P  8G(  %1E;7!O<F%R>2!F:6QE
XM("5S(&%L<F5A9'D@97AI<W1S"@!B=RL 56YA8FQE('1O(&-R96%T92!T96UP
XM;W)A<GD@9FEL92 E<PH 17AT<F%C=&EN9R!F:6QE.B E<PH  "XJ  !&:6QE
XM(&YO="!F;W5N9#H@)7,* $D@:&%V92!N;W1H:6YG('1O(&1O(0H  $-A;FYO
XM="!D96QE=&4@=&5M<&]R87)Y(&9I;&4@)7,*   N5%10   N4%)'   N5$]3
XM  !B<@  5&5M<&]R87)Y(&9I;&4@)7,@86QR96%D>2!E>&ES=',* &)W*P!5
XM;F%B;&4@=&\@8W)E871E('1E;7!O<F%R>2!F:6QE("5S"@ @ $EN=F]K:6YG
XM(&9I;&4Z("5S)7,*  !#86YN;W0@9&5L971E('1E;7!O<F%R>2!F:6QE("5S
XM"@  8G(  $-R96%T:6YG(&YE=R!A<F-H:79E.B E<PH 0V%N;F]T(')E860@
XM87)C:&EV93H@)7,*  !B=P  0V%N;F]T(&-R96%T92!A<F-H:79E(&-O<'DZ
XM("5S"@!B<@  0V%N;F]T(')E;F%M92 E<R!T;R E<PH 2V5E<&EN9R!B86-K
XM=7 @87)C:&EV93H@)7,* $-A;FYO="!D96QE=&4@;VQD(&%R8VAI=F4Z("5S
XM"@  0V%N;F]T(')E;F%M92 E<R!T;R E<PH 07)C:&EV92!T<G5N8V%T960@
XM:6X@9FEL92 E<PH 5&5S=&EN9R!F:6QE.B E+3$R<R @ &]K87D* $YO(&5R
XM<F]R<R!D971E8W1E9 H 3VYE(&5R<F]R(&1E=&5C=&5D"@ E9"!E<G)O<G,@
XM9&5T96-T960* $D@9&]N)W0@:VYO=R!H;W<@=&\@=6YP86-K(&9I;&4@)7,*
XM $D@=&AI;FL@>6]U(&YE960@82!N97=E<B!V97)S:6]N(&]F($%20PH  %=!
XM4DY)3D<Z($9I;&4@)7,@9F%I;',@0U)#(&-H96-K"@!"860@3D-2('5N<&%C
XM:VEN9R!S=&%T92 H)60I"@!&:6QE(&AA<R!A;B!I;G9A;&ED(&1E8V]D92!T
XM<F5E"@  0T]..@  0558.@  4%)4.@  0"0       $_@   /_        !R
XM &$ =P!#3TXZ  !!55@Z  !04E0Z             "5D   -"@       @8&
XM!@8&!@8& !H:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:
XM&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:
XM
XM
XM
XM
XM
X-
X
Xend
!FaR!OuT!
exit
--
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________     TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
```

From 6232901502829233250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58c7c95228f36c90
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 17:43:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: alite.prg repost
Message-ID: <1345@trwrb.UUCP>
Date: Wed, 8-Oct-86 20:43:16 EDT
Article-I.D.: trwrb.1345
Posted: Wed Oct 8 20:43:16 1986
Date-Received: Fri, 10-Oct-86 00:42:49 EDT
References: <432@atari.UUcp>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 610

This is a repost of alite, a midi/graphics demo available from CIS. Extract
the shar file below and run it through sh to get the files "readme" and
"alite.uue". Run alite.uue through uudecode to get the ARC archived file
"alite.arc". Finally (phew), use the latest version of ARC to extract
the files "alite.prg", "1alite.sng", and "1alite.pic". See "readme" for
more info.

Don't you hate those guys that don't know how to post anything to the net?

-Rich

#! /bin/sh
To extract, remove mail header lines and type "sh filename"
echo x - readme
sed -e 's/^X//' > readme << '!FaR!OuT!'
XHere is my test case for ARC. Uudecode the file alite.uue and you'll end
Xup with alite.arc. You may then use the "x" option in ARC to extract the
Xfollowing files:
X
X   alite.prg
X   1alite.sng
X   1alite.pic
X
XLet's all start using ARC and we can cut down considerably the amount of
Xtime and money we spend uploading/downloading software.
X
XAlite.prg was written by the fellows who brought you The Music Studio (tm)
Xand was posted nearly a year ago on CIS. Basically, it is a MIDI/graphics
Xdemo with a pronounced yuletide flavor. However, you can also use it to
Xplay all those *.sng files floating around out there. To do so, you must
Xdo the following:

```
X
X    1) move the *.sng file to the same disk as alite.prg
X    2) rename the *.sng file 1alite.sng (or 2alite.sng, 3alite.sng,...)
X    3) make sure a corresponding 1alite.pic file is on the disk
X    4) execute alite.prg, the rest is easy
X
XI've included 1alite.sng and 1alite.pic in this posting to get you started.
X
X-Rich
X
X _________ ______ ____ _____ ___
X/_________//___   ||__|/____|/__/   Richard E. Sansom
X   ___    ____/  / ___________      TRW Electronics & Defense Sector
X  /  /   /  /\  <  |    /|    /      One Space Park Drive, R3/1028
X /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
X/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
!FaR!OuT!
echo x - alite.uue
sed -e 's/^X//' > alite.uue << '!FaR!OuT!'
Xbegin 666 ALITE.ARC
XM&@@Q04Q)5$4N4$E#    0R,  +T*D99B1H!]   , " 9*$  @)""!P $$%!@
XM0H +!0X(&'!@@  Z!V <@'( SD40D!"X #D@()5__P(:0*F2I4"7*U.^E!FS
XM)4V8.&_JM,ES9L^:/GT"$"'BSS]1(B 50)DT9E.F,Y_^DTHUJE6G5Z%BW:JU
XMZ]2L_D2,(%JEBM%J592B3!N3[=J9;O_%G0NW;EN[;^_JS<M7;MT")_VE'4 %
XM 2*CB! 9AC0 ):*9CV-&=@RYLF3+E"]KSLSYWV3/F$%O]H<H46(H .  ^/8/
XMM=J=08'*SOF3=FS;LV'G#CB  @ /_^H!H'#BWYU_K_X5AR1)V#]O_\;]$W;%
XM^', U94" /!/X/;N!KY[YSX>O/CPY-&;3W^^/7OVC2&-H/8\^#]J!ZP[ I!?
XM^_OU )8GH'H#NA<@@0@"$-\(R-27SC_(7!',<=Y@]\\Y][#$W3_]=%<2>0/\
XMHN&!X@W084K_E?=/AHP96""(&:+H88P*HL3B "QR0!]T]=QW@B#'N0+ "<,<
XM\XZ&S[R3CX?;[8/2#R,:!4E!*0ZPI(Q.3FG@/T>V"$"7!;A(X #GC'ADF2DU
XM]DZ7 QS9I01N>GBD<]!)1UT/%&+7QSEH;G=D,,.,^,\PC<GXQS"^C,A8H#+^
XM,T@PB@Z0B*"],/K=A9:".(B@@V2*TC">.@IIH\.,JA!*YS":*DJ;,M;J OV<
XM$^N)9>YH'WX!'+?? 3^<<XR&[SP32" :@GI( !H>,T0@/!3;QS_$RCA( -%N
XM-T2@&WZ71 Z':+C',<=TB^(SOR(KXQ#4:GCM(=4"<,PP 6R*XA"+!"*O@H,L
XM<DRT^SX#KX?(#M%= OR\PXL[O/CSRY'(O.+-*P]&"$B>5P3")[#OY%#H=GO\
XM,4 .&OZP1P[-HKC'LZ9NF /()N_Q#PDCMJ&QM[U"B>([1K'\W1X[; Q QP/X
XM_,,?.?3Y\SO!]*GF.2PS_<[('H+L,B0)]/-()XYTXL\GC]SG\"L]4G,"+T$.
XM&:O1:^:0G\E'!*(S (.,7 %+!.P!9;N#KNRMRRS$G$.[>PQRCLU^YCRBW6MO
XM]T?;B<-]1-'>OF,Q2P,,\P[3J.;P-,B,23UP/ _$XD L"C\PW==V7I'K=5?\
XM,(YTC08@] _#O/W/'@,LPA("/WSRC\___)"#N1Q#6?)W?020*93C  \E\'_\
XMX'/TA(XH?#C>GC, ]BD%T&OS*($O?-2W=T> /_^@[T\XGX3 20C\]'[?*=Z<
XM$O8!@^C*WR#@)GO,(.+:#@ /X3(4$? 0OTH) 1#XCP!RAX#W^MFFGB6C/@!0
XM0P ,5[*ZU;A_'.$/#@0A8S1T" +.PUOS.,0)TZ1"#?XC7.&:V@!<-C4"\.,?
XM-^3'"6> #Q[:#!FC\,8H(E8=BG4G3"E*4!+%Y*(!&,50YF,B?+I3 ?6E#R5_
XMR$<6GTB-67AC%F$K3MF6@T02+?&,9DSCB\RS(#I%9SI%9-T1I:A&)=:1C@5:
XMD*WNUP_]]:>,C#%:@$RDJ#&=B(X<8M)_$NDEE(BHD7GL#H,<!*$KY(-B6:*2
XMAQ+XG6=$$417^DXF2Q1*[HQRD4OR4I;*^(]4?LA)4/*2E  9'CW6)XP3^H>0
XMBH,H00U#D.\81@0_E3(/A>I1D1JFHT(5C%[XDIF*1,D G(DBH]RH/6VL3^H"
XM0;%A,,M9DT.1Y0)!/  ,8UGM A6T1C2M=EWK'^7\![K<Z<VW#6,/[$J6-Q49
XMJ "\;0A[8).?YFA+'MWG #GP(^XZH*'HD:FA&7O;'G#WMC^XK)C_T%O+,GJX
XM'4AT9!^57D.)IDB7:91C>[CF%.73(.@0,:&LV\,!=(>B(WSB $8[0D3WAE -
XM'<%E>*O=1SDJ([M5%*1[^T'C%L>Y#YFTG'83Z)<(*LD]^FAUNY0>)P'P@V<,
XM ';;>9[0/%;.'SS/>L.CV>^B)-)J_B  997>()#EI>>UZP^MTJ1WLEDG..:/
```

```
XM=0 \D@'?P4 #AJMQASC"(2*XV :."(+>VE0'/QC"Q49P$ ,D86.])-E,_1&;
XM5;WE0?7#GSE6Z8G?D9)>[<@8U')'M7@<DP,=JZ653M*EE;1.A;)#R]CZ%HUK
XMC*1\K"HVZ^S2M'<$+FN7ZUN^OI$ZNK60?Y)+W> R=XD%O55^=!6 _C0 &.SY
XM0'<\ -[J7I>-DFSI/XBHVP!DY[OA'6]YK?M;] Y7M,4-4@"6 U_SB!<2Y%5N
XM??<J23>F+KJ\E=(+YGM>^MJ6N-O]QZZ.J& &<[4[4U O>XVHE JS)Y93(*X8
XM=3DD"G=GP1_N#@*Z!8D#G! 2#X@E[\#CNQ;[X[\9,# <$6QB2%0 O/-%2&DA
XMX0 +RS@^;?+0.#S)&/0U&3Q=18F3!^ /FTEI /\E)&/X@6,(D_:/4JJ B$0T
XM7QRM" "F@P0#YEL ?US8R09 \CM$%)VN/?G.(7I2UZ[89"M[*,L=VC*.-9Q;
XM#A<@S$8Q"B!@=.8TKYD\;7XS2I@<-#G1>1QVIK*'IDSG'^QYRE7&XI\]=,,M
XMQS(#(C9NB3O<'0=8,20ERM ]T-R=1Q_1S5!"'Y<\- (Y^2XZ-=8TGG\M/SY3
XM.98&2+.PC]V='&MSQX:6D@,ZU"$XQ[K1M68SKOD<YQF 9Q"4UO4AX!SE].E:
XM$"L1B+)!W2R!>."_$?"R'WOL "<YJ=1CDC6MU:QM2:=/L +H-6/H/(!,ZWK9
XMG?ZTK@4@ /"LVTGIPP%X&)#F"! Z0CQF-9%E_0]\#%+?CNYWKJ7L#I0(0 0>
XM2M3O'+%I:4Y9Y3]@N;E-WO!_7#G+_H"X/R3^CWW8# $53_48Z1TG>'P<V_R&
XM]+9U[8R2_^/DDU;Y &3^C(.__$DR=X8GGUZHFV]:YSS?P:\14.,(Z!BZT6XU
XM:U@#CJ//.N1*][<[G$X4E+Q#Y2.0^3MT/8*K!T_F[A"L6$3-F _\.N=2YODN
XM/(2([DA WA(>\J%;/>9_ ,/M^[:U4I:.$G?H6@0-9XS46?[DW_E]ZE(&>*]M
XM_L0#9%GG&$#)XAF#""9;G)(83SN1$_T/0& >[K>6^^=#/X#1M]ST'A*1/PJ.
XM$C^H'HNM%R^'(,Z/V/]C]@- 1-#Q.^+C:KP!5DS)[[,=]Y'_P_-,B<D?C&]S
XM71^ T]+<LP.>'SR;N1XE_:"^]7/!>'B?/8Z[U6,-0&WI4R4@1W[!9WYF8#K_
XML( H<0"_!H$H\0"Z1H$/Z#O^(('I<P8FQX'_\ AT]@B_Q@\L0X(HP0DV@X+=
XM$6_X%6$3]GWVAD,&B'2:%QZQU &@!A[Q@0"/% (7!X#2-7F0T  <AP\S^'8(
XMZ!TWF(,"T1\$<&6Q% )"1V)D)"4-4'1'F'E&UATX>'S*EF9/Z"%2$@+_EW%"
XMV !K]P_@D(7 IX08!GDO>(:59V&,AH1)9QX@]H-F:(6\MVCC=X=N" DAQGVJ
XM5H7@\6H(T$0'"(@VJ&(_X G@\0'XEF80,(G=(0)EJ'L&0(#6!B(G- \ P  S
XM0H-;"&<^P &MY@,9 ![, !P"\5\'<(K@P0&N:  >4(O_I0"0]P@9V&,&$(/X
XM5B+K$!T @(J,L8@>@ .<$(G=<0 \D RLR S@P63.*(T"P0Q,9@#,8(T&P&0*
XMH(?'\0W^D&#@482#M W_L T T&YF9H?)*(H"08W/&(T.UXP\ (\&P _XQ@"6
XM" FZ2(C'\0K^8(@"472#M'B[  !\,(KN^ /+&(_V"(T"P036Z  \@&_Z2(^0
XM8';/AG;_(([D*!!IV'8",D.W P"EUH[[=@%P]@&0^(K-*(L"P0G.4(\MY@/X
XMR ]PY@"UF&;_:%#X81V\"&;@,8< DC[[D',!D)*+F ;@^)'CZ(M]>)3YEW\#
XMP)1(EP93*) $V697)'XJL@]3<@!8:8=ID(D?"0PA60"<N$CWL ]O^0!EN9)P
XMEF:\$DMD26,U%@.[" Q$J13 N$COL ^#*8D,N9(8F8W\X "1Z'$"X0#_%0-/
XM^0UJV6,%4(2+] W[H)D_,)=IQI+@P0,U*1 _T&[=B&^8L)=;"01=B85'^0O[
XM )M_X)GCQ0C96)H.AYII%@-H^0U L)8CN4A_L _#B4.'F68>@(U0UFX'X)C)
XMIIHM*)1 \)<%,(<@HCZGPAC >)S=<0'XY@&,^8JDEVSX]@E[.9F_:9E]""+4
XM5B/:V7/&>8Q9N9K+<3Y_X&2)""+V-F0#L)WR:9:]F9Y3T@]_4&U_V)_P29N0
XMH)71>1R/,)WF0YSW-DAN @"OEZ >8G3P0&MIXIX1 &=2\@#](8&0  %I9@ U
XMA@#A:0 'L*('8#KHF1T$< ]_D"'.62)K=V'O.:$EN9_]88$"\0<G^G[@\0<N
XM.J3-Z ]F !XCJJ3@X0<<*!#.P('T:3XX<R1&5Y)C!@!7YI]CXJ/= :0&X =+
XM&J1P=@1E(A">4*8&("7OYP?@$:7OEVX&X !' !Z.<*<!*J/?\ =L-TB)1AX$
XMX*4E J8P!F=0RJ1P9@;]80">$*4LFJ1PVH0JEJ8&8 [+<:G%L8L0.B6_\ =D
XM=I161%>#BJ$]VG-#)J:)*A#GL*B0^JC@D:;OQZ91B@"C:0!FP*9FP($Q:CY_
XM,$*^IR($&!^ERJ-?BJH_"F<M:I,'T*S@<0PK^@ UMJP"4:O_E6PG^@"F4Z5/
XM!J=@J1[PZ21.2*CZB:S=<0.QE )[2FH**:@!00#FDQ^-2JX>8JAAP*E_>0 L
XM4F^F>JS[,&1AT*L:9P'TNJ, RZU"2+#]6JCF"@D6\ $^ !YX$'LMAF\X8(P&
XMT)E0)G$"@0$XMJX#6[ (^J_)"AY\8)IY **IA**<@Z(KJX("\0FGAJ\]IK#&
XMRK D&Z;X%@\1*Q!X@&QXF8R1B&\Q@&P^<&H"F[ >YY@%,2515!+Q$0'X!@^U
XM^ <UEK'X9K7@@0FK*!"0\!M%6F.H!I#(P9H4=J-I9@&A!@D9 *(]:P!Y\))M
XMNK+Y<+4_L+*?8)IUVVP@>VAHVYV/! (?8)H\P+'-.8NF.9O+"1[QTVPTVV%_
XM"PF#D+1_$+F#@+"5:QYI]@,W*F#I$1\<T+>9ZQV;V[GF!;J/VUO*)25LD+0#
XMMERQQ 53Z'VJ2R)2,@>]^0_9X03!Z+G@05<ZTJ ?^ _]P;OF=1[ .YFZVQW&
XMZV ' KQ"=PBO< C+,0%_\ S7>ZZ]:U[ FXE^\ T^D!T#H /K0+[FPP@X@+[F
```

```
XM$P?/P+[:>[SI ;T-V@>/T ?],0#0$ 3Y:S[U< W]:SX<&*4XL+W.*Q#)BWM%
XMU ??T ?BBQ9H83X%< T1;#YY\ P5_+X%C"#R"Y1B9 BO8 C+,0 WT 4C;#Z%
XM@ TG;#YC\ TKO&N04 ,$W& &T+T=&4>LL;LQ'%L;K%U"2;S=(0F3R0^\];JQ
XMU1]4L)7\L!S-4</6\0U"_,.[R _] <0(W,1/W&1])W"+@,0A[ ^KX ^Z PDM
XM4'EJ!@\_8,;=L02]><54M@S^L Q'%"B! ICP"0D40,8%X$E,5IW_\$@%8,9H
XM# E+$,7WZ\5>?$1D3  ?$ ^+;#['@ ^/O+[;$ ?H."4?@ ^7;*4\\ [M1@ Q
XM\ ^?K&[_D&9+$,3BZP^;@,I') O_P,I3,IB#:3Z[L ^S;#Z@< ZW;#Z_, ^[
XM;*6[\ ZS1P"@\ _#+,JDS,6;]L5A7 "Z\ _-_,J$F4FS7,M3\@KG8,VZS ^_
XM4&H$ ,S ;#[)D1S&G,9K?,I9',>#8CX?T _K[,C[< R9% O;(,_F\PWQ8,^.
XMS ''8(R>#,KU>,S"^PA2W!U$8#JD;,H$;=!IO"/W$$;6\0I)G-"C3,[/<0\'
XM%HY77- 3#0DE0,8,0,:;R$@+P-#W(Y0#/26-$1\]D-)'5'(E-X0>'8-*$2>[
XM9W/=L0 M=0\;]I%L[ ][X-/=00(R;0$LK10N;3[C\ %);3[N< I-;3X8\ =1
XM;3[#X -5;3XM\ ]9K10X$ ==;3[&D -A;3[=\ AE[2$D[2,/'=%--@C^T"H%
XMH-!#^&H%D$-')-,%0-/?97GF\P/NX-?FXPP/(-CFHPZ:8-CFLP"_H-BRS N[
XMP M(_49*L0N^0-FZW >_\"Q3T@T'P-D>0B<6#6T\?<ISX ]S8#XYAWA3@@N'
XMP-I0#0<8  ='Q'*D1P#S, RW;3X>D *[#=;O8 Q@<GF7-R5^#=A3(@__@-Q*
XMH0ZZP-P1"IN/1 "[\ O3C=5:?42[  H[4,P$D-F9;3[K\ ?AC=8_X TW4-(.
XM>M)4M@#^L !'M '_ -]3,@NZ0-^)[0H+X I'%+$].ZBZL _/3  ,8 X#;CZZ
XM\ H'?D3"W=> [,@?< S_10#DL L3;CX;\ L73M4<, S\[ ;_X.%*L0&P, "P
XMX,BX< RX8#[W\ @K[B'(4-XWL--.?,KSX \O5@##.(Q3P@NZP.,1Z@K[H-]*
XM49.CZ=\ ?D0N\ ])/B4'GN!*L>#$'3PGUB44D-;YA1QL367OYX3^P %=;CXQ
XM< AA;N&P(.)'A(K\' ?#H.;FPP%NX.9@_03&\ 1'5-1J7-$7_0_=<,5WW,?=
XMT0)V;N41U@@GK=$'7=$R?L4%L(9U%!\F(->#7-$.?1RKP-8=X(<9[)YQO=%W
XMWE<>N0V*7F,7@.DRK.F0#GF+H-[^<,YJ1H"0X *0_I2@?LJ+ ,9')*]'Q'%B
XM+-<?H%SQ4>5D6^E=/ 7^, 5'!*>32@#9, [9@#V[[@]IUNN-WAT4@):S;C[%
XM049R30 ]< _=SKB^*R";'NV^3NVHKNK$;NRLIEK=_NT"P0_A3B $ ,BQ).W6
XM]>NRWM.UOLPKD6X$@ W[ /#@#K_F0^_=8>_+]>M3*.R;QNH6$&A(4.YV;.U7
XMW $0+_' #I01ENK]8?'=$?'3;L?Y/L1)E&20\ 08OR/X,.G_L K*\<-T@@]Y
XMCH[9(0DJC][_H @^S!PMA0\[3?-0_!PKK]:4_O(;N4I9D@&PJ<M9 @)([WA@
XMTB7.Y@WX, 9^=1PTWRH0\ M.UMWX>>,GI-KGDY2W-C!@OX)11MQ,MO6(_"1'
XM%$LL2/5U<%"_<!RZ<P"_P &JI??'P,U]/P/B8#Z C\]38L_OP,V'#P=S3 "*
XMSP.G/26.;PS\+/E34P NPPAA<+YA, Q=S_GST"6V_0X>$$L$,/J2#]8<\ -%
XMKOH>$ ^Z'0^_HA2Q_XU"GP:59 A8K[N&T [1S?O[D$F_OPM%+OS&30!^/<<%
XM$"BN$,S+[PN9Y/RZ /K1/WL%L'@[(.0$</V[P,W;OP,OG?WN (\%((KZH.,$
XM4/Z_\/WISPY+3@#LOPU@"/\#H_)S+S:^4/0GX OM<$3[/PB9Y/^[H-S2+0_?
XM\/W?$'A,^P[XX +![ *4_?P C@X&C@X[<$0[\ _+@/W+X J<3]4Y]_W[4'*Q
XM5  _( CF+PCKD/ZZ[ XC-"5SQQI*P1K^&/-63QUUGXZZ^PL,I10,-0S</ S\
XM$ /& .; [?JO' ^';Z7\  .+#P/#\ %QH,YQ8 SL -;L$,H%\,EP/B5N3O93
XMDI2P;SZPK_=M_@?"P [F(PSL\ /&T-?&X ZN/R7N<,]'Q!K^J/(E,%IV[\-U
XM7 !9@@0L5@ LI@,]'P*%EH[+ZV1>Z8]^+")/#PDH$/4H\?20D ,J7P(^<@WX
XM?PT<\/@$P %S8 P1;@R+S&($$ ^'L &Q8.&Q\ _&6  <4 <L1@!U< @>X&U3
XMX@$S< A@> @/$ \L1@#Q< @/X/I3\@"PCP6.C 5SP&($, >'@ .R/24X  ?^
XMP ZHS0YN$/L$X 9]#^(VY 8L5@ LI@ QWVO4\5=9[PZ9Y X +OU[%^#^H OK
XM$,SKL MBGW.@$."@H OLD$GL .#2OW<![@_1#_IKH@ONS>0+L O!O N,@?V[
XMX K^8/[^L ZN4,D$X K;L ^J$*&J0/VS]Y/X4 ('I0IV3[RJP*]34F_1;^#O
XM  X!#@ZZL [!O Z[(/8YIPH!K@K1OP-6N@.[ (:[\ #@$.#@$/V@OR:ZX/),
XMO@J[$,R[P!@E/B6[4.+NK13YS1I3X@J:J0H1J@K4/WNT3_4A4$F[D/M7L L/
XM$ ?F\P!Q -R^#0\L-N^'P $]T.8]\ _&6 !NSF($X :'P %QT.9Q\,NR_ [P
XM$,SPL L/X/I3\@#Q8 SH -;H$ ?!' >[L &),B4;D"CL<$3L  >L,25PX,1D
XM8#[\0 ;4/WL_B0\E0/0M;_0JX,>/A  WAMK_%0+.7@#A<&.H_5]D*/2]]NG+
XM6\<%D"4?6O:0  ).YI4/D/E3\@"9[\<B$OL%\"M^+"*Q5 !0XL>_X,<B$OL%
XM,/LJ7P('=0AV3[R'P -Q8#X\$ >[P,^[P %X<$1X\ ^Q_=K_P A'A/F+O_EV
XM5@!=,PX42P#C$-M=#P?^X MO8#Z^\ ;_8(P%H/<!_@>ZP [>-B7L, /' -E3
```

```
XM<@R\  ^G4/"G\%\%(%[NP,_NH/<F!B%"'P*5M NY?P6[0,W23<MH(,MHX&U*
XMX6WK@/WKH-\[<$3:;S[+'TL% "7.X-Y3X@SY?43Z_0&9;\F93_W3+0BZ+ CK
XM$,SKL N6/264[0Z;P-2;X,<BX@[F[PXZG@ J7P(^L@OXOPO4+-VT7$.[L <Z
XM:3XZF=_W_0]PK!3+X J+[PK#X RJY0Q_( ^9) ]!?D3Z_0K)_@IP2OW3'>"_
XMH OK$,SKL N6/264#0_!# ^4K5J^\ ?N8/[NL ZI5 !7$O.]1AV'D/M7< @<
XMH-D$P %], P+.27#P =Q<$1Q\ \+4.)3L@ E;HP%X.:9Y ;[X &JY0%_< SR
XM30#'(.)=#PLWEOF6G/G<<$3<\ ?!_ >[P "A+. QL,_Y[ ?![ >[X VJY0U_
XM8 SL -;LD ='E <HH?(E0/=V3[R/E (L5@"'4&IUO8)^W(/.7@#84VIU[7@]
XM'P*%EH[+RQPJ7P)$W_)&O\14WVN?OKS,H?(E,%IVO_,*,$MCR"*7V1TAP!I*
XMP1HL<IG--DLUFNLHT?,A4$F'D/M7P&((,$M/%&ALJ6(/$&@$\ "!A@ TJN(%
XM>D2!I@!(O[;G\P.!QI:M=$1+T@^!1@#]T ]G3Z,J_@?'H13'X8\J7P(^X@?X
XM[P<XL/@X, Q.@ ?FXP1X$ _<' _\< .J=0-_8 <<2P!V@ .8AM0L'J4S>@:-
XM$."-H OC (;C\ #NP"($X [WT _78#[]< UA\)($$ :>T -IRNWG4 @<2P"%
XM@ /S$/NV?0SSH%KS\ =VL)!38@=\< :, ,",\ ,Q/P(_0!UFD/M78 ;?T 7U
XM3,+',24W< >R8CZR<@VJ=0U_P  ,-24,T '!< OF$PRW4 _',27U< =\(-M3
XMP@=PT ?',25]< ?J /KJ</@78#[\< %=T WFTP7=T TL0@#=< ]TT WF0P?=
XM< XU1@#G\ GUD/E34@]A< =Y8#YWD ?W,/=3<@]U\ TJ7P+?@!]V8/?$:P?P
XMT 4%WP5W<!Q3<@=WD ^!1@#YT _8H%K8\ =]$&@$T ?]\ W1_0V_( _'<=QW
XMT >U8#Y]4 M!<!Q3$@1WH ZL,27J\ W]< WFTP_7T 7=8#Y=T W=P"($T WW
XM4 C=8,+=<"%'= [VH%KV\ >OD.ROX =W,/=3<@=UP TMM0\AP T1@OOIJ/OX
XM(#!3@@]#8 <<2P!V@ /CP,WC$#^J-31^T-]^X /C$-WC\ OW8/53<@]CT C7
XM8#Z-< UA<!Q3$@9W0 [130Z_T _88#[]@ UA4-MAX @X(!U3@@/C4 _0,27U
XM !UV5@ LKEHTZ@T<2P#>@ /CT A(W0C<L"/[4 +<<.4N7QP?>42L4:)9^L?=
XMD01IMNF0@(E"WVN?OKR0( ,L<IG=@0,L<IG=H0$J7P(']0AV3[PB>$0UE@"L
XMH12LX8\L<IEC$)X$, 8.$$L%8#.!QI;= 0&LH12L\0\U5@ UE@"S)"4(,$M2
XM(@$]'P*5] VY?P5]V@V^V@V-P!I3T@C?, V-8#[3T C8<$38\('*30"/( ]W
XM<!Q3<@=W\ =I^H3G\  42P /@ 'C8 =(;0>XL/BX, QV5@!=,PS=0-7=@ VJ
XMA0U_X FD[PF] H;G\ "S)"6/)_0EX"/><!RIH!S>\ '=H,[=4 >L,25U\ W-
XMT"-3T@SU  VJ!0TUVB-3TM!W<!Q3<@=W4*.^>@]VH-D$8 =]T YT8#[M0 <0
XMT 7F P%=P!I*P1K=T UDW0W7H%K7X*>JU:?W<!Q3<@]W,$M2(@'*(/2]I@Q7
XM\ W'@0T@< 5]RCV X %_$ YUP!HY#P)U\ W=X!3YT T&< L>$O&W0+PQ@@\(
XMH*]W<!R>@0AW< <UBA* @  U>@>=X!AB< >=\ YS_P\0H CO4 =7T TH@0HB
XM< 7=\ TV P+ \ T_T W=P!0BT W=@ U/= * @ U^^D0@  A]>@_'\0^&<0_'
XM,25T.$@[ @ E<%"/<!R-=P"/4*"^V@^.$.&.\ '=P&($T V'@ ='A <-Q"(+
XM= ]C$)X$, 8.X#I]/0YVT-]VX /O4 A6>L+=8#[8T WO0/KO0#NU/0R.\ &J
XM]0%_ (+F X+C<!Q3,@YW,$M2(@$MY0\I4&C_@ W+F\Y*,<=(X ^JY0]^>D2L
XMD:5_W!TJL"/^4 )$_P^H8/1+[ VK+MK8L+S,L2/^4 *C=1R--\4MY0\A4$F$
XM< >$@ V$4!T8$ X8$ X8P#V-@ V-@ V-@ U81 A_0 A_0 @H 0-!  -!  -!
XM@!(&< ,&< ,&< ,H$0:'$ :'$ ;BX@_CX _CX ^PPP@_P @_P @V$PR/$ R/
XM$ Q[A@_O@ _O@ ^"]0OX\ OX\ L>]P_!P C!P C!P @H@0/C@ /C@ .P8P<?
XM8 <?8 ?2%PP.$ P.$ R,^0\W\ <W\ <W\$2-  V-  V-  TH,0:', :', 8L
XM-@ [X@\EX"-]< =]@ I]4!SW\ 7W\ 7W\ 4H00?70 ?70 ?7X"'/\BP4= W?
XM< W?< VL\9%S\ US\ VG_0]?\ =?\ =?\$3\L.=[W@TH,?=S/_?'> ?W< ?W
XM<!PK\@;W\ ;W\ :.= ^_< ^_$"-W4 =W4 =W,/=Z/A,U\ \U\ \UX"'?4 ??
XM4 ??,/?_( U_( U_( U/1 ?=0 ?=0 ?=8",U6J-71B>K#D>,< >,@ V,4!TP
XM, 8P, 8P8/7_4 =84 =84 =8X"%D\ ]D\ ]D@!(P, PP, PPP"C?4 ??4 ??
XM,/?_D 6/D 6/D 6?%@[KLSXHP0@_P @_P @V<P]W< ]W< _'\0_P\ ;P\ ;P
XM\ :.! ^_  ^_8'3&00!W0 !W *__T /!T /!T .C8@4_8 4_8 4V,PP-, P-
XM, P-@!+5\ ?5\ ?5\$0%T 4%T 4%T 4V4J,U>F4[X@\E<%#U< ?UX CUD!_W
XMT ?WT ?W0$%U\ EU\ EU\&M_4 =_4 =_,/?&\0UW\ UWP!H?:0??8 ??8 <H
XMT07WT 7WT 4QX@_]X _]X \G<@??< ??< >LL2)W< ]W< _'L2)O< ]O< ]O
XMX$CW\ OW\ LQ<@=U< =U< =S_P]]T U]T U]T TH<0;?< ;?< :L\9%=\ U=
XM\ U=@!+7\ ?7\ ?7\$1UT EUT EUT DV4J,U>F4MY0\A4$D,< <,X T,4!T7
```

```
XM, 07, 07(##_T C0T C0T C0X"&%\ ^%\ ^%@!)?&P1?&P1?&P0H8=[F;=XH
XM$08/$ 8/$ 8,Z _CX _CX ^PPP@_P @_P @VL^(KWN(K$@;W$ ;WD/D-= ^'
XM< ^'$"-W4 =W4 =W,/?_@ G=@ G=@ G=@!)T\ -T\ -T8#/?8 ;?8 ;?L*3_
XM< -_< -_< -/5 ?=4 ?=4 ?=$#Z', Z', XL-@ [X@\E0/3(@0]DQ$3_Y0,A
XMRD0G^D@'L*&#1"< T&L>"9+(E>GQ3L3QWD0[ @ E<!_;H1I=4QNZ@1NX@1NX
XM@1NX@1LN,0")"!SA   (4!9G005I :\HDA;PBB)I :\HDA;P^@\%D!9+X1=[
XMX1=[X1=[X1=[X1=[X1=[X1=W 1CI,QA40!1&@12OL1U) :\HDA3PBB)) :]/
XMEQ1+\15<\15<\15<\15<\15<\15<\15<$19C(0)E<194D!;PBB)I :\HDA;P
XMBB)I :__4 !IL11^L1=^L1=^L1=^L1=^L1=^L1=^<1> D3Z#007OBANX@1NX
XM@1NX@1NX@1NT 0 :"#%!3$E412Y33D<   !O&   O0KEE>)[@$L   S-FLRA
XM4X=,FC?-! AA\V;,FCD (!% $D9.FS=NTHP) ^!,G31T*D8D8(1-'3IE(A88
XMPJ9B&C=EZ   4/)D2I@SD:1!$T;F&P!N $QQ4S'E3T@#A+@PDH8,&38IA8;!
XM X .QJ@L7<*4"<!*&C%E($(J("3,'(AB"7@%"S'F3"%EV+ 16^!1A $J#8E@
XM4& !@ (  $EH,.  @0("!%%0@( ! @0'$)5O8&"!@@,*#*%@X&#!@P0# *5P
XMP-C!  $?#  (L$# ZD)#'!Q (#N 8@8/ A"8*<@(9 ,*+!.:T*  Z-6$9!1_
XM?'IX\>,!$HUPP."  P,&BK@ <41.&#=D<E:\F'&C5*IPW"(]\C&DG)%9Y;QT
XM2[/ER:-J#[)Y^3/HE#=P>.?&44F9)98!9<EG%4Y=?1662B6%<1]\&)UAUD@1
XM3L@5%7*\T888/X6WVE@BS!#  "<&$$ ,(0@0@$36O4B BRY&1($0 I)1AAMB
XMU"''&2 ,@=$89<AA%0@R@"!&'B"4-08:,_WS#R S 1%88"H.4D @:! 2P!\
XM?,:# 0E0<4"9@@"0&AB? 4'F$V<^H:8!8,P)!G9,'&  $Y\-82=V3>C9A)UM
XMOAFGG7_NJ2>?"?"0:* &#+IFH0G 62FBDR8P!)EFEHDIG9\A8>BE:Q*J*:=G
XM4@& (*5FZF:EA[9*)YZ+]OFHH*:^:JF<LMZIZ)YBWAIIKJ/R2J>IFY:9ZJ=L
XM&B JK*2":H 2A.Z)JJ</1,KJL6MB9X6>5GQFK*]F&J!JMP9\FZZXB6*A)Q:)
XM9J%G%NRBZZX!\*(KKP'T1NOKO?E*^X2WX%8;!7;EGBLP=E/H.87!V$6A9Q35
XM#FP G!=#;*Z>"C=K<<,&/)SMP1N;NVV=Z(9[<<'H4C$RQXFJC+$5[;Z,;[S9
XM8IQ%S09(?+.^.<_+L\\!^RHSR[.::W/'# <=<J)1V$PQNAB/"RBNZ.8); )(
XM ("=$GHJ<?*?7(=Z9M>]TKJUG^B"/2W92/1Y-K/85=VFL)+.F@"C0)S)!-UE
XMBKELVBM?'"RZD.;MJ]:,=OUUV&-W6S;7<Q/.N*UMAPVWW%S37?@3=R..M=Y\
XM^\VLX&5RZKG=C4(]<:)39#N$PUXK;<#L)A.N;K@,L)TTP/$*G3+2_[Z;:,*)
XM@GZ[GE;;CCO3Z8+[0._M&J^O\$GO7OW/22,_Z>UD;G'F%F'>'GG2^_;K>_'<
XM&YTM$L0C+#O,W^L:J[2.2AZ[IF<^G';@#.@; SH&.Z@E[U&)RM.EOG8^,$R,
XM3&BC$^W6]#H*/LV"_I.@N>Q400UFT(&>ZI6>(NC MUGP;Q94'/, L*@&=K"$
XM*C2A!F-X! [*L(3C&ET)43A#&^9P3QSL7*_$="U5-9!2N_+<Y32%-V)!:UP)
XMK%7K1#<L5Q7K=*=25@BY!2JN77&(6>R4$<%H/W]%<6U-M.(3E2C%_"4M<4Y,
XM(AB3)49F,2]4;[)AQQ;%PMQQ$89ZM&$,]UA%#=(LA38\I 9_6+056K"1&;,@
XM(>7$,1<6LH2$'*0@;?A!'4Y0@X149 DA.<E /K)/9()7)8=X,3)]*P&B'%FU
XMIL"P3S:+9-Y;&"S/%,N>S;*6%Y06+NFGRU?&TA"*RUGXQF>P7^X2EM7J6+9H
XMF0#Q5;-\43AB*Y_9RZE)BY8AL^7($$9,C[F2E\W\'CA!]L%QEDR:E3HG-.>X
XMS&O^SYB HUD#L5,T QAB9_;ZTS\%"M"DD2^@W1JHY [ZQ[H9$%T?1%C,:C>%
XM?;9/HNCR)KD$JKB(3;1E!01IRD*J-RAF*EG6))\V!\;-='X3F.WL&3DW^#V6
XMXO-[&ITF3#662W.V=%+(K%@]&7I+9]Y46M(,V5"QN5)Y=O.7X0SF+6>:5)NB
XM$Z=092=/RRDNIV(1I<S4W54-"KO/4 L[6] F$S!JT <$]7MKI6E;W]H]MR:S
XME0;H0K7B"KTNV%6HZ4K4%_Y:4V]I[ N %25:"2NMN-(L6TI JUK9VJS(&H"H
XMV>(K8(DJ/[HV:ZT*E99EDRJJT/IJ"V;]:-+VMS[#4NVAHJWEI2!;-XOZ+&H,
XMH!;5')FTV\+.EE3]K51I^\YJ65:K&9W8]'2;M*IQ] ">51L/?>4VYOK*N=^+
XM+#*A.RCB5LVVRLUM\GCK*]]"%+C%/>]PIQ7<[.XTN3U;[G@C.:OM1O=7TWW<
XM#?5+0CT=P:SAZV,1]EG-,PTAM2(TP'^W*4H]%8&Q=WKF@<UHP<@F8'_6'2'9
XM&I: _R; NLZ4HS!M:&'07=B&_55P^%+K8 );<\(@MN"";6K#!T=7PO7Z8]C(
XMA&$4;_A,'HZQM*SP1:22^$V?:3 0*8A,5_;Q"98DF48=QC ]RN^&#XSODCW8
XMM _[T*$5_EJ.<0AF#4H9PE26*L>NG&&9:GFZ:>ZQ!2V60UBZDEV6I(+\F(C!
XM*EM0RE^F+P@M+&0')J()!CBT'5O)@!].6= ',$(,X8QE9W&*7= =<((?+-,M
XMEO# :C9$$&1I02!,TX8^T.D\-0CJ/8J:U*P^=:E3^1E"KL_![[/A@ML<-VMY
XM.M/9BB&G*7F[S(Y-3T' J>I&^+U!^3>[?41"L_LXA.\EZV'/%JV :]K'(TR;
```

```
XMV8U=]NV^;0 @<%M/U6YLM#/5-727*F(4W-MG_L8P"] I30B#J^F\16Y1X0NN
XM?;2L%::=[\;N.UW]YB? =XQP:0VJX)\]^, =7CLJZ#L!%&,8P7MV<7H;X@D;
XMC\+%*19L0=C;5P^#>&8EGO!_JYOA$V_6P\W5\=K%/-C15OC+V=MPF5<\WO3N
XM^<\EB/%Y4[14BX)W%RFVYI AW5H<[^+?!-'T)YR\=DV8U .<;2X\/1W1D7JZ
XMGB_V=:77J>IEC_K9NQ[V8VF\BUP'I\B/):BWL\G+:;8XW2/%[RX2&YQZ7SO8
XM;^YE0=2[H?A:%.@H#4XEQQ62X"SH#M'*2>Q(/NF7K?Q%\[JH%^S-A@<S!%$Q
XM[U<AFAD[B#TA=NX>0Y*E7H-QO7N[W=R%RHC!DKNV/>@SJVO(@G[UO)<QZGW_
XM9^SX=<LE/((_45OIT-,+^?ZE[0(:^?'@:W#!_?VXMXA__3W#6?MJ5G%\\:[]
XMC[LP 44@4]1,CS)07OG1ZW1KG0]6=(PO&@O\-+H%B1S8>.LY<)_'2IU2>PF@
XM5^ID0_B'+[662*[E?DKS>7%V?O2W?M-E9;8#?TWS<4$T@9^A40B8?P%H2 T(
XM0O_G,B'8?LTR@&1B@-]D0W'%**Z&:)X%70.C@5F630FV3A882MM7;IH7.SXH
XM27MF)<7G2ZH'?6Z&@>$W=CRX+D'(92&3+43H@"8XA24$:/&&?PD +Q:E/2W#
XM5>7V7M+B)CWS0I2B0!5H18D )VOH.1)3= S@1ALU/(+&3SKD3_N27Z*G.>C2
XM!2-D=*CG7Q950@]V@H&H8-7B;W[H+,9UB#6$+H2H?TGS!?Z5B,:G8>YE )2(
XMB)":X9H &( 7:VE086H48Z8*(L8-X:XA_O%><[2@;6SB4<PB)Z87YI8B=^C
XMB)@86[?(B4D3B9\HBY;HBB1$7,+8B=DAB;X2BH8PBL!HBKWXB!JDBFM5@"1F
XM,$EGC4%C"$AP1$U6@'QH<,A'6__$77N%5GP$5(@&CC>T<N/(7N7H69F%CN/X
XMC8MH7=M8C-\8BNV(7XT(CO+X*^-"6PG C-V%7]ZXCO>X5^D86_%X5W$E/O6H
XMD.$8<>^H7?(2D!'9D&QBCQ69CX2RCQ_ICYEB8=\R@W4(BJ^S>MQE49O8/(L(
XMC1(94:X(C2^)BB]$CS09DX)%7BQY7S?9ASEY6<!5CG)U6K1SB3WCDCY9DXDR
XMDSAIA)/8E#R)+E IE%+I*T'YB^:(+EOI*U6I-U<)2LBR3('E,$?D1076/O&C
XM@/QSE)9'/)0BD9"D6&[Y/,'3?UTT)FL)29*'2@DP2HGD1!))2.V419C41U9@
XM25J(6NQ'/$V'!9@C@OSR@=44.H9D@9+)9Y1Y>?BR8G%H0YZIA2@(F5UG3YEY
XM2N"SA7WD,N:38/S'.[?&=DVH9 GHEY;W@6S)+Y8G.[HIF;?#@.M"/4)XE''V
XM>UG)/&6&29059[[9=*XY!)84F],SFTPHG+;)3Z*9FX^DG1:4!;T9G-VI@.))
XMF;*Y@S^(G(]&9X+D44=(;);5!.?W+&D(>XLU11ID69)GAY-CA=RY2" XFX-W
XM/'X3*@>47  XBIV$5U78GGHY>6[I* R7!19E38QBBRQX)X;@A_+VB1F*CAV*
XMH4]9H)^XGXD7HJJEH9URH2G*GRRJ+R.*HL9G228)BTS6>GAHHP#*EM\8+O8W
XM9QS49'FEHQ Z>NR5"/WR:$6@:V0B!D2ZBR5D6:7W:/YFI!@)BYB'!=HD,8>6
XM:+VTH%'3=8F@9,H34UR*:&,Z2WHT3FF*03D3DH&"<5Y:,=B(I'/*;6[:9&UJ
XM9F\Z9VQ*,]PU31;E+FNHC,O7DQXJ4.+3AGVHJ/U#4-7#FA!%H"<V4O9R (Q:
XM7_NYAY\WHVFSH7$RF;Z"@MCAI(90!/<SJFZUI G%H28VBA]Z62OG+^%I7?QI
XM8B3TG_\2-+3JA!UE.PID-880IK:J9?##FG6SJFGY+'$J>=42ITDU79\!K5AT
XMK![(;F=RK<)$)O*2 '<UD'*: -VJ.*;R+)VR,\MZ+<[:;.HW..J6*>OXA@3$
XM;F02I]HJ>_6:K:?3:>-*IYE"?_W*2N:Z+.]C47;# +E:AEGI3Q(SK//5/.;U
XM1CJ4+6/B+%!*L5=S275S1Z$)7Z8XK- %C=C56T,)1[E81.73C:PD@PT+C;<U
XM9L&VL8*F3)%RAY13-@M@4J1C.M,6;TTP/8C& .1Z0M=H0=G'JJ1(;9S2A<A6
XM/:<:,TU[J4][J>7I*QF)M$:#;DZ+M0[&K3Y&15@KLPGK,V$+LAI;,DL:,8+"
XMM%7+L'=8.*UEMK^J-:.(,;98+G'K,[;XAAWEL%^8 $$ 6[[RJQ"KKX!B46Y#
XMDW!B"-"3N./%N%$$N;OUH&JCN- %/7%JE] (*<6JMVF4/4T)*1D7/=IB.2$+
XMM2G).*C;/'G"C0)5+K:H-1];+C^TCF3Z>UZ&2!7F@NTIK@'G0J?JM4R68<&[
XMIPYD"+P6I+QVIQ*$O$=FO)[$7JL&2+O+9(\668G =,-J2:*2O4%*I>KWO5]K
XM9BBF.G]&-F;""%C[)][;*UB$O1RJ3ZRT5HD0OW!ZCN#H:1"VOS/K:QPJ30')
XM4O][OX558.T[8GB*P* RK/(D)SFSI5Z:JFZ54YUF)HJ6P!T9KWO5B$BJK[D8
XMDNGW3!1<C-)K30,YM5VT/C'#.6?E1Z1JMJ"3"&&KL,6*,4J 8"0;73#\ #),
XMH*VH+C?,F>32E?7E,S$\PSYCJV8;Q,5J)O>E+B8FK$",NDQ<<2WYJ4;,PTA<
XMD3);Q<FEPUG<PU_XPV$CJN0$QG<DQB2[7V;+*$U,Q%EK.+U:+M!XDJ-[+U2P
XM3T9IEWC<B'O<B$2Y>7[X3SB,E((,79NZB)Q%=!^ZH8!LOYG(682<N[\#M=;(
XM3WJ\+WP,AA@IESQ'ES@YR<4*RD)I6OZDR(D"0HV<H<0%R;PHR?U2K/WTQP1C
XM"(N98.")FL>K9#ZZCC\42M/*8Z;D0<$\O2]T1]X:8-4+>\7<8"AI8NL(IIQ4
XMS,0&96!4C75$.)O) ZDZ@I32*3I[6IS3/'^IENY"82E,)B 4SO?9-[UJHMM\
XM*-Z2EO2[HHMF8O6\29E2SSRK8\,Z;XE&2#FU-P&=JJ;"SY*J8^.7ST":0@!M
XMC2V48#_KK48@ 1E*7I!EA@(I2-/J0\:ET5I3NQW=T#/TI$@8Q"KDNA6&I7MB
```

```
XM21/=!&;P !?=OVY#P2'-T=[JT=D%TN0E*--J M9(TC!DTM5XO4G&NW08Q*.[
XM+RJ+>(O[8(P C?LRPT^=EPEKPU8]7\5ZM?-EB_=2PU+4//="N,@,/6/]L.QB
XMARU-.*([/=!X+\TCNDZ[N>5DAWXKL7"9> M;LY0;/9*+U[V,NOW$U_1RP'$\
XMV)#2+S.W.Q:5)PN 6HW6HLA',)69-=8#NGW=NM"C+C3IV+.;0(;*N$VI-1,]
XMNQRI-D$L)_[DQ$U-JM,RK6>RU5$YT:-\VOP"VY1\6GFY?F_=E#[Z2K\ZV$DZ
XM5KI]/>,7W+[MT_:WVA&->+T<V_$RVX5,C[:HV-!ME;M-I&K=/+]])L&-,QA'
XMW)2'E>OWJYS]NI>;6I1]RX@'/,9MHA*YR.Z-/M@3QYH[E%[X.Y=MM?5-C_*]
XMWW%9V9BM6/FK5Q6J)XN</MLSV/D=86]XKP6="/-*=$3& *(TS,?[:.OYT7QG
XM?^[(!-HT>-<=;NU#7-V*M?-8XGP7/8![CBJNGV>"XE!7-#'+XCX@5'\M<P2#
XM?BY.XSS7K8$+5^/-BR=>/H\7XCN.CS,.R$4NY"HNXBWNY#X.XSPNY<_JS7CE
XM+@P0Y Z'Y9H%4=.=UQR6<DOYJ1@34=NUUZUK8OZ9YA][YIBIH7)MV=67 &T^
XMY_7%YH^:4'VKYPE=7F5EYWO>6X'NSO"",&R[/_Y9,M#8,'5NA5FVV0X3YS/5
XMZ#1(Z8QNR;$30.UBR8,-/6,NV9URZ"%C43U%V31Y+W6,7J=.NJF.WZS.,88:
XM5??MEM)J:;0.R*T.,CYZZ_Y&-.5S7.!BZK+^B>=-M;R-NC29,+-^[/H]?JLN
XM550UZ[P^C,">B=4N20]MF+L7KJIT,1:UB"\]HI/-+V7\HP9EV^(^TNE>[ONB
XMU-M#:1/]0T1FS)%2R*8Y[X/IT!_F9,-..!+YHO3=BO>BBN3,Q8$L\/Q-\'_8
XMJU-\0G9EO@)33K42P&#HN35%\<#RC:KBCGD,1O3GZ&TFK>'JZ)-F*B$/72/_
XM8\C$PR>?*2P%,I1&\C'?T^,83Q?&D1SYT"!#;" ^1-_8L!"Y\WJ*YQZS\S)U
XM:'#L--):]!J-\1//: .IL+=N\A6S\WMCT))C*35$8%S/1FV;YF$++=+HVG3[
XM7-EA*BSU]6!4\R=H?1D\*F4/L[[&87]C5VFY]D &]A.&YI""XCC/]HA'MY_A
XM]PZF]G*_K]5H]P3L=ZFT]]<LS/1L! \PX7=G*?5Y=PITK^+2SRAH5D!-!4?P
XM"$.K-U%SP7\$8--+-J<_*&FI!"=P:)3_04%TPZC_^1^F]41G^Z4O>T ]!?^5
XM^0\=SGCD:0>=1\MZ GM#^9R?]8E 0N6*J;W?@9@*_6L"U*U_ (Y0:(G6^\*<
XM8!<:OE><^@2]1H0#,H/=L 3.8443J6A.X.=,^^JUR V[GSFORZ"=]2?F3_(9
XM^= B_QJDA=]'X K4_I=:J?4%_X/NVB!#_XC\8_@?;P\#O#'4/)L(C<?[JU^I
XM\RKVYSJOI[?KE4-YO+_ZE;8=_S87994!23FDPWD81,JW".LJ08D@RW_" %J>
XM^<Q2K7.S>FD)5D(LA=52L?>RZ/O"Y7<'5D(LA=52L?>RZ/O"Y7<'5D)<KNI<
XM.>0/5D)<KNH\-VD)5D)<+61X+U:(L>9N %Q^=V EQ-5"AO=BA1AK[@; Y7<'
XM5D)<KNI<.>0/5D)<+71$L*_IW-)#G-U3UZ2[R9NGX%3KXYMB[@+>+)NBUPPN
XM/<39/74=5309L=?5E#TE.SLE.U3%MN<YQI+>U_.]\/"\W[(3X'\)/GK-X-)#
XMG-U3UU%%DQ$;82)&JM R1HBW?L?:M]!(QP::4$8,-6:3TPGELL5^U:>+.&:#
XM[KZ2L$%\K)M:K)!B@E>-7B_;.6X+[H1C@F"C].PW@O[DHV"C].PW@GL&-DK/
XM?B.X9V"C].S'L%!C5M(?XP=:7[0M_3%^H+UE5M(?XP(%C28(-DK/X_.<8"96
XM8IPD7#XZBCYCF*K_R\H>YG3L0UU5J?GI@JIOI.:-S&]\MCUO*VGI)FLXZ*6Y
XM+G:>:+],+&LXZ*5YVW:>:(Q$+&M(W,2RAF?R>J7IEFZ2J26D9%68:']G6VV"
XMJ4R3XR#HSG7\NFV"J9O]NFUR)H--D^OGSK%JBQ-MZ ?:6VWBKBCWNFUBN.F2
XM9T0$O7WMQ#XJAV[[H,7.EX^F6+9<[')8RQI.1+]VUV!9['*(CG>MH?NR?G)H
XM $8 UU#;\JTS4S]/_M=V .+%2A;VEXQ8DL)+_LGR2NN:SL^TKKK$8;V43#C/
XM81=^4@V\*O3T3/(?6^)*W+E6DMQ*W&7Y3.N:SL^TKKK$8;V43#C/81=^LFL$
XM6>EZL]:?-$LTBM55EC=K_<V%S(MNLEWT*FB(17R9S4Z-S'*8L7,K18XS+9 #
XM1L]RK-:?-$LTBM55EC>;L%>-S(MNLEWT*FB(17R9S4Z-S'*HMEDI.SLE.U3%
XMMCXZBO.]\";:X&K]Z6"X*9]3+9N27@-NQGHMW/U-NIN\>3TE.TLE.Q:5/F:L
XMUS[N;PTN.^TUAD76+'((F*$^1 [@)@Y@)@Y@^<S"+*M2*F/S#Q&Q 1H(04Q)
XM5$4N4%)'     "TD  "]"M>366> -   #& T  !P M_  08&%J QT  R ) 4
XMJ'BBH@T  B!: &  K14 "AT!<(#&2R$ $0"D-1+&ZQ^D ?Y<!)%6$D" ?P("
XM_?OG#\"2? -9<%$1B.9 0 !6!+EH% #2GT'U$&WZ)^E2 K)*'D#*AH*37 -/
XM^%("Z(P"4 J^#A0@ U0"(6><+.5S ( 4L !8Z%*28V" *&8L\/4+Y<Q 5E/R
XM!"5C9J H, X2^W4B.2]C(C/X75S,0'$ OTP, _ C1;%-)@C %MBI[P&2<SR!
XM !, !-\_ $ * # "3"V #=*8?/OSKW( )F"8*#$=P,D9 6J$=+;I5PD;'-,_
XMGS[CHG3UU !6_VO].O;LVK=S[^Z-EX(YX<2-*P$OOK63.1 13'@'X,!.1 #L
XM%]Y_ CA1QPL!:N;?/P!"D,-_  "#X * ()C !, 0",('!B+HX$[\$(" 7V?0
XM(V "(!JPH8%.6/$//BVX 0 "__ #@HP(,  ! "[()H4K,Q(!C!GNW#@C!"7-
XM\>.,1B* ) !N+(E DT^>(24(+M3HA!<LNFBC"S/"@E=!9DS9%T'X@.%"DTI
```

```
XM8 8%5^*H(P#_F*$BF B (0$8!,0Y8YMFT(/EC%MV6:,0E_S  P @^'8".E0\
XM,@(P ZU@B!"FL4 -&"+ D"DUT2 3C69)07*2:2A( $,D5."5JG=Y43/=CK&V
XM00T(IIW #P00( '(#)3FA0>N8>U:D@ NX&6IHHPZ"NDC/I0T@*/(3!J4(-$"
XM4."8U0;+ C;9$D ML /!X,(9'@AQQ0L\N$0 N^XR6P"UWVCV4EIX76"#"S6Q
XM  .S&C@;*1C:XJ(NNT$YP6P/SG+Q"+E)P;)<I;!8)  ?_%9J ,(O ?+#F2O
XMPNP/SD+Q""PE=6P& 4(  88 < 2 85#H#)87.HW1YF"Y*/@* Q"AABH"'T%Q
XM 0(,F !@;5[JN%#AH@#T <#'%(]<\LDU2;URRR_'///--K. LTWJ^*"LR(OZ
XM(/ C0IS) C '0\V"$V$ T(\L6#R"X,(-/QPL##!8!  J.P, 0\^ _!PT,D-'
XMY0(L27,\@ )4&_[OHB2/B8[)V2J ,  H&%#XX3X#+2KC1.>EQPM( U#W !"8
XMK 009N P.N**G]ZXZH]'#K4?_E0.N-6:FSR!9MJ];7:YEP.@MN:1UAV .; 0
XM+4"9QU,'MMMC Z .&"A(C\S78I_!0;)AX?/"F07Y=@ I>8?-C!GXR'\& F&C
XM<P8R#/0E ,VB\43&DD*Y11F 6I&*UD[6%Q1U,)!I\J*7O287-F"< 0FW*]WB
XM=L<"/1PM:23QBS^6!@,5.,TW&/  ^M#TP!+6C1]BR!N"W >_1\1, F<B72!,
XM%82O':YM- .# :; O6P]P5ED:8,"\F>8?C A;@-!P=06Y82^)7&)W&NB"NQW
XMOC&ICWWXH&'\W#:_,.;K4HE:5*.@)ZE@60H&;L,#,(CV#Q'DBA\2 ,0*EZ7&
XMM0UP!:9BU@&Y%:F)&<X%9<K,3LKE@N4=\H'?@J0@(LBM>D%D<H6J0XM>E*T%
XM(!$(HO%%M@[@+&"D; #_Z  0>"*$+/&# 6!R T_N!TL .($G9E! !XAV$WX0
XM# "$J"4<9IDC,$$!ES*XX9E4H HD[!  /0P6,PNG E;X2@I ^%HUJP< -^D'
XM>0.I)AB 4,LY$+.64\"E!CKYR3/(8Y3. H,%:HF'<X()"[@TP"ZU52,(N-)7
XM+VM9)C?I2P5,049N8IG+1$"E7@%"!#)B@ 0BX$Q8!,%'0&* E(1T!FO$;*!>
XMLI\"LO>_O+@!#!RHVP/8X8*,O@!/89! WNH& #YD+WG, &F-1N".&94+!(-B
XM@)C29P8&C( ?[@J*,\"  )YN1*D@R*$*2+(3?V!B:2N0Q02  H 4>&,@*>#&
XM5L$*CJ H E-!,49F )" H"!C!EQ% 9#R(@V=\D,(@%B:7B 6 "7 @0P08P%@
XM@]6<P/H""<#0JS#T:@NO$38*Y'.#7:<3 [>R00>><NOB1A64(@$) ;!B 3+,
XMM9$I  &Q,L@4,J:1#-9.@U0L<(<( !%:9.B4'M-I:UZ0L35 @($-F=UM%9"P
XM6=BZHP7'Y$=P13L%XIZ.LWDY[C'QL5QD-'>#J8OM!P&06K=.(0FN;:UQIQ )
XM);CB146M@FKQ*D0^84E+7-*DEXAE.!"TZ0P&X)JV:(L7&  UAR 8:EZ<48;\
XMNDQ;9@!B7EQ0-P& (:H_%3 +"&Q@@@D "1:V 7W]ZZ3^-"8 9+AI4%P !PC8
XM\:<3=:8PB 8!'G[M!9[8, AXY:LYXH9\YI QC0%A8Q"0#Q$Z=JB-'T ^:]SE
XMIT&N,=%\_#<3G$$"V:M*5\6JF0>8%0P4&&M7OSIE+:>@K'E11))Y3#1@D$\9
XM8[;Q!W*W.Q3  G!),VTPXNH*B,& !$>N;^%8H PE1^@,/D@ST?Y /D/DF<-]
XMJ4M>E'$&#""@+PE9]/V(&!1#"%$*;K,T"00-@#\@-H0 4(&*L@F-2A_:OF>"
XM\1D((#T;_-(8G/['J7])B; A$@,TI06$ZRMA"NL7 )SXI9A-X]\=^Z!" );"
XM)>K6#Q#D[=0T'1: >UW@7X,!#'2SFQ&P*@"SC("K*RBI?\. A%W[E]H*!8,,
XM.,4U%J T(-P4A&'^@09N%N(,A."F(<Z "V[^XPS>D#&@[":,C\:7H)?N+U")
XM;5\(G $>,N[P <RP)H9#0(H!\/.:3=?F-[=.SG0VK!#1FA=?Z%0?T]%!6MDP
XM$$HLUQA!(]4*; &#_N(Y4\:PF:I9L&=S^&H<0,!AI9T)B"!T-R_&<*W,;2$#
XMVN)<GB^/>:5L(00HA-88>[9&Z7:7 GM H'6^.CH+DB[>J3?]ZGSZ)3CV; A?
XMP>),*1"'C #@#+:['>[D$!PO;,;,,_#*;5H'Q+&E1P0PC)2KU0R*-<*&B#-0
XM  2I>P$HA)Z7M@<""<&(1C"$ (&PF:/1D!^(Y"G/ LMC7O,0P L+%N\V1)B!
XM"EG?>NJZ_O6D^:H'J_2'N7@R9$ 0S53D,X.62Q^4,WB9&T%!@P_.&[Q%#>!S
XM+#"#].#@,+LV"0%2K,L &@, 0U#ALTV" 03(YW>W71 0;P>KW-,-LP"0_H*!
XMD 7>V\"R(+Q,#@$H^JIC-LZPG6%E_$<#W\<D.")^0P8-OQ<@WI)@;H,&3>(#
XM@>1\T"=] V$-U7=P7N)/;"5[8.5U8$=F /  /\-UYE![ . K)Q9JKD !8)(
XM2" (2" ,TR ,*18(%B4:B&!(*& *HN$'&NB"B0,$7.>!M@>"#^![$1)\]*4"
XMKB !+>A,IQ<,$U!J>>%W3QB$0VB"?N8:P !J*9!C0F@:3,B"&PB#,B@,$! )
XMZL(L C"!86  %V@HXA C,_(/]- !,M( _R /.LB# R$)-V*''8 &-L$32@ F
XM#W &_H4C%V<3?O8/<C  9.@:@H .0D ,1/, DB $PZ 9#+!B=,)#$#4C$P $
XM-I$=U6$&(@ &&-!0OG)LOA$ AO994P F#7"( -  9B . =%21V*+OO(# # %
XM5\ L#$ M>1.(]! !LM03?84JJ& 8!" #,6*',X*'>YB+K@B"\,!-IH)106)!
XM%7814X(C2H!QAC$ =-!*/.%//,&!2<$(6DA;6>(/2@  9D .M<@3M81*_F &
XM6- RJL03 ZD/8. #4E"/[N@/OA(,FN$ (""$V26/'^B$[Q@(4Q $G0@ #M 4
XM+, ((A $-6A1;Z!/S3@>M20 N*0+V*@//+&-Z==5>:<MV@"3<"=WVH(,L0<(
```

```
XMIG4.I]6%RB(++;!*[K!/-\%2I^0D]=B0#PEJ'XD@RO92_^ .=:, G& R"\F4
XM'!F1'$21F)!Q@( .LI&)N/</ZI"5@."0'.F4C!"1 B!%5A8 <"  %LF0@;"1
XM'=DO("F2*: MSH0.00"*#\!#:LD  XD/:*F6#L"6;@F7VK)[ZE"7SC0.8%"6
XMY@ '"2"9@4"91@ $98D.VVB1^.!,T! $;)8Z*, -<':"P! (FL$#9:D.J&@3
XM2F &)I M!O #6:(.L2@%"71>Z   5Q ANOD/YA"+9# P3) MAE"<ZL L'(",
XMT%(2A\ L!P 7T$DM#B,#68(.@E!FF->:W&F<F <(@; WBQ*=W.(P: ETEAF:
XM63*:@5":W&0!;S 0F@"?+T*:IFDZT)6:/7!,Z@"9X#"6(?B9D&EC_Q";L]E7
XM9D "RV><SMF;OVF<4E",W4FACP &,!"AYF  P^DQNYF=W)(W'@JB ! (Q8D.
XM)!H6R) W0K1/J\$.H1>/FAF%H^@DD5!+,QH8B=F4>AF10B!%.K*4:0FD0=&6
XM0! !F:((;/6C:QFD0! S,6"*(T584 "EBRFE$'!>[/!+A,"._H"6(Y@Z*^"5
XM)_A0.#*2%P4,"<D3'%5,%\$3;0 -M40 N)1N2+"/_E"C9WJCF;=YO&*DBLF8
XM0/ D!*"EABH$A*@ _-=^)R<$S0@&2$!:"" #S:AT4Q<)40 #S2AU26$+2@ %
XM;M I]0ATGU83,^<T=9,/<!"A_A &'# [JW8%S6@%S;A[_@ +.-<&K'!REFH%
XM0,"K:95+5X!S7.,#/8 C//%@GLH3H#ISF,H35@!>91>JJR(%N>HVQG %P]J,
XM;B -QYI6!F<H^A V;F &2K!K>F$JJF<+9>D/L%HW_^ !WQ84NA 4M@!702$-
XMDR%B)@5'_8I8T:!ZPD P 6 """L"_:,]+)"N R$("O:PBG0;)0<&9% W]"
XMM(H# EMR!&NP["H,[HJOAF5(+. +;Z  _%IRD_%+R  &)$!20>$&+<L"_FH3
XM3O"QS1&R07&PCH&ROM &E/!+EL"NNE"R>0&ON3>O ,"0]YH7^;JT-YNSS?&Q
XM..NS>2$,*&L,9B %+4,^J$ ^FD ^C!"VC_4U 0 %Y,,,V8( <*&AV?(6<8$7
XM >";TPD "A"W=HNW.F4/7?L&"- #O%0C?"*IABL#2*NT+" ,)YLI*HL!CI2R
XMS*8(6'M8P%"P/]NU;I!SLL0/9R '$XL&B.L/8. %S^H/NR-Y\UB6^G &1/"L
XM^I"%'^BZNZ</O9> P:>KY!>A^L LSR<W%(@/(. PVLJ/,@((=*H)"O87=K56
XM9# 9:T4 B\$O\;(H34!)88$->:-7W) Q+Z$'S(("\H*=B\(AW&(R=K5"+, -
XMT D7Y@L Z.NBZHN!+\*.O@0&1MFL3$"F$MF!\SAD%LD/%14$MEFC7PBHJ-<2
XM_X"6@P< ]D '^_0 //&F_E!+$$"GK/"FKP0F&<P/;8 )Z_M9!G )+C$ IB ]
XM4L F"24E"$L#VVACG\!-(, &"& %GX6P&A##=/1+@L*(4G1AOQ(L** *#QP
XM6H##,_)+- K$C@B"_P Q*, *F9$ OR17'RM7B!4(<47%1.P* Y@G T$+8?Q+
XMK- D$Q"<)>55#7L!8.4-;#!2FJ$;704.8" &#7L";QS'V:-H7X9M#7L#>RS'
XM;$568* ##3N<6\;'FK$ AFP"#2L:7L7(N6C($M"P2+'(WQ2"9*7$>2("GOQN
XM),"*\H18-:H"LB '!@ Y5Y ,-0("A(@!3@ -+-P8_F ,)T>XA6BZ0)"Z.5I[
XM_^ KIC6$-)"IRI!'OLR(2., PAR&X>0*Q<P3TW#,M-6,#(!0=(H+?UNZ4%>/
XMNR-JT>P/TYQ'QWO!,D((="H.Q[-(H78 ZVRQ*G A2 7/#/#.X>0 ]AQJ$'#-
XMU($ =L)_-B$'_#PB""XA'O"OF0 NMQ+W$R;IZP(F#HCT9 ,'7!,^H  8$(G
XM^F &&E"<-I(ZHC:M_C#1C;@ T/ %$6"*"^".^N KX@ $!8G1 S$>'.W1IVP
XM(DW24I0 )YW23YHE+0T(+QW3&4W3'>U*-YW3R="(!]#3IG@ +.W2,+U*%UW4
XM&WW4KPS2./VI2RU%!>#4X1'50CW5XR'3&EW32*W52MV(! #6B0K44DW4,WW5
XM-JW67-V( @#6 B#60TW59DW3%E#7X;35T+K4$'#2$  (!A!1R M,=/JTL&!7
XM>F(D#/#+D2 E2\( @P(!4P DG0<(NQBI]4@P"T -6LJ5$ZD$K6,8"V +I_V_
XM>8&F *6W[*"H4JJ9>.F1>QD!:4 =1?J.1QJE21J13[+7A/J0J)VDJHT)UT,$
XMMCW<0;>4=_F0NAV2O T  [ 1SQW;0MJH".L*K]V5M2?$N$W=>AF2,V"EX3V1
XMM0>6Y<V1U<V7V%W ;^ %ZYVD[>TK[YV721J2$M"7 ^!,/*29,A $FIH7<-!T
XMV_V1$1D!?+!(#0 &7+#@2NK@U-$ ]QW;M1?@@+#?\?W?COA,(BG=!7[@+)#@
XM@."_0I-=<+":'G[>1M?;"G#@*& "F4?@!GZM)Z[@QRW<W!W=%YG;,"X#,D[C
XM1A #4:"W*BXJL 4.54<P"* +&?Z1<*8 +][?03 %,CX[]PD1W62DN0-=)X[C
XM)@X.XA<-40 &;=+C$ G;'UE[#1",7P[<A<JE1 K6O\V000BJ+  .!  % 8 &
XM2R[FX,  @(X&;@ *!', IJLM,\;FR1W;RTT 9N#<;&ZH5Q[;UMW;NI'G6KFE
XMT,VH>HNPQ$#AQ"TM4^Z5!*#?TBWD6)[>2@[I;NZ5')[I'^G??5D ]&W?LB[>
XM2%/KK6[>6 [BNB[B9*[C*&[J2_K@MQ'A$W[I4FKAGX'AO<[>2*/K'1[L\ WC
XM(![@QD[B.?Y:09'L8,YQ+.[BVL[?FA[C>DOC-AX-QR[N",[C=(ZD/V[K>TGD
XM[7ZM*'#D2:X @][D3QX>W)#J58[O(:GE>LOE V$J 3_N\=[D9Y[F:U[O6SGK
XM<"[GRMZ('('2INCI>\[D0>'GA_[P>5'HAY[H!%, (("P^I#JRVT E:[L"!\$
XMUUT7(%_GH>[=-N$)&U\2;VWQH'[OZ?[A?6D SE3B_&X&2![K0A_I;W[MK![D
XMPK[N('X NY[JM8?M-7_U @Y-$3_N]*[G.O_C#@[A$J[LTIZ+6H\T6)_M5+_M
```

```
XMPY[K7S_B%ZGT\K[C*5[N*S[NZ![WZG[K\HWT@8#WI(("AG#CX&[BY [<82[P
XM4$ P T "!H\T5E[T,*[P2P0$7>[P?"_R"![V)S_Q:M[VF!#G'C/G9&_O#'ZH
XM=^[QVOWYA/[G@6[R?6[H@:[RVH(&"%OQJW_Q7;G<"& 8 : !/Q_6U8[?2(,
XM4V^7KK[NL [PR:_A2,, S9_TX0Y;C?_[0]_Z9]_L2\Y!+=XZ-:_O,\[O[R[Z
XM>D_SF(_EYF_D32_]CN^?D/_"\J3LHB[_W _UC'#P[;_NFL_P $ *,%_]HJ$(
XMM@\'ZF_F$(#FI3_]47_Z&@_MT,WQ>&[[)%_[LM_DN(_HBLYST [=<-!-<._\
XM52_XI;@1I&P!IL5-!" &#E .O0PTI*("Z@ "4##+IF_]<._\52_X(.Z"-A@$
XM;V#\TQ_UF "$K&CZU@\(7[,"BN"_;68!\WAL(/H/*0XRBB#G&FK!_?C8]& "
XM=C5,F30"WQ!._E!%#Z0"_F @(_ -X>0/3M $#Z0"_F @(_ -X>0/<O% *N /
XM!@(1!D  A&!"<) &8P  S= $<T '=4 &:? &S? _+_$/@@ $B) (3OH2'QD4
XMFA 4J. 7A$@+ ( ' % %)P@ BZ(1'O 1G,P >NM3"4&]+_$9_Y/=U*L;"3$B
XM#   $@  &   '@  )   &K$H6G!)G_$_U#LB$@  &  Z * 1BX($ * % ( '
XM $ +@5X',. 7A$@+ * % * 1%,#);34B":$;U)O=__,9+_$9G_$9>/ 1E_0_
XM_Y/=U*L;"3$B;<4 W00 $@  &, H $ "AH,;)P@ !(,4I@(1,/  P.  R]
XM\]  ,L  A;  Z+  &*  G9  ]Y  8X  X(  :W  X'  @^#.JYQ?!4 /!< )
XM\T( ^T  L4  <$  +#  ^#  NC  @S  4C  (2  ]2  RB  HR  ?2  6"
XM."  &!  ^A  W1  PQ  J1  D1  >A  9O 7 > # = " < ! <  =@, _!$.
XM $ - / 0O0  LS X / ) & ) . (W3<: ' '   ' * & !"]7@  60  5
XM3^ 3 ' $ # $4P, .P  .   -<!= ( @+!!J! $ ): T ! "\@L '2 2 " 0
XM&0  ;FP! % ! 0( $@  $=!-G.P $.$ 55$55D8P)!"*M/(9D.   2   T
XM!6  !X  ":  "\  #>  #P !$0!E%% !%G !&) !&K !'- !'O !(! "(C "
XM)% ")G "*) "*K "+- "+L Z,2 #,T #-6 #-X #.: #.P";/O #0! $0C $
XM1% $1G $2) $2K $3- $3O $4! %4C %5% %5G %6) %6K %7- %7O %8! &
XM8C &;O &<! '<C '=% '=G '>) '>K '?- '?E 5D.  .W$'-S #$Q !G^$/
XM[L .S( , /(2 2   T  !6  !X  ":  "\  #1 !G_$9+Z$"FG!)2/$2@7!)
XM@W!)A'!)E/(2MP$)!H !:C 0&  @ ( !P8(!#P$ &0 % Y$!5C 0&2 ' \$!
XM%# 0'L % Q$"*J<T\C 0): /7Y &;D '8\ &:P  H@ 1!* '7P ';! &>3 &
XM8< &HG!)??4%<] &8< &;) &;B *E]0<7] &:4 &:? &=4 'HG!)LO@%;U '
XM=  'ER0*EW2W7] &:8 '$$$ HG!)(/8%<, &89 ';R CHG!)?_$%84 &<R '
XM;R CHG!):_L%;E ';, &<$ '<D *EU007S &;^ &=" '%D$*EZ0K7S '<% &
XM8W!)I'!)4O0%;3 '=% '9) &;T *EQ0Z7P '8< &;% &=$ 'I'!)J?(%<^ &
XM9^ &86 1HG!) 0 *7W &;^ &>& &<A &HG!) 8 .7] &89 &,O(2HG!);/$%
XM<T '<C &;0 ' " *EW0 ;O %:R &<T ';P ' " *EV0 F/ %=O &;# &;1"]
XMI'!)*& !7Q &9# '<@ '=" 'I'!)** !7V &<T '82 & T$*EU3C7T ':4 '
XM82 & T$*E]3O7S '=3 '=! &8@  I'!)*& &7S '9C '=! &8@  I'!)B/\%
XM:3 ';9 &9-#;I'!)._@%:3 '84 '82 ':4 *EX0"J/ %:U &B@$)!$ *EU3$
XM7T '9= &<-#EI'!)4_P%8U '<D ':3 &:T *ER177T &=2 '=! &8@  I'!)
XM;O8%9B '=! &8L &94 *EY2:7S &=2 '=O &+$<*EQ167V ';\ &== &90
XMI'!)7O4%:B '=O &;% ';4 *E_1E7] &88 '9B '91 'I'!)<?<%;9 &Z2H'
XM91 'I'!)*4 .7\ &83 '=- &:4 &I'!)7_@%;9 &9) &8T"(I'!)7?<%:U &
XM>4 '82 & $ *ER1J7[ &99 '8X &82 'I'!)*J (7P '<E &<U &=" &I'!)
XM*J )7P '<E &<U &=/ &I'!)S/0%<Q &=I &;C '=$ *EU1-7P '<E &<U &
XM=   I'!)3/@%<, &89 '92 ' " *E_0^7T &;P '<E &<U &HG!)%X *7Y &
XM;I &=  ';! &HG!)!Z -7S '=! &<D '<, &HG!)S/\%<% '<X &<E &<" *
XMEX0 CO %</ &<" '90 ' " *EX0 VO %;E &>$ '9B '82 *EY0 7/ %<[ &
XM:0 '84"(HG!)"R /7V ';Y &8U &;^ &HG!)#, $7S '94 ':> &<T 'HG!)
XM#N &7_ &=4 ';9 &9) &HG!)#\ #7V ';Y &8U &;V &HG!)#4 -7] &;V '
XM;5 &%B$*E[0!JO %8X &93 &:T '82 *ET0!)O %<Q '=5 &9: '92 *ET0!
XMB/ %:0 ';! &>5 &<B *E^0>7W '89 &=$ &;^ &HG!)%@ &7T ':= &99 &
XM;I &HG!)^O(%=) &;5 &;V &9B *EW0!AO %<U &=% '<  ';" *EY1"7S &
XM;P '>3 '9P 'HG!)&0 (7S '94 ':U &>4 'HG!)&8 -7Q &9# '<G!)HG!)
XMP/$%>% &;/ &:U!9HG!)8O$%9U &;4 &;X ?HG!)C_(%8I &;X ?+R$*EW0"
XMV/ %>" &:? &^ $ HG!))X ,7R &:P '=" ' Q$*EQ1N7X &91 &9% &<@
```

```
XMH7!)*V  7_ &;$ &<T '83 &H7!)EO(%;U '=& ';\!RH7!)*Z (7S ';U '
XM;A"] ! *EW2F7S '86 '9  '8< &H7!)@ 0 7X &8> &9, &90  H7!)(?,%
XM84 &<R '=" &;! *EY157V ';Y &8U &=! &H7!),_<%9N &9. &;T '91 *
XME\0"+O %9- &82 &== 8H7!)_O(%<) &8T 'EQ0*ER047Q &9# '<C &;D '
XMH7!)@O4%<, &89 '&4L'H7!)T?<%<! &=3 '96 &;! *E_2P7V '<T '90 '
XM Q$*EW3B7S '<V '<$ '<@  H7!)+& '7S '86 '9# &;D 'H7!)+( '7S '
XM;^ &AO$2H7!)'?0%;/ &9R &88 ?H7!)+" (7S &=2 '9B '91 'H7!)I?<%
XM9> &9$ ':5 & ! *E\0"B/ %84 '82 '=O &;! *E\0"BO %9> &=H ?+Q$*
XME_217S &;/ &8[ &,   H7!)+& +7S &;/ &8[ &<@  H7!)>O$%=$ &9< &
XM=% WH7!)*?L%<^ &_^<&T1L*E_0V7S &;/ &8[ &=   H7!)C?L%=D '<$ '
XM<C 0H7!)8_<%<V '<$ '<C 0H7!)HO4%83 &<T '84 ' ! *E\1G7P ';! &
XM>9 &<_ &H7!)+, ,7S &=2 '9> &T1L*ES1A7S &=2 '<! &=3 'H7!)./L%
XM8^ &=  1!! *EZ0I7P '8U '<I &;D 'H7!)J_<%<( &>2 &88 ?H7!)W_(%
XM=E &8S '86 ' ! *E]2^7V '<U '%O$2H7!)??X%<T '82 '=$ ':1 *E\0"
XMYO %9% &<B ';R ' ! *ER0V7S &=2 '<S &<@  H7!)+* .7P ';) '8E '
XMC1$*EQ1;7Y &<^ &;T '90  H7!),/8%=) &93 ';R CH7!)DO<%8U '<C '
XM;F 8H7!)_O4%8U '<D &=2 ' ! *EW1G7Y &<Q &8S &9> &H7!),& "7Y &
XM;D &98 ' Q$*EW0X7S &=2 '<_ &,A(*EU1"7S &=2 '<E &>@  H7!)YO(%
XM:! &;D &;% &,1 *EP0XER0#&* !.F( "*  #&  "H  "N !"I C"H  'J
XMMH  1(  !H  "&  "&  "(  "F  "J  #&  "F  "F  &L  !J  #J  "&
XM"L  "F !!J  #J  #J  %F  "J  "(  $H  "N  $*  #&  #D !#@ !"J
XM!J  %" Z"&  !H  ]_(2#&  "L  ".  $(  !F  #J  "F  "*  "L  "L
XM"H  !F  ") C"&  "H  "H  "H  "F  ]X(!$  $"F  "N  '.  N>0!$*
XM#*  !L  !D  !D  !H  !I"H!H  !F  "&  "" Z"*  "N  "N D#,  "L
XM"L  "L  #H !$&  !N  "F  $@ !3F( #F  #F  #F  !N  "H  "$  !D
XM!N  !G#)!O 2#N  !H  "H  +P$!"&  HN, "L  !G#)#J  !D !"" B!@ #
XM&&  "L  %,  !N D"H  !O 2"*  "H  D%  !J  #(  .8( "H  "N D!&
XM"&  #H  !L  !H  "L !!D  !D  #L "!H  #H  %N !HL,!EZP!$D !HN,
XM$H  *<0$%) J3L #&, "$J  $/D2&H "0F !$$ !%F !(@ $)@ !$J !&'!Q
XM%H  $N  $, !., !%J "#B !(F !"( !#L  #@ !"&  $D  !B B!N D"N D
XM"&  D" B!.  !D  !H  "L  !B !!&  !&  "&  "F  !H  !F  #.  #@ !
XM%F  +X$ "H  !N  $& !'*  #H !$(  %(  !D !$" !)J !F" ""&  "&
XM'(  "@ )"[!.'L "'(  D#"-YP,),J\!&B !&( !%B !&, !%H !%N !%J !
XM$J !&F !&B !%.  $O 2#D !&$ !'  !&( !'/!X%B !&* !&& !&& !'F !
XM&B !&J !%J !$D !#B !+^$ %( !%, !$( !&, !CV<!$H !&F !$B !%F !
XM'F !&B !&J !%J !$D !$O 2&$ !'  !&( !'/!X&( !%H !%B !&$ !#B !
XM+^$ %( !&$ !'H !$( !&, !%( !%L !%F !'J !#.  $J  )(  D%  *$
X1!!   6 J($  D.#(D+ !&@ !
X
Xend
!FaR!OuT!
exit
--

 __________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /      One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom


From -7199909369042908887
X-Google-Language: ENGLISH,ASCII-7-bit
```

X-Google-Thread: 140593,29bdbd2d36cc8f84
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 17:44:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
XEROX.COM!BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Another Magic Sac installment
Message-ID: <861008-174436-6704@Xerox>
Date: Wed, 8-Oct-86 20:44:30 EDT
Article-I.D.: Xerox.861008-174436-6704
Posted: Wed Oct 8 20:44:30 1986
Date-Received: Fri, 10-Oct-86 08:21:13 EDT
References: <8610071656.AA24154@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Could you post the list of software that works and does not.Thanks

Bill Holland

From -8176938702646844297
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51103e93ac8bfcf1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 20:22:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: Hard Disk (Head Park?)
Message-ID: <8610090322.AA24545@ncsc.ARPA>
Date: Wed, 8-Oct-86 23:22:12 EDT
Article-I.D.: ncsc.8610090322.AA24545
Posted: Wed Oct 8 23:22:12 1986
Date-Received: Thu, 9-Oct-86 06:22:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

A distant friend of mine recently purchased the 20M Atari hard disk. New to
the microcomputer world, he was told that he needed to run the head park
routine every night. Is this on the level? I told him it seemed to me that
he should run it if he was going to be moving the system, but otherwise not.

Also, a local dealer said VIP, PC/Intercomm, and some printer program (I for-
get the name) would not run on the hard disk (??!!??). Was the dealer
referring to copy protection? Surely the individual programs couldn't care
less where they are stored and loaded from.

As usual, verbose comments are encouraged, though all are appreciated...

Jim Moore
NCSC (except I'm at home now)

From -7641415370200854632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c5d6b07861902b86,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 02:56:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET
Newsgroups: net.micro.atari16
Subject: unsqueeze request, shell-archive request
Message-ID: <8610090956.AA07375@ucbvax.Berkeley.EDU>
Date: Thu, 9-Oct-86 05:56:42 EDT
Article-I.D.: ucbvax.8610090956.AA07375
Posted: Thu Oct 9 05:56:42 1986
Date-Received: Fri, 10-Oct-86 00:01:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Hello,

Who could sent me a unsqueeze program, either uudecoded or C-source?
And second:, How can I make a normal file from all the Shell-archive
mailings I get all the time? (e.g. from BAMI)

Greetings,
Berend F. de Vries,
User:U00170
Node:HASARA5
Net: BITNET (JNET)

From -965088874284675917
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bafcd9ea225ef3b5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 05:12:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: The Line-eater
Message-ID: <8610082234.AA19185@mitre-bedford.ARPA>
Date: Thu, 9-Oct-86 08:12:30 EDT
Article-I.D.: mitre-be.8610082234.AA19185

Posted: Thu Oct 9 08:12:30 1986
Date-Received: Fri, 10-Oct-86 00:15:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 1

*** Replace my message with this line ***

From -8529543028756658235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dac1b73b2787167a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 05:24:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: 1ST_Word question
Message-ID: <8610091224.AA00801@ncsc.ARPA>
Date: Thu, 9-Oct-86 08:24:32 EDT
Article-I.D.: ncsc.8610091224.AA00801
Posted: Thu Oct 9 08:24:32 1986
Date-Received: Fri, 10-Oct-86 00:15:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Hi,

My friend has a 1040 with a Panasonic 1091 printer; when he prints a document
from 1ST_Word, the computer locks whenever he tries to print more than 3 copies
of a document. The computer also locks when he exits BREAKOUT.ACC. Any ideas?

Jim Moore
NCSC

From -1904878964207222494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,32ca65c2ac139e5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 05:49:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: ANSIGRAF & XMODEM
Message-ID: <8610091249.AA10039@ucbvax.Berkeley.EDU>
Date: Thu, 9-Oct-86 08:49:57 EDT
Article-I.D.: ucbvax.8610091249.AA10039

Posted: Thu Oct 9 08:49:57 1986
Date-Received: Fri, 10-Oct-86 00:16:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet> We are having no problems downloading or uploading files to or from
Organization: The ARPA Internet
Lines: 12

our VAX using XMODEM with Ansigraf. In order to get the proper carriage returns and avoid overflowing the input buffer on the VAX, we need to use the "T" option when XMODEM on the VAX is invoked: 'ST filename.ext' to send a file from the VAX to the ST, or 'RT filename.ext' to send a file from the ST to the VAX. Then run XMODEM in Ansigraf in the appropriate (send or receive) mode.
     These comments apply to ASCII text files - haven't tried binary files as yet.

Bob Menton
MENTON@NRL-ACOUSTICS

From 3118454014521763861
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ada427b68088aedf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 06:06:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: UNITERM problems
Message-ID: <861009090656.000024EA.CALU.MA@UMass>
Date: Thu, 9-Oct-86 09:06:56 EDT
Article-I.D.: UMass.861009090656.000024EA.CALU.MA
Posted: Thu Oct 9 09:06:56 1986
Date-Received: Sat, 11-Oct-86 20:17:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Hello,

   I had the same problem with UNITERM. I UUDECODED it, and when it runs without the RSC it runs fine, and tells me BYE,BYE. But with it, it freezes up, and after loading, I end up looking at a desktop screen with UNITERM.PRG written at the top. Any ideas?

Rick

From -7762440191873138857

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,936e6db7b737a9a1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 07:51:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!umcp-cs!eneevax!iarocci
From: iarocci@eneevax.UUCP (John Iarocci)
Newsgroups: net.micro.atari16
Subject: uniterm reposting...
Message-ID: <208@eneevax.UUCP>
Date: Thu, 9-Oct-86 10:51:37 EDT
Article-I.D.: eneevax.208
Posted: Thu Oct 9 10:51:37 1986
Date-Received: Fri, 10-Oct-86 01:29:24 EDT
Distribution: net
Organization: Univ of Md, Aerospace Engineering Department
Lines: 4

<<gulp>>

Could someone please repost uniterm parts 1 & 3? Our site didn't receive
these two parts. Thanks in advance.

From -8632541374043173249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29bdbd2d36cc8f84
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 08:32:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!AMES-
NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Another Magic Sac installment
Message-ID: <8610091532.AA09892@ames-nas.ARPA>
Date: Thu, 9-Oct-86 11:32:02 EDT
Article-I.D.: ames-nas.8610091532.AA09892
Posted: Thu Oct 9 11:32:02 1986
Date-Received: Sat, 11-Oct-86 20:22:47 EDT
References: <861008-174436-6704@Xerox>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

     Several people have asked if I will post the list of software
which works with Magic Sac.

     I am going to try all of the software I have on my Mac at work
starting this weekend, and will post both the Data Pacific list, and my
experiences.

The first installment will probably be Monday or Tuesday of next week.

Marty

From 13645654557007392
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 08:54:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <1117@druhi.UUCP>
Date: Thu, 9-Oct-86 11:54:48 EDT
Article-I.D.: druhi.1117
Posted: Thu Oct 9 11:54:48 1986
Date-Received: Fri, 10-Oct-86 03:46:25 EDT
References: <2939@sdcc6.ucsd.EDU> <429@vaxb.calgary.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 32
Keywords: Atari C-source
Summary: a small clarification
Xref: mnetor net.lang.c++:363 net.micro.atari16:2432

In article <429@vaxb.calgary.UUCP>, brinsmead@calgary.UUCP (Mark Brinsmead) writes:
> In article <2939@sdcc6.ucsd.EDU>, ix181@sdcc6.ucsd.EDU (John Ogawa) writes:
> > I am an avid C++ fan who is about to get an Atari 1040ST and a C
> > package. My question is: is there any way to get a C++ package for
> > the 1040? Alternately, is there any C source code for CC that I can
> > get my hands on?
>
> I am afraid this is unlikely. All C++ compilers I am aware of
> (i.e. AT&T's) are actually fancy preprocessors that spit out rather
> wild looking C. If CC is to work on an atari, your ATARI C compiler
> must (and i mean MUST) be able to cope with *ARBITRARILY* long
> identifiers.
>
> I am not aware of any C compiler for the atari ST that will suffice,
> (my own Lattice C compiler nmormally uses only the first 8 characters,
> and will in any event, use at most 32 characters of an identifier.
> This is probably not enough for C++.)
>
> M. Brinsmead @ Univewrsity of Calgary.

If your compiler is capable of handling 32 character variable names, you should normally not have any problems with using C++. There may be isolated cases where problems would occur, but the names that the C++ compiler generates are usually unique in the first 32 characters. Of course, it would be nice if one of the C vendors for the ST would provide a true flexname capability. It really isn't very difficult to do!

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80234
(303) 538-4954
ihnp4!drutx!druhi!lbl

From -4348943842661474733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51103e93ac8bfcf1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 09:47:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!rutgers!caip!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Hard Disk (Head Park?)
Message-ID: <605@imagen.UUCP>
Date: Thu, 9-Oct-86 12:47:50 EDT
Article-I.D.: imagen.605
Posted: Thu Oct 9 12:47:50 1986
Date-Received: Sat, 11-Oct-86 19:48:39 EDT
References: <8610090322.AA24545@ncsc.ARPA>
Organization: The Houses of the Holy
Lines: 39

>
> A distant friend of mine recently purchased the 20M Atari hard disk. New to
what is a distant friend???
> the microcomputer world, he was told that he needed to run the head park
> routine every night. Is this on the level? I told him it seemed to me that
> he should run it if he was going to be moving the system, but otherwise not.
>
i think that falls into the same catagory as turning off the power
strip when you're done in addition to turning off the ST, namely it
could hurt any ...
> Also, a local dealer said VIP, PC/Intercomm, and some printer program (I for-
> get the name) would not run on the hard disk (??!!??). Was the dealer
> referring to copy protection? Surely the individual programs couldn't care
> less where they are stored and loaded from.
>
i heard that there were problems with VIP amoungst others on a hard
disk but i believe most of the problems were solved by having the program
and any associated files in the top level directory because the
program was too stupid to look in the current directory, rather it

assumed that it was the only thing on the disk
> As usual, verbose comments are encouraged, though all are appreciated...
>
as usual these are only wild (explicative deleted) guesses on my part
>
> Jim Moore
> NCSC (except I'm at home now)
I'm on first myself...
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7365813085589270587
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d515f0397860dc75,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 10:21:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari16
Subject: November 1986 ANTIC TOC for ST owners
Message-ID: <1391@ihlpl.UUCP>
Date: Thu, 9-Oct-86 13:21:35 EDT
Article-I.D.: ihlpl.1391
Posted: Thu Oct 9 13:21:35 1986
Date-Received: Fri, 10-Oct-86 03:47:19 EDT
Distribution: net
Organization: AT&T Bell Labs, Naperville, IL
Lines: 94

     **********[Ignore header path]**********

Below is the portion of the table of contents of the November issue
of ANTIC magazine that I think will be of interest to ST owners.
The complete TOC is available in net.micro.atari8 if you are
interested.   -Kit-

     ****

               November 1986 ANTIC TOC

Theme: Personal Finance

page article

6 I/O BOARD
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68 LDW COMPLIED BASIC
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71 ST PRODUCT NEWS
New Products (description only)
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MacroDesk (Shanner International Corp)
PaintPro (Abacus Software)
TextPro (Abacus Software)
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Menu+ (Metacomco)
AC/Fortran (Absoft Corp)
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Moonmist (Infocom Inc)
Trinity (Infocom Inc)
Mark Williams C (Mark Williams Co.)
Math Wizard (Unicorn Software)
Decimal Dungeon (Unicorn Software)
Fraction Action (Unicorn Software)
Pro Football Wizard (MichTron)
8 Ball (MichTron)
Your Financial Future (MichTron)
Talisman (Talent Computer Systems)
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Word Writer ST (Timeworks, Inc)
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Data Manager ST (Timeworks, Inc)
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74 PC BOARD DESIGNER
A review of PCBoard Designer from Abacus Software, Inc.

81 ST BASIC HANGMAN
An ST version of this popular public domain game.

83 GRAPHIC ARTIST
A review of Graphic Artist from PCA. The price of this sophisticated program was recently dropped to $199.

88 I*S TALK

A review of this full featured communications package
from Batteries Included.
93 ST PRODUCT REVIEWS
Software
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**********END THE ST RESOURCE SECTION**********

103 SOFTWARE LIBRARY
This section contains all the program listings for the
articles in this issue.

Coming next month: Annual Shoppers Guide
-Buying guide for 8-bit Atari software and
peripherals
-Stepper motor robot-controller for 8-bit and ST
-New Atari printers reviewed

Kit Kimes
AT&T-ISL
1100 E. Warrenville Rd.
Naperville, IL 60566
...!ihnp4!iwvae!kimes

From 2266536236856718918
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6646331355f33394
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 10:51:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: :-(It doesn't work. Oh, no!
Message-ID: <1193@batcomputer.TN.CORNELL.EDU>
Date: Thu, 9-Oct-86 13:51:49 EDT
Article-I.D.: batcompu.1193
Posted: Thu Oct 9 13:51:49 1986
Date-Received: Sat, 11-Oct-86 19:37:40 EDT
References: <8609301347.AA11092@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 15
Summary: Disconnect phone line during thunderstorms

[]

I've had my Avatex modem fried, and also the 1488 chip in the ST, during a thunderstorm in August. Since then I PHYSICALLY DISCONNECT the power line and the phone line during bad weather. (When it happened, only the phone line was connected.) The phone company told me the surge arrestors outside were blown, so I really had a strong hit, which is rare but...

BTW this was second time I had to send my AVATEX 1200 modem to their service center (E&E DATACOMM). Their service was quick (well, a month, but half of that on UPS shipping back and forth) and they have a small flat fee (if it's not under warranty). So my experience is: If you fear buying that cheap modem because of lack of service, fear not.

- Moshe Braner

From 3101952499546748555
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d57c27b6b0fd2e1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 11:09:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!think!nike!ucbcad!zen!
zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Uniterm
Message-ID: <519@zen.BERKELEY.EDU>
Date: Thu, 9-Oct-86 14:09:19 EDT
Article-I.D.: zen.519
Posted: Thu Oct 9 14:09:19 1986
Date-Received: Fri, 10-Oct-86 01:26:03 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 5

After I concatenated parts 3, 4, 5, and 6, I uudecoded it. The length of the final version is shorter than specified by the owner of Uniterm. Can someone tell me what I did wrong?
Your help is appreciated.
Duy

From 978567444740068541
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9c79d2a6389c870,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 11:23:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16

Subject: Re: High-pitched whine (reposting)
Message-ID: <1194@batcomputer.TN.CORNELL.EDU>
Date: Thu, 9-Oct-86 14:23:15 EDT
Article-I.D.: batcompu.1194
Posted: Thu Oct 9 14:23:15 1986
Date-Received: Sat, 11-Oct-86 19:37:54 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 49
Summary: How to fix the 1040 main unit whine

[]

Due to repeated requests, a reposting:

~~~~~~

Atari has issued a technical note to its dealers about the high-
pitched whine in the 1040. I hope I am not stepping on anybody's
toes in posting this here.

The whine is at about 16 KHz, which most people who grew up with TV
cannot hear. I love the SM124 B/W monitor because it's silent (35 KHz
scan rate), but the whine from the computer still bothered me.
I thought it comes from the main power-supply, but the note says it's
from the circuit around the "converter" chip on the mother board (U62).
This chip makes negative voltage from the positive (using an oscillator and
a "multiplier" rectifier arrangement?). The fix for the whine is to raise
the frequency, by RAISING the values of a resistor, a capacitor and an
inductor. The latter claim is against all my electronic instincts, but I
tried it and it works. Here is how you do it:

Obtain a 5 ohm 1/4 W resistor, a 330 pF capacitor, and a small, axial,
220 microH inductor. Take the top cover off the 1040ST (unscrew the short,
self-tapping screws from the bottom). Take the metal cover off the
power-supply module (one little screw holds it down) and remove the module
itself (two screws at the two corners on the keyboard side).
Just "north" of the power-supply-module connector you will find U62.
Locate R17 (north of U62, 1 ohm), C28 (third component on the west, 100 pF,
looks like a resistor), and L4 (east, 100 microH, looks like a big resistor).
Replace them with the new components. That's it.

There is a pair of wires, blue and red, going from the U62 area towards the
RS232 interface area. The red wire carries +8V or so, relative to ground.
The blue carries the negative, and I measured -7V on it after the fix.
(I expected -12V, but 7 is close to 8 and the computer works fine...).
If you don't get good negative voltage on the blue wire, relative to
ground (not the red wire), you may have stopped the oscillations in U62.
Try a different L4, perhaps?

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
~~~~~~

(607) 272-3487

For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -1869039171405515706
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,e2bb59d344fe1a50,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,e2bb59d344fe1a50,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 11:30:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Atari BBS
Message-ID: <6156@topaz.RUTGERS.EDU>
Date: Thu, 9-Oct-86 14:30:12 EDT
Article-I.D.: topaz.6156
Posted: Thu Oct 9 14:30:12 1986
Date-Received: Fri, 10-Oct-86 01:18:16 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8
Keywords: phone number???
Xref: mnetor net.micro.atari8:482 net.micro.atari16:2425
Cc: appelbau@topaz.rutgers.edu

I seem to have misplaced the number of Atari's BBS in Calif. Also is
it possible for somebody to post to the net a listing of both the 8
and 16 bit software on Atari Base.
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbau

From -8588301428246299563
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c01a41bf6f51ebee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 13:32:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!clyde!cbatt!cbosgd!ucbvax!SUMEX-
AIM.STANFORD.EDU!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16

Subject: Uniterm problems
Message-ID: <12245494832.8.LYNN@PANDA>
Date: Thu, 9-Oct-86 16:32:08 EDT
Article-I.D.: PANDA.12245494832.8.LYNN
Posted: Thu Oct 9 16:32:08 1986
Date-Received: Fri, 10-Oct-86 03:53:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

I had the same problems with Uniterm that Rick Flashman had
(where it ran fine without the RSC and gives me two bombs if
I boot it with the RSC file).

Could it be that the RSC file got garbaged somehow?

--Lynn

P.S.--Has anyone out there gotten this version of Uniterm to work?

From 846243957491233044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4386b44ea48e80a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 13:54:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!clyde!cbatt!cbosgd!ucbvax!RITVAXC.BITNET!
JTL3767
From: JTL3767@RITVAXC.BITNET
Newsgroups: net.micro.atari16
Subject: mailing lst
Message-ID: <8610092053.AA16470@ucbvax.Berkeley.EDU>
Date: Thu, 9-Oct-86 16:54:06 EDT
Article-I.D.: ucbvax.8610092053.AA16470
Posted: Thu Oct 9 16:54:06 1986
Date-Received: Fri, 10-Oct-86 03:51:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Hello,
        Please remove me from 16-bit mail listing but keep me in
8-bit mailing list. Thanks
Atarian, John Lytle

From 6550334853201210424
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bd306147db7c2b23,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 14:00:55 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!clyde!cbatt!cbosgd!ucbvax!RITVAXA.BITNET!
MAS2743
From: MAS2743@RITVAXA.BITNET
Newsgroups: net.micro.atari16
Subject: mailing List
Message-ID: <8610092100.AA16560@ucbvax.Berkeley.EDU>
Date: Thu, 9-Oct-86 17:00:55 EDT
Article-I.D.: ucbvax.8610092100.AA16560
Posted: Thu Oct 9 17:00:55 1986
Date-Received: Fri, 10-Oct-86 03:52:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Hello, please add me to 16-bits atari mailing list.
Thank You, Mike Stepansky.
Proudly ST owner.
MAS2743

From 1256836456615669187
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7897b7873f19ed4c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 15:09:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Many questions...
Message-ID: <1595@cwruecmp.UUCP>
Date: Thu, 9-Oct-86 18:09:55 EDT
Article-I.D.: cwruecmp.1595
Posted: Thu Oct 9 18:09:55 1986
Date-Received: Fri, 10-Oct-86 08:18:47 EDT
References: <8610031818.AA03032@ucbvax> <436@atari.UUcp>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 53

In article <436@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>In article <8610031818.AA03032@ucbvax>, UD040164@NDSUVM1.BITNET (a.d. jensen)
writes:
>
>> 1) I have heard (or think I did) a rumor that the CP/M emulator was
>>   put into the public domain, and was available from the Atari BBS.
>>   Any truth to this? As well, how compatable is compatable? Which
>>   video emulation is available?
>
>We hope to make it available shortly. One snag -- if you download CP/M and
>the utilities, there is no way to get the utilities into the CP/M format.
>The utility to transfer files from TOS disk format to CP/M disk format

>happens to be written under CP/M. If any of our European friends know of a
>solution to this (it is rumored that CP/M is being passed around on BBSs
>over there) please let me know right away!
>
     We had posted a way to do this from TOS a long time ago, right
here. If you want it again just holler.
The Cp/m emulator is being passed around on MANY BBSs right here in USA. I
feel that atari made a bigmistake by distributing it free in europe
and not here, as it will be quite impossible to convince people to shell
out $$ for something that you are giving away for free somewhere else,
that they can get a hold of.

>> 2) I have also heard tell of a MS-DOS software based emulator which
>>   will be available shortly at around 100-150$. Any truth to this?
>>   I heard it flunks the Flight Simulator test, and is twice as slow
>>   as the IBM (which is awfully slow to start with). Can it run
>>   BASICA programs?
>
>The PC emulator will be a bit more costly than described and will function a
>whole lot better. It will be approximately the same speed as a PC. It
>should pass the FS test.
>

***** FLAME ON ****
The following is my opinion on the subject of all these emulators. I know
a lot of people want them.

     It is quite evdident that atari has excellent but extremely limited
resources, to support the ST line. My opinion is that atari should be spending
these resources on getting out new and wonderful things like the TT etc, and
providing better support to existing developers(like Gdos that has
almost become a joke, working copies of rcs, hdx, floating point on Alcyon
V 2.14 was obviously never even tested, maybe even some documentation and
so on....). Let third party developers put out things such as games, emulators
and other addon and end user products.

****** FLAME OFF ****
--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -5990819043413956365
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9d662cf9489051d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 15:34:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)

Newsgroups: net.micro.atari16
Subject: recently posted arc utility
Message-ID: <8610092234.AA13861@ncsc.ARPA>
Date: Thu, 9-Oct-86 18:34:10 EDT
Article-I.D.: ncsc.8610092234.AA13861
Posted: Thu Oct 9 18:34:10 1986
Date-Received: Fri, 10-Oct-86 08:19:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Has anyone gotten the arc utility posted today to work? All I get, from the desktop or the CLI, is two bombs. I don't think I did anything wrong in downloading, as I successfully got STUSQ.TTP and STSQ.TQP from my host at the same time....

Jim Moore

From -5020986875916305548
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cb5be00928cc306e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 15:36:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM V1.4 -->>>>>PROBALY BROKEN<<<<<---URGENT
Message-ID: <8610092235.AA17955@ucbvax.Berkeley.EDU>
Date: Thu, 9-Oct-86 18:36:32 EDT
Article-I.D.: ucbvax.8610092235.AA17955
Posted: Thu Oct 9 18:36:32 1986
Date-Received: Fri, 10-Oct-86 08:18:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

>>>>>>>>>>>>>>>>>>WARNING>>>>>>>>>>>>>>>>>>>>
Don't spend to much time trying to get my last posting (UniTerm V1.4) to work, probaly it got messed up (by myself, by uuencode.....). I'll try to figure out what happend with those who have already tried!

Simon Poole
K538915@CZHRZU1A.BITNET

P.S. If anybody can stop it getting distributed further, please do!

From 3991499031947013126
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95549e78eb5733a5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 16:21:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!uwvax!husc6!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM
Message-ID: <5972@ut-sally.UUCP>
Date: Thu, 9-Oct-86 19:21:23 EDT
Article-I.D.: ut-sally.5972
Posted: Thu Oct 9 19:21:23 1986
Date-Received: Sat, 11-Oct-86 04:26:26 EDT
References: <8610090159.AA09841@ucbvax.Berkeley.EDU>
Reply-To: franklin@sally.utexas.edu.UUCP (Maurice T. Franklin)
Organization: U. Texas CS Dept., Austin, Texas
Lines: 33

In article <8610090159.AA09841@ucbvax.Berkeley.EDU> ACS19@UHUPVM1.BITNET (Mike Vederman) writes:
>I received Uniterm, I linked the files together, I uudecoded it, I got the
>exact size it should be... The program does not run correctly. If there is no
>resource, it says no resource, bye bye, otherwise if there is a resource, the
>bee disappears and the program stops, no bombs no nothing, just a green screen
>with uniterm.prg at the top in t he menu bar region.
>
>Anyone else have this problem, or has anyone gotten it to run?
>
>Mike Vederman

I'm afraid I got the same results. All the files came out to be the right size after splicing and uudecoding. Uploaded using xmodem. Uniterm.prg did two different things: First, it loaded, gave the little beginning menu, then asked what buffer size I wanted. No matter which size I chose, it would promptly bomb. Second: I rebooted (just in case it was my ST's fault; my RAM disk has been known to screw up memory), at which point uniterm.prg bombs as soon as it loads. Keyedit.prg loads and appears to run, but I don't really know how to use it well enough to test it (besides, I think I need Uniterm to properly test it, no?).

So, did someone get uniterm to work? Are others having trouble? I'm mailing to Simon, just in case he misses this posting. However, if you do have a working copy, PLEASE do NOT repost it. Let the original poster handle this, so we don't have a repeat of the Hack reposting (where it was properly reposted and then the next day someone comes along and is 'nice' enough to repost it for everyone all over again.)

Thanks,
Maurice T. Franklin
CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!sally!franklin

ARPA Internet and CSNET: franklin@sally.utexas.edu

From -607694839842240856
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,44eecfec3d291e9f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 18:19:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Repost of veroff and veron
Message-ID: <1348@trwrb.UUCP>
Date: Thu, 9-Oct-86 21:19:54 EDT
Article-I.D.: trwrb.1348
Posted: Thu Oct 9 21:19:54 1986
Date-Received: Sat, 11-Oct-86 19:37:03 EDT
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 32

I've had a number of requests for these, so without further ado, here
are both veroff and veron. Extract the lines between the "-- cut here --"s
and place them in "veroff.uue" and "veron.uue", respectively.

```
-- cut here --
begin 644 veroff.prg
M8!H    F         $0                  $_Y    9D*G/SP ($Y!7(\S
:_      $1"\ /SP ($Y!7(]"ITY!     @

end
-- cut here --
begin 644 veron.prg
M8!H    F         $0                  $_Y    9D*G/SP ($Y!7(\S
:_/__   $1"\ /SP ($Y!7(]"ITY!     @

end
-- cut here --
```

For those of you fortunate enough to miss my first crummy attempt at posting
these 2 programs, veroff is a simple little program which turns off the floppy
write verify flag, thereby doubling the floppy write rate. Veron turns the
verify back on, cutting the write rate back to its original (slow) rate.

-Rich
--

 _____________ _______ _____ _______ ____
/_____________//____ ||__||/_____||__/   Richard E. Sansom
    ____   _____/ / _____________   TRW Electronics & Defense Sector
   /   /   /   /\   < | /| /   One Space Park Drive, R3/1028

 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From -1932740175407411661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,579019d7e681d2d9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 18:52:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!husc6!harvard!seismo!gatech!akgua!
mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16
Subject: Bug in Spell.prg ??
Message-ID: <1704@alvin.mcnc.UUCP>
Date: Thu, 9-Oct-86 21:52:19 EDT
Article-I.D.: alvin.1704
Posted: Thu Oct 9 21:52:19 1986
Date-Received: Tue, 14-Oct-86 05:19:27 EDT
Organization: Microelectronics Center of NC; RTP, NC
Lines: 14
Keywords: bug spell pascal

I've encountered a somewhat annoying problem with the Spell pgm.
posted some days back by Eric Terrel.. it occasionally wants
to trash the file that is being checked for incorrect
spellings. At one point I backspaced all the way over a word in the
dialog box which asks if the spelling is Ok, add to dictionary or not,
etc., and then selected 'NO'. The program quit, but it seemed to cut
off my file at the point which it had reached (ie. till where it had
checked for incorrect spellings). On other occasions I'm not sure
what I did but the file was chomped. So, it's probably a good idea to
make a copy of the file before running Spell on it (till the bug is
fixed).

-ravi

From 8925287346476302314
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58c7c95228f36c90
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 19:04:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!uwvax!rutgers!lll-crg!lll-lcc!qantel!
hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Proff (2 of 4)
Message-ID: <1349@trwrb.UUCP>
Date: Thu, 9-Oct-86 22:04:08 EDT

Article-I.D.: trwrb.1349
Posted: Thu Oct 9 22:04:08 1986
Date-Received: Sat, 11-Oct-86 20:16:37 EDT
References: <432@atari.UUcp>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 1544

Several people complained that part 2 of the Proff repost was truncated.
I didn't notice the problem here, but for those of you who did have trouble,
here is part 2 again, in 2 parts:

```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - pinit.c
sed -e 's/^X//' > pinit.c << '!FaR!OuT!'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X/*
X * finit - initialise parameters, set default values
X *     used by .reset command
X *
X */
Xfinit()
X{
X    int i;
X
X    inval = 0;
X    rmval = PAGEWIDTH;
X    tival = 0;
X    lsval = 1;
X    fill = YES;
X    ceval = 0;
X    ulval = 0;
X    boval = 0;
X    cchar = '.';
X    genesc = '_';
X    tjust[0] = LEFT;
X    tjust[1] = CENTER;
X    tjust[2] = RIGHT;
X    bsval = 0;
X    rjust = YES;
X    ulblnk = BLANK;
X
X    for (i = 0; i < INSIZE; i++)
X        if (i % 8 == 0)
X            tabs[i] = YES;
X        else
```

```
X             tabs[i] = NO;
X
X    lineno = 0;
X    curpag = 0;
X    newpag = 1;
X    plval = PAGELEN;
X    m1val = 3;
X    m2val = 2;
X    m3val = 2;
X    m4val = 3;
X    bottom = plval - m3val - m4val;
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
X    ehlim[0] = inval;
X    ehlim[1] = rmval;
X    ohlim[0] = inval;
X    ohlim[1] = rmval;
X    eflim[0] = inval;
X    eflim[1] = rmval;
X    oflim[0] = inval;
X    oflim[1] = rmval;
X    verbose = NO;
X    stopx = 0;
X    frstpg = 0;
X    lastpg = HUGE;
X    print = YES;
X    offset = 0;
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X    bp = -1;
X    for (i = 0; i < 26; i++)
X         nr[i] = 0;
X
X    CEon = FALSE;
X    ULon = FALSE;
X    BDon = FALSE;
X
X    onlyrunoff = FALSE;
X    roman = FALSE;
X    bolding = YES;
X    autopar = NO;
X}
!FaR!OuT!
echo x - proff.c
sed -e 's/^X//' > proff.c << '!FaR!OuT!'
Xchar *version = "v.1.1";
```

```
X
X#define GLOBALS 1
X
X#include <stdio.h>
X#include <ctype.h>
X#include "debug.h"
X#include "defs.h"
X#include "lookup.h"
X
X#define brk brrk
X
X/*
X * G L O B A L S
X *
X */
X#ifndef vms
X#define globaldef
X#endif
X
X    /* next available char; init = 0 */
Xglobaldef int bp = -1;
X    /* pushed-back characters */
Xglobaldef char buf[BUFSIZE];
X    /* stack of file descriptors */
Xglobaldef FILE *infile[NFILES];
X    /* current file is infile[level] */
Xglobaldef int level;
X    /* stack of output file descriptors */
Xglobaldef FILE *outfile[NFILES];
X    /* current output is outfile[olevel]; */
Xglobaldef int olevel;
X    /* current output file pointer */
Xglobaldef FILE *poutput;
X    /* number registers a..z */
Xglobaldef int nr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* system registers a..z */
Xglobaldef int sr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* last char position in outbuf; init = 0 */
Xglobaldef int outp = 0;
X    /* width of text currently in outbuf; init = 0 */
Xglobaldef int outw = 0;
X    /* number of words in outbuf; init = 0 */
Xglobaldef int outwds = 0;
X    /* lines to be filled collect here */
Xglobaldef char outbuf[MAXOUT];
X                        /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xglobaldef int curpag = 0;
X    /* next output page number; init = 1 */
Xglobaldef int newpag = 1;
X    /* next line to be printed; init = 0 */
```

```
Xglobaldef int lineno = 0;
X    /* page length in lines; init = PAGELEN = 66 */
Xglobaldef int plval = PAGELEN;
X    /* page length save area */
Xglobaldef int savpl = PAGELEN;
X    /* margin before and including header */
Xglobaldef int m1val = 3;
X    /* margin after header */
Xglobaldef int m2val = 2;
X    /* margin after last text line */
Xglobaldef int m3val = 2;
X    /* bottom margin, including footer */
Xglobaldef int m4val = 3;
X    /* last live line on page, = plval-m3val-m4val */
Xglobaldef int bottom = PAGELEN - 5;
X    /* top of page title for even pages;init=NEWLINE */
Xglobaldef char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xglobaldef char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xglobaldef int ehlim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  header;init=inval,rmval */
Xglobaldef int ohlim[2] = { 0, PAGEWIDTH };
X    /* bot of page title for even pages;init=NEWLINE */
Xglobaldef char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xglobaldef char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xglobaldef int eflim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  footer;init=inval,rmval */
Xglobaldef int oflim[2] = { 0, PAGEWIDTH };
X    /* flag for pausing between pages */
Xglobaldef int stopx = 0;
X    /* first page to begin printing with */
Xglobaldef int frstpg = 0;
X    /* last page to be printed */
Xglobaldef int lastpg = HUGE;
X    /* flag to indicate whether page should be printed */
Xglobaldef int print = YES;
X    /* number of blanks to offset page by; init = 0 */
Xglobaldef int  offset = 0;
X    /* verbose option; init = NO */
Xglobaldef int verbose = NO;
X    /* bolding option; init = YES; */
Xglobaldef char bolding = YES;
X    /* fill if YES; init = YES */
Xglobaldef int fill = YES;
X    /* current line spacing; init = 1 */
Xglobaldef int lsval = 1;
X    /* current indent; >= 0; init = 0 */
Xglobaldef int inval = 0;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xglobaldef int rmval = PAGEWIDTH;
```

```
X    /* current temporary indent; init = 0 */
Xglobaldef int tival = 0;
X    /* number of lines to center; init = 0 */
Xglobaldef int ceval = 0;
X    /* flag for continuous center */
Xglobaldef char CEon = FALSE;
X    /* number of lines to underline; init = 0 */
Xglobaldef int ulval = 0;
X    /* flag for continuous underline */
Xglobaldef char ULon = FALSE;
X    /* number of lines to boldface; init = 0 */
Xglobaldef int boval = 0;
X    /* flag for continuous bolding */
Xglobaldef char BDon = FALSE;
X    /* justification types for heads and foots; */
X    /* init = LEFT, CENTER, RIGHT */
Xglobaldef int tjust[3] = { LEFT, CENTER, RIGHT };
X    /* number of lines to blank suppress; init=0 */
Xglobaldef int bsval = 0;
X    /* right justify filled lines if YES; init=YES */
Xglobaldef int rjust = YES;
X    /* tab stops; init every 8 spaces */
Xglobaldef int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xglobaldef char cchar = '.';
X    /* universal escape - init = UNDERBAR */
Xglobaldef char genesc = '_';
X    /* character used to underline a BLANK; init = BLANK */
Xglobaldef char ulblnk = ' ';
X    /* scratch arrays for use by various routines */
Xglobaldef char tbuf1[MAXLINE];
Xglobaldef char tbuf2[MAXLINE];
Xglobaldef char tbuf3[MAXLINE];
Xglobaldef char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xglobaldef char onlyrunoff = NO;
X    /* Flag to turn paging off */
Xglobaldef char paging = YES;
X    /* page number in roman numerals. Init = NO */
Xglobaldef char roman = NO;
X    /* autopar flag. Init = NO */
Xglobaldef char autopar = NO;
X    /* temporary indent value for autopar */
Xglobaldef int autoprv = 5;
X    /* hash tables for macros and variables */
Xglobaldef struct hashlist *macrotab[HASHMAX];
Xglobaldef struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xglobaldef struct clist *chead = NULL;
Xglobaldef struct clist *clast = NULL;
X    /* keep track of what is done - VERBOSE */
Xglobaldef int p_txtlines = 0;
Xglobaldef int p_outlines = 0;
```

```
Xglobaldef int p_outpages = 0;
Xglobaldef int p_memoryus = 0;
X
X
X
X/*
X * M A I N L I N E   OF   P R O F F
X *
X */
X
Xmain(argc,argv)
Xint argc;
Xchar *argv[];
X{
X        int i,j,val,type;
X        char *p,c;
X        FILE *fp, *fopen();
X
X        for (i = 1; i < argc; i++) {
X                p = argv[i];
X                if (*p == '-') {
X                        ++p;
X                        if (isalpha(*p)) {
X                                c = *p++;
X                                switch(c) {
X
X/* verbose stats */        case 'v':
X                 case 'V':
X                      verbose = TRUE;
X                      break;
X/* runoff only   */        case 'r':
X                 case 'R':
X                      onlyrunoff = TRUE;
X                      break;
X/* stop for page */             case 's':
X                                case 'S':
X                                        stopx = 1;
X                                        break;
X/* page offset   */             case 'p':
X                                case 'P':
X                                        if (*p == 'o' || *p == 'O') {
X                                                p++;
X                                                j = 0;
X                                                val = getval(p, &j, &type);
X                                                set(&offset, val, type, 0, 0,
X                                                    rmval - 1);
X                                        }
X                                        else
X                                                usage();
X                                        break;
X/* include file  */        case 'i':
X                 case 'I': /* simulate .so <filename> */
X                      pbstr("\n");
```

```
X                       pbstr(p);
X                       pbstr(".so ");
X                       break;
X
X/* disable some  */        case 'd':
X                    case 'D':
X                       switch (*p) {
X
X                       case 'b':
X                       case 'B':
X                            bolding = NO;
X                            break;
X                       case 'p':
X                       case 'P':
X                            paging = NO;
X                            break;
X                       default:
X                            break;
X                       }
X                       break;
X
X/* garbage       */             default:
X                                       usage();
X                                  }
X                            }
X                            else
X                           lastpg = atoi(p);
X                  }
X                  else if (*p == '+') {
X                          p++;
X                          if ((frstpg = atoi(p)) == 0)
X                                  usage();
X                  }
X                  else
X                          break;
X          }
X          if (i == argc)
X                  usage();
X          if ((fp = fopen(argv[i], "r")) == NULL) {
X                  fprintf(stderr, "%s: cannot open.\n",argv[i]);
X                  exit(1);
X          }
X
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Input Fp = %ld\n",argv[i],fp);
X#endif
X          if (p = argv[++i]) {
X                  if ((outfile[0] = fopen(p, "w")) == NULL) {
X                          fprintf(stderr,"%s: cannot create.\n\n", p);
X                          exit(1);
X                  }
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Output\n",p);
```

```
X#endif
X
X    }
X    else
X    {
X         outfile[0] = stdout;
X#ifdef DEBUG
X    fprintf(stderr,"USing stdout for output\n");
X#endif
X    }
X
X              /* set output file level */
X    olevel = 0;
X    poutput = outfile[0];
X    /*
X     * some minor initialisation
X     */
X
X    for (i = 0; i < INSIZE; i++)
X         if (i % 8 == 0)
X              tabs[i] = YES;
X         else
X              tabs[i] = NO;
X
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
X
X              /* initialise contents linked list */
X
X    chead = (struct clist *) malloc(sizeof(struct clist));
X    clast = chead;
X    p_memoryus += sizeof(struct clist);
X
X        doroff(fp);
X        brk();
X        if (plval <= 100 && (lineno > 0 | outp > 0))
X                space(HUGE);
X        putchar('\n');
X
X    if(verbose) {
X         fprintf(stderr,"proff read in %6d textlines to produce\n",
X              p_txtlines);
X         fprintf(stderr,"              %6d lines\n",
X              p_outlines);
X         fprintf(stderr,"              %6d pages of formatted text.\n",
X              p_outpages);
X         fprintf(stderr,"\n%d bytes of memory was required\n",
```

```
X             p_memoryus);
X         fprintf(stderr,"for internal tables and lists.\n");
X    }
X#ifdef vms
X        exit(1);
X#else
X        exit(0);
X#endif
X}
!FaR!OuT!
echo x - proff.h
sed -e 's/^X//' > proff.h << '!FaR!OuT!'
X
X
X#include "defs.h"
X#include "lookup.h"
X
X#ifndef GLOBALS
X#ifdef vms
X#define extern globalref
X#endif
X    /* next available char; init = 0 */
Xextern int bp;
X    /* pushed-back characters */
Xextern char buf[BUFSIZE];
X    /* stack of file descriptors */
Xextern FILE *infile[NFILES];
X    /* current file is infile[level] */
Xextern int level;
X    /* stack of output file descriptors */
Xextern FILE *outfile[NFILES];
X    /* current output file is outfile[olevel] */
Xextern int olevel;
X    /* current output file pointer */
Xextern FILE *poutput;
X    /* system registers a..z */
Xextern int nr[26];
X    /* last char position in outbuf; init = 0 */
Xextern int outp;
X    /* width of text currently in outbuf; init = 0 */
Xextern int outw;
X    /* number of words in outbuf; init = 0 */
Xextern int outwds;
X    /* lines to be filled collect here */
Xextern char outbuf[MAXOUT];
X                        /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xextern int curpag;
X    /* next output page number; init = 1 */
Xextern int newpag;
X    /* next line to be printed; init = 0 */
Xextern int lineno;
X    /* page length in lines; init = PAGELEN = 66 */
```

```
Xextern int plval;
X    /* page length save area */
Xextern int savpl;
X    /* margin before and including header */
Xextern int m1val;
X    /* margin after header */
Xextern int m2val;
X    /* margin after last text line */
Xextern int m3val;
X    /* bottom margin, including footer */
Xextern int m4val;
X    /* last live line on page, = plval-m3val-m4val */
Xextern int bottom;
X    /* top of page title for even pages;init=NEWLINE */
Xextern char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xextern char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xextern int ehlim[2];
X    /* left,right margins for odd  header;init=inval,rmval */
Xextern int ohlim[2];
X    /* bot of page title for even pages;init=NEWLINE */
Xextern char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xextern char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xextern int eflim[2];
X    /* left,right margins for odd  footer;init=inval,rmval */
Xextern int oflim[2];
X    /* flag for pausing between pages */
Xextern int stopx;
X    /* first page to begin printing with */
Xextern int frstpg;
X    /* last page to be printed */
Xextern int lastpg;
X    /* flag to indicate whether page should be printed */
Xextern int print;
X    /* number of blanks to offset page by; init = 0 */
Xextern int  offset;
X    /* verbose option; init = FALSE */
Xextern int verbose;
X    /* bolding option; init = YES; */
Xextern char bolding;
X    /* fill if YES; init = YES */
Xextern int fill;
X    /* current line spacing; init = 1 */
Xextern int lsval;
X    /* current indent; >= 0; init = 0 */
Xextern int inval;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xextern int rmval;
X    /* current temporary indent; init = 0 */
Xextern int tival;
```

```
X    /* number of lines to center; init = 0 */
Xextern int ceval;
X    /* flag for continuous center */
Xextern char CEon;
X    /* number of lines to underline; init = 0 */
Xextern int ulval;
X    /* flag for continuous underline */
Xextern char ULon;
X    /* number of lines to boldface; init = 0 */
Xextern int boval;
X    /* flag for continuous bolding */
Xextern char BDon;
X    /* justification types for heads and foots; */
Xextern int tjust[3];          /* init = LEFT, CENTER, RIGHT */
X    /* number of lines to blank suppress; init=0 */
Xextern int bsval;
X    /* right justify filled lines if YES; init=YES */
Xextern int rjust;
X    /* tab stops; init every 8 spaces */
Xextern int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xextern char cchar;
X    /* universal escape - init = UNDERBAR */
Xextern char genesc;
X    /* character used to underline a BLANK; init = BLANK */
Xextern char ulblnk;
X    /* scratch arrays for use by various routines */
Xextern char tbuf1[MAXLINE];
Xextern char tbuf2[MAXLINE];
Xextern char tbuf3[MAXLINE];
Xextern char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xextern char onlyrunoff;
X    /* flag to turn paging off */
Xextern char paging;
X    /* page number in roman numerals. Init = NO */
Xextern char roman;
X    /* autopar flag. Init = NO */
Xextern char autopar;
X    /* temporary indent value for autopar */
Xextern int autoprv;
X    /* hash tables for macros and variables */
Xextern struct hashlist *macrotab[HASHMAX];
Xextern struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xextern struct clist *chead;
Xextern struct clist *clast;
X    /* keep track of the work - VERBOSE opt.*/
X
Xextern int p_txtlines;
Xextern int p_outlines;
Xextern int p_outpages;
Xextern int p_memoryus;
```

```
X
X#ifdef vms
X#undef extern
X#endif
X
X#endif
X
X    /* Why the hell can't people decare the routines they use */
X
X#ifndef INLOOK
Xextern int hash();
Xextern struct hashlist *lookup();
Xextern struct hashlist *install();
Xextern char *strsave();
Xextern struct lexlist *lexinstal();
Xextern struct lexlist *lexlook();
Xextern struct lexlist *remove();
X#endif
X
Xextern char *strcpy(), *strcat(), *malloc();
Xextern unsigned int strlen();
Xextern FILE *fopen(), *fclose();
!FaR!OuT!
echo x - proff01.c
sed -e 's/^X//' > proff01.c << '!FaR!OuT!'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X#define brk brrk
X
X/*
X * bold - bold face or overstrike a line
X *
X */
Xbold(buf,tbuf,size)
Xchar buf[];
Xchar tbuf[];
Xint  size;
X{
X    int  i,j;
X    dprintf("bold  ");
X
X    j = 0;
X    for (i = 0; buf[i] != '\n' && j < size - 2; i++) {
X         tbuf[j] = buf[i];
X         j++;
X         if (buf[i] != ' ' && buf[i] != '\t' &&
X             buf[i] != BACKSPACE ) {
X              tbuf[j] = BACKSPACE;
X              tbuf[j+1] = tbuf[j-1];
X              j += 2;
```

```
X        }
X    }
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf,tbuf);
X}
X
X/*
X * brk - end current filled line
X *
X */
Xbrk()
X{
X    dprintf("brk  ");
X    if (outp > 0) {
X        outbuf[outp] = '\n';
X        outbuf[outp+1] = EOS;
X        put(outbuf);
X    }
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X}
X
X/*
X * center - center a line by setting tival
X *
X */
Xcenter(buf)
Xchar buf[];
X{
X    int  i;
X
X    dprintf("center  ");
X
X    i = (rmval + tival - width(buf)) / 2;
X    tival = (i > 0) ? i : 0;
X}
X
X/*
X * doroff - format text in file fp
X *
X */
Xdoroff(fp)
XFILE *fp;
X{
X    char inbuf[INSIZE];
X
X    infile[0] = fp;
X    for (level = 0; level > -1; level--) {
X
X#ifdef DEBUG
Xprintf("doroff: level %d FileP %ld\n",level, infile[level]);
```

```
X#endif
X
X        while (ngetln(inbuf, infile[level]) != EOF) {
X             if (inbuf[0] == cchar) /* a command */
X                  command(inbuf);
X             else {
X#ifdef rainbow
X                  if (biosb(2))
X                       exit(0);
X#endif
X                  text(inbuf);
X                  p_txtlines++;
X             }
X        }
X#ifdef DEBUG
Xprintf("doroff: Got EOF level %d FileP %ld\n",level, infile[level]);
X#endif
X
X        if (level > 0 && infile[level] > 0) {
X             fclose(infile[level]);
X             if (verbose)
X                  fprintf(stderr,"       done.\n");
X        }
X    }
X}
X
X/*
X * gettl - copy title from buf to ttl
X *
X * modifies lim
X */
Xgettl(buf,ttl,lim)
Xchar *buf;
Xchar *ttl;
Xint lim[];
X{
X    while (!isspace(*buf))
X         buf++;
X    while (isspace(*buf))
X         buf++;
X    strcpy(ttl,buf);
X    lim[0] = inval;
X    lim[1] = rmval;
X}
X
X/*
X * getwrb - get a word INCLUDING the trailing blanks
X *
X */
Xint
Xgetwrb(in,i,out)
Xchar in[];
Xchar out[];
```

```
Xint *i;
X{
X    int j,k;
X    dprintf("getval  ");
X    k = *i;
X    j = 0;
X    while (in[k] != EOS && in[k] != ' ' &&
X        in[k] != '\t' && in[k] != '\n') {
X         out[j] = in[k];
X         k++;
X         j++;
X    }
X    while (in[k] == ' ') {
X         out[j] = ' ';
X         k++;
X         j++;
X    }
X    *i = k;
X    out[j] = EOS;
X    return(j);
X}
X
X
X/*
X * gfield - get next tab or title field
X *
X */
Xint
Xgfield(buf, i, n, temp, delim)
Xchar buf[];
Xint *i;
Xint n;
Xchar temp[];
Xchar delim;
X{
X    int j,k;
X
X    dprintf("gfield  ");
X    j = 0;
X    k = *i;
X    if (n > 0) {
X         if (buf[k] == delim)
X              k++;
X         while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n' &&
X             j <= n) {
X              temp[j] = buf[k];
X              j++;
X              k++;
X         }
X    }
X    temp[j] = EOS;
X    while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n')
X         k++;
```

```
X    *i = k;
X    return(j);
X}
X
X/*
X * jcopy - scopy without copying EOS
X *
X */
Xjcopy(from, i, to, j)
Xchar from[];
Xchar to[];
Xint i;
Xint j;
X{
X    int k1, k2;
X    dprintf("jcopy  ");
X
X    k1 = i;
X    k2 = j;
X    while (from[k1] != EOS) {
X         to[k2] = from[k1];
X         k1++;
X         k2++;
X    }
X}
X
X/*
X * justfy - justifies string in its tab column
X * */
Xjustfy(in, left, right, type, out)
Xchar in[];
Xchar out[];
Xint left;
Xint right;
Xint type;
X{
X    int j,k, n;
X
X    dprintf("justfy  ");
X    n = width(in);
X    if (type == RIGHT)
X         jcopy(in, 0, out, right-n);
X    else if (type == CENTER) {
X         k = (right+left-n) / 2;
X         j = (k > left) ? k : left;
X         jcopy(in, 0, out, j);
X    }
X    else
X        jcopy(in, 0, out, left);
X}
X
X/*
X * leadbl - delete leading blanks, set tival
```

```
X *
X */
Xleadbl(buf)
Xchar buf[];
X{
X    int i, j;
X
X    dprintf("leadbl  ");
X    brk();
X    for (i = 0; buf[i] == ' '; i++)     /* find 1st non-blank */
X         ;
X    if (buf[i] != '\n')
X         if (autopar) {
X              put("\n");    /* blank line */
X              tival = inval + autoprv;
X         }
X         else
X              tival = inval + i;     /* ??????????? */
X    for (j = 0; buf[i] != EOS; j++) {   /* move line to left */
X         buf[j] = buf[i];
X         i++;
X    }
X    buf[j] = EOS;
X}
X
X/*
X * ngetln - get next line from f into line
X *
X */
Xint
Xngetln(line, f)
Xchar line[];
XFILE *f;
X{
X    int c, i;
X
X#ifdef DEBUG
X    printf("ngetln+++: bp %d\n",bp);
X#endif
X
X    for (i = 0; (c = (bp >= 0) ? buf[bp--] : getc(f)) != EOF; ) {
X         if (i < MAXLINE - 1) {
X              line[i++] = (char) c;
X#ifdef DEBUG
X    printf("ngetln++: i %d c %c %d\n",i,c,c);
X#endif
X         }
X         if (c == '\n' || c == '\r')
X              break;
X    }
X    line[i] = EOS;
X    if (i == 0 && c == EOF)
X         i = EOF;
```

```
X#ifdef DEBUG
X    printf("ngetln: %s (%d, %d) (line)\n",line,strlen(line),i);
X#endif
X    return(i);
X}
X
X/*
X * pbstr - push string back onto input
X *
X */
Xpbstr(in)
Xchar in[];
X{
X
X    int i;
X
X    dprintf("pbstr  ");
X    for (i = strlen(in) - 1; i >= 0; i--)
X         putbak(in[i]);
X}
X
X/*
X * pfoot - put out page footer
X *
X */
Xpfoot()
X{
X
X    dprintf("pfoot  ");
X    skipl(m3val);
X    if (m4val > 0) {
X         if (curpag % 2 == 1)
X              puttl(efoot, eflim, curpag);
X         else
X              puttl(ofoot, oflim, curpag);
X    }
X    if (print == YES)       /* flush the page */
X    {
X         putchar(PAGEJECT); /* ...          */
X         p_outpages++;
X         if (stopx > 0)          /* -s, so flush ^L*/
X              putchar('\n');
X    }
X}
X
X/*
X * phead - put out page header
X *
X */
Xphead()
X{
X    dprintf("phead  ");
X
```

```
X    curpag = newpag;
X    if (curpag >= frstpg && curpag <= lastpg)
X         print = YES;
X    else
X        print = NO;
X    if(stopx > 0 && print == YES)
X         prmpt(&stopx);
X    newpag++;
X    if (m1val > 0) {
X         skipl(m1val-1);
X         if (curpag % 2 == 0)
X              puttl(ehead, ehlim, curpag);
X         else
X              puttl(ohead, ohlim, curpag);
X    }
X    skipl(m2val);
X    lineno = m1val + m2val + 1;
X}
X
X/*
X * prmpt - pause for paper insertion
X * prompt if i == 1; increment i
X *
X */
Xprmpt(i)
Xint *i;
X{
X    int junk,j;
X    static char bellst[2] = { BEL, EOS};
X
X    dprintf("prmpt  ");
X    j = *i;
X    if (j == 1)
X#ifdef rainbow
X         printf("%s\033[7minsert paper and type return\033[0m ",bellst);
X#else
X         printf("%sinsert paper and type return ",bellst);
X#endif
X    else
X         printf(bellst);
X    junk = getchar();
X    *i = ++j;
X}
X
X/*
X * Put - put out line with proper spacing and indenting
X *
X */
Xput(buf)
Xchar buf[];
X{
X    register int i;
X    dprintf("put  ");
```

```
X    if (lineno == 0 || lineno > bottom)
X         phead();
X
X    if ( print == YES ) {
X         if (buf[0] == '\n') {   /* empty line.. */
X              putchar('\n');
X              p_outlines++;
X         }
X         else {
X              for ( i = 1 ; i <= offset ; i++ ) /* page offset */
X                   putchar(' ');
X              for ( i = 1 ; i <= tival ; i++ )  /* indenting   */
X                   putchar(' ');
X
X              while (*buf != '\0') {
X                   putchar(*buf);
X                   buf++;
X              }
X              p_outlines++;
X         }
X    }
X
X    tival = inval;
X    skipl(((lsval-1 < bottom-lineno) ? lsval-1 : bottom-lineno));
X    lineno += lsval;
X
X    if (lineno > bottom)
X         pfoot();
X
X}
X
X/*
X * putbak - push character back onto input
X *
X */
Xputbak(c)
Xchar c;
X{
X    dprintf("putbak  ");
X
X    bp++;
X    if (bp > BUFSIZE)
X         error("too many characters pushed back.\n");
X    buf[bp] = c;
X}
X
X
X/*
X * puttl - put out title line with optional page number & date
X *
X */
Xputtl(buf, lim, pageno)
Xchar buf[];
```

```
Xint lim[];
Xint pageno;
X{
X    char chars[9],cdate[27];
X    char rmstr[MAXTOK];
X    char delim;
X    char *tp;
X    int j;
X    int nc, n, i, left, right, ncd;
X
X    dprintf("puttl  ");
X    if (print == NO)
X         return;
X    left = lim[0];     /* no more +1 here */
X    right = lim[1]; /* no more +1 here */
X    nc = itoc(pageno, chars, MAXCHARS);
X    if (roman) {
X         nc = cvtroman(chars,rmstr);
X         strcpy(chars,rmstr);
X    }
X    getnow(cdate);
X    ncd = strlen(cdate);
X    i = 0;
X    delim = buf[i];
X    for (j = 0; j < right; j++)
X         ttl[j] = ' ';
X    n = 0;
X    do {
X         if (gfield(buf, &i, right-left, tbuf1, delim) > 0) {
X              subst(tbuf1, PAGENUM, tbuf2, chars, nc);
X              subst(tbuf2, CURRENTDATE, tbuf1, cdate, ncd);
X              justfy(tbuf1, left, right, tjust[n], ttl);
X         }
X         n++;      /* update title counter */
X    }
X    while (buf[i] != EOS && buf[i] != '\n' && n != 3);
X
X    for( ; right >= 1 ; right--)
X         if( ttl[right-1] != ' ' )
X              break;
X    ttl[right] = '\n';
X    ttl[right+1] = EOS;
X    for (i = 1; i <= offset; i++)
X         putchar(' ');               /* offset */
X    tp = ttl;
X    while (*tp != '\0') {
X         putchar(*tp);
X         tp++;
X    }
X    p_outlines++;
X}
X
X/*
```

```
X * set - set parameter and check range
X *
X */
Xset(param, val, argtyp, defval, minval, maxval)
Xint *param;
Xint val;
Xint argtyp;
Xint defval;
Xint minval;
Xint maxval;
X{
X    int i;
X    dprintf("set  ");
X    i = *param;
X    if (argtyp == '\n')             /* defaulted */
X         i = defval;
X    else if (argtyp == '+')              /* relative +*/
X         i += val;
X    else if (argtyp == '-')         /* relative -*/
X         i -= val;
X    else                            /* absolute  */
X    i = val;
X    i = (i < maxval) ? i : maxval;       /* min        */
X    i = (i > minval) ? i : minval;       /* max        */
X    *param = i;
X}
X
X/*
X* skipl - output  n  blank lines
X*
X*/
Xskipl(n)
Xregister int n;
X{
X    register int i;
X
X    dprintf("skip  ");
X    if (print == YES)
X         for (i = 1; i <= n; i++) {
X              putchar('\n');
X              p_outlines++;
X         }
X}
X
X/*
X * space - space  n  lines or to bottom of page
X *
X */
Xspace(n)
Xint n;
X{
X
X    dprintf("space  ");
```

```
X    brk();
X    if (lineno > bottom)
X         return;
X    if (lineno == 0)
X         phead();
X    skipl(((n < bottom+1-lineno) ? n : bottom+1-lineno));
X    lineno += n;
X    if (lineno > bottom)
X         pfoot();
X}
X
X/*
X * spread - spread words to justify right margin
X *
X */
Xspread(buf, outp, nextra, outwds)
Xchar buf[];
Xint outp;
Xint nextra;
Xint outwds;
X{
X    int dir = 0;
X
X    register int i, j;
X    int nb, ne, nholes;
X
X    dprintf("spread  ");
X    if (nextra <= 0 || outwds <= 1)
X         return;
X    dir = 1 - dir;   /* reverse previous direction */
X    ne = nextra;
X    nholes = outwds - 1;
X    if (tival != inval && nholes > 1)
X         nholes--;
X    i = outp - 1;
X    j = (MAXOUT-2 < i+ne) ? MAXOUT-2 : i+ne; /* leave room for '\n', EOS */
X    while (i < j) {
X         buf[j] = buf[i];
X         if (buf[i] == ' ' && buf[i-1] != ' ') {
X              if (dir == 0)
X                   nb = (ne-1) / nholes + 1;
X              else
X                   nb = ne / nholes;
X              ne -= nb;
X              nholes--;
X              for ( ; nb > 0; nb--) {
X                   j--;
X                   buf[j] = ' ';
X              }
X         }
X         i--;
X         j--;
X    }
```

```
X}
X
X/*
X * subst - substitutes a string for a specified character
X *
X */
Xsubst(in, chr, out, subara, n)
Xchar in[];
Xchar chr;
Xchar out[];
Xchar subara[];
Xint n;
X{
X    register int i, j, k;
X
X    dprintf("subst  ");
X    j = 0;
X    for (i = 0; in[i] != EOS; i++)
X         if (in[i] == chr)
X              for (k = 0; k < n; k++) {
X                   out[j] = subara[k];
X                   j++;
X              }
X         else {
X              out[j] = in[i];
X              j++;
X         }
X    out[j] = EOS;
X}
X
X/*
X * Text  process text lines
X *
X */
X
Xtext(inbuf)
Xchar inbuf[];
X{
X    int  i;
X    register int j;
X    char wrdbuf[INSIZE];
X
X    dovar(wrdbuf,inbuf);        /*  expand variables */
X    strcpy(inbuf,wrdbuf);
X    doesc(inbuf, wrdbuf, INSIZE);    /*  expand escapes   */
X    dotabs(inbuf, wrdbuf, INSIZE);  /*  expand tabs      */
X
X    if(inbuf[0] == ' ' || inbuf[0] == '\n')
X         leadbl(inbuf);         /* move left, set tival */
X    if(ulval > 0 || ULon)       /* word underlining */
X    {
X         underl(inbuf, wrdbuf, INSIZE);
X         ulval--;
```

```
X    }
X    if(boval > 0 || BDon)       /* boldfacing */
X    {
X         bold( inbuf, wrdbuf, INSIZE);
X         boval--;
X    }
X    if(ceval > 0 || CEon)       /* centering */
X    {
X         center(inbuf);
X         put(inbuf);
X         ceval--;
X    }
X    else if( inbuf[0] == '\n' )      /* all blank line */
X         put(inbuf);
X    else if( fill == NO )       /* unfilled text */
X         put(inbuf);
X    else                    /* filled text */
X    {
X         i = strlen(inbuf) - 1;
X         inbuf[i] = ' ';
X         if( inbuf[i-1] == '.' )
X         {
X              i++;
X              inbuf[i] = ' ';
X         }
X         inbuf[i+1] = EOS;
X         for( i = 0 ; getwrb(inbuf, &i, wrdbuf) > 0 ; )
X              putwrd(wrdbuf);
X    }
X}
X
X/*
X * Underl    underline words in a line
X *
X */
Xunderl(buf, tbuf, size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i, j;
X
X    j = 0;
X    for(i = 0 ; buf[i] != '\n' && j < size - 2; i++) {
X         if( buf[i] != ' ' && buf[i] != BACKSPACE && buf[i] != '_' ) {
X              tbuf[j++] = '_';
X              tbuf[j++] = BACKSPACE;
X         }
X         if( buf[i] == BLANK )
X              tbuf[j++] = ulblnk;
X         else
X              tbuf[j++] = buf[i];
X    }
```

```
X
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf, tbuf);
X}
X
X/*
X * width - compute width of character string
X *
X */
Xint
Xwidth(buf)
Xchar buf[];
X{
X    int k,i;
X
X    dprintf("width  ");
X    k = 0;
X    for (i = 0; buf[i] != EOS; i++)
X         if (buf[i] == BACKSPACE)
X              k--;
X         else if (buf[i] >= ' ' && buf[i] <= '~')
X              k++;
X    return(k);
X}
X/*
X * getnow - get the date from command line if present.
X *          if not specified, prompt user for it.
X *
X * (stub)
X */
Xgetnow(date)
Xchar date[];
X{
X    dprintf("getnow  ");
X    strcpy(date,"00-xxx-1900 00:00:00");
X}
!FaR!OuT!
echo x - proff02.c
sed -e 's/^X//' > proff02.c << '!FaR!OuT!'
X#include <stdio.h>
X#include <ctype.h>
X#include "defs.h"
X#include "debug.h"
X
X/*
X * addset - put c in array[i], if it fits, increment i
X *
X */
Xint
Xaddset(c,array,i,maxsize)
Xchar c;
Xchar array[];
```

```
Xint *i;
Xint maxsize;
X{
X    int n,status = NO;
X    dprintf("addset  ");
X    n = *i;
X    if (n <= maxsize - 1) {
X         array[n++] = c;
X         status = YES;
X    }
X    *i = n;
X    return(status);
X}
X
X/*
X * addstr - add string s to str[i] if it fits, increment i
X *
X */
Xint
Xaddstr(s,str,i,maxsize)
Xchar s[];
Xchar str[];
Xint *i;
Xint maxsize;
X{
X    int k,j,status = NO;
X
X    dprintf("addstr  ");
X    j = *i;
X    if (j + strlen(s) <= maxsize - 1) {
X         for (k = 0; s[k] != EOS; k++)
X              str[j++] = s[k];
X         status = YES;
X    }
X    *i = j;
X    return(status);
X}
X
X/*
X * ctoi - convert string at in[i] to integer, increment i
X *
X */
Xint
Xctoi(in,i)
Xchar in[];
Xint *i;
X{
X    int j,n,sign;
X
X    dprintf("ctoi  ");
X    n = 0;
X    for (j = *i; in[j] == ' ' || in[j] == '\t'; j++)
X         ;         /* skip leading garbage */
```

```
X    sign = 1;
X    if (in[j] == '+' || in[j] == '-') /* sign */
X         sign = (in[j++] == '+') ? 1 : -1;
X    for (n = 0; in[j] >= '0' && in[j] <= '9'; j++)
X         n = 10 * n + in[j] - '0';
X    *i = j;
X    return(sign * n);
X}
X
X/*
X * error - print message and terminate
X *
X */
Xerror(s)
Xchar s[];
X{
X    fprintf(stderr,"%s\n",s);
X    exit(1);
X}
X
X/*
X * getwrd - get non-blank word from in[i] into out, increment i
X *
X */
Xint
Xgetwrd(in,i,out)
Xchar in[];
Xint *i;
Xchar out[];
X{
X    int j,size = 0;
X
X    for (j = *i; in[j] == '\t' || in[j] == ' '; j++)
X         ;         /* skip leading garbage */
X    while (in[j] != ' ' && in[j] != '\t' &&
X        in[j] != EOS && in[j] != '\n')
X         out[size++] = in[j++];
X    out[size++] = EOS;
X    *i = j;
X#ifdef DEBUG
X    printf("getwrd: %s\n",out);
X#endif
X    return(size);
X}
X/*
X * skipbl - skip blanks, tabs at str[i], increment i
X *
X */
Xskipbl(str,i)
Xchar str[];
Xint *i;
X{
X    int n;
```

```
X    dprintf("skipbl  ");
X    n = *i;
X    while (str[n] == ' ' || str[n] == '\t')
X         n++;
X    *i = n;
X}
X
X/*
X * itoc - special version of itoa
X *
X */
Xint
Xitoc(n,str,size)
Xint n;
Xchar str[];
Xint size;
X{
X
X    int i,j,k,sign;
X    char c;
X
X    dprintf("itoc  ");
X    if ((sign = n) < 0)
X         n = -n;
X    i = 0;
X    do {
X         str[i++] = n % 10 + '0';
X    }
X    while ((n /= 10) > 0 && i < size-2);
X    if (sign < 0 && i < size-1)
X         str[i++] = '-';
X    str[i] = EOS;
X    /*
X          * reverse the string and plug it back in
X          *
X */
X    for (j = 0, k = strlen(str) - 1; j < k; j++, k--) {
X         c = str[j];
X         str[j] = str[k];
X         str[k] = c;
X    }
X    return(i);
X}
X
X/*
X * usage - obvious..
X *
X */
Xusage()
X{
X#ifdef rainbow
X    fprintf(stderr,"%s %s",
X    "usage: proff \033[7m[+n] [-n] [-v] [-ifile] [-s] [-pon]\033[0m",
```

```
X    "\033[1minfile\033[0m \033[7m[outfile]\033[0m\n");
X#else
X    fprintf(stderr,
X    "usage: proff [+n] [-n] [-v] [-ifile] [-s] [-pon] infile [outfile]\n");
X#endif
X    exit(0);
X}
!FaR!OuT!
exit
--
```


```
 __________ ______ ____ _____ ___
/__________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /      One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom
```



```
From -6294302896810226834
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58c7c95228f36c90
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 19:05:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!uwvax!rutgers!sri-spam!nike!lll-crg!
lll-lcc!qantel!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Proff (2 of 4)
Message-ID: <1350@trwrb.UUCP>
Date: Thu, 9-Oct-86 22:05:35 EDT
Article-I.D.: trwrb.1350
Posted: Thu Oct  9 22:05:35 1986
Date-Received: Sat, 11-Oct-86 20:14:01 EDT
References: <432@atari.UUcp> <1349@trwrb.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 1909
```


```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - proffman.prf
sed -e 's/^X//' > proffman.prf << '!FaR!OuT!'
X
X.! Proff user's manual
X.! Feb. 1984 by Ozan S. Yigit
X.!
X.! Edited by Steven Tress and Terry Lim
X.! vers. 1.0
X.!
X.! ----------- macros ----------
X.! sect - produce a bold section header and
```

```
X.! enter a contents line. First parameter
X.! is indent level for contents line.
X.define sect
X.sp
X.cl $1 $2 $3 $4 $5 $6 $7
X.bd
X$2 $3 $4 $5 $6 $7
X.en
X.! ----------------------------
X.define note
X.sp
X.ce
XNOTE
X.sp
X.fi
X.in +5
X.rm -5
X.en
X.define endnote
X.sp
X.nf
X.in -5
X.rm +5
X.en
X.! ----------------------------
X.! Macros to create a point-form lists.
X.! Note the use of number registers within
X.! the macros. See section 5.
X.!
X.define list
X.nr a $1
X.in +$1
X.en
X
X.define item
X.sp
X.ti -@na
X$1
X.en
X
X.define nolist
X.in -@na
X.sp
X.en
X.! ----------------------------
X.ce 100
X.st 8
XPROFF User's Guide
X.sp
XVersion 1.0
X.ce 0
X.nf
X.in +25
```

```
X.sp 15
X***  *******
X***  *********
X     **      **
X     **      **
X     *********
X     *******
X     **
X     **
X     **
X******
X****
X.in -25
X.fi
X.ce 100
X.st -8
XOzan S. Yigit & Steven Tress
XMarch 1984
X.ce 0
X.bp 1
X.he /1.0/Proff User's Guide/#/
X.ap
X.fi
X.ju
X.sect 0 1.0 Introduction
X This manual describes PROFF, a formatter based on the FORMAT utility
Xpresented in
X.ul
XSoftware Tools.
X PROFF was produced to provide a powerful formatter that can be used under
Xa variety of microcomputers, thus providing a consistent formatting tool
Xacross environments. PROFF can be used to format memos, reports, form letters
Xand
Xdocuments such as this manual. It can also be configured to mimic
Xother formatting
Xsystems of similar nature.
X This document itself was produced with PROFF, using most of its advanced
features.
XPROFF took care of such things as auto-paragraphing and the production of
Xthe Table of Contents as the manual was being formatted.
X PROFF was developed under a Digital Equipment Corporation Rainbow 100,
Xusing Mark Williams C Compiler for portability reasons. PROFF is
Xavailable under VAX/VMS operating system. PROFF implementations for
XIBM PC and APPLE ][ microcomputers are also underway.
X.st -14
XRainbow, VAX/VMS are trademarks of Digital Equipment Corporation.
X.br
XMark Williams C Compiler is a trademark of Mark Williams Company.
X.br
XIBM is a registered trademark of International Business Machines Inc.
X.br
XAPPLE is a trademark of Apple Computer Inc.
X.br
```

```
XUNIX is a trademark of Bell Laboratories.
X.bp
X.cl
X.sect 0 2.0 General Description
X.cl
X.sect 1 2.1 The Input
X The text that is to be formatted by PROFF is typed into an input file
Xusing any text editor. This file contains the text to be formatted
Xas well as PROFF commands.
X Each line in the input file is either a command line or a text line. A
Xcommand line is a line that begins with a period (".").  All other lines are
Xtext lines. The command lines are not printed - they tell PROFF how you want
Xit to format the text that follows. Appendix A summarizes all of the PROFF
Xcommands for a quick reference.
X.sect 2 2.1.1 Text
X Text can be entered into the input file in any format. PROFF removes all extra
Xblanks and tabs between words when operating in fill mode. This means you do
Xnot have to worry about how many words you put on a line, and you can break
Xlines wherever it is convenient to your typing. Note however, that you cannot
Xbreak a word between two lines.
X Blanks and tabs at the beginning of a line are not removed. This is useful
Xfor producing special tables and performing special types of indentation.
XThus, normal text lines should not have any leading tabs or blanks.
X.sect 2 2.1.2 Commands
X A command is a line that starts with a period. Immediately following the
Xperiod is a command name. Some commands accept a numeric quantity or a
Xcharacter string parameter, which must be separated from the command name
Xby a space or a comma. For example, an indent command might appear as follows:
X.save
X.in +5
X.nf
X.nj
X.sp
X|
X|It is to do nothing that the elect exists.
X|.in 5
X|- Oscar Wilde
X|
X.restore
X Assuming that the left margin was at column 1, PROFF would produce the
Xfollowing:
X.save
X.in +5
X.nf
X.nj
X.sp
X.need 4
X|
X|It is to do nothing that the elect exists.
X|     - Oscar Wilde
X|
X.restore
X.sp
```

```
X(In the examples above, as in those following, the vertical line indicates
Xthe left edge of input or the left edge of the printed page).
X The number following the command may be preceeded by a "+" or "-" sign.
XThis plus or minus sign indicates an addition or subtraction of the number
Xto or from the current value for the command. for example, the text:
X.sp
X.save
X.in +5
X.nf
X.nj
X.need 11
X|
X|Nothing to do but work,
X|.in +3
X|Nothing to eat but food,
X|.in -3
X|Nothing to wear but clothes
X|.in +3
X|To keep one from going nude.
X|.in +7
X|-Benjamin King
X|
X.in -5
X.sp
Xwill produce as output:
X.sp
X.in +5
X.need 6
X|
X|Nothing to do but work,
X|   Nothing to eat but food,
X|Nothing to wear but clothes
X|   To keep one from going nude.
X|          -Benjamin King
X|
X.restore
X If a number is not supplied with a command that requires a number, PROFF
Xwill use a default value. The defaults for each command are summarized in
XAppendix A.
X.cl
X.sect 1 2.2 The Output
X The main functions performed by PROFF are
X.ul
Xfilling
Xand
X.ul
Xjustifying.
XA line is
Xfilled by packing as many words onto it as will fit. The line is justified
Xby spacing words evenly between the left and right margins. When PROFF starts,
Xit assumes that the text is to be filled and justified. Of course, when fill
Xand justify are not needed (as in the case of a letter or a table), there are
Xcommands to turn these features off, and back on again, as necessary.
```

```
X When PROFF is in fill mode, it normally strips out extra spaces and tabs
Xbetween words.
X Many PROFF commands cause a
X.ul
Xbreak
Xto occur in the output. This means that the line currently being filled is
Ximmediately output. Any following text goes into a new output line.
X.cl
X.sect 1 2.3 Executing PROFF
X Once a text file is ready for formatting, PROFF is started by typing
Xthe program name, various options, name of the input file and the name
Xof the output file. For example the command
X.sp
X.in +5
XA> proff  -po5 proffman.prf proff.man
X.sp
X.in -5
Xwould produce this document as proff.man, from an input file proffman.prf,
Xshifted right by 5 spaces.
X(The symbol "A>" is CP/M system prompt).
X.cl
X.sect 1 2.4 Bibliographic Notes
X  PROFF wa produced by re-writing the Software Tools Formatter FORMAT.
XSome of the ideas are from Freshwater Institute RUNOFF, NROFF,
XUniversity of Waterloo SCRIPT
Xand other formatters of similar nature. The underlying ideas of the
Xmentioned above formatters may be found in
X.ul
XSoftware Tools
Xby B.W. Kernighan and P.J. Plauger. 1976. (Addison-Wesley, Reading, Mass.).
X.cl
X.sect 1 2.5 References and Readings
X.nf
X.nap
X.sp
XBrian W. Kernighan and P. J. Plauger,
X.ul
XSoftware Tools
XAddison-Wesley (1976)
X.sp
XR. Furuta, J. Scofield and A. Shaw,
X.ul
XDocument Formatting Systems:
X.ul
XSurvey, Concepts, and issues
XACM Computing Surveys, Sept. 1982, Pp. 417
X.sp
XMark Stuart Brader,
X.ul
XAn Incremental Text Formatter
XDepartment of Computer Science
XUniversity of Waterloo, CS-81-12
X.bp
```

```
X.fi
X.ap
X.cl
X.sect 0 3.0 Command Descriptions
X This section describes PROFF commands. Commands specify how the program is
Xto process the text lines in the input file. Lines in the input file that
Xbegin with a period (or the control character selected by the user)
Ximmediately followed by a command name are commands. Any line that begins
Xwith a period and followed by a _# or _! is a comment line and is ignored
Xby PROFF - this allows you to put information in the file that will be neither
Xprocessed nor output by PROFF.
X As described earlier, some of the commands can be followed by "parameters".
XParameters are used in executing a command; for example, in the command
X".sp 3", the parameter "3" tells the formatter to insert 3 blank lines into
Xthe document. The following conventions are used in describing the parameters:
X.sp
X.in +5
X.ti -2
Xo Parameters surrounded by square brackets are optional. If not supplied, PROFF
Xassumes a default value.
X.br
X(e.g. .sp [n])
X.sp
X.ti -2
Xo Parameters surrounded by angle brackets are mandatory. PROFF will display
Xa fatal error message if the parameter is absent. (e.g. .set <variable name>)
X.sp
X.ti -2
Xo Parameters surrounded by squiggly brackets are to be typed exactly as
Xindicated. (e.g. .pn {roman})
X.sp
X.ti -2
Xo A bar character seperating the parameters within brackets indicate an
Xalternative. (e.g. .st [+|-][n] means both .st [+n] and .st [-n])
X.in -5
X In describing the commands, the command is typed exacty as accepted by PROFF
Xwith the associated control character default ("."). If more than one form of
Xthe command is accepted by PROFF, the command names are separated with a
Xbar indicating an alternative.
X.bp
X.cl
X.sect 1 3.1 Filling and Justifying
X.nap
X.in +5
X.!
X.! define a simple macro for generating the headers.
X.! note that the second "$" within macro is for
X.! variable expansion. Initially, the variable name
X.! is passed into the macro WITHOUT any expension.
X.! we also use the new control character within macro.
X.!
X.define comm
X\sp
```

```
X\cl 2 $$1
X\ti -5
X$$1
X\sp
X.en
X.! change the control character from period (".") to a backslash ("\")
X.! to avoid the interpretation of the command headers
X.!
X.cchar \
X\!
X\! Variable creation
X\! We use variables to avoid re-typing of multiple options over
X\! and over again. These variable names will be reused in the
X\! appendix to produce a quick referance
X\!
X\set FILL ".fi | .f | .fill"
X\comm FILL
XThe fill command causes a line to be filled with as many words as the right
Xmargin allows. For this purpose, all extra blanks and tabs are removed between
Xwords. Each word is separated with a single blank. PROFF automatically assumes
Xfill mode during the startup.
X\set NOFILL ".nf | .nofill"
X\comm NOFILL
XNo fill discontinues the filling of the text. PROFF simply copies the text
Xto the output. This command may be used to pass tables and other text
Xunaltered through the formatter.
X\set JUST ".ju | .j | .justify"
X\comm JUST
XJustify causes the words on a line to be evenly spaced between the left and
Xthe right margins. Note that lines can be justified only if lines are also
Xbeing filled. PROFF automatically assumes justify mode during the startup.
X\set NOJUST ".nj | .nojustify"
X\comm NOJUST
XNo justify discontinues the text justification.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.2 Text Formatting
X.in +5
X.cchar \
X\set BREAK ".br | .break"
X\comm BREAK
XBreak causes a break: the current line is printed without justification,
Xand the next word is placed at the beginning of a new line. Note that many
XPROFF commands cause an implicit break.
X\set INDENT ".in | .lm | .leftmargin [+|-][n]"
X\comm INDENT
XIndent causes a break and indents the following lines [n] spaces to the
Xright of the left margin. [n] can be negative to allow beginning a line
Xto the left of the left margin, however, a line cannot begin to the left of
Xcolumn 0. If a plus or minus sign is used with n, then [n] is added or
Xsubtracted to or from the current value.
```

```
X\set TINDENT ".ti | .i | .left [+|-][n]"
X\comm TINDENT
XTemporary indent is identical to the indent command except that it
Xapplies only to the next line of printed text. Thus, the command
X".ti +5" would cause the next line to be printed 5 spaces to the right
Xof those that follow.
X\set SPACETO ".st | .spaceto [-][n]"
X\comm SPACETO
XSpaceto allows spacing to line [n] from the top of the current page.
XIf a negative [n] is specified, than spacing is performed to line [n]
Xfrom the bottom of the page (excluding the footer lines). Thus, footnotes
Xcan be set at a fixed distance from the bottom of the page by a command such
Xas ".st -5".
X\set SPACE ".sp | .s | .skip [n]"
X\comm SPACE
XSpace causes a break and skips [n] lines, except at the top of
Xa page. The space command
Xis dependent on the setting of line spacing.
X\set CENTER ".ce | .center [n | on | off]"
X\comm CENTER
XCenter causes the next [n] lines of text to be centered between the left
Xand right margins. Centering may be started with "on" and terminated with
X"off", in which case all input lines between these commands will be centered.
X\set UNDLINE ".ul | .underline [n | on | off]"
X\comm UNDLINE
XUnderline command causes the text on the next [n] input lines to be underlined
Xwhen printed. If [n] is omitted, only the next line is underlined. This command
Xdoes not cause a break, so words in filled text may be underlined by:
X\sp
X\save
X\cchar .
X.in +5
X.nf
X.need 11
X.sp
X|
X|The "Pay-off" Theory: Only
X|.ul
X|losers
X|believe in luck, horses, horoscopes
X|and
X|.ul
X|lotteries.
X|
X.in -5
X.sp
Xto get
X.in +5
X.sp
X.fi
X|
X.br
X|The "Pay-off" Theory: Only
```

```
X.ul
Xlosers
Xbelieve in
X.br
X|luck, horses, horoscopes and
X.ul
Xlotteries.
X.br
X|
X.sp
X.restore
XUnderlining may be started with "on" and terminated with "off", similar to
Xthe centering command.
X\set CUNDLINE ".ul | .underline [all | words]"
X\comm CUNDLINE
XThis version of the underline command is used to set the mode of
Xunderlining:
X\sp
X\nap
X\in +5
X\nf
Xall   - underline across all characters,
X        including spaces.
X\br
Xwords - underline words only
X\fi
X\sp
X\in -5
X\ap
X\set BOLD ".bd | .bold [n | on | off]"
X\comm BOLD
XThe bold command causes the text on the next [n] input lines to be highlighted
Xby overstriking. If [n] is omitted, only the next line is highlighted.
XBolding may be started with "on" and terminated with "off" as in the
Xcase of the center and underline commands.
X\set DBO ".db | .dbo | .disablebolding"
X\comm DBO
XTurns the bolding off, all bolding commands are ignored. This feature is
Xuseful for rough drafts.
X\set EBO ".eb | .ebo | .enablebolding"
X\comm EBO
XTurns the bolding feature back on. Bolding is turned on during the PROFF
Xstartup.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.3 Page Formatting
X.in +5
X.cchar \
X\set LS ".ls | .spc | .spacing [n]"
X\comm LS
XLine spacing is the command to set line spacing. Set n to 1 for single spacing,
```

```
X2 for double spacing etc.
X\set BP ".bp | .pg | .page [n]"
X\comm BP
XThe begin page command causes a break, ends the current page, outputs
Xfooters if required and begins a new page. If [n] is present, the page number
Xis set to [n]. The default action is to number the pages incrementally.
X\set PN ".pn | .pagenumber {roman} | {arabic}"
X\comm PN
XPage number command defines the format of the page number. Uppercase roman
Xnumerals may be obtained with "roman" keyword. To convert the page numbers
Xback to normal, "arabic" is specified. PROFF uses arabic numerals as
Xa default.
X\set NPA ".np | .nopaging"
X\comm NPA
XNo paging disables the pagination. When PROFF is in no paging mode,
X"begin page" (.bp) and "page length" (.pl) commands are ignored. This mode
Xof operation is especially useful for using the proff output with the
Xmulti-column formatter (MC).
X\set PA ".pa | .paging"
X\comm PA
XPaging enables normal page generation. This command starts a
Xnew page and restores the page length to the
Xvalue previous to the ".np" command.
X\set NE ".ne | .need | .tp | .testpage [n]"
X\comm NE
XTest page checks to see whether at least [n] lines remain in the
Xcurrent page. If less than this number of lines remain, printing will resume
Xat the top of a new page. If [n] is missing, it is assumed to be zero.
X\set HE ".he | .header <text>"
X\comm HE
XHeader sets the text to be printed on top of each page. <text> is
Xdivided into sections which are to be left justified, centered and right
Xjustified. To divide <text> into these three parts, the first character is
Xassumed to be a separator. (e.g. /left/center/right/) But any non-alphanumeric
Xcharacter may also be used. The characters "#" and "%" are replaced with the
Xcurrent page number and day/time in the header.
X\set FO ".fo | .footer <text>"
X\comm FO
XFooter is identical to header except that it sets the text to be printed
Xat the bottom of each page.
X\set OHE ".oh <text>"
X\comm OHE
XThe odd header command sets the header for odd pages only.
X\set EHE ".eh <text>"
X\comm EHE
XThe even header command sets the header for even pages only.
X\set OFO ".of <text>"
X\comm OFO
XThe odd footer command sets the footer for odd pages only.
X\set EFO ".ef <text>"
X\comm EFO
XThe even footer command sets the footer for even pages only.
X\in -5
```

```
X\cchar .
X.bp
X.cl
X.sect 1 3.4 Page Layout
X.ap
X These commands are used to specify where on the page you want the formatted
Xtext to be placed. The general layout of a page is as follows:
X.nap
X.need 30
X.nf
X
X    page offset (.po)                |
X    |                          |
X    V                          |
X    +----+-------------------------------------+----+ -+
X    |    |   top margin (m1) includes header    | |  |
X    +----+-------------------------------------+----+  |
X    |    |        top margin 2 (m2)     | |  |
X    +----+-------------------------------------+----+  |
X    |    |             .           | |  P
X    |    |<-- indent (.in) .           |    |  A
X    |    |             .           |    |  G
X    |    |                T        | |  E
X    |    |                  E           | |
X    |    |                  X               | |  L
X    |    |                  T           | |  E
X    |    |             .           | |  N
X    |    |             right margin (.rm) -->|     |  G
X    |    |             .           |    |  T
X    |    |             .           | |  H
X    |    |             .           |    |  |
X    +----+-------------------------------------+----+  |
X    |    |           bottom margin 3 (m3)       | |  |
X    +----+-------------------------------------+----+  |
X    |    |   bottom margin (m4) includes footer | |  |
X    +----+-------------------------------------+----+ -+
X    |                          |
X    |                          |
X.fi
X.in +5
X.cchar \
X\set PO ".po | .offset [+|-][n]"
X\comm PO
XThe page offset command moves the entire page to the right or left depending on
the
Xspecified value. All indentation is according to the page offset. PROFF
Xassumes a page offset of 0 during the startup. If [n] is specified with a
Xplus or minus, it will be added or subtracted from the current value.
X\set RM ".rm | .rightmargin [+|-][n]"
X\comm RM
XRight Margin sets the position of the last printable character from the
Xleft edge of the page to [n]. Default value for right margin is 65.
XA plus or minus value will be added or subtracted from the current value.
```

XIf [n] is not specified, right margin is set to the default value.
X\set PL ".pl | .ps | .pagesize [n]"
X\comm PL
XPage length is used to set the number of lines that are to be printed
Xon a page including the header and footer lines. After [n] lines are printed,
Xthe paper will advance to the top of next page. The default page length is
X66 lines (11 inches for 6 lines/inch). This command is disabled if nopaging
Xis set.
X\set M1 ".m1 [n]"
X\comm M1
XMargin 1 sets the number of lines (including the header) which will be left at
Xthe top of the page to [n]. The default setting is 3. If [n] is omitted, is
Xset to the default.
X\set M2 ".m2 [n]"
X\comm M2
XMargin 2 sets the number of blank lines between the header and the first
Xline of text. The default setting is 2.
X\set M3 ".m3 [n]"
X\comm M3
XMargin 3 sets the number of blank lines between the footer and the last line
Xof text. The default setting is 2.
X\set M4 ".m4 [n]"
X\comm M4
XMargin 4 sets the number of lines (including the footer) which will be left at
Xthe bottom of the page to [n]. The default setting is 3.
X\in -5
X\cchar .
X.bp
X.cl
X.ap
X.sect 1 3.5 Table of Contents
X This section describes the the commands that are used to generate a table of
Xcontents. Basically, a contents line command is used in every place in
Xthe document where an entry is needed in the table of contents. PROFF
Xstores the text and the page number when it encounters this command.
XAfter the the body of the document is processed, a print contents command
Xdumps the contents table. The contents should be dumped in a new page, with
Xnofill. Page numbering should be disabled if the table of contents is to be
Xused in front of the document.
X.sp
X.in +5
X.ap
X.cchar \
X\set CL ".cl | .contline [<n> <text>]"
X\comm CL
XContents line specifies a line of <text> to be entered into the table of
Xcontents. <n> specifies the level at which the item is to be printed
Xin the table. When the table is printed, each level of entry will be
Xindented by specific number of spaces.
X<text> appears in the output exactly as it appears
Xin the contents line command, except that leading blanks are removed.
XIf no options specified in the contents line, a blank is inserted during
Xthe table output.

```
X\set PC ".pc | .printcont [n]"
X\comm PC
XPrint Contents causes the currently accumulated table of contents to be
Xprinted. If [n] is specified, it is used as the indent value for each
Xlevel.  If [n] is not specified, it is defaulted to 3.
X A contents line at level 0 is as wide as rightmargin-indent. The
Xoutlook of the table of contents may be changed by altering the right
Xmargin and indent values. A typical table of contents may be produced as
Xfollows:
X\in +5
X\nf
X\sp
X|.page
X|.he ////
X|.fo ////
X|.nofill
X|.sp
X|.center
X|Table of Contents
X|.sp
X|.printcont
X\in -5
X\fi
X\sp
XThe following example illustrates the generation of a table of contents. Note
Xthat only one table of contents is active for a PROFF session.
X\need 40
X\sp
X\in +5
X\nf
X\nap
X.cl
X.cl 0 A. Introduction
XIntroduction
X    text
X    .
X.cl
X.cl 0 B. Methods
XMethods
X    text
X    .
X.cl 1 a) Sampling Procedures
XSampling
X    text
X    .
X.cl 1 b) Laboratory Procedures
XLaboratory
X    text
X    .
X.cl
X.cl 0 C. Results
XResults
X    text
```

```
X    .
X    .
X.pg
X.nf
X.he ////
X.fo ////
X.ce
XTable of Contents
X.sp
X.pc
X\sp
X\in -5
XThese commands will produce the following table:
X\sp
X\in +5
X        Table of Contents
X
XA. Introduction.............................   1
X
XB. Methods..................................   3
X   a) Sampling Procedures.....................   3
X   b) Laboratory Procedures...................   4
X
XC. Results..................................   5
X\sp
X\in -5
X\fi
XMacros may be defined as described in the following sections to help the
generation
Xof the table of contents.
X\cchar .
X.in -5
X.bp
X.cl
X.ap
X.sect 1 3.6 Miscellaneous
X This section describes miscellaneous commands that radically increase the
Xformatting powers of PROFF. With the assistance of variables, PROFF can
Xgenerate form letters and documents with dynamic parts. The ability to save
Xand restore formatter context eliminates the need to remember the exact
Xsettings of the formatter across the document.
X.in +5
X.cchar \
X\set VSET ".vs | .set <variable> [definition]"
X\comm VSET
XSet variable  defines a variable to be later used in the document.
XIf the definition part is left out, PROFF uses the variable name as a prompt
Xand allows the user to define the variable interactively. Variable names cannot
Xstart with a numeric character, and may only contain alphanumeric
Xcharacters. The definition of a variable may not contain any blanks, unless
Xthey are surrounded by double-quotes. To get a double quote within a a quoted
Xdefinition, two double-quotes are used.
X Once the variable is
```

```
Xdefined, it can be used anywhere in the document, including the command
Xline itself. A variable substitution is invoked by a dollar sign (_$). (A
Xliteral _$ is inserted into text using ___$).
XA variable name must be delimited by a non-alphanumeric character within the
Xtext. If the contents of the variable is to be appended to other
Xalphanumeric characters, it must be surrounded by wiggly braces
X("{" and "}"). The following is an example of variable usage:
X\need 12
X\sp
X\nf
X|.nf
X|.vs v1 Murphy
X|_${v1}'s first law:
X|   Nothing is as easy as it looks.
X|_${v1}'s second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by _$v1.
X|
X\sp
XProduces the following:
X\sp
X\need 8
X|
X|Murphy's first law:
X|   Nothing is as easy as it looks.
X|Murphy's second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by Murphy.
X|
X\sp
X\fi
X\set VGET ".vg | .get <variable> <prompt>"
X\comm VGET
XGet variable is the interactive version of variable definition. In this
Xvariant, a prompt string is used to obtain the value of the variable,
Xwhich is typed at the user's terminal. If the prompt string is to
Xcontain blanks, tabs etc., it must be enclosed in double quotes. No quotes
Xare necessary for input text.
X\set VRG ".nr <a-z> [+|-][n]"
X\comm VRG
XNumber register is used to define registers that contain numeric values.
XThere are 26 number registers, named a-z. The command ".nr x n" sets the
Xnumber register "x" to value n; ".nr x +n" increments the number register
Xby n; ".nr x -n" decrements the number register by n. The value of the
Xnumber register x is placed in the text by the appearance of _@nx. A literal
X_@ may be inserted using ___@.
XNumber registers may be used on command lines and anywhere in the text.
X\set CCHAR ".cc | .cchar [char]"
X\comm CCHAR
XControl Character  sets the character that distinguishes PROFF
Xcommands from text to be formatted. As a default, control character is set to
```

```
X(".") period.
XThis character may be changed to something other than a period, either
Xto mimic other formatters or to disallow interpretation of lines beginning
Xwith a period. (This document makes heavy use of the .cc command).
X\set ECHAR ".ec | .echar [char]"
X\comm ECHAR
XEscape Character  sets the character that disallows the
Xinterpretation of spacial characters such as _@ and _$. PROFF uses an
Xunderline ("__") character as a default.
X\set SOU ".so | .source | .include | .require [filename]"
X\comm SOU
XThe source (include) command allows external files to be inserted into the
Xinput file
Xduring the formatting. Using this feature, tables, graphs and other
Xdocuments generated outside PROFF may be included into the document
Xbeing formatted. This feature is also very useful in including a common set
Xof macros during formatting. Include files may be nested inside other
Xinclude files. Currently, PROFF only allows a nested include
Xfiles level of 8. Filename may be enclosed in quotes.
X\set SAVE ".sv | .save"
X\comm SAVE
XThe save command allows the saving of the current formatter context on a
Xpushdown stack. The saved context of the formatter segment (FSECT) includes
Xthe following values and flags:
X\need 14
X\sp
X\nf
X\nap
Xvalues            flags         on   |  off
X------           -----
Xindent       (.in)    fill     (.fi | .nf)
Xright margin (.rm)    justify  (.ju | .nj)
Xoffset       (.po)    paging   (.pa | .np)
Xline spacing (.ls)    number type        (.pn)
Xpage length  (.pl)    bolding       (.eb | .db)
Xmargin values     (.m1)    autoparagraph (.ap | .na)
X        (.m2)
X        (.m3)
X        (.m4)
Xcontrol char (.cc)
Xescape char  (.ec)
X\sp
X\ap
X\fi
X\set RST ".rs | .restore"
X\comm RST
XThe restore command pops the context stack and restores the values and flags
Xas defined above.
X\set LEX ".lx | .lex <command> [equate]"
X\comm LEX
XThe lexical modification command is essentially a permanent replacement of a
Xgiven command. This command is used for changing the command names without
Xresorting to the macro facility. Lex permanently removes the old
```

```
Xcommand name from command tables and replaces it with the new definition.
XIf the equate is not specified, the command  becomes undefined and is
Xno longer recognised by PROFF. The command equate should not contain
Xnon-alphanumeric characters.
X\set APR ".ap | .autoparagraph"
X\comm APR
XThe autoparagraph command turns on the automatic paragraphing feature. If
Xauto-paragraphing is on, every line that starts with a
X\ul
Xblank
Xor a
X\ul
Xtab
Xcharacter starts a new paragraph. A new line is generated (.sp) and
Xthe beginning of the paragraph is indented by five spaces.
XAutoparagraphing is the equivalent of the following commands:
X\in +5
X\nf
X|
X|textextextextext
X|.sp
X|.ti +5
X|textextextextext
X|
X\in -5
X\fi
X\set NAP ".na | nap | .noautoparagraph"
X\comm NAP
XNo Autoparagraph command disables auto-paragraphing.
X\set WRT ".wr | .write <string>"
X\comm WRT
XWrite is a special output command, only to be used to configure printers
Xand other output devices with escape sequences. This command outputs the
Xassociated string as it is encountered, without going through the normal
Xoutput routines of the formatter. Currently, the output string may contain
Xcontrol characters specified as "^<char>", decimal numbers within the range
Xof 1-255, and other characters. Blanks within the string are skipped. Any
Xportion of the string enclosed with double quotes is output as is. To output
Xa double quote, two double quotes must be used within the quoted string.
XFollowing is a typical string to set a Digital La-100 printer to letter
Xquality print mode:
X\sp
X\nf
X\in +5
X|
X|.wr ^["[2z"
X|
X\sp
X\fi
X\in -5
XIn the control string, "^[" is the ASCII equivalent of the Escape (esc)
character.
XFollowing mapping table is used to convert characters starting with a caret
```

```
Xto their binary equivalents: ("|" indicates an alternative)
X\nf
X\nap
X\sp
X\in +5
XControl chr  Dec. Oct. Hex.
X-----------  ---- ---- ----
X^a | ^A (soh)    1    01      01
X^b | ^B (stx)    2    02   02
X^c | ^C (etx)    3    03   03
X^d | ^D (eot)    4    04   04
X^e | ^E (enq)    5    05   05
X^f | ^F (ack)    6    06   06
X^g | ^G (bel)    7    07   07
X^h | ^H (bs) 8    10   08
X^i | ^I (ht) 9    11   09
X^j | ^J (nl) 10   12   0A
X^k | ^K (vt) 11   13   0B
X^l | ^L (np) 12   14   0C
X^m | ^M (cr) 13   15   0D
X^n | ^N (so) 14   16   0E
X^o | ^O (si) 15   17   0F
X^p | ^P (dle)    16   20   10
X^q | ^Q (dc1)    17   21   11
X^r | ^R (dc2)    18   22   12
X^s | ^S (dc3)    19   23   13
X^t | ^T (dc4)    20   24   14
X^u | ^U (nak)    21   25   15
X^v | ^V (syn)    22   26   16
X^w | ^W (etb)    23   27   17
X^x | ^X (can)    24   30   18
X^y | ^Y (em) 25   31   19
X^z | ^Z (sub)    26   32   1A
X^[  (esc)    27   33   1B
X^\  (fs) 28   34   1C
X^]  (gs) 29   35   1D
X^^  (rs) 30   36   1E
X^__ (us) 31   37   1F
X\sp
X\in -5
X\ap
X\fi
X\cchar .
X.in -5
X.bp
X.cl
X.sect 1 3.7 Defining New Commands (Macros)
X In document formatting, it is common to repeat a series of commands at
Xseveral places in the document. PROFF allows you to define a new command
Xthat will replace these repeated commands. This not only saves typing but
Xensures that
X.ul
Xexactly
```

```
Xthe same sequence of commands are applied throughout the document. A new
Xcommand that you define is formally called a
X.ul
Xmacro.
XTo define a macro, you must use the define macro (.de | .define) and
Xend macro (.en) commands.
X.in +5
X.cchar \
X\set DEF ".de | .define <macro name>"
X\comm DEF
XDefine is used to define a <macro name> to which a series of commands to
Xbe assigned. This definition line is followed by any number of PROFF
Xcommands and/or text which define the action that the macro
Xwill subsequently produce. Macros may refer to other macros.
X\set ENM ".en"
X\comm ENM
XEnd macro is the last line in the command definition. You must put in this
Xcommand to finish a currently defined macro. ".en" command should not be
Xre-defined as a macro.
X\in -5
X\sp
XThe example below defines macros ".note" and ".endnote", similar to the
XRUNOFF commands of the same name.
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|NOTE
X|.sp
X|.fi
X|.in +5
X|.rm -5
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -5
X|.rm +5
X|.en
X|
X\in -5
X\ap
X\fi
X A macro is used like any other PROFF command, control character followed
Ximmediately  by the name of the macro. For example, the above macros
Xmay be used as follows:
X\in +5
```

```
X\nap
X\need 9
X\nf
X\sp
X|
X|.note
X|textextextextextextextextextext
X|               .
X|          .
X|          .
X|.endnote
X|
X\in -5
X\sp
X\fi
XThe following note is generated by the same macros described previously.
X\cc .
X.nap
X.note
XFlap's Law: Any inanimate object, regardless of its position or configuration,
Xmay be expected to perform at any time in a totally unexpected manner for
Xreasons that are either entirely obscure or else completely mysterious.
X.endnote
X.fi
X.cc \
X\ap
XSpecial symbols may be used within a macro definition. These symbols represent
Xthe parameters passed to a macro, delimited by blanks or commas.
XThese symbols are _$0 for macro name, _$1 for the first parameter, _$2 for
Xthe second parameter and so on, up to _$9 for the ninth parameter. Currently,
Xmacro parameters may only contain alphanumerics, no string parameters are
Xpossible. The previous macro "note" may now be defined as follows:
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|_$2 _$3 _$4 _$5 _$6 _$7 _$8 _$9
X|.nr m _$1
X|.sp
X|.fi
X|.in +_$1
X|.rm -_$1
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -_@nm
```

```
X|.rm +_@nm
X|.en
X|
X\in -5
X\ap
X\fi
X In this version of the "note" and "endnote" macros, the first parameter (_$1)
Xis used to pass the value for indentation and right margin adjustment.
XAll the rest of the macro parameters (_$2 - _$9) are used as the title of
Xthe note. The indent value passed as the first parameter is also saved in the
Xnumber register "m" to communicate it to the "endnote" macro, such that
Xwhen the endnote macro is called, both indent and right margin values are
Xadjusted back to normal. It is possible and may be more useful to use
X".save" and ".restore" commands to accomplish the same task, especially if
Xthe macro alters the current formatting context drastically. The ".note"
Xand ".endnote" macros may be called as follows:
X\in +5
X\nap
X\need 9
X\nf
X\sp
X|
X|.note 5 Asimov's Law of Robotics
X|textextextextextextextextextext
X|              .
X|          .
X|          .
X|.endnote
X|
X\in -5
X\fi
X\ap
X In this usage, the indent value will be adjusted by +5, right margin will
Xbe adjusted by -5, and the title "Asimov's Law of Robotics" will appear
Xcentered above the note.
X\cchar .
X.bp
X.cl
X.sect 0 4.0 Executing PROFF
X The PROFF program  may be invoked with a series of optional parameters and
Xfilenames on the command line. The command synopsis is:
X
XPROFF [+n] [-n] [-v] [-s] [-pon] [-ifile] input [output]
X
XThe square brackets indicate an optional parameter. Interpretation of the
Xparameters is as follows:
X.nap
X.in +10
X.define opt
X.need 5
X.sp
X.ti -5
X.bd
```

```
X$1
X.br
X.en
X.opt +n
XStart the printing of the document at the first page with
Xnumber n.
X.opt -n
XStop printing at the first page numbered higher than n.
X.opt -v
XVerbose mode. PROFF indicates the source files being included into
Xdocument, and produces a summary of the number of textlines read in, the number
Xof lines and actual pages generated. A memory usage summary of internal
Xstorage for macros, stacks and tables is also displayed.
X.opt -s
XStop before each page, including the first one to allow paper
Xadjustment. A prompt is given just before the first page. For each
Xpage thereafter, the terminal bell is rung to indicate that another sheet
Xof paper is needed.
X.opt -pon
XSets the page offset to n. This is equivalent to ".po" command within
Xthe document. It is recommended that -pon option be used instead of
Xembedding the offset value within the document.
X.opt -ifile
XIncludes the given file to the formatted document. This is equivalent to
Xa ".include file" command within the document. This option may be
Xrepeated more than once, -ifile1 -ifile2 etc.
X.opt input
XSpecifies the input file to be formatted. PROFF does not impose any
Xfile extension. The recommended extension is ".PRF".
X.opt output
XSpecifies the output file for the formatted document. If this is omitted,
Xoutput is directed to the user's terminal.
X.in -10
X
XFollowing are some examples of PROFF command lines:
X
X.ti +5
XA>PROFF -v proffman.prf
X
XFormat this document (proffman.prf) in verbose mode, and output the
Xformatted document to the
Xterminal.
X
X.ti +5
XA>PROFF +5 -imacros.pma proffman.prf
X
XFormat this document, include the external file MACROS.PMA, skip the first
Xfour pages and output the formatted document to the terminal.
X
X.ti +5
XA>PROFF -po10 proffman.prf proff.man
X
XFormat this document, shift the entire document by 10 spaces to right and
```

```
Xoutput to a file called proff.man.
X.bp
X.cl
X.sect 0 5.0 Tips on using PROFF
X.ap
X.sect 1 5.1 Care and Feeding of Memory
X PROFF uses a dynamic memory allocation scheme for some of its operations.
XThese are macro definitions, contents lines, variables and save context
Xoperation.
XRunning PROFF under microcomputers with limited memory resources (64k or less)
Xrequire some care in using these commands:
X.list 3
X.item a)
XDo not declare macros that are not needed within the document.
X.item b)
XDo not use comments within macros. Due to delayed evaluation, comments
Xwill also be stored as a part of the macro definition.
X.item c)
XWhere possible, avoid using too much text within macros. It is just as
Xeasy to pass the information during the macro call.
X.item d)
XUse only the shortest form of commands within macros.
X.item e)
XBe brief in contents line text.
X.item f)
XUse short variable names as long as it is not so cryptic as to be confusing.
X.item g)
XAvoid unnecessary blanks within the variable definitions.
X.item h)
XAvoid too many context saves without a corresponding restore. The restore
Xoperation reclaims the memory used for a save.
X.nolist
X Even if the formatter is used with a system of large memory resources,
Xsome of the precautions above are applicable. (Utz's 4th law of Computer
XProgramming: Any given program will eventually expand to fill all the
Xavailable memory.) Using the -v option under memory-restricted systems
Xmay be useful in determining the memory usage.
X
X.sect 1 5.2 Formatting without fuss
X PROFF, using its default settings, may provide reasonably formatted output
Xin many situations.
XAs an example, examine the document PROFF.TUT. This document does not use
XANY formatting commands. All formatting is done with the default settings.
X
X.sect 1 5.3 Variables within macros
X Variable expansions may be performed within the macros. Typically, one
Xof the parameters of the macro is assumed to be a variable, which is expanded
Xonly after the macro is used. Thus:
X.in +5
X.nf
X
X|
X|.define xx
```

```
X|.ce
X|_$_$1
X|.cl _$_$1
X|.en
X|
X
X.in -5
X.fi
XThe macro xx assumes the first parameter to be a variable, which is
Xcentered on the page, and also entered in the table of contents.
XNote the usage of "_$_$1". The lines within a macro are scanned from
Xright to left for parameter expansion. Thus, "_$1" is expanded first,
Xresulting in "_$<first parameter>". This is later expanded as a variable.
X
X.bp
X.cl
X.sect 0 6.0 Example macros
X
X.nf
X.in +5
X.cc \
X.!
X.! macros to create a point-form lists.
X.! note the use of number registers within
X.! the macros.
X.!------------
X.define list
X.nr a _$1
X.in _$1
X.en
X.!------------
X.define item
X.sp
X.ti -_@na
X_$1
X.en
X.!------------
X.define nolist
X.in -_@na
X.sp
X.en
X.!------------
X
X\in -5
X\fi
XThe "list" macro is used to generate point-form lists. The first parameter
Xis an indent value, size of point-str + 1. A typical usage may be as
Xfollows:
X\need 16
X\in +5
X
X\nf
X|
```

```
X|Project work involves:
X|.sp
X|.list 3     { size-of-point-str + 1 }
X|.item a)         { "a)" is the point-str }
X|choosing a topic
X|.item b)
X|defining the topic
X|.item c)
X|research
X|.item d)
X|organizing the notes
X|{etc.}
X|.nolist     { readjusts the indent  }
X|
X\in -5
X
XThe above usage will produce the following:
X\need 12
X\in +5
X
X|
X|Project work involves:
X|
X|a) choosing a topic
X|
X|b) defining the topic
X|
X|c) research
X|
X|d) organizing the notes
X|
X
X\in -5
X\fi
XThe point-form recommendations under section 5.1 (Care and Feeding of
XMemory) were generated with the same set of macros described above.
X\cc .
X.bp
X.cl
X.sect 0 7.0 Acknowledgements
X This document was edited by Terry Lim and Steven Tress.
XThe format of the document is largely based on The Freshwater Institute
XRUNOFF User's Guide. The Quotes for the various formatting examples are
Xfrom THE QUOTABLE NOTHING BOOK and from 1001 LOGICAL LAWS, ACCURATE
XAXIOMS, PROFOUND PRINCIPLES, TRUSTY TRUISMS, HOMEY HOMILIES, COLORFUL
XCOROLLARIES, QUOTABLE QUOTES, AND RAMBUNCTIOUS RUMINATIONS FOR ALL
XWALKS OF LIFE, by Peers, Bennet and Booth, Fawcett Columbine Books,
XNew York.
X.bp
X.cl
X.sect 0 Appendix A
X.he /1.0/Appendix A/#/
X.cc \
```

```
X\nf
X\nap
X\ce
XSummary of Commands
X
X-----------------------------------------------------------
X$FILL
X        default: initial: yes  break: yes
X        begin filling output lines
X-----------------------------------------------------------
X$NOFILL
X        default: initial: no   break: yes
X        stop filling
X-----------------------------------------------------------
X$JUST
X        default: initial: yes  break: yes
X        begin justifying filled lines
X-----------------------------------------------------------
X$NOJUST
X        default: initial: no   break: yes
X        stop justifying
X-----------------------------------------------------------
X$BREAK
X        default: initial: break: yes
X        cause a break and output current line
X-----------------------------------------------------------
X$INDENT
X        default: 0    inital: 0break: yes
X        set left margin to column n+1
X-----------------------------------------------------------
X$TINDENT
X        default: 0    initial: break: yes
X        temporarily indent next output n spaces
X-----------------------------------------------------------
X$SPACETO
X        default: 0    initial: break: yes
X        space to line +n from top
X        space to line -n from bottom
X-----------------------------------------------------------
X$SPACE
X        default: 1    initial: break: yes
X        space n lines except at top of page
X-----------------------------------------------------------
X$CENTER
X        default: 1    initial       break: yes
X        center next n lines
X        center until turned off
X-----------------------------------------------------------
X$UNDLINE
X        default: 1    initial       break: no
X        underline next n lines
X        underline until turned off
X-----------------------------------------------------------
```

```
X\bp
X-----------------------------------------------------------
X$CUNDLINE
X         default: words     initial: words     break: no
X         set mode for underline - words or all
X-----------------------------------------------------------
X$BOLD
X         default: 1    initial:  break: no
X         boldface (overstrike) next n lines
X         boldface until turned off
X-----------------------------------------------------------
X$DBO
X         default:  initial: no   break: no
X         disable bolding
X-----------------------------------------------------------
X$EBO
X         default:  initial: yes  break: no
X         enable bolding
X-----------------------------------------------------------
X$LS
X         default: 1    initial: 1    break: no
X         set line spacing to n
X-----------------------------------------------------------
X$BP
X         default: +1   initial: 1    break: yes
X         begin a new page and number it n
X-----------------------------------------------------------
X$PN
X         default:  initial: arabic    break: no
X         set page numbering to arabic or roman
X-----------------------------------------------------------
X$NPA
X         default:  initial: no   break: yes
X         disable paging
X-----------------------------------------------------------
X$PA
X         default:  initial: yes  break: yes
X         enable paging
X-----------------------------------------------------------
X$NE
X         default: 0    initial:  break: yes/no
X         need n lines. Break and generate a new page
X         if not available
X-----------------------------------------------------------
X$HE
X         default: null initial: null break: no
X         set header to text (/left/center/right/)
X-----------------------------------------------------------
X$FO
X         default: null initial: null break: no
X         set footer to text (/lef/center/right/)
X-----------------------------------------------------------
X\bp
```

```
X-----------------------------------------------------------
X$OHE
X        default: null initial: null break: no
X        set header on odd pages to text
X-----------------------------------------------------------
X$EHE
X        default: null initial: null break: no
X        set header on even pages to text
X-----------------------------------------------------------
X$OFO
X        default: null initial: null break: no
X        set footer on odd pages to text
X-----------------------------------------------------------
X$EFO
X        default: null initial: null break: no
X        set footer on odd pages to text
X-----------------------------------------------------------
X$PO
X        default: 0    initial: 0    break: yes
X        set page offset to n spaces
X-----------------------------------------------------------
X$RM
X        default: 65   initial: 65   break: no
X        set right margin to column n
X-----------------------------------------------------------
X$PL
X        default: 66   initial: 66   break: no
X        set page length to n lines
X-----------------------------------------------------------
X$M1
X        default: 3    initial: 3    break: no
X        lines between top of page and header
X-----------------------------------------------------------
X$M2
X        default: 2    initial: 2    break: no
X        lines between header and text
X-----------------------------------------------------------
X$M3
X        default: 2    initial: 2    break: no
X        lines between text and footer
X-----------------------------------------------------------
X$M4
X        default: 3    initial: 3    break: no
X        lines between footer and bottom
X-----------------------------------------------------------
X$CL
X        default: initial: break: yes
X        enter text into table of contents at level
X        n
X-----------------------------------------------------------
X\bp
X-----------------------------------------------------------
X$PC
```

```
X        default: 3    initial: 3    break: yes
X        print table of contents, indent each level
X        n spaces
X-------------------------------------------------------
X$VSET
X        default: initial: break: no
X        set variable to text
X-------------------------------------------------------
X$VGET
X        default: initial: break: no
X        set variable interactively, using text
X        as prompt
X-------------------------------------------------------
X$VRG
X        default: 0    initial: 0    break: no
X        set number register (a-z) to n
X-------------------------------------------------------
X$CCHAR
X        default: "."  initial: "."  break: no
X        set command control character to char
X-------------------------------------------------------
X$ECHAR
X        default: "__" initial: "__" break: no
X        set universal escape character to char
X-------------------------------------------------------
X$SOU
X        default: initial: input    break: no
X        switch input to file
X-------------------------------------------------------
X$SAVE
X        default: initial: break: yes
X        save the current formatter context on
X        context stack
X-------------------------------------------------------
X$RST
X        default: initial: break: yes
X        restore the formatter context from context
X        stack
X-------------------------------------------------------
X$LEX
X        default: initial: break: no
X        rename a command
X-------------------------------------------------------
X$APR
X        default: initial: no   break: no
X        enable auto-paragraphing
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$NAP
X        default: initial: yes  break: no
X        disable auto-paragraphing
X-------------------------------------------------------
```

```
X$WRT
X        default: initial: break: no
X        write a special string to output. line
X        counter does not change
X-------------------------------------------------------
X$DEF
X        default: initial: break: no
X        define a macro command - ends at ".en"
X-------------------------------------------------------
X$ENM
X        default: initial: break: no
X        end the macro definition
X-------------------------------------------------------
X\cc .
X.bp 1
X.pn roman
X.he ////
X.fo //- # -//
X.ce on
XTable Of Contents
X
XPROFF 1.0
X.ce off
X.pc
!FaR!OuT!
echo x - proffsym.new
sed -e 's/^X//' > proffsym.new << '!FaR!OuT!'
X
X! proff symbols
X! flag value of 1 indicate
X! a runoff-supported symbol
X! feb. 1984
X!
X! reset the formatter
X!
Xreset        RESET
X!
X! bolding
X!
Xbd      BD
Xbold         *
X!disable_bolding      DBO      1
Xdisablebolding        DBO      1
Xdbo          *        1
Xdb           *
X!enable_bolding       EBO      1
Xenablebolding         EBO      1
Xebo          *        1
Xeb           *
X!
X! new page & paging modes
X!
Xbp      BP
```

```
Xpage         *        1
Xpg      *        1
Xpaging           PGI      1
Xpa           *        1
Xnopaging     NPA      1
Xnp           *
X!
X! break
X!
Xbr      BR       1
Xbreak        *        1
X!
Xbs      BS
X!
X! setup control character
X!
Xcc      CC
Xcchar        *
X!
X! centering
X!
Xce      CE
Xcenter       *
X!
Xcu      CU
X!
X! macro definitions
X!
Xde      DE
Xdefine       *
X!
X! setup generic escape character
X!
Xec      EC
Xechar        *
X!
X! even footers and headers
X!
Xef      EF
Xeh      EH
X!
X! end macro definition
X!
X!en     EN
X!
X! fill the lines
X!
Xfi      FI
Xf       *        1
Xfill         *        1
X!
X! general footers and headers
X!
```

```
Xfo      FO
Xfooter      *
Xhe      HE
Xheader      *
X!
X! indentation (permanent)
X!
Xin      IN
Xlm      *        1
X!left_margin *        1
Xleftmargin   *        1
X!
X! justification
X!
Xju      JU
Xj       *        1
Xjustify      *        1
X!
X! line spacing
X!
Xls      LS
Xspacing      *        1
Xspc     *        1
X!
X! margin spacing
X!
Xm1      M1
Xm2      M2
Xm3      M3
Xm4      M4
X!
X! test for page
X!
Xne      NE
Xneed         *
X!test_page   *        1
Xtestpage*        1
Xtp      *        1
X!
X! disable fill
X!
Xnf      NF       1
Xnofill       *
X!no_fill     *        1
X!
X! disable justification
X!
Xnj      NJ       1
Xnojustify    *
X!no_justify  *        1
X!
X! number registers
X!
```

```
Xnr      NR
X!
X! external output
X!
Xou      OU
Xoutput      *
Xoe      OE
Xoutend      *
X!
X! odd footers and headers
X!
Xof      OF
Xoh      OH
X!
X! page length
X!
Xpl      PL
Xps      *        1
X!page_size   *        1
Xpagesize*        1
X!
X! page offset
X!
Xpo      PO
Xoffset      *
X!
X! right margin
X!
Xrm      RM       1
X!right_margin    *        1
Xrightmargin  *        1
X!
X! external input (include)
X!
Xso      SO
Xsource       *
Xinclude      *
Xrequire      *        1
Xreq     *        1
X!
X! skip line (blank lines) according to spacing
X! sp is not the same as runoff sp
X!
Xsp      SP
Xskip         *        1
Xs       *        1
X!
X! blank line
X!
X!blank       BL       1
X!b      *        1
X!
X! space from top (or bottom)
```

```
X!
Xst      ST
Xskipto       *
X!
X! temporary indent
X!
Xti      TI
Xleft         *        1
X!
X! underline
X!
Xul      UL
Xunderline    *
X!
X! substitute (using requlars expresions)
X!
X!su     SU
X!subs        *
X!substitute  *
X!esu         ESU
X!enable_subs *
X!dsu         DSU
X!disable_subs     *
X!
X! save and restore of FSECT
X!
Xsv      SAV
Xsave         *
Xrs      RST
Xrestore      *
X!
X! looping formatting for each variable
X!
X!for         FOR
X!foreach     *
X!enf         ENF
X!endfor      *
X!
X! permanent symbol replacement
X!
Xlx      LEX
Xlex     LEX
X!
X! ignore character
X!
Xig      IG
Xignore       IG
X!
X! variable definition
X!
Xvs      SET
Xset     *
Xvg      GET
```

```
Xget     *
X!
X! page numbering (roman or arabic)
X!
Xpn      PN
Xpagenumber   *
X!
X! paragraphing
X!
Xap           AP        1
Xautoparagraph          *         1
Xna           *
Xnap          NAP             1
X!no_autoparagraph *               1
Xnoautoparagraph        *         1
X!paragraph        PAR       1
X!p           *         1
X!set_paragraph         SPR       1
X!setparagraph          *         1
X!spr              *         1
X!
X!
X!comment          COM       1
X!
X! same as pagenumber
X!
X!display_number        DNM       1
X!dnm              *         1
X!
X! entry into an index listing
X!
X!entry            ENT       1
X!y           *         1
X!
X! entry into contents table
X!
Xcl           CL
Xcontline     *
Xpc           PC
Xprintcont         *
X!
X! conditional formatting
X!
X!if          CIF       1
X!else             CELSE         1
X!endif            CENDIF        1
X!ifnot            CIFNOT        1
X!
X! list generation
X!
X!list             LST       1
X!end_list         ELS       1
X!endlist          ELS       1
```

```
X!els             *        1
X!list_element         LEM      1
X!listelement     LEM      1
X!le          *        1
X!
X! literal mode (nf-nj-lm0-rm150)
X!
Xliteral          LTR      1
Xlt           *        1
X!end_literal     ELT      1
Xendliteral       ELT      1
Xel           *        1
X!
X! overstrike control
X!
X!enable_overstriking  EOV      1
X!eov             *        1
X!disable_overstriking DOV      1
X!dov             *        1
X!
X! repeat a string
X!
X!repeat          REP      1
X!rpt             *        1
X!
X! flush right margin
X!
X!right           RIG      1
X!r           *        1
X!
X! write out a special string
X!
Xwr           WR
Xwrite             *
X!
X! end of definitions
!FaR!OuT!
exit
--
```


```
 __________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________     TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
```



```
From -7434022516955433248
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a436a40c2c720ca
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 19:14:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
```

Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!
decwrl!sun!imagen!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Bug in GEMDOS (was TVX bug)
Message-ID: <438@atari.UUcp>
Date: Thu, 9-Oct-86 22:14:02 EDT
Article-I.D.: atari.438
Posted: Thu Oct 9 22:14:02 1986
Date-Received: Sat, 11-Oct-86 21:05:11 EDT
References: <402@unmvax.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 43
Keywords: The real story (console I/O in GEMDOS)

The real culprit is what I would refer to as a "semi-circular" buffer
in GEMDOS's character I/O routines. When you read with Cconin(), you
must read ALL the characters that are available before using Cconout()
or Cconws(). If you don't, the buffer will overflow and cause a
crash. (The program at the end of this posting demonstrates the
problem quite dramatically).

The BIOS has no such problem. My philosophy is (and always has
been) to avoid the GEMDOS console, aux and printer functions, and
go directly to the BIOS.

```
>  /*
>   *  holdkey --- semi-circular buffer test
>   *
>   *  Test:
>   *    Run it.  Hold down RETURN until auto-repeat starts.  Keep
>   *    holding RETURN down.  The system should crash (the exact
>   *    exception varies).
>   *
>   *  Status:
>   *    Fixed.
>   *
>   */
>  #include <osbind.h>
>
>  main()
>  {
>    for (;;)
>      {
>        Cconws("Keep holding RETURN down.  A crash should happen soon.\r\n");
>        Cconin();
>      }
>  }
```

--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

/--\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\--/

From -6287517544415958878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 21:32:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <1198@batcomputer.TN.CORNELL.EDU>
Date: Fri, 10-Oct-86 00:32:02 EDT
Article-I.D.: batcompu.1198
Posted: Fri Oct 10 00:32:02 1986
Date-Received: Sat, 11-Oct-86 19:38:21 EDT
References: <2939@sdcc6.ucsd.EDU> <429@vaxb.calgary.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12
Keywords: Atari C-source C++ identifiers Megamax object-oriented
Summary: Megamax uses 10 chars of any length identifier
Xref: mnetor net.lang.c++:365 net.micro.atari16:2449

Regarding the need for a C compiler that would handle long
identifiers, y'all might not know that Megamax recognizes
the first 10 chars, and allows very long total length.
That may still not be enough for C++ - I dunno.
(and you still need to get that C++ preprocessor...)

BTW: I devised a method to do object-oriented programming in C.
Not fancy but simple, and you get inheritance and even late binding
of sorts with high efficiency (about 100 microSecs for a typical
invocation of a method). If anybody is interested let me know.

- Moshe Braner

From -3124138227729042028
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae1fe1d768aada8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 22:25:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!ucbvax!AMES-

NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: What works under Magic
Message-ID: <8610100526.AA25418@ames-nas.ARPA>
Date: Fri, 10-Oct-86 01:25:58 EDT
Article-I.D.: ames-nas.8610100526.AA25418
Posted: Fri Oct 10 01:25:58 1986
Date-Received: Sat, 11-Oct-86 20:01:21 EDT
References: <8610100413.AA14384@tcgould.tn.cornell.edu>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 125

Since so many people have asked what does/doesn't work under magic sac, I am going to post the following rather than waiting until I have my own list together. I will follow this up with my list, as soon as I have one. (:-)

This list is abstracted from the readme which comes with version 2 of Magic Sac. I have not edited what's here, I have only removed portions of the readme which don't have to do with the list. I have not run most of this stuff myself, and can't vouch for it. Right now, the only thing I can vouch for is FreeTerm 1.8, which definitely does work.

Marty

KNOWN BUGS:

MacWrite: (2.2 / 4.5)

MacWrite crashes the system. We are working hard to fix this. We are most of the way there (for instance, it prints), however, the authors did not follow developer's guidelines, and it's tricky. We don't think holding up this release for the fix is a good idea.

Switcher:

Because so many people want Switcher, we are attempting to work around it some direct hardware references in it which otherwise make it fail. Look for it fairly soon.

Finder 1.1g

Finder 1.1g actually may work better for you than 4.1; 4.1 seems to have some bad effects on application software. As an example, Zork III works under 1.1.g, but not under 4.1.

There is one known bug in 1.1g: if you open the trashcan, then click on the menu bar, the system dies. Fix: don't do this. This bug does not apply to 1.0 or 4.1.

****

List of Works / Doesn't Work Software

Revision 2.00, 10/1/86

Some of the "Works" software has been extensively tested; others, just basically booted and briefly tested. However, we feel the list may be helpful to you nonetheless.

Please help us keep it up to date and to expand it.

We will periodically upload it to Compuserve and BIX.

WORKS

Apple Finder 1.0
Apple Finder 1.1g
Apple Finder 4.1 (note: may fail on 128K size inconsistently, see note)
Apple MacPaint 1.5 (note: 1.3 has a bug in FatBits, fixed in 1.5)
Apple Edit Oct. 22/1984
Apple MacDraw 1.9
Apple MacProject 1.0
Apple REDIT (6/86 update)
Apple Disk Utility (5/85 update)

Aldus: Pagemaker (only a non-protected version, not yet available)

Arrays / Continental Software: The Home Accountant V. 1.03

Assimilation: RAMDISK program.

Chang Labs: R&R Ledger system

Desktop Software: 1st Base V1.01

Dreams of the Phoenix: Freeterm 1.6, 1.8. NOTE: Use these to modem with.

Bishop Graphics: Quik-Circuit (PC Design package)

Haba Systems: Habaword 1.2, 1.3, 1.4 (very nice word processor)

Infocom: Zork III. Note: works well under Finder 1.0, not so well under 4.1.

Main Street Software: Main Street Filer V. 1.1

Manhattan Graphics' Ready-Set-Go V2.1

Megahaus: Megafiler V1.01
Megahaus: MegaMerge 2.00

Megamax C (cc, link, sieve demonstration, rmaker)

Microsoft BASIC 1.01 (decimal and binary versions)
Microsoft BASIC 2.00 (decimal and binary versions)
Microsoft Excel (only a non-protected version, not yet available)

Software Arts: TK! Solver V TK-1 (5R)

Doesn't Work

Apple Switcher 3.0, 3.3, 5.0b1. zerostore at d21a.
Apple ResEdit (6/86) after B eject; (a4) zerostore.
Apple Fedit (John Mitchell); zerostore on initial launch.
Apple MacTerminal 2.00 (40 0008 test) (direct rom access)

Hayes Smartcom 2.0: bf fff9 at 10252; (direct serial chip access).

Microsoft Word: Zerostore at f31ca.

Penguin: Transylvania. 01650004 at ff512.

See also notes in main text.

More than likely, some of these failures are due to subtle copy protection schemes.

From -137982792082744811
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a0a97553f56f8863
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-09 22:46:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!lll-crg!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: uniterm part6 and UEmacs v3.7i part1
Message-ID: <1596@cwruecmp.UUCP>
Date: Fri, 10-Oct-86 01:46:13 EDT
Article-I.D.: cwruecmp.1596
Posted: Fri Oct 10 01:46:13 1986
Date-Received: Sat, 11-Oct-86 20:30:44 EDT
References: <61@ritcv.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)

Distribution: net
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 10

Please repost UEmacs v3.7i part 1. (possibly split into two parts).
                        thanks,

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -9007296560027302380
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c856a7d0eecd4d19,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 06:07:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!rutgers!caip!clyde!cbatt!ihnp4!inuxc!pur-ee!
beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: UNITERM Problems
Message-ID: <4780@pur-ee.UUCP>
Date: Fri, 10-Oct-86 09:07:25 EDT
Article-I.D.: pur-ee.4780
Posted: Fri Oct 10 09:07:25 1986
Date-Received: Sat, 11-Oct-86 20:54:12 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 15
Keywords: also cannot get it to work - three bombs

<<<<<>>>>>

  I would like to throw in my additional note that when I try to run
it on a TOS in ROM 520 I get 3 bombs, but with TOS in RAM I get >5
mushroom clouds. I checked the file sizes and the decoding (the
keyboard mapping program that came with it works fine).
  Maybe a re-posting would be in order? A fix to the uuencoded
files?

              Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From -4993484926726684686
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c52eca7fa7e32609,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 06:14:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!seismo!mcvax!unido!uklirb!mdoerr
From: mdoerr@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Interrupt running programs - (nf)
Message-ID: <14600008@uklirb.UUCP>
Date: Fri, 10-Oct-86 09:14:00 EDT
Article-I.D.: uklirb.14600008
Posted: Fri Oct 10 09:14:00 1986
Date-Received: Sun, 12-Oct-86 13:38:44 EDT
Lines: 245
Nf-ID: #N:uklirb:14600008:000:9300
Nf-From: uklirb!mdoerr   Oct 10 14:14:00 1986

Ask

> Challenge: can anybody devise a way to stop a running program that does
> not do any I/O (i.e. does not respond to ctrl-C), but WITHOUT rebooting!?
> (I currently embed calls to keybrk() here and there in my loops, where
> keybrk() is just a call to GEMDOS to see if ctrl-C was pressed, and an exit()
> if it was... - that works but is ugly!) - I would like some program that
> responds to an interrupt (say the alt-Help) and stops the currently running
> application, in a clean way (no crashes or reboots, ability to do it
> repeatedly in a session). I would like this ditty to be a separate program
> that you run once and then it sits resident in RAM. I have tried such
> a thing, with the interrupt handler doing an RTE to itself and then calling
> gemdos(0) - but I get mysterious crashes after a few uses! Any ideas?
>
> - Moshe Braner

and thou shall receive:

WATCHER is another goodie from the Happy-Computer PD-Disk (remember MONST).
It should work as follows:
If your program gets stuck in an endless loop
     then press 3 times CTRL-B and once CTRL-C

The executable has been UUENCODED on the ST. The source is for assembly
language adventurers.

As an additional bonus I've thrown in TBUG.PRG. Place multiple copies of it
into the AUTO folder of your best friend and watch his/her eyes fall out.
Have fun, but don't flame me!

Michael Doerr
Uni. of Kaiserslautern (Germany)
uucp: ...!seismo!unido!uklirb!mdoerr

```
---------------- This is NO shell archive ------------------
begin 777 WATCHER.PRG
M8!H   %2    "@   !@                   "!O  0L/    0#<J  ,W*@
M%-RH !PCQ@   5P_/  !/SP #DY.6(\CP    6 O/    $H_/  F3DY<CT)G
M+SD   %</SP ,4Y!,#D   14Y4@@>0  !%9"04JP$ !G"%A!LD!F]$YU(_D
M  !P   !9"/\    B    '!%\!  )+P   "63G4CSP   6@O.0   61.=2!Y
M   !:# 0P'P@ &<"3G5"N0   7 @>0   6 B:   ,B@ !#0H  8V*  (. ,Z
M K9"9@).=6X$. %91 PQ  )0 V8&4KD   %P6$6X16SLMD)N&$)%. ,,,0 "
M4 -F!E*Y   !<%A%N$5L[ RY     P   7!L DYU('D   %H(^@  @   6PA
M?    2@  DYU+SD   %L2.?@X"\\   !4C\\  I.05R/2CD   %39P9,WP<'
I3G5"9TY!"                !@2!A N!@X(!@@0!BX<$ H(!@H*#@!,

end
---------------  Cut  Here  --------------------------------
begin 777 TBUG.PRG
M8!H   +V                              $*G/SP ($Y!7(\CP    @A(
MY__^82),WW__+SD   ((/SP ($Y!7(\_/   +SP   /H/SP ,4Y!('D   16
M(^@ !    @Q#^0   (8A20 $0?D   )*(\@   (^0?D   *&(\@   )",#D
M  2\ H    #^(\    (8(_P        "1DYU0H 0.0#_@@'A@- Y /^" ^&
M(\    (<(#D   (<T+D   (8($!#^0   B!A  $B(#D   (<T+D   (8($ B
M>0   CXD>0   D)A  #H80 !($* $#D _X(###D P #_@@-L$-"\    0+ Y
M /^"!VSX8!RP.0#_@@=O[M"\    0,"\    _[ Y /^"!VSX(#D   (<T+D
M  (8($!#^0   B!A  "Z(#D   (<T+D   (8($!2N0   D9*: * 9@92N0
M D8,N0    @   )&;UY#^0   FA%^0   J2S^0   CYF#$/Y   "2D7Y   "
MAB/)   "/B/*   "0B/\         D8&N0   %    (8#+D  #_X   "&&T2
M,#D   2\ H    #^(\    (83G5P#C(:1E"#4$90,A PF8-0T?P   !04<C_
MZDYU< XRT-'\    4%'(__9.=7 .,)G1_    %!1R/_V3G4@>0   @RQ_
M  !G DZ03G4
M                                        P?F?;R9F!6I$8MUKI&(
M%:@1BW_^C; 'X /  8#  &?@/;X9F96HT8AUKA&)%:C1B'_^#;$'X /  8
M P?F?_R?^!_Y'_M__I_X'_@?^W_^C_ 'X /  8#  &?@/_X?^9_XW_A__A_Y
M'_C?^'_^#_$'X /  8 H0RD@3RX@2F]P<&EC:"P@06T@2&]N:6=B;&5E:R Q
M-"P@,S,P,"!"<F%U;G-C:'=E:6<     #! F!@H&!@82"AH&!@@*!@@&3 8(
2"@8(# H(!@8(!@8&"@H*%$0

end
--------------------- Cut Once More -----------------------

*  watcher.s
*  written by ww&js on 13.2.86/14.2.86

* Dieses Programm ermoeglicht es, Programme mit Endlosschleifen
* abzubrechen.

gemdos    equ   1        * System-Aufruf Konstanten
xbios     equ  14
print     equ $09        * GEMDOS Systemaufrufe
keep      equ $31
readline  equ $0a
iorec     equ  14        * XBIOS Systemaufrufe
super     equ  38
ibuf      equ   0        * Offsets of struct iorec
```

```
isize     equ   4
ihd       equ   6
itail     equ   8
ctrl_b    equ   2        * Control-B
_vblqueue equ $456       * Systemaddresen: VBL Adressen
nvbls     equ $454       * Anzahl VBL-Routinen
level_4   equ $70        * Level 4 Interruptvector

     .bss
laenge    .ds.l     1
iorecp    .ds.l     1
oldlevel  .ds.l     1
merksp    .ds.l     1
merkpc    .ds.l     1
count     .ds.l     1

* Berechne Groesse des Programms:
     .text
     move.l    4(sp),a0       * basepage Adresse
     move.l    #$100,d6       * basepage Groesse
     add.l     12(a0),d6      * text Groesse
     add.l     20(a0),d6      * data Groesse
     add.l     28(a0),d6      * bss Groesse
     move.l    d6,laenge      * abspeichern

     move      #1,-(sp)       * XBIOS iorec(1) (Tastaturpuffer)
     move      #iorec,-(sp)   * (liefert den Beschreibungsblock)
     trap      #xbios
     addq.l    #4,sp
     move.l    d0,iorecp      * Adresse merken

     move.l    #main,-(sp)    * Routine main im Supervisormode ...
     move      #super,-(sp)   * ...laufen lassen
     trap      #xbios
     addq.l    #6,sp

     clr       -(sp)          * GEMDOS keep(laenge,0)
     move.l    laenge,-(sp)   * (Programm wird beendet, aber...
     move      #keep,-(sp)    * ...im Speicher resident gehalten)
     trap      #gemdos


* Routine vbl in Liste der VBL-Routinen eintragen
main
     move      nvbls,d0       * Anzahl VBL-Routinen
     lsl       #2,d0
     move.l    _vblqueue,a0   * Adr. der VBL-Routinen
     clr       d1
loop1
     tst.l     (a0,d1)        * Routine frei?
     beq       free           * ja, freier Platz gefunden
     addq      #4,d1          * naechste Routine
     cmp       d0,d1          * Ende?
```

```
     bne       loop1
     rts                    * keine freie Routine gefunden, return

* freie VBL-Routine gefunden; Interruptvektor und eigene Routine
* eintragen:
free
     move.l    level_4,oldlevel    * bisherigen Int.-Vektor merken
     move.l    #newlevel,level_4   * neuen Int.-Vektor eintragen

     lea       (a0,d1),a2     * Adr. der freien VBL-Routine
     move.l    #vbl,(a2)      * eigene VBL-Routine eintragen

     rts                    * fertig

* eigene Level 4 Interruptbehandlung (VBL Interrupt)
newlevel
     move.l    sp,merksp      * Stackpointer merken
     move.l    oldlevel,-(sp) * zur System-Interruptbehandlung springen
     rts

* eigene VBL-Routine
vbl  move.l    merksp,a0      * Interrupt-Stackpointer laden
     move      (a0),d0        * SSR des unterbrochenen Programms
     and       #$2000,d0      * User/Supervisor Bit testen
     beq       continue       * nicht gesetzt -> User-Mode
     rts                      * unterbrochenes Programm war im Super-
*                             * visor Mode; nicht abbrechen

* unterbrochenes Programm ist im User-Mode; XBIOS Tastaturpuffer
* nach CTRL-B durchsuchen:
continue
     clr.l     count          * Zaehler init.
     move.l    iorecp,a0      * Adr. Pufferbeschreibungsblock
     move.l    ibuf(a0),a1    * Adr. Tastaturpuffer
     move      isize(a0),d1   * Puffergroesse (in bytes)
     move      ihd(a0),d2     * Ringpuffer Anfang (Index)
     move      itail(a0),d3   * Ringpuffer Ende (Index)

     move      d3,d4          * D4: Ende fuer erste Schleife
     move      d2,d5          * D5: Laufvariable
     cmp       d2,d3          * Testen ob Puffer leer
     bne       cont2          * nicht leer
     rts                      * leer;
cont2
     bgt       nowrap         * nur eine Schleife
     move      d1,d4          * 2 Schleifen; erste bis Puffergroesse...
     subq      #4,d4          * ...-4
nowrap
     cmp.b     #ctrl_b,3(a1,d5) * CTRL-B im Puffer?
     bne       cont3          * nein
     addq.l    #1,count       * zaehlen
cont3
     addq      #4,d5          * naechster Index
```

```
     cmp       d5,d4          * Ende erreicht?
     bge       nowrap         * Nein, weiter

     cmp       d2,d3          * Test ob 2 Schleifen
     bgt       ende           * nein, fertig mit Durchsuchen
     clr       d5             * Schleife 2 von 0 bis...
     move      d3,d4          * ...Ende Index
loop3
     cmp.b     #ctrl_b,3(a1,d5) * Schleife wie oben
     bne       cont4
     addq.l    #1,count
cont4
     addq      #4,d5
     cmp       d5,d4
     bge       loop3          * Schleifenende
ende
     cmp.l     #3,count       * mindestens 3 mal CTRL-B gefunden?
     bge       kill           * ja, kill'em all
     rts                      * sonst normaler Rueckspr
```

```
* Rueckspr des unterbrochenen Programms umleiten:
kill
     move.l    merksp,a0      * Interrupt Stackpointer
     move.l    2(a0),merkpc   * Original-Rueckspradresse merken
     move.l    #abort,2(a0)   * neue Rueckspradr. dafuer eintragen
     rts                      * Ende VBL-Routine

* An diese Stelle wird der Rueckspr des unterbrochenen Programms
* umgeleitet, falls 3 mal CTRL-B im Tastaturpuffer gefunden wurde
abort
     move.l    merkpc,-(sp)   * Original-Rueckspradresse
     movem.l   d0-d2/a0-a2,-(sp) * Register retten
     move.l    #ibuff,-(sp)   * Eingabezeile lesen
     move      #readline,-(sp)
     trap      #gemdos
     addq.l    #6,sp

     tst.b     ibuff+1        * Eingabe da?
     beq       exit           * Nein, vermutlich EOF bei Input Redirection

     movem.l   (sp)+,d0-d2/a0-a2 * ansonsten Programm fortsetzen
     rts

exit
     clr       -(sp)
     trap      #gemdos
     .data
ibuff
     .dc.b     8,0
     .ds.b     8
     .end
```

---------- This Is The End ----------

From 5850725172831676535
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15517a,e4a8c7b8236b0c87
X-Google-Attributes: gid15517a,public
X-Google-Thread: 142096,e4a8c7b8236b0c87
X-Google-Attributes: gid142096,public
X-Google-Thread: 159752,e4a8c7b8236b0c87
X-Google-Attributes: gid159752,public
X-Google-Thread: 140593,e4a8c7b8236b0c87
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 06:57:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!elsie!cvl!cas
From: cas@cvl.UUCP (Dr. Cliff Shaffer)
Newsgroups: net.sources,net.micro.pc,net.micro.amiga,net.micro.atari16
Subject: Re: source for "make" program requested
Message-ID: <1729@cvl.UUCP>
Date: Fri, 10-Oct-86 09:57:26 EDT
Article-I.D.: cvl.1729
Posted: Fri Oct 10 09:57:26 1986
Date-Received: Sat, 11-Oct-86 20:02:12 EDT
References: <3453@utcsri.UUCP>
Organization: Center for Automation Research, Univ. of Md.
Lines: 3
Xref: mnetor net.sources:3298 net.micro.pc:6960 net.micro.amiga:5214
net.micro.atari16:2455

I could sure use a "make" that works on a VAX running VMS too!!
     Cliff Shaffer
     cas@cvl.umd.edu

From 8194813039317063 76
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f5731e34bade0c86
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 06:57:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cgoudeseune
From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.micro.atari16
Subject: recursion in megamax C
Message-ID: <12066@watnot.UUCP>
Date: Fri, 10-Oct-86 09:57:45 EDT
Article-I.D.: watnot.12066
Posted: Fri Oct 10 09:57:45 1986
Date-Received: Sat, 11-Oct-86 06:22:48 EDT
References: <36100001@pbinfo.UUCP>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Organization: U of Waterloo, Ontario

Lines: 18
Summary:

[]

I've ported a C program to draw Julia sets (skins of fractal dragons) from
a vax here at U of W to my 1040st. It uses recursion, and on the vax this
goes about 500 to 3000 levels deep, depending on what values i feed to the
program. Unfortunately, when i moved it to my ST, it died after about 170
nested recursive calls. Further experimentation indicated that only about
7800 bytes is available for local variables, parameters, and return addresses
on the stack from megamax C. The manual claims that if you want more stack
space, you can modify the STACKSIZE constant in \megamax\init.c; I changed it
to 64000 bytes and a few other values, but to no avail.
Help!
Does anyone out there know how to make the stack as big as you want?
It seems to me that some other code internal to megamax didn't realize
i'd changed STACKSIZE from the original 8K, if that's any help.

     Thanks in advance,
          Camille.

From 2085985353182419705
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b67868336672c7cb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 07:13:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!seismo!nbires!isis!onecom!wldrdg!tony
From: tony@wldrdg.UUCP (Tony Andrews)
Newsgroups: net.micro.atari16
Subject: request for uniterm documentation
Message-ID: <104@wldrdg.UUCP>
Date: Fri, 10-Oct-86 10:13:01 EDT
Article-I.D.: wldrdg.104
Posted: Fri Oct 10 10:13:01 1986
Date-Received: Sun, 12-Oct-86 13:41:40 EDT
Distribution: na
Organization: Wildridge Consulting, Boulder, CO
Lines: 7

Could someone please mail me the documentation for uniterm. I picked
up the latest posting, but hadn't used it before.

Thanks....

Tony Andrews
...ihnp4!onecom!wldrdg!tony

From 9036140416389004900
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,dc8f98cf6c547bed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 07:48:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: RE: UREGENT.....SORRY THAT WAS A FALSE ALARM
Message-ID: <8610101448.AA01352@ucbvax.Berkeley.EDU>
Date: Fri, 10-Oct-86 10:48:23 EDT
Article-I.D.: ucbvax.8610101448.AA01352
Posted: Fri Oct 10 10:48:23 1986
Date-Received: Sat, 11-Oct-86 20:24:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Sorry, false alarm...my last posting about the cause of the problems
with UniTerm wasn't true...it was just a REXX program playing tricks
on me..(back to looking for that error..).
           Simon Poole
           K538915@CZHRZU1A.BITNET

From 3257796603821129607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b54826b1991b6068,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 08:20:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!ucbcad!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: uniterm 1.5
Message-ID: <8610101629.AA02689@ucbvax.Berkeley.EDU>
Date: Fri, 10-Oct-86 11:20:10 EDT
Article-I.D.: ucbvax.8610101629.AA02689
Posted: Fri Oct 10 11:20:10 1986
Date-Received: Sat, 11-Oct-86 20:51:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Well, I just got Uniterm 1.5 from Simon Poole, and I can say that this new
version does work, and did uudecode just fine.

I haven't tested out all the functions yet, but it seems OK.

Mike

p.s. can someone send me uEmacs part 1, I also did not receive it.

From 2767455793237936393
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e1e2d2b84316aa3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 08:22:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!ucbcad!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: MONST
Message-ID: <8610101635.AA02768@ucbvax.Berkeley.EDU>
Date: Fri, 10-Oct-86 11:22:29 EDT
Article-I.D.: ucbvax.8610101635.AA02768
Posted: Fri Oct 10 11:22:29 1986
Date-Received: Sat, 11-Oct-86 20:51:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I accidentily threw away the uuencoded version of MONST posted a while ago.
Since I have discovered how to successfully uudecode all files now, could
someone please send me the file(s). I have the docs that were just posted.
Thanks,

Mike

P.S. Look for a posting of a terminal program I am working on, coming to
a computer near you. Also, look for some nice utilities.

From 1051619007760874758
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34cdb924385b89ce,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 09:45:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!pyramid!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uEmacs 3.7i (part 1 of 4) REPOST!!!!!
Message-ID: <608@imagen.UUCP>
Date: Fri, 10-Oct-86 12:45:07 EDT
Article-I.D.: imagen.608
Posted: Fri Oct 10 12:45:07 1986
Date-Received: Sun, 12-Oct-86 13:40:06 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 513

```
*** REPLACE THIS LINE WITH YOUR MESSAGE ***
#! /bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #! /bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create:
#    expl
#    emacs.uue
# This archive created: Mon Oct  6 10:06:23 1986
# By:    D'arc Angel (The Houses of the Holy)
export PATH; PATH=/bin:/usr/bin:$PATH
echo shar: "extracting 'expl'" '(1569 characters)'
if test -f 'expl'
then
     echo shar: "will not over-write existing file 'expl'"
else
sed 's/^ X//' << \SHAR_EOF > 'expl'
     XThe file emacs.uue contains uuencoded version of Dan Lawrence's MicroEmacs
     X3.7i ported for the Atari ST. It supports both b/w and color monitors by
     Xadding three new modes for the four screen resolutions as follows:
     X
     Xmode    monitor type  screen resolution  colors
     X------  ------------- ------------------ ----------------
     XHIREZ   black & white 40 lines x 80 cols none
     XMEDREZ  black & white 25 lines x 80 cols none
     XMEDREZ  color         25 lines x 80 cols black,red,green,yellow
     XLOREZ   color         25 lines x 40 cols black,red,green,yellow,
     X                           blue,magenta,cyan,white
     X
     Xmodes may be set by the sequence ^xm (cntrl-x m) and typing the mode as
     Xshown. To bypass the problem of recalculating window sizes when multiple
     Xwindows are present during a resolution change, the current window is
     Xalways made the only window after the change.
     X
     XThere is still one MAJOR ugly with this port; you can't change the
     Xdefault colors, as soon as i can come up with a scheme that will work
     Xin both interactive and emacs.rc mode i'll implement it (think before
     Xyou post, it ain't as straight forward as it looks in emacs.rc mode)
     X
     Xalso the cursor will be restored if it was present when emacs was invoked
     X(e.g. from the Beckemeyer shell); writting the file out is still a PIG!!!
     Xand for reasons known only to himself Dan changed the spelling of
     X'begining' to 'beginning' please change your emacs.rc files accordingly.
     X
     Xsources may be requested from Dan Lawrence (inph4!itivax!duncan!lawrence)
     Xplease don't ask me since I am always a release behind Dan.
     X
     Xas usual bugs suggestions etc. are always appreciated
     X
SHAR_EOF
if test 1569 -ne "`wc -c < 'expl'`"
then
     echo shar: "error transmitting 'expl'" '(should have been 1569 characters)'
```

```
fi
fi
echo shar: "extracting 'emacs.uue'" '(95640 characters)'
if test -f 'emacs.uue'
then
     echo shar: "will not over-write existing file 'emacs.uue'"
else
sed 's/^ X//' << \SHAR_EOF > 'emacs.uue'
     Xbegin 664 emacs.ttp
     XM8!H``/C&```4\```(S@`````````````````$[Y```'=$[Y```A@$[Y```B
     XM-$[Y```A^$[Y```2*$[Y```2G$[Y```AK$[Y```8'D[Y```5FD[Y```B8D[Y
     XM```C.D[Y```J*D[Y```I_$[Y```4DD[Y```G/$[Y```@_$[Y```ILD[Y```3
     XM.D[Y```D\D[Y```FK$[Y```GDD[Y```4<D[Y```2[D[Y```F<D[Y```IBD[Y
     XM```CCD[Y```6,D[Y```C<D[Y```5X$[Y```@4D[Y```AED[Y```6[D[Y```4
     XMFD[Y```J6$[Y```C5D[Y```9E$[Y```3=D[Y```4HD[Y```4/$[Y```>;D[Y
     XM```9V$[Y```GO$[Y```4JD[Y```>VD[Y```G5$[Y```4Z$[Y```=_$[Y```9
     XM7$[Y```F[D[Y```KXD[Y```]H$[Y``!!T$[Y``!!V$[Y``!`KD[Y``!!X$[Y
     XM```]&$[Y```^CD[Y```]<$[Y```]5$[Y```]W$[Y```^*D[Y```^>$[Y``!#
     XMGD[Y``!%$D[Y``!%&D[Y``!$_D[Y``!%0$[Y``!%C$[Y``!%.$[Y``!*9$[Y
     XM``!)%$[Y``!&4D[Y``!-Q$[Y``!%G$[Y``!'FD[Y``!'9D[Y``!+VD[Y``!'
     XMS$[Y``!-_D[Y``!''$[Y``!&=D[Y``!,3$[Y``!(;D[Y``!%M$[Y``!-!D[Y
     XM``!82$[Y``!4GD[Y``!4]D[Y``!1KD[Y``!3L$[Y``!4M$[Y``!00$[Y``!7
     XMR$[Y``!/CD[Y``!.@D[Y``!19$[Y``!4*$[Y``!94D[Y``!B#$[Y``!9\D[Y
     XM``!A;D[Y``!<KD[Y``!E'$[Y``!DCD[Y``!:I$[Y``!>SD[Y``!:5D[Y``!=
     XM\D[Y``!<-D[Y``!=7D[Y``!BN$[Y``!C#$[Y``!FD$[Y``!E0$[Y``!END[Y
     XM``!VPD[Y``!JTD[Y``!HUD[Y``!H(D[Y``!X[D[Y``!GY$[Y``!H#D[Y``!F
     XMYD[Y``!Y(D[Y``!MKD[Y``!P=D[Y``!Z$D[Y``!O_D[Y``!IED[Y``!L`D[Y
     XM``!N;D[Y``!V8$[Y``!I[$[Y``!O4$[Y``!LQ$[Y``!ITD[Y``!VAD[Y``!T
     XM`D[Y``!Q`$[Y``!YD$[Y``!W3$[Y```"$D[Y``!ZT$[Y```&"D[Y```%\$[Y
     XM```%UD[Y```%O$[Y```%HD[Y```%B$[Y```%;D[Y```%5$[Y```%.D[Y```$
     XMH$[Y```)D[Y``!^/D[Y```#]D[Y```!0D[Y```#D$[Y``!ZB$[Y```"ID[Y
     XM```)%D[Y```($D[Y```(_$[Y```'#D[Y```'^$[Y```(XD[Y```&]$[Y```'
     XMWD[Y```(R$[Y```&VD[Y```'Q$[Y```(KD[Y``![#D[Y```&P$[Y```'JD[Y
     XM```(E$[Y```&ID[Y```'D$[Y```(>D[Y```&C$[Y```'=D[Y```(8$[Y```&
     XM<D[Y```'7$[Y```(1D[Y```),$[Y```&6$[Y```'0D[Y```(+$[Y```&/D[Y
     XM```'*$[Y```&)$[Y```)C$[Y```+6$[Y```0BD[Y```1V$[Y```-*D[Y```*
     XMG$[Y```*)D[Y```1'$[Y```)Y$[Y```2S$[Y```/ZD[Y```)2D[Y```3;$[Y
     XM```5OD[Y```5BD[Y```5_$[Y```6%D[Y```6Y$[Y```@F$[Y```=.$[Y```A
     XM'D[Y```BAD[Y```8X$[Y```AKD[Y```<PD[Y```=`D[Y```8#$[Y```8M$[Y
     XM```CZ$[Y```H5$[Y```G,$[Y```HQD[Y```I;D[Y```G]$[Y```C!D[Y```C
     XM@$[Y```IY$[Y```K+D[Y```KPD[Y```KY$[Y```RXD[Y```X@D[Y```M8$[Y
     XM```Y8$[Y```L%$[Y```Q)$[Y```MU$[Y```T]D[Y```L?D[Y```M^$[Y```X
     XMV$[Y```]!D[Y```\4D[Y```ZY$[Y```[GD[Y```Z9$[Y``#)QD[Y``#(B$[Y
     XM``#!`$[Y``#"<D[Y```_@D[Y``#`DD[Y``##DD[Y``##S$[Y``##KD[Y```^
     XMY$[Y``#"Y$[Y``#`)D[Y``#-MD[Y``#.RD[Y``#*YD[Y``#*^$[Y``#;1$[Y
     XM``#0#$[Y``#:Z$[Y``#3R$[Y``#;%D[Y``#5C$[Y``#:CD[Y``#:.D[Y``#1
     XM?$[Y``#2CD[Y``#00D[Y``#0]D[Y``#17D[Y``#/V$[Y``#8Y$[Y``#7DD[Y
     XM``#;6D[Y``#@$$[Y``#>$$[Y``#?$$[Y``#G!$[Y``#CZD[Y``#==D[Y``#;
     XMK$[Y``#ACD[Y``#BW$[Y``#F<D[Y``#<N$[Y``#DG$[Y``#M2$[Y``#Q=$[Y
     XM``#LJD[Y``#SM$[Y``#J:D[Y``#IYD[Y``#SR$[Y``#ON$[Y``#Q\$[Y``#V
     XM>$[Y``#P:$[Y``#HF$[Y``#W`D[Y``#VDD[Y``#RC$[Y``#O!D[Y``#L)$[Y
     XM``#SVD[Y``#N*D[Y``#S\$[Y``#KID[Y``#H=$[Y``#T!$[Y``#K&$[Y``#X
     XM/BI/*FT`!"`M``S0K0`4T*T``-"\```A`"(`THW"O/____XN02\`+PU"9S\\
```

```
XM`$I.0=_\````#"!M`!@B;0`8T^T`'"`M`!13@&\&$R!1R/_\(&T`$"`M`!Q3
XM@$(84<C__"AM`!#9[0`<*4W__"IM``A.K0$F(&S__$AH`(!.NA.B6(\O+/_V
XM/RS_^DZZ`!I<CS\\```!.N@V0/SP`03\\```).05B/3G5.5O^.2.</$$AL"=Y(
XM;O_@3KH?$%"/3JT"W$AN_^!.N@;:6(]";O_V0F[_]$)N__`]?``!__Y";O_Z
XM0F[_WC`L]T0@;/;B$4``'#`L]T(@;/;B$4``'3U\```__&```U`P+O_\Y8`@
XM;@`*T,`@4!`02("P?``M9@`!9#`N__SE@"!N``K0P"!0$"@``4B`8````K!\
XM`'9G```28````K!\`%9G```&8```$#U\```_]F```29@```:L'P`96<``!)@
XM```"L'P`16<```9@```.0F[_]F```0)@```:L'P`<V<``!)@```"L'P`4V<`
XM``9@```N/7P``?_P,"[__.6`(&X`"M#`(%!!Z``"+PA(;/C43KH>#E"/8```
XMOF```!JP?`!G9P``$F````*P?`!'9P``!F```"X]?``!__0P+O_\Y8`@;@`*
XMT,`@4$'H``(O"$ZM!/Y8CSU`__)@``!Z8```&K!\`&MG```28````K!\`$MG
XM```&8```6C`N__SE@"!N``K0P"!0$"@``DB`L'P``&8```I";O_>8```)CU\
XM``'_WC`N__SE@"!N``K0P"!00>@``B\(2&[_CDZZ'6)0CV```!)@```"8```
XM"F````9@`/_V8``!T#`N__SE@"!N``K0P"!0$!!(@+!\`$!F```N,"[__.6`
XM(&X`"M#`(%!!Z``!+PA.K0)&6(\,0``!9@``"#U\```_^F```8H,;@``__IF
XM```J2&P)Y$ZM`D98CSU\```_^C`L]T0@;/;B$4``'#`L]T(@;/;B$4``'3`N
XM__SE@"!N``K0P"\02&[_X$ZM!+Q0CS`N_]YG``!0(&SVW@`H`(``%TAN_XX@
XM;/;>0>@`>"\(3KH<E%"/0F<O/`````!.K0*L7(\@;/;>0>@`>"\(3KH<S%B/
XM/P`@;/;>0>@`>"\(3JT"K%R/,"[__F<``*0F;/;>,"[__.6`(&X`"M#`+Q!(
XM;O_@3JT$O%"/2&[_X$'K`&@O"$ZZ'#!0CS`N__SE@"!N``K0P"\00>L`&"\(
XM3KH<%E"/#&X``/_V5\#`?``!/P`P+O_\Y8`@;@`*T,`O$$ZM!)A<CPQ```)F
XM```B2&P)YD'K`&@O"$ZZ&]Q0CTAL">Q!ZP`8+PA.NAO,4(\G:P`0``1":P`(
XM0F[__F```#)"9S\\``%(;O_@3JT"FE"/)D`P+O_\Y8`@;@`*T,`O$$'K`!@O
XM"$ZZ&XY0CT(K`!0P+O_V9P``"``K`!``%U)N__PP+O_\L&X`"&T`_*@,;@``
XM__IF```J2&P)[DZM`D98CSU\```'_^C`L]T0@;/;B$4``'#`L]T(@;/;B$4``
XM'3`N__1G```@,"[_\&<``!A"9TZM`QA4CTAL"?!.K0-(6(]@``!D,"[_]&<`
XM`"P_+O_R0J=.K0':7(\,0```9@``%$)G3JT#&%2/2&P*'$ZM`TA8CV```#(P
XM+O_P9P``*C\\``)(;/C43JT%UER/#$```&8``!1"9TZM`QA4CTAL"C).K0-(
XM6(]";/;H(&SVWA`H`!=(@(!L]T810``7(&SVX@`H`!``&T)G3JT#&%2/3JT%
XM"CX`#&P``/<^9P``#DZM`K)"9TZM`QA4CT)&.CP``3`'P'S]_SU`__@P!\!\
XM`@!G``"X#&X`,/_X;0``#`QN`#G_^&\```P,;@`M__AF``":/#P``4)%.#P`
XM`3XN__A@``!J#$<`+68``!X,1/__9P``"@Q%``!G```&8```9C@\__]@```2
XM,`7!_``*,@>2?``PT$$Z``Q%``!F```8#$3__V8``!!(;`H^3JT#2%B/8```
XM$C`%P<0_`$AL"D1.K0-(7(].K04*/@`,1P`P;0``"@Q'`#EO`/^*#$<`+6<`
XM_X(P!<'$.@`P![!L]R9F``#Z/#P``3H\``1"1$AL"DQ.K0-(6(]@``"B,`>P
XM;/<F9@``-@Q%``!>P,!\``$R!</\``0,00``7L'"?``!L$%F```.,`7!_``$
XM.@!@```&.CP``6```#@,1P`M9@``%C`$9P``!F```'I"13@\__]@```<,`1F
XM```(0D4X/``!,#P"L'%T$>0?``P.@`,1```;0``"#`%8```%#`%9P``"C`%
XM1$!@```&,#S__S\`2&P*5$ZM`TA<CTZM!0H^``Q``#!M```*#$<`.6\`_TPP
XM!L!L]R9G`/]"#$<`+6<`_SH,1/__9@``$@Q%``!F```$4D4P!41`.@`,K```
XM``#VSF<``$X,1P0I9P``'B`L]LY![/L8L(AO```00F="9TZZ!7!8CV``_=P,
XM1@``9P``&"!L]LY4K/;.,*SW)B!L]LY4K/;.,(4@;/;.5*SVSC"'/P4_!C\'
XM3KH`UER/8`#]I$S?"/!.7DYU3E8``$CG`#!"9S\\``$O+@`(3JT"FE"/)D`_
XM/``!/SP``4AL"EQ.K0*:4(\I0/;2/SP`'DZZ$0A4CR1`M_P`````9P``&+7\
XM`````&<```X,K`````#VTF8```P_/``!3KH&)%2/*4OVWBE*]MHI2O;B0I(E
XM2P`$%WP``0`5)6L`$``()6L`$``,0FH`$$*J`!)":@`60BH`&#`L]T050``<
XM,"SW0A5``!TP+/&L4T`50``90BH`&A5\`!@`&TS?#`!.7DYU3E8``$CG`1!!
XM[/(:)DA@```P,!.P;@`(9@``)$)L]NH_+@`,/RX`"B!K``).D%B//@`Y;/;J
XM]N@P!V```@I<BPRK``````"9@#_R`QN`"``"&8``%H@;/;B(&@`!!`H`!=(
XM@,,!\``%G``!$#&P``/LD;P``.@QN````#&T``#!"9TZM!OQ4C[!L^R1O```@
XM(&SVXB!H``00*``72(#`?``0#$```&8```9.K0:Z#&X`(``(;0``#`QN`'X`
XM"&\```!8,;@"@``AM``%@#&X`_@`(;@`!5@QN````#&X``"!";/;H#&X````,
XM;```"C`\```!@```&,#P``6```4I";/;J(&SVXB!H``00*``72(#`?``@9P``
```

```
XM9B!L]N(P*``0(&SVXB!H``RP:``*;```3B!L]N(P*``0(&SVXB!H``Q!Z``,
XMT,`0$$B`P'P`_PQ```EF```:(&SVXC`H`!!(P('\``A(0`Q```=F```00F<O
XM/`````%.K05P7(\,;@!]``AF```L(&SVWA`H`!=(@,!\``(,0```9P``%C\N
XM``@_+@`,3JT'2EB//@!@```\#&X`(P`(9@``(B!L]MX0*``72(#`?``"#$``
XM`&<```Q.K0<X/@!@```2/RX`"#\N``Q.K06F6(\^``QN`'T`"&<```P,;@`I
XM``AF```B(&SVWA`H`!=(@,!\``(,0```9P``##\N``A.K0<F5(\Y;/;J]N@P
XM!V```!X@;/'>3I!(;`ID3JT#2%B/0FSVZ#`\``!@```"3-\(@$Y>3G5.5@``
XM+PLF;/;68```2A`K`!9(@,!\``(,0```9P``-A`K`!9(@,!\``$,0```9@``
XM)"E+]MY!ZP`8+PA(;`IT3JT#2%"//RX`"C\N``A.K02J6(\F4[?\`````&8`
XM_[`_+@`*/RX`"$ZZ``I8CR9?3EY.=4Y6```_!PQN````"&8``").K0*4#$``
XM`&<``!9(;`J`3JT%'%B//@`,0``!9@``#DZM`M!"9TZZ`L94CTAL"J9.K0-(
XM6(\P!V````(^'TY>3G5.5@``#*P`````]LYF```.#*P`````]LIG```42&P*
XMJ$ZM`TA8CS`\``!@```<2&P*L$ZM`TA8CT'L^20I2/;.,#P``6````).7DYU
XM3E8```RL`````/;.9@``%$AL"KY.K0-(6(\P/```8```&$AL"L9.K0-(6(]"
XMK/;.,#P``6````).7DYU3E8``$CG#P`,K`````#VSF8```X,K`````#VRF<`
XM`!1(;`K23JT#2%B/,#P``&```(X,;@````IN```*,#P``6```'Q![/DD*4CV
XMRD)&.CP``2!L]LI4K/;*,!`^`+!L]R9F```:/#P``2!L]LI4K/;*.A`@;/;*
XM5*SVRCX0.#P``0Q'!"EG```8/P4_!C\'3KK[TER/.``,0``!9P#_KD*L]LH,
XM1``!9@``#E-N``HP+@`*9@#_CC`$8````DS?`/!.7DYU3E8``"!L\=Y.D`RL
XM`````/;.9P``##E\!"GY)$*L]LY(;`K:3JT#2%B/,#P``F````).7DYU3E8`
XM`"!L\=Y.D$AL"N1.K0-(6(\P/```8````DY>3G5.5@``3EY.=4Y6``!.7DYU
XM3E8``$Y>3G5.5@``/RX`"$ZZ#414CPQN@P``"&X&,#P``&`>/RX`"#\\`#Y.
XMN@ZB6(\Y0-Y89P8P//__8`0P/```3EY.=4Y6__Y(;!3"+RX`"$ZZ$;90CTI`
XM9V!(;!3(+RX`"$ZZ$:10CTI`9TY(;!3.+RX`"$ZZ$9)0CTI`9SQ"9R\N``@_
XM/``\3KH.1%"//4#__@Q```!L##EN__[>6#`\__]@.#`N``S`?"``/P`_+O_^
XM3KH,5%B/8!XP/``",BX`#,)\(`"`03\`+RX`"$ZZ#.Y<CSU`__XP+O_^3EY.
XM=4Y6```_+@`(/SP`3$ZZ#>!8CTY>3G5.5O_^+PM![-ZT)DA@%C`K``K`?``#
XM9P@O"TZZ`"I8C];\`!0@"T'LWK0B"-*\```%M+"!;=@_+@`(3KK_KE2/)E].
XM7DYU3E8``"\+)FX`""\+3KH`1%B/2D!G!C`\__]@,#`K``K`?``09PHO*P`&
XM3KH+BEB/0FL`"C\K``Q.NOZ05(]*0&<&,#S__V`$,#P``9?3EY.=4Y6``!(
XMYP$0)FX`"#`K``K`?``#9@@P//__8```F"X3GJL`!C`K``K`?"``9U8P*P`*
XMP'P``F8&,#S__V!V,"L`"L!\``1G$#\\``)"IS\K``Q.N@A44(\_!R\K``8_
XM*P`,3KH3PE"/#$#__V8&,#S__V!``FO_?P`*,`=(P-&K``Y@)`QK````#&\<
XM/SP``3`K``1$0$C`+P`_*P`,3KH("%"/)T``#B:K``9":P`$,#P``$S?"(!.
XM7DYU3E;__"\+)FX`"#`K``K`?``!9@8`:P!```HP*P`*P'P`8&<0,#S__V``
XM`0`FJP`&0FL`!&!2,"L`"L!\``AG'B`+0>S>M)"(@?P`%$'LWFC1P$'0(`@F
XM@"=```9@*C`K`!)(P"\`3KH**EB/)H`G0``&#(`````9@@`:P`(``I@!@!K
XM`!``"@RK`````&9Z0M2__\/SP``3\K``Q"IS\\`$).N@O>WOP`"B!N__PA
XM0``.)JL`!@QK@P``#&8*2&S>R$ZZ_GY8CS`K``K`?`$(9P8P/``!8`0P*P`2
XM/P`O$S\K``Q.N@T<4(\W0``$4VL`!#`K``0,0```;"`,:___``1F"`!K`"```
XM"F`&`&L`0``*0FL`!#`\__]@#"!34I,0$$B`P'P`_R9?3EY.=4Y6__PO"R9N
XM``I":P`$,"L`"L!\``)F!@!K`$``"C`K``K`?`!`9P@P//__8``!"F!2,"L`
XM"L!\``AG'B`+0>S>M)"(@?P`%$'LWFC1P$'0(`@F@"=```9@*C`K`!)(P"\`
XM3KH(_EB/)H`G0``&#(`````9@@`:P`(``I@!@!K`!``"@RK`````&9Z0P
XM*P`*P'P`"&<0(%-2DQ"N``D`:P"```I@/#`K``K`?`$`9S(`:P"```H@4U*3
XM$*X`"1`N``E(@+!\``IG&"`3D*L`!K!K`!)L#!`N``E(@,!\`/]@5"\+3KK]
XM+%B/2D!G#`!K`$``"C`\__]@/#`K``K`?`$(9Q)":P`$$"X`"4B`P'P`_V`B
XM8"`P*P`24T`W0``$`&L`@``*$"X`"2!34I,0@$B`P'P`_R9?3EY.=4Y6```@
XM;@`(4V@`!#`H``0,0```;10@;@`((!!2D"!`$!!(@,!\`/]@"B\N``A.NOUB
XM6(].7DYU3E8``"!N``I3:``$,"@`!`Q```!M&!`N``D@;@`*(A!2D"!!$(!(
XM@,!\`/]@$B\N``H0+@`)2(`_`$ZZ_DY<CTY>3G5.5O_\2.<!,"9N``Q";O_\
XM$!-(@+!\`&)F"#U\(`#__%*+$!-(@+!\`')G'A`32("P?`!W9Q00$TB`L'P`
XM86<*(#P`````8``!1B`LWF0D0`R``````&8J0>S>M"1(8!`P*@`*P'P``V8"
```

```
XM8!;4_``4(`I![-ZT(@C2O```!;2P@6W>(`I![-ZT(@C2O```!;2P@6T*(#P`
XM````8```\D*LWF1":@`*0F[__A`K``%(@+!\`"MF##U\``+__@!J``,`"A`3
XM2("P?`!W9A@_+O_\+RX`"$ZZ^CI<CSX``&H``@`*8&@0$TB`L'P`869",#P`
XM`H!N__P_`"\N``A.N@>,7(\^``Q`__]F$#\N__PO+@`(3KKY_%R//@`_/``"
XM0J<_!TZZ`]Y0CP!J``8`"F`<,"[__H!N__P_`"\N``A.N@=*7(\^``!J``$`
XM"@Q'__]F#$)J``H@/`````!@,#5'``Q":@`$(#P`````)(`E0``&/SP``4*G
XM/RH`#$ZZ`X10CR5```XU;-ZR`!(@"DS?#(!.7DYU3E8``"EN`!#>9"\N`!!.
XMNOIB6(\O+@`,+RX`"$ZZ_DQ0CTY>3G5.5OY@2.<!,$)N__Q";O_Z0J[_]D*N
XM__(Y?``!__H@;@`(4JX`"!`02(#`?`#_/4#__B`N``@F0"1`0D=@``%4$!-(
XM@+!\`"!G*!`32("P?``)9QX0$TB`L'P`#6<4$!-(@+!\``IG"A`32("P?``,
XM9APP+O_Z9@XP+O_\9P1";O_\0AI@!!3\`"!@``#^$!-(@+!\`")F/`QN``'_
XM^F8&0F[_^F`J,"[__&8@,"[_^F8:/7P``?_Z,"S_^E)L__KE@$'N_F#0P""*
XM8`04_``B8```N!`32("P?``G9CH,;@`"__IF!D)N__I@*C`N__QF(#`N__IF
XM&CU\``+_^C`L__I2;/_ZY8!![OY@T,`@BF`$%/P`)V!R,"[__&9J,"[_^F9D
XM/7P``?_\$!-(@+!\`#QF"B`*4H`M0/_V8$H0$TB`L'P`/F8N(`M2@"!`$!!(
XM@+!\`#YF$"`*5(`M0/_R/7P``?_P8`P@"E*`+4#_\D)N__!@$C`L__I2;/_Z
XMY8!![OY@T,`@BA33(`M2BS`'4D<P![!N__YM`/ZF0A(@+O_V9RQ![-ZT($@Q
XM?``!``I![-ZT($@Q?`(``!)(;-ZT2&P4U"\N__9.NOX0WOP`#"`N__)G,D'L
XMWL@@2#%\``(`"DALWL@P+O_P9PA![!36(`A@!D'L%-@@""\`+R[_\DZZ_=C>
XM_``,,"S_^E)`P?P`!$C`+P`_/`!(3KH%PER/*4#_]CX\``%@&C`'Y8!![OY@
XMT,`@$#('Y8$@;/_VT,$@@%)',`>P;/_Z;=X@;/_V((HP+/_ZY8`@;/_VT,!"
XMD$S?#(!.7DYU3E;__DCG\``D+@`(9@J`_```0H!"@6!*(BX`#$)N__Y*@6P&
XM5F[__D2!2H)L!E)N__Y$@G8!M(%D!N."XX-@]D*`M(%B!("#DH+BBN*+9/(,
XM;@`#__YM`D2!XN[__F0"1(`M0``(+4$`#$S?``].7DYU3E;_^B\`0F[__DJN
XM``AL"%)N__Y$K@`(2JX`#&P(4F[__D2N``PP+@`*P.X`#BU`__HP+@`(P.X`
XM#M%N__HP+@`*P.X`#-%N__H";@`!__YG!$2N__H@'RUN__H`#$Y>+I]*KP`$
XM3G5.7DYU3E;_\@QN```"&P*(#S_____8```_C\N``X_+@`(+RX`"C\\`$).
XMN@1PWOP`"BU`__P,@`````!M""`N__Q@``#2/SP``3\N``A"IS\\`$).N@1&
XMWOP`"BU`__@_/``"/RX`"$*G/SP`0DZZ!"S>_``*+4#_]`QN``$`#F8.("[_
XM^-"N``HM0``*8"0,;@`"``YF#B`N__30K@`*+4``"F`.,"X`#F<((#S_____
XM8&(@+@`*L*[_]&\>2&[_\B`N``J0KO_T+P`_+@`(/SP`0$ZZ`\;>_``,0F<_
XM+@`(+RX`"C\\`$).N@.PWOP`"@R`````%W`P'P``3E`WEAG"B`\_____V`*
XM8`A";-Y8("X`"DY>3G5.5@``2.<!,#X\!!@R+@`(TGP$&%-!PKP``/__@OP$
XM&,[!,`?`_``&/P!.N@8B5(\F0+?\_____V8((#P`````8!@@"R1`-4<`!"`*
XM7(`O`$ZZ`+I8CR`LWEI,WPR`3EY.=4Y6``!(YP$P/CP``3(N``A<05-!PKP`
XM`/__@OP`!MY!("S>6B1`#(`````9A1![-Y>(`@D0"E`WEHI0-Y>0FS>8B92
XM,"L`!+!'92HP*P`$L$=F!"238!0P!Y%K``0P*P`$P/P`!M?`-T<`!"E*WEH@
XM"UR`8"P@"["LWEIF&C\'3KK_'%2/)D`,@`````!F""`\`````&`*(`LD0"`3
XM)D!@HDS?#(!.7DYU3E8``$CG`#`@+@`(78`F0"1LWEI@%B`*L))M#B`+L(IN
XM!B`+L))L`F`.)%(@"["*;^0@"["2;-X@"S(K``3"_``&T(&PDF80(%(P*``$
XMT6L`!"!2)I!@`B:2(`HR*@`$POP`!M"!L(MF##`K``31:@`$))-@`B2+*4K>
XM6DS?#`!.7DYU3E8``"\N``@_/`!(3KH!Y%R/3EY.=4Y6```O+@`(/SP`24ZZ
XM`<Y<CTY>3G5.5O_^0F[__F`V,"[__N6`0>S=*-#`,!!F(C`N__[E@$'LW2C0
XMP#"N``@P+O_^Y8!![-TJT,`PK@`*8`Q2;O_^#&X`3/_^;<).7DYU3E;__D)N
XM__Y@)C`N__[E@$'LW2C0P#`0L&X`"&8.,"[__N6`0>S=*-#`0E!2;O_^#&X`
XM3/_^;=).7DYU3E;__C\'/BX`"#U\`3#__D'LW2@B2-+N__Z^4&<&6$BSR&;V
XM,"@``CX?3EY.=4Y6__Y(;!3:+RX`"$ZZ!#Q0CTI`9@H]?(,`__Y@```">2&P4
XMX"\N``A.N@0@4(]*0&8*/7R"___^8```@DAL%.8O+@`(3KH$!%"/2D!F"#U\
XM@O[__F!F,"X`#,!\``%G,"\N``A.N@;"6(]*0&<&,#S__V!@0F<O+@`(/SP`
XM/$ZZ`)!0CS\`/SP`/DZZ`(18CS`N``S`?``#/P`O+@`(/SP`/4ZZ`&Q0CSU`
XM__XY0-Y8#$```&P&,#S__V`8,"X`#,!\(``_`#\N__Y.NOY^6(\P+O_^3EY.
XM=2E)W20I2MT@*5_='$Y-(FS=)"1LW2`O+-T<3G4I2=TD*4K=("E?W1Q.3B)L
XMW20D;-T@+RS='$YU*4G=)"E*W2`I7]T<3D$B;-TD)&S=("\LW1Q.=4Y6__P,
```

```
XM;H,```AF``$Z,"S<RK!LW,AF``$`,#P``#E`W,@Y0-S*8```Z#\\``=.NO^T
XM5(\]0/_\#&X`"/_\9BHP+-S*9R!3;-S*/SP`&S\\``).NO^06(\_/`!$/SP`
XM`DZZ_X)8CV```*@,;@`-__QF,#`LW,I2;-S*0>S<S-#`$+P`"C\\``T_/``"
XM3KK_5EB//SP`"C\\``).NO](6(]@=@QN``/__&8*/SP``DZZ\5Q4CPQN`!K_
XM_&8R,"[__#(LW,I2;-S*0>S<S-#!$(`_/``-/SP``DZZ_PI8CS\\``H_/``"
XM3KK^_%B/8"HP+O_\,BS<RE)LW,I![-S,T,$0@#\N__P_/``"3KK^V%B/,#P`
XM`68`_Q1![-S,T.S<R!`02("P?``:9@8P//__8!(P+-S(4FS<R$'LW,S0P!`0
XM2(!@'&`:#&Z"_P`(9@X_/``#3KK^D%2/8`9@!#`\__].7DYU3E;__$CG`#`F
XM;@`*,"X`#L"\``#__RU`__Q";-Y8#&Z#```(;DA"KO_\8!X_+@`(3KK^:E2/
XM%H!(@+!\__]F!&`48`92BU*N__PP+@`.4VX`#DI`9M8@+O_\9@@P//__8```
XMXB`N__Q@``#:8"XO+@`*+R[__#\N``@_/``_3KK^`-[\``PM0/_\.4#>6`Q`
XM``!L"#`\__]@``"J/RX`"$ZZ_*!4CTI`9@``DB`N__P]0``.("X`"B9`)$!@
XM;"`+D*X`"DC`L*[__&U*+PHP+@`.P+P``/__+P`_+@`(/SP`/TZZ_9S>_``,
XM.4#>6`Q```!L!C`\__]@2C`LWEAF`F`N,"X`#I!LWEC`O```__^1KO_\)DH0
XM$TB`L'P`#68$4HM@!A3;4VX`#C`N``YFCB`*D*X`"DC`+4#__$)LWE@@+O_\
XM3-\,`$Y>3G5.5O_\,"X`","\``#__R\`/SP`2$ZZ_1Y<CRU`__P@+O_\9@@M
XM?/_______"`N__Q.7DYU3E;__$CG`#`F;@`()&X`#"U+__Q@```"$!MF`/_\
XM4XM@```"%MIF`/_\("[__&````),WPP`3EY.=4Y6``!(YP`P)FX`""1N``Q@
XM```&4HM2BA`39P``$!`3$A)(@4B`L$%G`/_J$!-(@!822(.00V````),WPP`
XM3EY.=4Y6``!(YP$P)FX`""1N``P^+@`08```!E*+4HI31S`'9P``%A`39P``
XM$!`3$A)(@4B`L$%G`/_B$!-(@!822(.00V````),WPR`3EY.=4Y6```@;@`(
XM(`@B;@`,$-EF`/_\3EY.=4Y6__Q(YP$P)FX`""1N``P^+@`0+4O__&````(P
XM!U-'2D!G```*$!H6P&8`__`@+O_\8````DS?#(!.7DYU3E8``$CG`#`F;@`(
XM)$M@```$4HL0$V8`__H@"Y"*8````DS?#`!.7DYU3E8``$CG`Q`F;@`(/BX`
XM#&````12BQ`3``!G```,$`9(@+!'9@#_[A`&9P``""`+8```""`\`````&``
XM``),WPC`3EY.=4Y6__X@;@`((!!2D"!`$!!(@#U`__Y@$B!N``@@$%*0($`0
XM$$B`/4#__@QN`"#__F?F#&X`"?_^9]X,;@`*__YGUC`N__Y.7DYU3E;__CU\
XM_____@QN``@`"&<(#&X`6``(9@X,;@`0``IF!C`\``!@9@QN`#```"&T6#&X`
XM.0`(;@XP+@`(D'P`,#U`__Y@,@QN`&$`"&T2,"X`")!\`&'0?``*/4#__F`8
XM#&X`00`(;1`P+@`(D'P`0=!\``H]0/_^,"[__K!N``IO"#`\__]@!F`$,"[_
XM_DY>3G5.5O_V0F[_^D*N__9(;@`(3KK_$EB//4#__@QN`"W__F88,#P``3U`
XM__H@;@`(4JX`"!`02(`]0/_^8#`@+O_V+P`P+@`02,`O`$ZZ]40@'S8N__Q(
XMP]"#+4#_]B!N``A2K@`($!!(@#U`__X_+@`0/R[__DZZ_OA8CSU`__P,0/__
XM9K@,K@``````#&<((&X`#""N``@P+O_Z9P@@+O_V1(!@!"`N__9.7DYU3E8`
XM`"\N``@_/`!!3KKYVER/.4#>6&<(,#S__V`&8`0P/```3EY.=4Y6``!@-"!N
XM``@0$$B`L'P`"F8./SP`#3\\``).NOFB6(\@;@`(4JX`"!`02(`_`#\\``).
XMNOF*6(\P+@`,4VX`#$I`9L!.7DYU3E8``&`8(&X`"%*N``@0$$B`/P`_/``$
XM3KKY7%B/,"X`#%-N``Q*0&;<3EY.=4Y6``!@&"!N``A2K@`($!!(@#\`/SP`
XM!4ZZ^2Y8CS`N``Q3;@`,2D!FW$Y>3G5.5O_R2.<`,"9N``HD2T'L%.PM2/_V
XM#&Z#```(9A8_+@`.+PM.NO\T7(\];@`.__Y@``%,#&Z"_P`(9A8_+@`.+PM.
XMNO]@7(\];@`.__Y@``$N#&Z"_@`(9A8_+@`.+PM.NO]P7(\];@`.__Y@``$0
XM+4O_^D)N__X_+@`(3KKW7E2/2D!F``"F8```E!`22("P?``*9@``AB`*D*[_
XM^K!\``!O0"`*D*[_^DC`+4#_\B\N__HO+O_R/RX`"#\\`$!.NOA8WOP`##E`
XMWEA(P+"N__)G"#`\__]@``"H,"S>6-%N__XO+O_V+SP````"/RX`"#\\`$!.
XMNO@BWOP`##E`WE@,0``"9P8P//__8'12;O_^4HH@"BU`__I@`E**(`J0B[!N
XM``YE`/]D8!`@"S8N``[&O```___0@R1`(`J0KO_Z2,`M0/_R+R[_^B\N__(_
XM+@`(/SP`0$ZZ]\#>_``,.4#>6$C`L*[_\F<&,#S__V`0,"S>6-%N__Y";-Y8
XM,"[__DS?#`!.7DYU0^S[)D'L```BR$'M`.0BR$'L``XBR$'M!O`BR$'L`!@B
XMR$'M!T0BR$'L`"@BR$'M`APBR$'L`#`BR$'M`?(BR$'L`$0BR$'M`(0BR$'L
XM`%`BR$'M`<(BR$'L`&(BR$'M`;8BR$'L``'0BR$'M`A`BR$'L`(`BR$'M!R`B
XMR$'L`)`BR$'M!<0BR$'L`*(BR$'M!;@BR$'L`+0BR$'M!I8BR$'L`,HBR$'M
XM!J(BR$'L`-HBR$'M!IPBR$'L`.HBR$'M!+8BR$'L`/PBR$'M!C8BR$'L`0XB
XMR$'M!Q0BR$'L`2(BR$'M!;XBR$'L`2XBR$'M!J@BR$'L`3HBR$'M`,`BR$'L
```

```
XM`48BR$'M!P@BR$'L`5HBR$'M`H@BR$'L`6@BR$'M!P(BR$'L`70BR$'M!U`B
XMR$'L`8@BR$'M!N0BR$'L`9XBR$'M!L`BR$'L`;`BR$'M!F8BR$'L`<8BR$'M
XM!PXBR$'L`>`BR$'M!L8BR$'L`?8BR$'M!D(BR$'L`@0BR$'M`@0BR$'L`A8B
XMR$'M`C0BR$'L`B0BR$'M`&8BR$'L`BXBR$'M`;PBR$'L`CHBR$'M`:HBR$'L
XM`D8BR$'M`=0BR$'L`EXBR$'M`TXBR$'L`FXBR$'M`U0BR$'L`H0BR$'M`ZXB
XMR$'L`I(BR$'M`-@BR$'L`J`BR$'M`XHBR$'L`K`BR$'M`X0BR$'L`L`BR$'M
XM`WXBR$'L`M`BR$'M`W@BR$'L`N`BR$'M`W(BR$'L`O`BR$'M`VPBR$'L`P`B
XMR$'M`V8BR$'L`Q`BR$'M`V`BR$'L`R`BR$'M`UHBR$'L`S`BR$'M!'HBR$'L
XM`T(BR$'M!&XBR$'L`U0BR$'M!%PBR$'L`V8BR$'M!$0BR$'L`W@BR$'M!#(B
XMR$'L`XHBR$'M!"`BR$'L`YPBR$'M!`XBR$'L`ZXBR$'M`_8BR$'L`\`BR$'M
XM`^0BR$'L`](BR$'M`](BR$'L`^0BR$'M!'0BR$'L`_8BR$'M!&(BR$'L!`@B
XMR$'M!$HBR$'L!!HBR$'M!#@BR$'L!"PBR$'M!"8BR$'L!#XBR$'M!!0BR$'L
XM!%`BR$'M`_PBR$'L!&(BR$'M`^HBR$'L!'0BR$'M`]@BR$'L!(8BR$'M`\8B
XMR$'L!)@BR$'M!&@BR$'L!*HBR$'M!%`BR$'L!+PBR$'M!#XBR$'L!,XBR$'M
XM!"PBR$'L!.`BR$'M!!HBR$'L!/(BR$'M!`(BR$'L!00BR$'M`_`BR$'L!18B
XMR$'M`]XBR$'L!2@BR$'M`\PBR$'L!3HBR$'M`\`BR$'L!4PBR$'M!%8BR$'L
XM!5XBR$'M`[0BR$'L!70BR$'M`!XBR$'L!8`BR$'M!M@BR$'L!9`BR$'M!AXB
XMR$'L!9XBR$'M!+`BR$'L!:@BR$'M`>`BR$'L!;HBR$'M`=HBR$'L!<0BR$'M
XM!HHBR$'L!=`BR$'M!U8BR$'L!=PBR$'M!>@BR$'L!>HBR$'M!>XBR$'L!?@B
XMR$'M`B(BR$'L!?XBR$'M!B0BR$'L!@8BR$'M!5(BR$'L!AHBR$'M!(`BR$'L
XM!B8BR$'M!90BR$'L!C0BR$'M!VXBR$'L!D(BR$'M!LPBR$'L!E(BR$'M!<HB
XMR$'L!EXBR$'M!S(BR$'L!G(BR$'M`H(BR$'L!H`BR$'M`$XBR$'L!HPBR$'M
XM!G@BR$'L!IXBR$'M!F`BR$'L!JXBR$'M`HXBR$'L!KHBR$'M!NHBR$'L!L(B
XMR$'M!QHBR$'L!M8BR$'M`GPBR$'L!N(BR$'M`<XBR$'L!NPBR$'M`>8BR$'L
XM!O8BR$'M`9XBR$'L!P8BR$'M!FPBR$'L!Q(BR$'M!K0BR$'L!QPBR$'M!SXB
XMR$'L!R8BR$'M!A@BR$'L!S0BR$'M`>PBR$'L!T(BR$'M`?@BR$'L!U`BR$'M
XM`:0BR$'L!V0BR$'M!G(BR$'L!W0BR$'M!M(BR$'L!X(BR$'M!@`BR$'L!Y@B
XMR$'M`!@BR$'L!Z0BR$'M!V@BR$'L![0BR$'M!,(BR$'L![XBR$'M!GXBR$'L
XM!\XBR$'M!EHBR$'L!]PBR$'M!I`BR$'L!^PBR$'M!?0BR$'L!_PBR$'M!4PB
XMR$'L"!@BR$'M!*HBR$'L""(BR$'M!C`BR$'L""XBR$'M!CPBR$'L"#XBR$'M
XM!D@BR$'L"%`BR$'M!@8BR$'L"&`BR$'M!A(BR$'L"'`BR$'M`E(BR$'L"'XB
XMR$'M`J8BR$'L")(BR$'M!UPBR$'L"*(BR$'M`;`BR$'L"*PBR$'M!BHBR$'L
XM"+HBR$'M!H0BR$'L",@BR$'M!DXBR$'L"-XBR$'M`Z@BR$'L".HBR$'M!O8B
XMR$'L"0`BR$'M`A8BR$'L"0PBR$'M`-XBR$'L"2`BR$'M`F0BR$'L"2XBR$'M
XM`RHBR$'L"3PBR$'M!*0BR$'L"48BR$'M!(PBR$'L"5(BR$'M!RPBR$'L"6`B
XMR$'M!8(BR$'L"68BR"+\`````#E\`$C[)$/L^20R_`0ITOP!_D/L]X02_```
XMTOP`_SE\```'W@CE\``#W@$/L]V!![`EH(LA![`EN(LA![`ET(LA![`EZ(LA!
XM[`F`(LA![`F&(LA![`F,(LA![`F2(LA#[/=6$OP`5Q+\`$,2_`!3$OP`11+\
XM`%82_`!/$OP`31+\`%D2_```0^SW2D'L"9@BR$'L"9XBR$'L":8BR#E\``#W
XM2#E\``#W1CE\``?W1#E\``#W0CE\```W0#E\``#W/CE\``#W/#E\``#W.BE\
XM`````/<V.7P``/<T.7P``/<R.7P#Z/<P.7P#Z/<N.7P``/<L.7P!6_<J.7P!
XM6/<H.7P!5?<F.7P!1_<D.7P`$?<B0^SW`D'L":PBR$'L";(BR$'L";8BR$'L
XM";PBR$'L"<0BR$'L"<HBR$'L"=(BR$'L"=@BR#E\`&/W`"E\`````/;\*7P`
XM`````]O@Y?`#Z]O8I?`````#V\CE\``#V\$/L\AHR_`%!0>T!MB+(,OP!0D'M
XM`?(BR#+\`4-![064(L@R_`%$0>T&Y"+(,OP!14'M`:HBR#+\`49![0'@(L@R
XM_`%'0>T`Y"+(,OP!2$'M!PXBR#+\`4E![0=6(L@R_`%*0>T'&B+(,OP!2T'M
XM!S(BR#+\`4Q![08V(L@R_`%-0>T&ZB+(,OP!3D'M`<XBR#+\`4]![0<^(L@R
XM_`%00>T!["+(,OP!44'M!V@BR#+\`5)![082(L@R_`%30>T&!B+(,OP!5$'M
XM!O8BR#+\`55![0#>(L@R_`%60>T!YB+(,OP!5T'M!<HBR#+\`5A![0#`(L@R
XM_`%90>T%@B+(,OP!6D'M`?@BR#+\`5U![0!.(L@R_`5"0>T"@B+(,OP%0T'M
XM`!XBR#+\!49![02P(L@R_`5)0>T$@"+(,OP%3$'M!<0BR#+\!4U![0<"(L@R
XM_`5.0>T&>"+(,OP%3T'M!P@BR#+\!5!![09@(L@R_`520>T$PB+(,OP%4T'M
XM!*HBR#+\!55![06X(L@R_`560>T$I"+(,OP%5T'M!(PBR#+\!5A![0'4(L@R
```

```
XM_`5:0>T&A"+(,OP$/T'M`C0BR#+\!"%![08J(L@R_`1`0>T&&"+(,OP$(T'M
XM!AXBR#+\!#U![0<@(L@R_`0H0>T`A"+(,OP$*4'M`&8BR#+\!%Y![0:*(L@R
XM_`0P0>T&0B+(,OP$,4'M!F8BR#+\!#)![09.(L@R_`1"0>T"4B+(,OP$0T'M
XM!B0BR#+\!$5![0#8(L@R_`1&0>T'7"+(,OP$2T'M`H@BR#+\!$U![0;P(L@R
XM_`1.0>T$MB+(,OP$3T'M!FPBR#+\!%!![09R(L@R_`120>T%3"+(,OP$4T'M
XM!5(BR#+\!%=![09:(L@R_`180>T"?"+(,OP$6D'M!HHBR#+\`T-![0:H(L@R
XM_`-(0>T&QB+(,OP#2T'M`A8BR#+\`TQ![09^(L@R_`--0>T'4"+(,OP#3D'M
XM`HXBR#+\`U)![08`(L@R_`-60>T&2"+(,OP#5T'M!LPBR#+\`UI![08\(L@R
XM_`(@0>T!L"+(,OP"/T'M`B(BR#+\`B%![09^(L@R_`(N0>T!L"+(,OP"/D'M
XM`;PBR#+\`CQ![0'"(L@R_`)^0>T"9"+(,OP"04'M`APBR#+\`D)![0;2(L@R
XM_`)#0>T&EB+(,OP"1$'M!L`BR#+\`D5![0*F(L@R_`)&0>T&M"+(,OP"1T'M
XM`=HBR#+\`DM![0(0(L@R_`),0>T&HB+(,OP"34'M!T0BR#+\`DY![0&>(L@R
XM_`)00>T!I"+(,OP"44'M!M@BR#+\`E)![07T(L@R_`)50>T&G"+(,OP"5D'M
XM`?@BR#+\`E=![06^(L@R_`)80>T#M"+(,OP"6D'M`!@BR#+\`G]![0;&(L@R
XM_`@_0>T"(B+(,OP(04'M`>PBR#+\"$)![0'.(L@R_`A#0>T!X"+(,OP(1$'M
XM`?(BR#+\"%1![0'X(L@R_`A30>T!YB+(,OP(84'M!M(BR#+\"&!![0:T(L@R
XM_`A00>T#BB+(,OP(44'M`X0BR#+\"%)![0-^(L@R_`A30>T#>"+(,OP(5$'M
XM`W(BR#+\"%5![0-L(L@R_`A60>T#9B+(,OP(5T'M`V`BR#+\"%A![0-:(L@R
XM_`A90>T$>B+(,OP`?T'M!PXBR#+\```B_`````#2_`&\.7S___(8.7S___(6
XM0^SQ]C+\```R_`<`,OP`<#+\!W`R_``',OP'!S+\''<R_`=W.7P``/'T0^SQ
XMK#+\`!<R_`!0,OP`"#+\`$`R_``90>T!4"+(0>T!/B+(0>T!,B+(0>T!."+(
XM0>T!C"+(0>T!@"+(0>T!F"+(0>T!2B+(0>T!7"+(0>T!5B+(0>T!;B+(0>T!
XM+"+(0>T!1"+(0>T!8B+(0>T!:"+(.7P``.=L0^SG6$'L"TPBR$'L"U8BR$'L
XM"V`BR$'L"V(BR$'L"V8BR"E\`````.=4.7P``.=20^SG.!+\`#`2_``Q$OP`
XM,A+\`#,2_``T$OP`-1+\`#82_``W$OP`.!+\`#D2_`!!$OP`0A+\`$,2_`!$
XM$OP`11+\`$82_```0^SG+!+\`%L2_`!-$OP`81+\`&,2_`!R$OP`;Q+\`"`2
XM_`!X$OP`>!+\`%T2_```0^SFK#+\`$@R_`A(,OP`4#+\"%`R_`!-,OP(33+\
XM`$LR_`A+,OP`.S+\"#LR_``\,OP(/#+\`#TR_`@],OP`/C+\"#XR_``_,OP(
XM/S+\`$`R_`A`,OP`03+\"$$R_`!",OP(0C+\`$,R_`A#,OP`1#+\"$0R_`!4
XM,OP(5#+\`%4R_`A5,OP`5C+\"%8R_`!7,OP(5S+\`%@R_`A8,OP`63+\"%DR
XM_`!:,OP(6C+\`%LR_`A;,OP`7#+\"%PR_`!=,OP(73+\`&(R_`AB,OP`83+\
XM"&$R_`!2,OP(4C+\`$<R_`A',OP`=#+\"'0R_`!U,OP(=3+\```R_```.7S_
XM_^:F.7S__^2B0^SDBA+\`&,2_`!O$OP`;1+\`&T2_`!A$OP`;A+\`&02_```
XM0^SD@A+\`&,2_`!O$OP`;1+\`&T2_`!A$OP`;A+\`&02_```0^SD>A+\`&82
XM_`!L$OP`=!+\`&D2_`!N$OP`<!+\``!#[.1R$OP`9A+\`&P2_`!T$OP`:1+\
XM`&X2_`!P$OP``$/LY&H2_`!F$OP`;!+\`'02_`!O$OP`=1+\`'02_```0^S>
XMM"+\`````#+\```B_``````R_``),OR#`"+\`````#+\```B_``````R_```
XM(OP`````,OP!`C+\@P`B_``````R_`(`(OP`````,OP``"+\`````#+\`0(R
XM_(,`(OP`````,OP"`-+\!7@Y?`(`WK(I?`````#>9"E\`````-Y:.7P``-S*
XM.7P``-S(3G5.5@``/SP`&TZM`8!4CS\\`%E.K0&`5(\P+@`(T'P`(#\`3JT!
XM@%2/,"X`"M!\`"`_`$ZM`8!4CTY>3G5.5@``/SP`&TZM`8!4CS\\`$M.K0&`
XM5(].7DYU3E8``#\L]T1.N@!B5(\_+/="3KH`IE2//SP`&TZM`8!4CS\\`$I.
XMK0&`5(].7DYU3E8``#`N``AG```:/SP`&TZM`8!4CS\\`'!.K0&`5(]@```6
XM/SP`&TZM`8!4CS\\`'%.K0&`5(].7DYU3E8``#`N``BP;/(89P``"C`L\?1F
XM```*8```,&```"P_/``;3JT!@%2//SP`8DZM`8!4CS`N``C`?``//P!.K0&`
XM5(\Y;@`(\AA.7DYU3E8``#`N``BP;/(69P``"C`L\?1F```*8```,&```"P_
XM/``;3JT!@%2//SP`8TZM`8!4CS`N``C`?``//P!.K0&`5(\Y;@`(\A9.7DYU
XM3E8``#\\``=.K0&`5(].K0&83EY.=4Y6__(_/``$3JT`S%2/.4#Q\C`L\?)@
XM```"L'P``&<```9@``!`/SP``DZM`,Q4CRU`__8_/``#3JT`S%2/+4#_\C\\
XM``$O+O_V+R[_\C\\``5.K0#,WOP`##E\```Q\F```ZP?``!9P``!F```&(Y
XM?``8\:PY?`!0\:XY?``!]T@Y?``$\?1";O_^8```,#`N__[C@$'L\?;0P#\0
XM/R[__C\\``=.K0#,7(\R+O_^XX%![/(&T,$P@%)N__X,;@`(__YM`/_*8```
XM.&````ZP?``"9P``!F```"@Y?``G\:PY?`!0\:XY?``"]TA.N@143KH$N$)L
```

```
XM\?1@```&8````CE\```'W@#E\```'W@C\\``Q.K0"N5(\I0/&D/SP`(DZM`,Q4
XMCRE`\:@@;/&D0A`@;/&D$7P`!``!(&SQI!%\``@``B!L\:01?``*``,@;/&D
XM,7P`3P`$(&SQI#%\`!<`!B!L\:1":``((&SQI$)H``H@;/&H+R@`$"\L\:0_
XM/``!0F=.K0#,WOP`#$)N__XP+O_^4F[__D'L\8K0P!"\``HP+O_^4F[__D'L
XM\8K0P!"\``@P+O_^4F[__D'L\8K0P!"\``I(;/&*,"[__E-`/P`_/``93JT`
XMS%"/0F<_/``!/SP`%4ZM`,Q<CT)G/SP``S\\`!5.K0#,7(\_/``;/SP``DZM
XM`*)8CS\\`$4_/``"3JT`HEB/3JT!ADY>3G5.5O_Z0F[__C`N__Y2;O_^0>SQ
XMBM#`$+S_@#`N__Y2;O_^0>SQBM#`$+P``4AL\8HP+O_^4T`_`#\\`!E.K0#,
XM4(\,;``"]TAF```0#&P``O'R9@``!DZZ`ZA";O_^8```(C`N__[C@$'L\@;0
XMP#\0/R[__C\\``=.K0#,7(]2;O_^,"[__K!L\?1M`/_6/SP`&S\\``).K0"B
XM6(\_/`!%/SP``DZM`*)8CR!L\:1"*``!(&SQJ"\H`!`O+/&D/SP``D)G3JT`
XMS-[\``Q";O_^,"[__E)N__Y![/&*T,`0O/^`,"[__E)N__Y![/&*T,`0O``!
XM2&SQBC`N__Y30#\`/SP`&4ZM`,Q0CT)G/SP``3\\`!5.K0#,7(].K0%Z3EY.
XM=4Y6``!.7DYU3E8``$Y>3G5.5O^@,"SW2+!N``AF```*,#P``6```:0,;```"
XM\?)F``"L,"X`"&````*P?``"9P``!F```#@Y?``G\:PY?`!0\:Y.N@&N3KH"
XM$CE\``+W2#E\``'W0#\\``$_/``!3JT&9EB/8```8F````ZP?``!9P``!F``
XM`$XY?``8\:PY?`!0\:Y.N@)(.7P``?=(.7P``?=`/SP``3\\``%.K09F6(]@
XM```D8````DAL"P!.K0-(6(\P/```8``!`&````I@```&8`#_Y&```/`_/```"
XM3JT`S%2/+4#_]#\\``-.K0#,5(\M0/_P,"X`"&````*P?``!9P``!F```$XY
XM?``8\:PY?`!0\:X_/``!+R[_]"\N__`_/``%3JT`S-[\``PY?``$\?0Y?``!
XM]T@Y?``!]T`_/``!/SP``4ZM!F98CV```'A@```.L'P``&<```9@``!D.7P`
XM&/&L.7P`*/&N0F<O+O_T+R[_\#\\``5.K0#,WOP`##E\``CQ]$)L]T@Y?``!
XM]T`_/``!/SP``4ZM!F98CV```"1@````2&P+%$ZM`TA8CS`\``!@```.8```
XM"F````9@`/_D3EY.=4Y6```P+@`(9P``%D)G/SP``C\\`!5.K0#,7(]@```2
XM0F<_/``#/SP`%4ZM`,Q<CTY>3G5.5O_R0F[__F```!0P+O_^Y8!![.=NT,!"
XMD%)N__X,;@*`__YM`/_F2.X,`/_RH`!%[/%N).C_]B3H_^HTZ/_2-.C_UC3H
XM_]@B:0`$)&D`3$?LZ&XP/``_)MI1R/_\3.X,`/_R3EY.=4Y6__A([@P`__B@
XM`")I``0A:0!(__9%[.=N(4K_ZC%\``K_TC%\"?_UC%\`R#_V$SZ#`#_^$Y>
XM3G5.5O_X2.X,`/_XH``B:0`$(6D`2/_V1>SG;B%*_^HQ?``*_](Q?``3_]8Q
XM?`9`_]A,^@P`__A.7DYU3E;_^$CN#`#_^*``1>SQ;B%:__8A6O_J,5K_TC%:
XM_]8Q6O_83.X,`/_X3EY.=4Y6__A([@P`__B@`#UH_J8`"'``,"C^IDSN#`#_
XM^$Y>3G5.5@``.7P#Y_<P.7P#Y_<N3EY.=4Y6``!.7DYU3E8``!`N``E(@#\`
XM/SP``C\\``-.K0`\7(].7DYU3E8``$Y>3G5.5O_\/SP``4ZM`714CS\\``(_
XM/``"3JT`/%B/+4#__$)G3JT!=%2/("[__."`X(#`O````/\Y0.=L,#P`_R(N
XM__S`06````).7DYU3E8``#`\``!@```"3EY.=4Y6```@;/;B0F@`$#`\``%@
XM```"3EY.=4Y6``!(YP$0/BX`"@Q```!L```6,`=$0#\`/RX`"$ZZ`*)8CV``
XM`'!@``!:(&SVX@QH````$&8``$0@;/;B(&@`#"`H``0F0"!L]MZPJ``09@``
XM"C`\``!@```\(&SVXB%+``P@;/;B,6L`"@`0(&SVX@`H``(`&V````H@;/;B
XM4V@`$#`'4T=*0&8`_Z`P/``!8````DS?"(!.7DYU3E8``"!L]N(@:``,,"@`
XM"B!L]N(Q0``0,#P``6````).7DYU3E8``#\'/BX`"@Q```!L```6,`=$0#\`
XM/RX`"$ZZ_R!8CV```'Q@``!F(&SVXC`H`!`@;/;B(&@`#+!H``IF``!&(&SV
XMXB`H``P@;/;>L*@`$&8```HP/```8```1"!L]N(@:``,(!`@;/;B(4``#"!L
XM]N)":``0(&SVX@`H``(`&V````H@;/;B4F@`$#`'4T=*0&8`_Y0P/``!8```
XM`CX?3EY.=4Y6```,;@`!``IL```*,#P``&```#(@;/;>(&@`$"`0(&SVXB%`
XM``P@;/;B0F@`$#`N``I30#\`/RX`"$ZZ`')8CV````).7DYU3E8``"!L]MX@
XM:``0(!`@;/;B(4``#"!L]N)":``0(&SVX@`H``@`&S`\``%@```"3EY.=4Y6
XM```@;/;>("@`$"!L]N(A0``,(&SVXD)H`!`@;/;B`"@`"``;,#P``6````).
XM7DYU3E8``"\+#&X````*;```&#`N``I$0#\`/RX`"$ZZ`(18CV```'@P+/;H
XMP'P``0Q```!F```.0F=.K0;\5(\Y0/;F`&P``?;J(&SVXB9H``Q@```$)E,P
XM+@`*4VX`"DI`9P``$"`+(&SVWK"H`!!F`/_D(&SVXB%+``PO"TZZ`Y!8CR!L
XM]N(Q0``0(&SVX@`H``(`&S`\``%@```")E].7DYU3E8``"\+#&X````*;```
XM&#`N``I$0#\`/RX`"$ZZ_T!8CV```'PP+/;HP'P``0Q```!F```.0F=.K0;\
XM5(\Y0/;F`&P``?;J(&SVXB9H``Q@```&)FL`!#`N``I3;@`*2D!G```2("L`
```

```
     XM!"!L]MZPJ``09@#_X"!L]N(A2P`,+PM.N@+J6(\@;/;B,4``$"!L]N(`*``"
     XM`!LP/``!8````B9?3EY.=4Y6```_!PQN````"FP``!@P+@`*1$`_`#\N``A.
     XMN@$R6(]@``$F8``!`#\\``%"9TZZ_&Y8CSX`8```$#\\``%"9TZZ_%Q8CSX`
     XM3JT&KDI`9@``"#`'9@#_Y"!L]N)":``08```?"!L]N(@:``,#&@````*9P``
     XM9B!L]N(P*``0(&SVXB!H``Q!Z``,T,`0$$B`P'P`_PQ```EG``!`(&SVXC`H
     XM`!`@;/;B(&@`#$'H``S0P!`02(#`?`#_#$``(&<``!H@;/;B(&@`#"`H``0@
     XM;/;B(4``#&````9@```:(&SVXB!H``P@*``$(&SVWK"H`!!F`/]P/SP``4)G
     XM3KK\8EB//@!@```0/SP``4)G3KK\4%B//@`P!V<```Q.K0:N2D!G`/_D,"X`
     XM"E-N``H,0```;@#^]"!L]N(`*``"`!LP/``!8````CX?3EY.=4Y6```_!PQN
     XM````"FP``!@P+@`*1$`_`#\N``A.NOZ26(]@``%,8``!)C\\``%"9TZZ^^!8
     XMCSX`8```$#\\``%"9TZZ^\Y8CSX`3JT&KDI`9@``"#`'9@#_Y"!L]N)":``0
     XM,`=G```4(&SVXB!H``P@$"!L]N(A0``,8```>B!L]N(@:``,#&@````*9P``
     XM9"!L]N(P*``0(&SVXB!H``Q!Z``,T,`0$$B`P'P`_PQ```EG```^(&SVXC`H
     XM`!`@;/;B(&@`#$'H``S0P!`02(#`?`#_#$``(&<``!@@;/;B(&@`#"`0(&SV
     XMXB%```Q@```&8```%B!L]N(@*``,(&SVWK"H`!!F`/]V/SP``4)G3KKZ/EB/
     XM/@!@```0/SP``4)G3KKZ+%B//@`P!V<```Q.K0:N2D!G`/_D(&SVXB!H``PP
     XM*``*(&SVXC%``!`P+@`*4VX`"@Q```!N`/[.(&SVX@`H``(`&S`\``%@```"
     XM/A].7DYU3E8``$CG#Q`F;@`(0D9"1&```$A!ZP`,T,0>$$B'SGP`_SH&#$<`
     XM"68```J*?```'8```%`Q`'"!M```*#$<`?V8```1215)%,`6P;/;F;P``!F``
     XM`!`\!5)$,`2P:P`*9@#_LC`$8````DS?"/!.7DYU3E8``$CG`1`^+@`*#&X`
     XM```(9@``'B!L]N(>*``92(=51PQ'``!N```&/CP``6```#(,1P``;```&C`'
     XM1$`_`#\N``A.N@!T6(]@``!F8```$B!L]N(2*``92($P!\'!/@`@;/;B)F@`
     XM"&````0F4S`'4T=*0&<``!`@"R!L]MZPJ``09@#_Z"!L]N(A2P`((&SVXB%+
     XM``P@;/;B0F@`$"!L]N(`*``(`!LP/``!8````DS?"(!.7DYU3E8``$CG`1`^
--
----
          These are days for the locust to eat
                        - Winston Churchill

Name:     James M. Turner
Mail:     Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T:     (408) 986-9400
UUCP:     ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie     : D-ARCANGEL


From 6629076482946526422
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b17e35e7e6a33f25,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 09:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: ASM68K/Magic Sac
Message-ID: <100600002@uiucuxa>
Date: Fri, 10-Oct-86 12:52:00 EDT
Article-I.D.: uiucuxa.100600002
Posted: Fri Oct 10 12:52:00 1986
Date-Received: Tue, 14-Oct-86 05:41:11 EDT
```

Lines: 10
Nf-ID: #N:uiucuxa:100600002:000:181
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309   Oct 10 11:52:00 1986

Does anyone have an assembler i could send them a disk for?

And where does one get hold of Magic sac?

Please reply to glk309@uiucuxa

                    Thanks in advance

                         -E. C. Spieu!

From 1217055216490637412
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82629cda38b60e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 09:59:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!pyramid!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: bug in megamax C
Message-ID: <609@imagen.UUCP>
Date: Fri, 10-Oct-86 12:59:39 EDT
Article-I.D.: imagen.609
Posted: Fri Oct 10 12:59:39 1986
Date-Received: Sun, 12-Oct-86 13:40:36 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 41

~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~

here's a cute bug in megamax C:

```
int c;

     while((c = getchar()) != EOF) {
.
.
.
     }
```

works fine but:

```
unsigned char c;

     while((c = getchar()) != EOF) {
```
~~~~~~~~~~~~~~~

```
.
.
.
     }
```

loops infinately, the problem is that megamax generates the
following code:

```
     AND  #0xff,D0  ;D0 has the result of getchar
     CMP  #-1,D0        ;ooppsss should be CMP.B
```

ah well
--

          These are days for the locust to eat
                        - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 5758183089307362349
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d401484ec9b4e61f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 10:36:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: net problems ???
Message-ID: <8610101736.AA05159@ncsc.ARPA>
Date: Fri, 10-Oct-86 13:36:00 EDT
Article-I.D.: ncsc.8610101736.AA05159
Posted: Fri Oct 10 13:36:00 1986
Date-Received: Sat, 11-Oct-86 20:52:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Hi,

Starting yesterday, I receive two copies of every message I send to the group,
and I sometimes also receive two copies from other people. It's just a minor
annoyance for me (I can easily delete double copies) but I don't want fellow
netters hacked off at me for "cluttering the net."

Just whatever you do, don't remove me entirely from the group: it's my only source of tech info for the ST.

Keep up the good (interesting, useful) work!

Jim Moore
Naval Coastal Systems Center
moore@ncsc.arpa

From -3184193793303752531
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c01a41bf6f51ebee
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 10:54:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Uniterm problems
Message-ID: <1599@cwruecmp.UUCP>
Date: Fri, 10-Oct-86 13:54:54 EDT
Article-I.D.: cwruecmp.1599
Posted: Fri Oct 10 13:54:54 1986
Date-Received: Sat, 11-Oct-86 20:31:17 EDT
References: <12245494832.8.LYNN@PANDA>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 9

Exactly the same symptoms here in the rock and roll capital of the world.

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -4357613531379237986
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d247352be6e1d3e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 11:17:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16

Subject: ARCSHELL part 1 or 2
Message-ID: <1600@cwruecmp.UUCP>
Date: Fri, 10-Oct-86 14:17:03 EDT
Article-I.D.: cwruecmp.1600
Posted: Fri Oct 10 14:17:03 1986
Date-Received: Sat, 11-Oct-86 20:32:55 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 385

Here is a Gem front end for ARC posted to this group recently,
from compuserve.
                        enjoy
--
```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    arcsrsc.uue
#    arcsdfn.uue
#    arcsprg.uue
# This archive created: Fri Oct 10 14:13:22 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'arcsrsc.uue'" '(3179 characters)'
if test -f 'arcsrsc.uue'
then
     echo shar: over-writing existing file "'arcsrsc.uue'"
fi
sed 's/^X//' << \SHAR_EOF > 'arcsrsc.uue'
Xbegin 644 arcshell.rsc
XM```%_@/.`\X#S@/.`"0#S@/.".8`'P`"`!0``````````CN041$('1O(&%R
XM8VAI=F4`7U]?7U]?7U]?7U]?7U]?7U]?7U\`15A44D%#5"!F<F]M(&%R8VAI
XM=F4`7U]?7U]?7U]?7U]?7U]?7U]?7U\`34]612!T;R!A<F-H:79E`%]?7U]?
XM7U]?7U]?7U]?7U]?7U]?`%501$%412!I;B!A<F-H:79E`%]?7U]?7U]?7U]?
XM7U]?7U]?7U]?`$9215-(14X@:6X@87)C:&EV90!?7U]?7U]?7U]?7U]?7U]?
XM7U]?7P!$14Q%5$4@9G)O;2!A<F-H:79E`%]?7U]?7U]?7U]?7U]?7U]?7U]?
XM`%9%4D)/4T4@3$E35`!?7U]?7U]?7U]?7U]?7U]?7U]?7P!,:7-T(&EN(&%R
XM8VAI=F4`7U]?7U]?7U]?7U]?7U]?7U]?7U\`0T]062!T;R!3=&1/=70`7U]?
XM7U]?7U]?7U]?7U]?7U]?7U\`4E5.(&9R;VT@87)C:&EV90!?7U]?7U]?7U]?
XM7U]?7U]?7U]?7P!497-T(&%R8VAI=F4@:6YT96=R:71Y`%]?7U]?7U]?7U]?
XM7U]?7U]?7U]?7U]?7U]?7U]?7U\`0V]N=F5R="!T;R!N97<@<&%C:VEN9R!M
XM971H;V0`7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7P!-86EN($9I
XM;&4@3W!T:6]N<P!?7U]?7U]?7U]?7U]?7U]?7U]?`%-E8V]N9&%R>2!/<'1I
XM;VYS`%]?7U]?7U]?7U]?7U]?7U]?7U\`4F5T86EN($)A8VMU<`!?7U]?7U]?
XM7U]?7U]?7U]?7U]?7U]?7U]?7U\`4W5P<')E<W,@0V]M<')E<W-I;VX`7U]?
XM7U]?7U]?7U]?7U]?7U]?7U]?7U]?`%-U<'!R97-S(%=A<FYI;F<@365S
XM<V%G97,`7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?`%-U<'!R97-S($YO
XM=&5S`%]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7P!(;VQD(%-C<F5E;@!?
XM7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U\`16YC<GEP="`O($1E8W)Y<'0`
XM7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?7U]?`$5X:70`1&\@270`07)C(%-H
```

```
XM96QL(&)R;W5G:'0@=&\@>6]U(&)Y`$QA4&5E<B!3>7-T96US($EN8RX`57-I
XM;F<@5$1)($UO9'5L83(`0V]N=&EN=64`17AI=``````D````````#,``P`&
XM``(0<@```/\`#P`!````2`````````!=``,`!@`"$'(```#_`!4``0```(`
XM`````````@@`#``8``A!R````_P`0``$```"7`````````*D``P`&``(0<@``
XM`/\`$@`!````O@`````````#1``,`!@`"$'(```#_`!,``0```.8`````````
XM^@`#``8``A!R````_P`4``$```$/`````````1P``P`&``(0<@```/\`#0`!
XM```!,0`````````%!``,`!@`"$'(```#_`!```0```58````````!90`#``8`
XM`A!R````_P`/``$```%Z`````````8L``P`&``(0<@```/\`$0`!```!H```
XM``````&W``,`!@`"$'(```#_`!<``0```=<````````!]0`#``8``A!R````
XM_P`>``$```(5`````````B<``P`&``(1<@```/\`$@`!```".P````````)-
XM``,`!@`"$7(```#_`!(``0```F$````````";P`#``8``A!R````_P`.``$`
XM``*+`````````J```P`&``(0<@```/\`%0`!```"O`````````+6``,`!@`"
XM$'(```#_`!H``0
```

```
From -2837571965568663923
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c687b18cb9e166f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 12:35:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!lll-crg!rutgers!caip!clyde!cbatt!
cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ARCSHELL part 2 of 2
Message-ID: <1602@cwruecmp.UUCP>
Date: Fri, 10-Oct-86 15:35:22 EDT
Article-I.D.: cwruecmp.1602
Posted: Fri Oct 10 15:35:22 1986
Date-Received: Sat, 11-Oct-86 20:33:36 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 926

#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    arcshell.mod
#    arcshell.h
# This archive created: Fri Oct 10 14:13:58 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'arcshell.mod'" '(18776 characters)'
if test -f 'arcshell.mod'
then
     echo shar: over-writing existing file "'arcshell.mod'"
fi
sed 's/^X//' << \SHAR_EOF > 'arcshell.mod'
X(*$A+*) (*$F-*)
XMODULE ArcShell;
```

```
X
XFROM SYSTEM      IMPORT ADDRESS, ADR, CODE;
XFROM Storage     IMPORT CreateHeap;
X
XFROM GEMDOS      IMPORT GetDrv, Open, Close, GetPath, Term,
X                        loadExecute, Exec;
XFROM BIOS        IMPORT SetException, GetException;
X
XFROM GEMAESbase  IMPORT MouseOff, MouseOn;
XFROM AESGraphics IMPORT GrafMouse;
XFROM AESForms    IMPORT FileSelectorInput;
X
XFROM SYSCIO      IMPORT GoToXY,
X                        Read,
X                        Write, WriteString, WriteCard, WriteInt, WriteLn;
X
XIMPORT GEMVDIbase, VDIControls, VDIAttribs,
X       GEMAESbase, AESGraphics, AESForms, AESObjects,
X       AESResources, AESApplications ;
X
XCONST OFF       = FALSE;
X      ON        = TRUE;
X
XTYPE Object  = RECORD
X       next  : CARDINAL;
X       head  : CARDINAL;
X       tail  : CARDINAL;
X       type  : CARDINAL;
X       flags : CARDINAL;
X       state : CARDINAL;
X       spec  : ADDRESS;
X       obx   : CARDINAL;
X       oby   : CARDINAL;
X       width : CARDINAL;
X       depth : CARDINAL;
X     END;
X
X     ObjectStates = (Selected, Crossed, Checked, Disabled, Outlined, Shadowed);
X
X     Tree     = POINTER TO ARRAY [0..200] OF Object;
X
XCONST MOPTIONS =  0 ;
X      ADDBUTON =  2 ;
X      EXTRACTB =  3 ;
X      MOVEBUTN =  4 ;
X      UPDATEBU =  5 ;
X      FRESHENB =  6 ;
X      DELETEBU =  7 ;
X      VERBOSEB =  8 ;
X      LISTBUTN =  9 ;
X      COPYBUTN = 10 ;
X      RUNBUTON = 11 ;
X      TESTARCI = 12 ;
```

```
X      CNVTONPM = 13 ;
X      KEEPBACK = 17 ;
X      SUPPCOMP = 18 ;
X      SUPPWARN = 19 ;
X      SUPPNOTE = 20 ;
X      HOLDBUTN = 21 ;
X      CRYPTBUT = 22 ;
X      CANBUTON = 23 ;
X      OKBUTTON = 24 ;
X
X      ABOUTBOX =  1 ;
X      ABOUTOKB =  4 ;
X      ABOUTCAN =  5 ;
X
XVAR VDIHandle  : INTEGER ;
X    workIn     : GEMVDIbase.VDIWorkInType ;
X    workOut    : GEMVDIbase.VDIWorkOutType ;
X    WidthChar,
X    HeightChar,
X    WidthFont,
X    HeightFont : INTEGER ;
X
X  (* Window data *)
X
X    Window     : INTEGER ; (* window handle *)
X    WindX,
X    WindY,
X    WindWidth,
X    WindHeight : INTEGER ; (* Total window *)
X
X    Appl         : INTEGER;
X    MainMenuTree : ADDRESS;
X    MoptMenuTree : ADDRESS;
X    SendMenuTree : ADDRESS;
X    RecvMenuTree : ADDRESS;
X
X    Colour     : BOOLEAN ;    (* Running on Colour ST system *)
X
X  (* Work area available to graphics modules *)
X    WorkX,
X    WorkY,
X    WorkWidth,
X    WorkHeight : INTEGER ;
X
XCONST CancelButton=     0;
X      OKButton=         1;
X
XTYPE  NameString=       ARRAY[0..64] OF CHAR;
X
XVAR CurrentDrive:       CARDINAL;
X    CurrentPath:        NameString;
X
X    Path:               NameString;
```

```
X    Name:               NameString;
X
X    ArcProgramName:     NameString;
X
X    DataPathName:       NameString;
X    DataFileName:       NameString;
X    DataName:           NameString;
X
X    ArcPathName:        NameString;
X    ArcFileName:        NameString;
X    ArcName:            NameString;
X
X    FileName:           NameString;
X    ExButton:           INTEGER;
X    Reply:              CHAR;
X    AskForStdOutput:    BOOLEAN;
X    MouseState:         BOOLEAN;
X
X    MainOption:         ARRAY[0.. 0] OF CHAR;
X    SecondaryOption:    ARRAY[0..10] OF CHAR;
X
X    CommandLine:        ARRAY[0..127] OF CHAR;
X    ProgramName:        ARRAY[0..127] OF CHAR;
X    ProgramCommand:     ARRAY[0..127] OF CHAR;
X    EnvironmentString:  ARRAY[0..127] OF CHAR;
X    ExitCode:           INTEGER;
X
X(*$P- Turn normal entry and exit code generation off *)
XPROCEDURE DivideByZero;
X
XBEGIN (* DivideByZero *)
X
X  CODE(4E73H);          (*      rte                              *)
X
XEND DivideByZero;
X(*$P= Turn normal entry and exit code generation on*)
X
XPROCEDURE SetMouseState(SetMouse : BOOLEAN);
X
XBEGIN (* SetMouseState *)
X
X  CASE SetMouse OF
X    ON  : CASE MouseState OF
X            ON  : ;
X          | OFF : GrafMouse(MouseOn, NIL);
X          END;
X  | OFF : CASE MouseState OF
X            ON  : GrafMouse(MouseOff, NIL);
X          | OFF : ;
X          END;
X  END;
X
X  MouseState := SetMouse;
```

```
X
XEND SetMouseState;
X
XPROCEDURE ClearScreen;
X
XBEGIN (* ClearScreen *)
X
X  Write(CHR(27)); Write('E');
X
XEND ClearScreen;
X
XPROCEDURE CenterMessage(VAR Message : ARRAY OF CHAR);
X
XVAR c, cmax:    CARDINAL;
X
XBEGIN (* CenterMessage *)
X
X  IF Message[0] = 0C
X     THEN RETURN;
X  END;
X
X  c    := 0;
X  cmax := HIGH(Message);
X
X  WHILE (c <= cmax)       AND
X        (Message[c] # 0C) DO
X        INC(c);
X  END;
X
X  IF (c > cmax)        OR
X     (Message[c] = 0C)
X     THEN DEC(c);
X  END;
X
X  GoToXY((80 - c) DIV 2, 02);
X
X  WriteString(Message);
X
XEND CenterMessage;
X
XPROCEDURE Exit(ExitCode : INTEGER);
X
XBEGIN (* Exit *)
X
X   IF NOT Term(ExitCode)
X      THEN HALT;
X   END;
X
XEND Exit;
X
XPROCEDURE MoveStr(VAR To, From : ARRAY OF CHAR);
X
XVAR c, cmax,
```

```
X    c1, c1max:          CARDINAL;
X
XBEGIN (* MoveStr *)
X
X  c := 0;
X  cmax := HIGH(To);
X  c1 := 0;
X  c1max := HIGH(From);
X
X  WHILE (c <= cmax)    AND
X        (c1 <= c1max)  AND
X        (From[c1] # 0C) DO
X        To[c] := From[c1];
X        INC(c);
X        INC(c1);
X  END;
X
X  IF c <= cmax
X     THEN To[c] := 0C;
X  END;
X
XEND MoveStr;
X
XPROCEDURE Append(VAR To:   ARRAY OF CHAR;
X                 VAR Data: ARRAY OF CHAR);
X
XVAR c, cmax,
X    c1, c1max:          CARDINAL;
X
XBEGIN (* Append *)
X
X  c := 0;
X  cmax := HIGH(To);
X
X  WHILE (c <= cmax) AND
X        (To[c] # 0C) DO
X        INC(c);
X  END;
X
X  c1 := 0;
X  c1max := HIGH(Data);
X
X  WHILE (c <= cmax)    AND
X        (c1 <= c1max)  AND
X        (Data[c1] # 0C) DO
X        To[c] := Data[c1];
X        INC(c);
X        INC(c1);
X  END;
X
X  IF c <= cmax
X     THEN To[c] := 0C;
X  END;
```

```
X
XEND Append;
X
XPROCEDURE ConvertString(VAR To, From : ARRAY OF CHAR);
X
XVAR c, cmax,
X    c1, c1max:          CARDINAL;
X
XBEGIN (* ConvertString *)
X
X  c := 1;
X  cmax := HIGH(To);
X
X  c1 := 0;
X  c1max := HIGH(From);
X
X  WHILE (c  <= cmax )    AND
X        (c1 <= c1max)    AND
X        (From[c1] # 0C)   DO
X        To[c] := From[c1];
X        INC(c);
X        INC(c1);
X  END;
X
X  IF c <= cmax
X     THEN To[c] := 0C;
X  END;
X
X  To[0] := CHR(c-1);
X
XEND ConvertString;
X
X(* ------------------------------------------------------------------------ *)
X(*                      Dialog Stuff lives here                             *)
X(* ------------------------------------------------------------------------ *)
X
XPROCEDURE ObjectAddress(tree : INTEGER; obindex : INTEGER) : ADDRESS;
X
XVAR res     : INTEGER;
X    treeadr : Tree;
X    ob : POINTER TO ADDRESS;
X
XBEGIN
X
X  AESResources.ResourceGetAddr(0,tree,treeadr);
X
X  RETURN ADR(treeadr^[obindex]);
X
XEND ObjectAddress;
X
XPROCEDURE GetObjectState(tree : INTEGER; obindex : INTEGER) : BITSET;
X
XVAR res     : INTEGER;
```

```
X    treeadr : Tree;
X
XBEGIN
X
X  AESResources.ResourceGetAddr(0,tree,treeadr);
X
X  RETURN BITSET(treeadr^[obindex].state);
X
XEND GetObjectState;
X
XPROCEDURE TestObjectState(Tree : INTEGER;
X                          ObIndex : INTEGER;
X                          Mask : ObjectStates) : BOOLEAN;
X
XTYPE States = SET OF ObjectStates;
X
XVAR Value : BITSET;
X
XBEGIN
X
X  Value := GetObjectState(Tree,ObIndex);
X
X  RETURN (Mask IN States(Value));
X
XEND TestObjectState;
X
XPROCEDURE SetObjectState(tree : INTEGER; obindex : INTEGER; state : BITSET);
X
XVAR res     : INTEGER;
X    treeadr : Tree;
X
XBEGIN
X
X  AESResources.ResourceGetAddr(0,tree,treeadr);
X
X  treeadr^[obindex].state := INTEGER(state);
X
XEND SetObjectState;
X
XPROCEDURE SelectObject(tree : INTEGER; obindex : INTEGER);
X
XCONST Selected = 0 ;
X
XVAR b:          BITSET;
X
XBEGIN
X
X  b := GetObjectState(tree,obindex);
X
X  INCL(b, Selected);
X
X  SetObjectState(tree,obindex,b);
X
```

```
XEND SelectObject;
X
XPROCEDURE DeselectObject(tree : INTEGER; obindex : INTEGER);
X
XCONST Selected = 0 ;
X
XVAR b: BITSET;
X
XBEGIN
X
X  b := GetObjectState(tree,obindex);
X
X  EXCL(b, Selected);
X
X  SetObjectState(tree,obindex,b);
X
XEND DeselectObject;
X
XPROCEDURE DoDialog(DialogIndex : INTEGER) : INTEGER ;
X
XVAR dTree    : ADDRESS ;
X    x,y,w,h  : INTEGER ;
X    result   : INTEGER ;
X
XBEGIN
X
X  AESResources.ResourceGetAddr(GEMAESbase.RTree,DialogIndex,dTree) ;
X
X  AESForms.FormCenter(dTree,x,y,w,h) ;
X
X  AESForms.FormDialogue(GEMAESbase.FormStart,0,0,0,0,x,y,w,h) ;
X  AESForms.FormDialogue(GEMAESbase.FormGrow,0,0,0,0,x,y,w,h) ;
X
X  AESObjects.ObjectDraw(dTree,0,10,x,y,w,h) ;
X
X  SetMouseState(ON);
X  result := AESForms.FormDo(dTree,0) ;
X  SetMouseState(OFF);
X
X  AESForms.FormDialogue(GEMAESbase.FormShrink,0,0,0,0,x,y,w,h) ;
X  AESForms.FormDialogue(GEMAESbase.FormFinish,0,0,0,0,x,y,w,h) ;
X
X  ClearScreen;
X
X  RETURN result;
X
XEND DoDialog ;
X
XPROCEDURE FormatFileName(VAR FileName,
X                             Path,
X                             Name : NameString);
X
XVAR c:          CARDINAL;
```

```
X
XBEGIN (* FormatFileName *)
X
X  IF (Path[0] = 0C) AND
X     (Name[0] = 0C)
X           THEN FileName := '\*.*';
X                RETURN;
X     ELSIF Path[0] = 0C
X           THEN FileName := Name;
X                RETURN;
X     ELSIF Name[0] = 0C
X           THEN FileName := Path;
X                RETURN;
X  END;
X
X  FileName := Path;
X
X  c := 0;
X
X  WHILE (c <= HIGH(FileName)) AND
X        (FileName[c] # 0C)    DO
X        INC(c);
X  END;
X
X  WHILE (c # 0)             AND
X        (FileName[c] # '\') DO
X        DEC(c);
X  END;
X
X  IF c = 0
X     THEN FileName := Name;
X          RETURN;
X  END;
X
X  FileName[c+1] := 0C;
X
X  Append(FileName, Name);
X
XEND FormatFileName;
X
XPROCEDURE DoMainOptions;
X
XCONST RS        = 1EH;
X      GS        = 1DH;
X      FS        = 1CH;
X
XBEGIN (* DoMainOptions *)
X
X  IF       TestObjectState(MOPTIONS, ADDBUTON, Selected)
X           THEN MainOption := 'A';
X     ELSIF TestObjectState(MOPTIONS, EXTRACTB, Selected)
X           THEN MainOption := 'X';
X     ELSIF TestObjectState(MOPTIONS, MOVEBUTN, Selected)
```

```
X           THEN MainOption := 'M';
X      ELSIF TestObjectState(MOPTIONS, FRESHENB, Selected)
X           THEN MainOption := 'F';
X      ELSIF TestObjectState(MOPTIONS, UPDATEBU, Selected)
X           THEN MainOption := 'U';
X      ELSIF TestObjectState(MOPTIONS, DELETEBU, Selected)
X           THEN MainOption := 'D';
X      ELSIF TestObjectState(MOPTIONS, VERBOSEB, Selected)
X           THEN MainOption := 'V';
X      ELSIF TestObjectState(MOPTIONS, COPYBUTN, Selected)
X           THEN MainOption := 'P';
X      ELSIF TestObjectState(MOPTIONS, LISTBUTN, Selected)
X           THEN MainOption := 'L';
X      ELSIF TestObjectState(MOPTIONS, RUNBUTON, Selected)
X           THEN MainOption := 'R';
X      ELSIF TestObjectState(MOPTIONS, TESTARCI, Selected)
X           THEN MainOption := 'T';
X      ELSIF TestObjectState(MOPTIONS, CNVTONPM, Selected)
X           THEN MainOption := 'C';
X  END;
X
XEND DoMainOptions;
X
XPROCEDURE DoSecondaryOptions;
X
XCONST ESC=              1BH;
X
XVAR   CryptData:        ARRAY[0..3] OF CHAR;
X
XBEGIN (* DoSecondaryOptions *)
X
X  SecondaryOption := '';
X
X  IF TestObjectState(MOPTIONS, SUPPCOMP, Selected)
X     THEN Append(SecondaryOption, 'S');
X  END;
X
X  IF TestObjectState(MOPTIONS, KEEPBACK, Selected)
X     THEN Append(SecondaryOption, 'B');
X  END;
X
X  IF TestObjectState(MOPTIONS, SUPPWARN, Selected)
X     THEN Append(SecondaryOption, 'W');
X  END;
X
X  IF TestObjectState(MOPTIONS, SUPPNOTE, Selected)
X     THEN Append(SecondaryOption, 'N');
X  END;
X
X  IF TestObjectState(MOPTIONS, HOLDBUTN, Selected)
X     THEN Append(SecondaryOption, 'H');
X          AskForStdOutput := FALSE;
X     ELSE AskForStdOutput := TRUE;
```

```
X  END;
X
X  IF TestObjectState(MOPTIONS, CRYPTBUT, Selected)
X     THEN Append(SecondaryOption, 'G');
X  END;
X
XEND DoSecondaryOptions;
X
XPROCEDURE DoArc;
X
XVAR EncryptionKey:      ARRAY[0..3] OF CHAR;
X    c:                  CARDINAL;
X    CReply:             CHAR;
X
X    OldDivideByZero:    PROC;
X
XBEGIN (* DoArc *)
X
X  IF ArcPathName[0] # 0C
X     THEN Path := ArcPathName;
X          Name := ArcFileName;
X     ELSE Path := CurrentPath;
X          Append(Path, '\*.ARC');
X          Name := '';
X  END;
X
X  ExButton := 0;
X
X  CenterMessage('We are asking for the Archive File Name here');
X  SetMouseState(ON);
X  FileSelectorInput(ADR(Path), ADR(Name), ExButton);
X  SetMouseState(OFF);
X
X  ClearScreen;
X
X  IF ExButton = CancelButton
X     THEN Exit(-1);
X  END;
X
X  IF Name[0] = 0C
X     THEN Exit(-2);
X  END;
X
X  ArcPathName := Path;
X  ArcFileName := Name;
X
X  FormatFileName(FileName, Path, Name);
X
X  ArcName := FileName;
X
X  IF (MainOption[0] = 'A') OR
X     (MainOption[0] = 'M') OR
X     (MainOption[0] = 'U') OR
```

```
X     (MainOption[0] = 'F') OR
X     (MainOption[0] = 'D') OR
X     (MainOption[0] = 'X') OR
X     (MainOption[0] = 'R') OR
X     (MainOption[0] = 'P')
X     THEN IF DataPathName[0] # 0C
X             THEN Path := DataPathName;
X             ELSE Path := CurrentPath;
X                  Append(Path, '\*.*');
X          END;
X          Name := '';
X          ExButton := 0;
X          CenterMessage('We are asking for the Data File Name(s) here');
X          SetMouseState(ON);
X          FileSelectorInput(ADR(Path), ADR(Name), ExButton);
X          SetMouseState(OFF);
X          ClearScreen;
X          IF ExButton = CancelButton
X             THEN Exit(-1);
X          END;
X          DataPathName := Path;
X          IF       MainOption[0] = 'R' THEN FileName := Name;
X             ELSIF MainOption[0] = 'D' THEN IF Name[0] = 0C
X                                              THEN FileName := Path;
X                                              ELSE FileName := Name;
X                                           END;
X             ELSE  FormatFileName(FileName, Path, Name);
X          END;
X     ELSE FileName := '';
X  END;
X
X  DataName := FileName;
X
X  CommandLine[0] := MainOption[0];
X  CommandLine[1] := 0C;
X
X  Append(CommandLine, SecondaryOption);
X
X  ClearScreen;
X
X  IF TestObjectState(MOPTIONS, CRYPTBUT, Selected)
X     THEN WriteString('Enter the Encryption key ');
X          c := 0;
X          EncryptionKey := '    ';
X          LOOP Read(CReply);
X               IF CReply = CHR(0DH)
X                  THEN EXIT;
X               END;
X               Write(CReply);
X               EncryptionKey[c] := CReply;
X               INC(c);
X               IF c = 4
X                  THEN EXIT;
```

```
X               END;
X          END;
X          Append(CommandLine, EncryptionKey);
X  END;
X
X  Append(CommandLine, ' ');
X  Append(CommandLine, ArcName);
X
X  IF DataName[0] # 0C
X     THEN Append(CommandLine, ' ');
X          Append(CommandLine, DataName);
X  END;
X
X  IF AskForStdOutput
X     THEN Name := '';
X          ExButton := 0;
X      CenterMessage('We are asking for the Standard Output File Name here');
X          SetMouseState(ON);
X          FileSelectorInput(ADR(Path), ADR(Name), ExButton);
X          SetMouseState(OFF);
X          ClearScreen;
X          IF ExButton = CancelButton
X             THEN Exit(-1);
X          END;
X          IF Name[0] # 0C
X             THEN FormatFileName(FileName, Path, Name);
X                  IF FileName[0] # 0C
X                     THEN Append(CommandLine, ' >');
X                          Append(CommandLine, FileName);
X                  END;
X          END;
X  END;
X
X  MoveStr(ProgramName, ArcProgramName);
X
X  ConvertString(ProgramCommand, CommandLine);
X  EnvironmentString := '';
X
X  WriteString(ProgramName); Write(' ');
X  WriteString(CommandLine); Write(' ');
X  WriteString(EnvironmentString); WriteLn;
X
X  OldDivideByZero := PROC(GetException(5));
X  SetException(5, DivideByZero); (* It would seem that zero length files induce
X                                    a divide by zero wich Modula-2 picks up so
X                                    let's intercept with a dummy *)
X
X  Exec(loadExecute,
X       ProgramName, ProgramCommand, EnvironmentString, ExitCode);
X
X  SetException(5, OldDivideByZero);
X
X  CommandLine[0] := 0C;
```

```
X
X  IF ExitCode # 0
X     THEN WriteLn;
X          WriteString('Arc ExitCode is');
X          WriteInt(ExitCode,6);
X          Read(CReply);
X  END;
X
X  ClearScreen;
X
XEND DoArc;
X
XPROCEDURE DoProcess;
X
X  PROCEDURE InitializeObjects;
X
X  BEGIN (* InitializeObjects *)
X
X    SelectObject(MOPTIONS, UPDATEBU);
X(*
X    SelectObject(MOPTIONS, SUPPWARN);
X    SelectObject(MOPTIONS, SUPPNOTE);
X*)
X    SelectObject(MOPTIONS, HOLDBUTN);
X
X  END InitializeObjects;
X
XBEGIN (* DoProcess *)
X
X  InitializeObjects;
X
X  LOOP DeselectObject(MOPTIONS, OKBUTTON);
X       DeselectObject(MOPTIONS, CANBUTON);
X
X       CASE DoDialog(MOPTIONS) OF
X         OKBUTTON : DoMainOptions;
X                    DoSecondaryOptions;
X                    DoArc;
X       | CANBUTON : EXIT;
X       | ELSE       ;
X       END;
X  END;
X
XEND DoProcess;
X
X(* ------------------------------------------------------------------ *)
X
XPROCEDURE InitResource() : BOOLEAN ;
X
XCONST ResourceFileName = 'ARCSHELL.RSC';
X      Alert            = "[3][ ArcShell.rsc not found ][OK]" ;
X
XVAR str    : ARRAY [0..99] OF CHAR ;
```

```
X    result : INTEGER ;
X    i      : CARDINAL ;
X
XBEGIN
X
X  Appl := AESApplications.ApplInitialise() ;
X
X  str := ResourceFileName ;
X
X  AESResources.ResourceLoad(str) ;
X
X  IF ( GEMAESbase.AESCallResult = 0 )
X     THEN str := Alert ;
X          result := AESForms.FormAlert(1,str) ;
X          RETURN FALSE ;
X  END ;
X
X(* Get AES VDI handle *)
X
X  VDIHandle := AESGraphics.GrafHandle(WidthChar,HeightChar,
X                                      WidthFont,HeightFont);
X
X(* Open VDI Virtual workstation *)
X
X  FOR i := 0 TO 9 DO
X      workIn[i] := 1 ;
X  END ;
X
X  workIn[10] := 2 ; (* Set RC *)
X
X  VDIControls.OpenVirtualWorkstation(workIn,VDIHandle,workOut) ;
X
X  Colour := workOut[39] (* number of colours *) > 2 ;
X
X  AESGraphics.GrafMouse(GEMAESbase.Arrow,NIL) ; (* put pointing mouse *)
X
X  MouseState := ON;
X
X  SetMouseState(OFF);
X
X  DeselectObject(ABOUTBOX, ABOUTOKB);
X  DeselectObject(ABOUTBOX, ABOUTCAN);
X
X  IF DoDialog(ABOUTBOX) = ABOUTCAN
X     THEN RETURN FALSE;
X  END;
X
X  ClearScreen;
X
X  GetDrv(CurrentDrive);
X  GetPath(CurrentPath, 0);
X
X  Path[0] := CHR(ORD(CurrentDrive) + ORD('A'));
```

```
X  Path[1] := ':';
X  Path[2] := 0C;
X
X  Append(Path, CurrentPath);
X
X  CurrentPath := Path;
X
X  ArcProgramName := CurrentPath;
X  Append(ArcProgramName, 'ARC.TTP');
X
X  Open(ArcProgramName, 0, result);
X
X  IF result > 0
X     THEN IF NOT Close(result)
X             THEN Exit(-1);
X          END;
X     ELSE ExButton := 0;
X          Path := CurrentPath;
X          Append(Path, '\*.*');
X          Name := '';
X          CenterMessage('We are asking for the Archive Program Name here');
X          SetMouseState(ON);
X          FileSelectorInput(ADR(Path), ADR(Name), ExButton);
X          SetMouseState(OFF);
X          ClearScreen;
X          IF ExButton = CancelButton
X             THEN Exit(-1);
X          END;
X          IF Name[0] = 0C
X             THEN Exit(-2);
X          END;
X          FormatFileName(ArcProgramName, Path, Name);
X  END;
X
X  ArcPathName  := '';
X  DataPathName := '';
X
X  RETURN TRUE ;
X
XEND InitResource ;
X
X(* ------------------------------------------------------------------ *)
X
XPROCEDURE Terminate ;
X
XBEGIN
X
X  AESResources.ResourceFree() ;
X
X  VDIControls.CloseVirtualWorkstation(VDIHandle) ;
X
X  AESApplications.ApplExit ;
X
```

```
XEND Terminate ;
X
XBEGIN (* ArcShell *)
X
X  IF CreateHeap(32 * 1024, TRUE)
X     THEN IF InitResource()
X             THEN DoProcess;
X          END;
X          Terminate;
X  END;
X
XEND ArcShell.
SHAR_EOF
if test 18776 -ne "`wc -c 'arcshell.mod'`"
then
     echo shar: error transmitting "'arcshell.mod'" '(should have been 18776
characters)'
fi
echo shar: extracting "'arcshell.h'" '(426 characters)'
if test -f 'arcshell.h'
then
     echo shar: over-writing existing file "'arcshell.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'arcshell.h'
XCONST
X  MOPTIONS = 0 ;
X  ADDBUTON = 2 ;
X  EXTRACTB = 3 ;
X  MOVEBUTN = 4 ;
X  FRESHENB = 6 ;
X  UPDATEBU = 5 ;
X  DELETEBU = 7 ;
X  VERBOSEB = 8 ;
X  COPYBUTN = 10 ;
X  LISTBUTN = 9 ;
X  RUNBUTON = 11 ;
X  TESTARCI = 12 ;
X  CNVTONPM = 13 ;
X  SUPPCOMP = 18 ;
X  KEEPBACK = 17 ;
X  SUPPWARN = 19 ;
X  SUPPNOTE = 20 ;
X  CRYPTBUT = 22 ;
X  HOLDBUTN = 21 ;
X  CANBUTON = 23 ;
X  OKBUTTON = 24 ;
X  ABOUTBOX = 1 ;
X  ABOUTOKB = 4 ;
X  ABOUTCAN = 5 ;
SHAR_EOF
if test 426 -ne "`wc -c 'arcshell.h'`"
then
     echo shar: error transmitting "'arcshell.h'" '(should have been 426
```

```
characters)'
fi
#    End of shell archive
exit 0
--
usenet: .....!decvax!cwruecmp!bammi       jwahar r. bammi
csnet:       bammi@case
arpa:        bammi%case@csnet-relay
compuServe:  71515,155
```

```
From 7133061716950228156
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6b06133eebf3275f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 13:07:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!UMass.BITNET!
MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: I want a Magic Sac!
Message-ID: <861010160707.00000D3F.AIPG.MA@UMass>
Date: Fri, 10-Oct-86 16:07:07 EDT
Article-I.D.: UMass.861010160707.00000D3F.AIPG.MA
Posted: Fri Oct 10 16:07:07 1986
Date-Received: Sat, 11-Oct-86 21:14:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

How available is the Magic Sac?  Can I order one directly from
the company?   If so, can someone who has one supply me with the
address and phone number I should call to order one, or get on a
waiting list for one?

with checkbook in hand,
   Mike Cohan

MCOHAN%UMASS.BITNET@WISCVM.ARPA           MCOHAN@UMASS.BITNET
------------------------------------------------------------
Indecision is the basis of flexibility.
------------------------------------------------------------
```

```
From -2738380043845908369
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65eb36c6aed46e37,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 13:24:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!lll-crg!rutgers!caip!clyde!cbatt!
cwruecmp!bammi
```

From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: RCSFIX
Message-ID: <1603@cwruecmp.UUCP>
Date: Fri, 10-Oct-86 16:24:16 EDT
Article-I.D.: cwruecmp.1603
Posted: Fri Oct 10 16:24:16 1986
Date-Received: Sat, 11-Oct-86 20:34:04 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 336

Here is a real Gem of an utility, from CompuServe. It will let you
compile resources created with RCS (any version) right into your program.
No more hunting for the '.RSC' file. Please use it in your code.
It will help others who like to run programs from different directories,
it helps alleviate the dynamic memory allocation probelm somewhat as you don't
need rsrc_load() anymore, and it will help people like me who can never seem
to find the '.rsc' file when needed.

enjoy,

--
```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    rcsfix.c
# This archive created: Fri Oct 10 16:22:30 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'rcsfix.c'" '(7544 characters)'
if test -f 'rcsfix.c'
then
     echo shar: over-writing existing file "'rcsfix.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'rcsfix.c'
X/*  RSCFIX.C  09/16/86      Ric Clayton   */
X/*  STCREATE.c    04/20/85      ATARI         */
X/*  RSCREATE.C    05/18/84 - 11/01/84    LKW      */
X/*  Fix something 12/10/84 - 12/10/84    Derek Mui*/
X/*  Fix the  size 12/17/84               */
X/*  For ST        04/20/85      Derek Mui*/
X/*  For code resident rsc 09/16/86       Ric Clayton   */
X
X/*************************************************************************\
X*   rcsfix.doc
X*
X*  RSCFIX.C -- A resource fixer for code-resident resources.
X*
X*  RSCFIX.C  contains  a set of routines to prepare  a  code-resident
```

```
X*  resource  for use.   It was derived from STCREATE.C,  found in the
X*  RSCREATE  folder  on  the Resource Disk supplied  with  the  Atari
X*  Developer's Kit.
X*
X*  The  routines are driven by a main routine,  rsc_fix(),  which you
X*  call  during your program initialization to prepare the  resource.
X*  The  routines perform 2 distinct functions on the  resource.   The
X*  first is to change all the offsets,  generated by RSC,  to address
X*  pointers.   The  second  function  is  to change  all  the  object
X*  rectangle  coordinates  and  sizes  from  characters  to   pixels,
X*  according to the current screen resolution.
X*
X*  First  get  the download the file RSCFIX.C and put  it  with  your
X*  header  files. (e.g.  on  the compiler disk with  ALCYON,  in  the
X*  HEADERS  folder with Megamax,  in the INCLUDE folder with  Micro-C
X*  Shell and Mark Williams C, etc.)
X*
X*  Next,  create  the  C source file using RCS or RCS2.   To do this,
X*  run  the RCS program,  Open your resource file,  select the Output
X*  option  from the Global menu,  select '.H' and '.C' ('.C' & '.RSH'
X*  for RCS2),  click on OK,  and Close your resource.   Put the these
X*  files with your source file(s).
X*
X*  Then,  modify  your source file to include the resource's C source
X*  and header files and 'RSCFIX.C'.   Change your call to rsrc_load()
X*  to  rsc_fix().   Change  your call to rsrc_gaddr to load the  tree
X*  pointer from the rs_trindex[] array.
X*
X*  Limitations:   The  'adj' macro takes care of objects that are not
X*  character  aligned but seems to have trouble when the root  object
X*  of a tree is NOT character aligned.   Just make sure all your root
X*  objects  are  character  aligned  and  you  should  not  have  any
X*  problems.
X*
X*  The following code fragment illustrates the use of rsc_fix().
X*
X*  #include <obdefs.h>
X*  #include <gemdefs.h>
X*  .
X*  .
X*  .
X*  #ifndef BYTE                  / Take care of 'portability' /
X*  #define BYTE char             / macros in the '.RSH' file. /
X*  #define WORD int
X*  #define LONG long
X*  #endif
X*
X*  #include "resource.h"         / The header file from RSC   /
X*  #include "resource.rsh"       / The C source file from RSC /
X*
X*  OBJECT *tree;                 / Pointer to an object tree  /
X*  .
X*  .
```

```
X*  / global declarations /
X*  .
X*  .
X*  #include <rscfix.c>           / Code to fixup resource     /
X*
X*  void    sort(v,n)
X*  char    *v[];
X*  int     n;
X*          {
X*          .
X*          .
X*          }
X*  .
X*  .
X*  .
X*  void    do_form( rsc_tree, exit_obj )
X*  int     rsc_tree;
X*  int     exit_obj;
X*          {
X*          int     xdial, ydial, wdial, hdial;
X*          int     x, y, w, h;
X*          int     object;
X*
X*          tree = (OBJECT *) rs_trindex[ rsc_tree ];
X*
X*          form_center( tree, &xdial, &ydial, &wdial, &hdial );
X*          x = xdial + wdial/2;
X*          y = ydial + hdial/2;
X*          w = gl_wbox;
X*          h = gl_hbox;
X*          form_dial( 0, x, y, w, h, xdial, ydial, wdial, hdial );
X*          form_dial( 1, x, y, w, h, xdial, ydial, wdial, hdial );
X*
X*          objc_draw( tree, ROOT, MAX_DEPTH, xdial, ydial, wdial, hdial );
X*
X*          object = 0;
X*
X*          while( object != exit_obj )
X*                  {
X*                  object = form_do( tree, 0 ) & 0x7FFF;
X*                  handle_object( tree, object );
X*                  .
X*                  .
X*                  .
X*                  }
X*
X*          form_dial( 2, x, y, w, h, xdial, ydial, wdial, hdial );
X*          form_dial( 3, x, y, w, h, xdial, ydial, wdial, hdial );
X*          }
X*
X*  main()
X*          {
X*          if ( appl_init() >= 0 )
```

```
X*                  {
X*                  rsc_fix();
X*                  .
X*                  .
X*                  graf_mouse( M_ON, 0x0L );
X*                  graf_mouse( ARROW, 0x0L );
X*                  do_form( TREE0, OKBUTTON );
X*                  .
X*                  .
X*                  appl_exit();
X*                  }
X*          }
X*
X\*************************************************************************/
X
X/* rcsfix.c */
X#include <obdefs.h>
X#include <gemdefs.h>
X
X#ifndef BYTE                    /* Take care of 'portability' */
X#define BYTE char               /* macros in the '.RSH' file. */
X#define WORD int        /* i absolutely refuse to use */
X#define LONG long       /* silly includes like portab.h */
X#define NIL  (-1L)
X#endif
X
X#include "resource.h"          /* The header file from RSC   */
X#include "resource.rsh"        /* The C source file from RSC */
X
X
X#define adj(xywh, siz)(siz * (xywh & 0x00FF) + (xywh >> 8))
X
X
Xstatic void fix_trindex()
X{
X    int  test, ii;
X
X    for (ii = 0; ii < NUM_TREE; ii++)
X    {
X         test = (int) rs_trindex[ii];
X         rs_trindex[ii] = (long) &rs_object[test];
X    }
X}
X
Xstatic void fix_str(where)
Xlong    *where;
X{
X    if (*where != NIL)
X      *where = (long) rs_strings[(int) *where];
X}
X
Xstatic void fix_objects()
X{
```

```
X    int  test, ii;
X    int  wchar, hchar;
X
X    graf_handle( &wchar, &hchar, &ii, &ii );
X
X    for (ii = 0; ii < NUM_OBS; ii++)
X    {
X         rs_object[ii].ob_x = adj(rs_object[ii].ob_x, wchar);
X         rs_object[ii].ob_y = adj(rs_object[ii].ob_y, hchar);
X         rs_object[ii].ob_width = adj(rs_object[ii].ob_width, wchar);
X         rs_object[ii].ob_height = adj(rs_object[ii].ob_height, hchar);
X         test = (int) rs_object[ii].ob_spec;
X
X         switch (rs_object[ii].ob_type)
X         {
X              case G_TITLE:
X              case G_STRING:
X              case G_BUTTON:
X                   fix_str(&rs_object[ii].ob_spec);
X                   break;
X              case G_TEXT:
X              case G_BOXTEXT:
X              case G_FTEXT:
X              case G_FBOXTEXT:
X                   if (test != NIL)
X                      rs_object[ii].ob_spec =
X                        (char *) &rs_tedinfo[test];
X                   break;
X              case G_ICON:
X                   if (test != NIL)
X                      rs_object[ii].ob_spec =
X                        (char *) &rs_iconblk[test];
X                   break;
X              case G_IMAGE:
X                   if (test != NIL)
X                      rs_object[ii].ob_spec =
X                        (char *) &rs_bitblk[test];
X                   break;
X
X              default:
X                   break;
X         } /* switch */
X    } /* for */
X}
X
Xstatic void fix_tedinfo()
X{
Xint ii;
X
X    for (ii = 0; ii < NUM_TI; ii++)
X    {
X         fix_str(&rs_tedinfo[ii].te_ptext);
X         fix_str(&rs_tedinfo[ii].te_ptmplt);
```

```
X         fix_str(&rs_tedinfo[ii].te_pvalid);
X    }
X}
X
Xstatic void fix_frstr()
X{
X    int  ii;
X
X    for (ii = 0; ii < NUM_FRSTR; ii++)
X         fix_str(&rs_frstr[ii]);
X}
X
Xstatic void fix_img(where)
Xlong    *where;
X{
X    if (*where != NIL)
X     *where = (long) (char *) rs_imdope[(int) *where].image;
X}
X
Xstatic void fix_iconblk()
X{
X    int  ii;
X
X    for (ii = 0; ii < NUM_IB; ii++)
X    {
X         fix_img(&rs_iconblk[ii].ib_pmask);
X         fix_img(&rs_iconblk[ii].ib_pdata);
X         fix_str(&rs_iconblk[ii].ib_ptext);
X    }
X}
X
Xstatic void fix_bitblk()
X{
X    int  ii;
X
X    for (ii = 0; ii < NUM_BB; ii++)
X         fix_img(&rs_bitblk[ii].bi_pdata);
X}
X
Xstatic void fix_bb(where)
Xlong    *where;
X{
X    if (*where != NIL)
X      *where = (long) (char *) &rs_bitblk[(char) *where];
X}
X
Xstatic void fix_frimg()
X{
X    int  ii;
X
X    for (ii = 0; ii < NUM_FRIMG; ii++)
X         fix_bb(&rs_frimg[ii]);
X}
```

```
X
X
X/* this is the only 'exported' function in
X * this module.
X */
Xvoid rsc_fix()
X{
X    fix_trindex();
X    fix_objects();
X    fix_tedinfo();
X    fix_iconblk();
X    fix_bitblk();
X    fix_frstr();
X    fix_frimg();
X}
X
X#undef adj
SHAR_EOF
if test 7544 -ne "`wc -c 'rcsfix.c'`"
then
     echo shar: error transmitting "'rcsfix.c'" '(should have been 7544
characters)'
fi
#    End of shell archive
exit 0

--
usenet: .....!decvax!cwruecmp!bammi       jwahar r. bammi
csnet:       bammi@case
arpa:        bammi%case@csnet-relay
compuServe:  71515,155


From 2707180449729460647
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29bdbd2d36cc8f84
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 13:58:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!rutgers!lll-crg!lll-lcc!qantel!ptsfa!
dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: Another Magic Sac installment
Message-ID: <2854@islenet.UUCP>
Date: Fri, 10-Oct-86 16:58:21 EDT
Article-I.D.: islenet.2854
Posted: Fri Oct 10 16:58:21 1986
Date-Received: Sat, 11-Oct-86 21:56:30 EDT
References: <8610071656.AA24154@ames-nas.ARPA>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc.,  Honolulu
Lines: 17
```

In article <8610071656.AA24154@ames-nas.ARPA> fouts@AMES-NAS.ARPA writes:
>
>   Magic Sac is now in a state where I would certainly recommend it as an
>Marty

Marty:

Could you post the list of software that the Magic Sac
works with? Also, was this called the MacCartridge at one time?
and is it the one done by David Small?

Always a question...

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From -6519528237707529040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,6d452d22ae780db9
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,6d452d22ae780db9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 15:02:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!pyramid!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <439@atari.UUcp>
Date: Fri, 10-Oct-86 18:02:37 EDT
Article-I.D.: atari.439
Posted: Fri Oct 10 18:02:37 1986
Date-Received: Sun, 12-Oct-86 13:41:06 EDT
References: <6109@topaz.RUTGERS.EDU>
Organization: Atari Corp/Mktg
Lines: 26
Xref: watmath net.micro.atari8:503 net.micro.atari16:2509
Summary: It's here...

In article <6109@topaz.RUTGERS.EDU>, appelbau@topaz.RUTGERS.EDU (Marc L.
Appelbaum) writes:
>
> I remember that a while ago Neil Harris said that Atari Explorer would
> be published in July, well it's now October and no Atari Explorer.
> What's happening with it? Is it still going to be "Atari's Vioce?"

I have in my office the new issue of Atari Explorer. Newsstands should
be receiving them already, as should the existing subscribers.

As promised in the editorial, the next issue will be out in a little less
than 2 months.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 8227887171988277927
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a0727ebf83d17de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 16:58:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!husc6!think!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: URGENT>>>>>>>CAUSE OF ALL THESE PROBLEMS FOUND<<<<<<<<<<<
Message-ID: <8610102357.AA10365@ucbvax.Berkeley.EDU>
Date: Fri, 10-Oct-86 19:58:03 EDT
Article-I.D.: ucbvax.8610102357.AA10365
Posted: Fri Oct 10 19:58:03 1986
Date-Received: Sat, 11-Oct-86 20:54:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

So, Ive just got the part 5 of my posting of UniTerm back from info-atari16.
No wonder it didn't work!!
Somebody is changing [(left square bracket) to (backslash) and
] (right square bracket) to ! (exclamation mark).

Find that computer and shoot it....
Until then, will everybody refrain from posting uuencoded binarys!!!!!!

Simon Poole
K538915@CZHRZU1A.BITNET

From 8640376179886679784
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,35a8619ca5984558,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,35a8619ca5984558,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,35a8619ca5984558,start
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-10 18:36:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.mac
Subject: Avoiding 68xxx discussions
Message-ID: <2025@dalcs.UUCP>
Date: Fri, 10-Oct-86 21:36:38 EDT
Article-I.D.: dalcs.2025
Posted: Fri Oct 10 21:36:38 1986
Date-Received: Sat, 11-Oct-86 09:32:14 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 5

I guess the hardware junkies who post to every group under the sun have
decided to ignore our flames. Does anyone have a program to read news
which will automatically delete any reference to 68xxx chips that appear
in any group other than net.micro.68k? Either that, or let's set up a
moderated group that includes everything but the chip dip.

From -2145659804184116729
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d74aa1856dc4701,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 163a0f,9d74aa1856dc4701,start
X-Google-Attributes: gid163a0f,public
X-Google-ArrivalTime: 1986-10-10 19:04:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!princeton!allegra!alice!bs
From: bs@alice.UucP (Bjarne Stroustrup)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re.: C++ preprocessor wanted
Message-ID: <6174@alice.uUCp>
Date: Fri, 10-Oct-86 22:04:21 EDT
Article-I.D.: alice.6174
Posted: Fri Oct 10 22:04:21 1986
Date-Received: Sat, 11-Oct-86 21:09:35 EDT
Organization: Bell Labs, Murray Hill
Lines: 78
Xref: mnetor net.lang.c++:367 net.micro.atari16:2477

Moshe Braner writes:

> Regarding the need for a C compiler that would handle long
> identifiers, y'all might not know that Megamax recognizes
> the first 10 chars, and allows very long total length.
> That may still not be enough for C++ - I dunno.

You can survive with C++ and only 31 significant characters in your C compiler and linker. Don't try with less. If you have only 31 significant characters complain (politely) to your compiler and linker supplier. Such complaints have been known to have a positive effect - eventually.

> (and you still need to get that C++ preprocessor...)

The C++ translator, known as cfront, is a preprocessor only in the sense that the UNIX C compiler is a preprocessor for an assembler. Calling it a preprocessor is misleading.

Probably the best way of thinking of cfront is as the first pass in a classical two pass compiler: cfront does a complete syntax check, a complete type check, expands inline functions, adds temporary variables where necessary, makes implicit initializations explicit, makes implicit type coercions explicit, etc.; finally it produces an intermediate form of the program to be read by the second pass. Using C as the intermediate form is very useful for portability.

Any error messages produced by a C compiler while processing cfront output is considered a bug in either cfront or the C compiler. By definition cfront does not rely on the C compiler for anything but code generation.

> BTW: I devised a method to do object-oriented programming in C.
> Not fancy but simple, and you get inheritance and even late binding
> of sorts with high efficiency (about 100 microSecs for a typical
> invocation of a method). If anybody is interested let me know.

This made me curious about what the cost of a C++ virtual function call really is so I ran this example on a VAX11/750:

```
struct s {
     virtual f();
};

s::f() {}

main() {
     s* p = new s;

     for (int i = 100000; 0<i; i--) p->f();
}
```

It took 4 seconds; that is, about 4 microseconds per iteration.
For comparison I also ran

```
f() {}
```

```
main() {
     for (int i = 100000; 0<i; i--) f();
}
```

It took 3 seconds; that is, about 3 microseconds per iteration.
Finally I ran:

```
main() {
     for (int i = 100000; 0<i; i--) ;
}
```

It took .5 second. All timings are averages of several several runs.

These times were a bit disappointing in that I could measure the difference between a virtual function call and a ``normal'' function call but, I think, not bad. You can do a fair bit of work with a million function calls.

Maybe I ought to mention that with virtual functions there is no difference between calling one virtual function twice compared with calling two virtual functions once (many schemes for method lookup involves a slow first call followed by fast subsequent calls so that simply invoking the same method a million times would be a too easy test). No trickery, inlining, optimizing, etc. was involved.

From 2444617405934374807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f41275cb772aacc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-10 23:24:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!dumper
From: dumper@ucbcad.BERKELEY.EDU (Catherine Luo)
Newsgroups: net.micro.atari16
Subject: Dvorak Keyboard
Message-ID: <1078@ucbcad.BERKELEY.EDU>
Date: Sat, 11-Oct-86 02:24:25 EDT
Article-I.D.: ucbcad.1078
Posted: Sat Oct 11 02:24:25 1986
Date-Received: Sat, 11-Oct-86 21:14:25 EDT
Reply-To: dumper@cad.UUCP (Catherine Luo)
Organization: UC Berkeley, CAD group
Lines: 10

Does anyone know of a program that will convert the ST keyboard into a Dvorak keyboard? I seem to recall something mentioned about that here, before.
Better yet, is there any way to get an Atari with a Dvorak keyboard?

Thanks,

CL

From -2047009456476395026
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b534a17016e67135,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 07:59:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!decwrl!sphinx.dec.com!davis
From: davis@sphinx.dec.com (life is an extended practical joke...)
Newsgroups: net.micro.atari16
Subject: \"shar\" files
Message-ID: <5898@decwrl.DEC.COM>
Date: Sat, 11-Oct-86 10:59:30 EDT
Article-I.D.: decwrl.5898
Posted: Sat Oct 11 10:59:30 1986
Date-Received: Sat, 11-Oct-86 21:54:15 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 14

  Has anyone seen a utility that will extract a "shar" file into it's separate files on a ST? Perhaps the line editor with the Micro C shell is close enough to do the job. I was also curious if anyone knows of a source for raw 3.5" double sided drives. I'd like to upgrade to 2 DS drives but I don't want to spend $500. Putting a 5.25" drive on the ST was so easy I'm sure that putting a pair of 3.5" drives won't be much of a problem either.

Dave Davis

...decvax!decwrl!rhea!sphinx!davis

From 5345598657932676603
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b1b09a5c98a5394c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 08:50:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: THANKS TO PATRICK SIMON AND ALLEN KING
Message-ID: <8610111550.AA23919@ucbvax.Berkeley.EDU>
Date: Sat, 11-Oct-86 11:50:58 EDT
Article-I.D.: ucbvax.8610111550.AA23919
Posted: Sat Oct 11 11:50:58 1986

Date-Received: Sat, 11-Oct-86 21:38:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet> Just a note of thanks to Patrick
Simon and Allen King. Simon's
Organization: The ARPA Internet
Lines: 8

UUDECODE program in ST BASIC was used to decode King's Mandelbrot fractals
program (which is working fine). Looking forward to decoding the corrected
version of UniTerm when it is re-posted. This is the first time I've been
able to decode files from this net. Thanks, guys.
                            Bob Menton
                            MENTON@NRL-ACOUSTICS

From -171921395443477961
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a0727ebf83d17de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 10:50:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: URGENT>>>>>>>CAUSE OF ALL THESE PROBLEMS FOUND<<<<<<<<<<<
Message-ID: <878@cbmvax.cbmvax.cbm.UUCP>
Date: Sat, 11-Oct-86 13:50:43 EDT
Article-I.D.: cbmvax.878
Posted: Sat Oct 11 13:50:43 1986
Date-Received: Sat, 11-Oct-86 22:06:19 EDT
References: <8610102357.AA10365@ucbvax.Berkeley.EDU>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 32

In article <8610102357.AA10365@ucbvax.Berkeley.EDU> K538915@CZHRZU1A.BITNET
writes:
>So, Ive just got the part 5 of my posting of UniTerm back from info-atari16.
>No wonder it didn't work!!!
>Somebody is changing [(left square bracket) to (backslash) and
>   ] (right square bracket) to ! (exclamation mark).
>
>Find that computer and shoot it....
>Until then, will everybody refrain from posting uuencoded binarys!!!!!!
>
>
>   Simon Poole   K538915@CZHRZU1A.BITNET

This is a feature of some versions of the *BITNET* software running on IBM
systems. The problem being the the EBCDIC code never has had consistant
translations between the characters on printers, keypunches, displays and

their ascii equivalents. This resultes in a 'correct' translation and a
'useful' translation. YEECH!!!

If you are using a IBM system, you are screwed. If you're on a ascii flavor
unix system, then you can arrange to have articles posted locally uucp'ed to
a backbone or other non-ibm site. Many sites will accept postings through
rnews or rnmail even though they can't accomodate extra feeds.

The alternative is to send a diskette to some cooperative soul with better
connections or upload your program to the Atari BBS and just mention that
it's there...

--
George Robbins - now working for,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -2344861465537214804
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a0727ebf83d17de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 12:29:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: URGENT>>>>>>>CAUSE OF ALL THESE PROBLEMS FOUND<<<<<<<<<<<
Message-ID: <1604@cwruecmp.UUCP>
Date: Sat, 11-Oct-86 15:29:29 EDT
Article-I.D.: cwruecmp.1604
Posted: Sat Oct 11 15:29:29 1986
Date-Received: Tue, 14-Oct-86 05:31:37 EDT
References: <8610102357.AA10365@ucbvax.Berkeley.EDU>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 22

In article <8610102357.AA10365@ucbvax.Berkeley.EDU> K538915@CZHRZU1A.BITNET
writes:
>So, Ive just got the part 5 of my posting of UniTerm back from info-atari16.
>No wonder it didn't work!!!
>Somebody is changing [(left square bracket) to (backslash) and
>   ] (right square bracket) to ! (exclamation mark).
>
>Find that computer and shoot it....
 That is definitely an IBM computer that is doing it. EBCDIC does not
have '[' and ']' in the character set. Don't shoot
the computer, shoot IBM. Now we know what is at the root of all these
problems. BRAIN DAMAGED IBM MACHINES (once again!!).

 May i make a suggestion. Lets drop UUENCODE and adopt BinHex. There is a

good reason why people in the Mac world use it. Even IBM computers can handle the characters 'A'...'F'. If there is enough interest i will post the source for BinHex here.

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 8333995440708954306
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6653f4ff887c9599,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 18:38:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdcsu.UUCP
Path: utzoo!watmath!watnot!watdcsu!rsanders
From: rsanders@watdcsu.UUCP (Roger K. Sanderson P.Eng.)
Newsgroups: net.micro.atari16
Subject: uudecode usage?
Message-ID: <2629@watdcsu.UUCP>
Date: Sat, 11-Oct-86 21:38:08 EDT
Article-I.D.: watdcsu.2629
Posted: Sat Oct 11 21:38:08 1986
Date-Received: Sun, 12-Oct-86 05:14:31 EDT
Distribution: ont
Organization: U of Waterloo, Ontario
Lines: 22

Not having uudecode for the ST, I have been doing the decode on Unix and then Kermitting (?) the result to the ST. So far, none of my programs has worked. Should it? Is there anything inherently wrong with this approach?

I have tried this on Uniterm (which appears to have other problems anyway, judging by the news going past), arc (which I would really like to have), and Mandlbox.

Help.   (:-(As usual, please reply by mail.
--

Roger Sanderson
Electrical Engineering Dept.
University of Waterloo
Waterloo Ontario Canada
N2L 5E6

{decvax,allegra,ihnp4}!watmath!watdcsu!rsanders

From 4837658651171572787
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4bafa15f582a7b20,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-11 20:51:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: ALITE, ARC, uEMACS 3.7i, UNITERM
Message-ID: <8610120351.AA12862@Yale-Bulldog.YALE.ARPA>
Date: Sat, 11-Oct-86 23:51:57 EDT
Article-I.D.: Yale-Bul.8610120351.AA12862
Posted: Sat Oct 11 23:51:57 1986
Date-Received: Sun, 12-Oct-86 13:33:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

Some comments on the recent postings (mostly failure stories):

1. I downloaded ARC and uudecoded it on my Atari. I think the uudecoded version works correctly. At least it seemed to list, verbose-list, and extract ALITE without bombing out. However:

2. I downloaded ALITE and uudecoded it on my Atari. I then used ARC to extract ALITE from archive. All the filelengths matched what was expected. However, ALITE did *not* work. It just hung the machine. Anyone managed to get ALITE to work?

3. Our site still hasn't received part 1 of uEMACS 3.7i. I notice others with the same complaint, so will someone please repost it? Or at least send me a copy?

4. Our copy of UNITERM 1.4 doesn't work. Looks like the same error others are reporting. Anyone managed to get UNITERM to work?

I've been waiting for these programs with bated breath, so if you have any clues, please help! In particular, do tell me if you managed to get these programs to work; maybe send me your copy if you have a working version.

Thanx -- Ashwin Ram.

ARPA: Ram-Ashwin@yale
UUCP: ...{decvax, etc.}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 4688469563314535407
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce7bf532c70c94c6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 04:00:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: No Available 1040's - (nf)
Message-ID: <96100025@exunido.UUCP>
Date: Sun, 12-Oct-86 07:00:00 EDT
Article-I.D.: exunido.96100025
Posted: Sun Oct 12 07:00:00 1986
Date-Received: Tue, 14-Oct-86 07:31:04 EDT
References: <1159@batcompu.UUCP>
Lines: 12
Nf-ID: #R:batcompu:-115900:exunido:96100025:000:552
Nf-From: exunido!uh   Oct 12 12:00:00 1986

Interesting,

in Germany Atari has dropped the prices for the 1040 last week (Oct 1st)
from former DM 3298,-- ($ 1650,--) to DM 2498,-- ($ 1250,--). The rumor was
that the 1040 was sold only very bad. The new price is about DM 400,--
($ 200) below a 520 with same specs only in more parts and with separate
power supplies. The price for 520 and 260 has NOT been dropped!!!

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From -2094696012332378769
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2b976506a88779c9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 07:28:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!
SARGON
From: SARGON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: Possible explanation for "bug in megamax C".
Message-ID: <861012102827.000024FE.AOQI.MA@UMass>
Date: Sun, 12-Oct-86 10:28:27 EDT
Article-I.D.: UMass.861012102827.000024FE.AOQI.MA
Posted: Sun Oct 12 10:28:27 1986
Date-Received: Mon, 13-Oct-86 00:43:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 61

> From: imagen!turner@ucbvax.Berkeley.EDU (D'arc Angel)
> Subject: bug in megamax C
> Message-Id: <609@imagen.UUCP>
>
> here's a cute bug in megamax C:
>
> int c;
>
>   while((c = getchar()) != EOF) {
> .
> .
> .
>   }
>
> works fine but:
>
> unsigned char c;
>
>   while((c = getchar()) != EOF) {
> .
> .
> .
>   }
>
> loops infinately, the problem is that megamax generates the
> following code:
>
>   AND   #0xff,D0   ;D0 has the result of getchar
>   CMP   #-1,D0   ;ooppsss should be CMP.B
>
> ah well

I pulled out my copy of the C bible (K&R) and I found the following quote:

   On a machine which does not do sign extension, c is always positive
   because it is a char, yet EOF is negative. As a result, the test always fails
   to avoid this, we have been careful to use int instead of char for any
   variable which holds a value returned by getchar.

   The real reason for using int instead of char is not related to any
   questions of possible sign extension. It is simply that getchar must return
   all possible characters (so that it can be used to read arbitrary input) and,
   addition, a distinct EOF value. Thus its value cannot be represented as a
   char, but must instead be stored as an int.   (page 40)

This brings us to EOF. If EOF is defined in such a way that it is
represented as an integer, then you go pp 183-184 to find that "A
character or a short integer may be used wherever an integer may
be used. In all cases the value is converted to an integer." The
section on unsigned is a little vague as it only addresses integers

and their conversion to long, but the basic principle is to pad left with
zeros.
Im no expert on C; Ive not used it for that long but I think that the bug
is in the example, not the compiler.
                                                                -Steve
----
K&R is "The C Programming Language" written by Brian W. Kernighan and
Dennis M. Ritchie, copyright 1978, published by Prentice-Hall, INC,
Englewood Cliffs, New Jersey 07632.
~~~~~~~~~~~
Sargon@Umass.BITNET   Sargon%Umass.BITNET@WiscVM.Wisc.EDU

From 4899798113588085332
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ada427b68088aedf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 09:45:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM problems
Message-ID: <1346@lsuc.UUCP>
Date: Sun, 12-Oct-86 12:45:34 EDT
Article-I.D.: lsuc.1346
Posted: Sun Oct 12 12:45:34 1986
Date-Received: Sun, 12-Oct-86 13:51:54 EDT
References: <861009090656.000024EA.CALU.MA@UMass>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 22
Summary: Possibly a bad 'uuencode'

In article <861009090656.000024EA.CALU.MA@UMass> Flash@UMass.BITNET (Rick
Flashman) writes:
>Hello,
>
>   I had the same problem with UNITERM. I UUDECODED it, and when it
>runs without the RSC it runs fine, and tells me BYE,BYE. But with it,
>it freezes up, and after loading, I end up looking at a desktop screen
>with UNITERM.PRG written at the top. Any ideas?

     I decoded it last night and it didn't run. The ending of the
encode looks a bit funny to me. The last line didn't start with
an 'M' like the rest. I haven't looked over my UUDECODE source
lately, but I wonder if it has any error checking at all? If not,
then the last line (or more) could have been trash. My decoded
object ended up a bit bigger than the original at that.

Cheers! -- Jim O.
~~~~~~~~~~~

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -8464886081529574607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f5731e34bade0c86
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 11:58:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!bellcore!ulysses!mhuxr!mhuxt!houxm!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: recursion in megamax C
Message-ID: <1125@druhi.UUCP>
Date: Sun, 12-Oct-86 14:58:42 EDT
Article-I.D.: druhi.1125
Posted: Sun Oct 12 14:58:42 1986
Date-Received: Tue, 14-Oct-86 05:00:08 EDT
References: <36100001@pbinfo.UUCP> <12066@watnot.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 42

In article <12066@watnot.UUCP>, cgoudeseune@watnot.UUCP writes:
> []
>
> I've ported a C program to draw Julia sets (skins of fractal dragons) from
> a vax here at U of W to my 1040st. It uses recursion, and on the vax this
> goes about 500 to 3000 levels deep, depending on what values i feed to the
> program. Unfortunately, when i moved it to my ST, it died after about 170
> nested recursive calls. Further experimentation indicated that only about
> 7800 bytes is available for local variables, parameters, and return addresses
> on the stack from megamax C. The manual claims that if you want more stack
> space, you can modify the STACKSIZE constant in \megamax\init.c; I changed it
> to 64000 bytes and a few other values, but to no avail.
> Help!
> Does anyone out there know how to make the stack as big as you want?
> It seems to me that some other code internal to megamax didn't realize
> i'd changed STACKSIZE from the original 8K, if that's any help.
>
>   Thanks in advance,
>   Camille.

Camile,

After you changed the init.c program and compiled it, are you sure the new
verion was used when you linked your program? To use a new init you must
do one of two things:

1) Specify init.o on the command line to the linker along with the other

.o's for your program. This will tell the linker that you want to override the init.o found in the system library.

2) Replace the init.o in the 'syslib' library with your altered one. Now the altered one will be used automatically.

If you already tried these two methods and it still doesn't work, then I'm not sure what the problem is. If this is the case, let me know the answer when you find out! :)

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80241
(303)538-4954
ihnp4!drutx!druhi!lbl

From -7288872697320403567
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2774a9b6c8ee30d7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 16:20:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!chinet!cabbie
From: cabbie@chinet.UUCP (Richard Andrews)
Newsgroups: net.micro.atari16
Subject: emacs part 1
Message-ID: <621@chinet.UUCP>
Date: Sun, 12-Oct-86 19:20:01 EDT
Article-I.D.: chinet.621
Posted: Sun Oct 12 19:20:01 1986
Date-Received: Mon, 13-Oct-86 06:06:32 EDT
Organization: chinet, Public Access UN*X, Chicago, IL
Lines: 7

Would someone re-post part 1 of emacs. We did not receive it at this site. (chinet)

Thanks,
Rich Andrews
...ihnp4!chinet!cabbie

From -6678957627213588985
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa48a727a2d8e5a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 18:19:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16

Subject: Time and Date prg
Message-ID: <8610130119.AA01495@ncsc.ARPA>
Date: Sun, 12-Oct-86 21:19:47 EDT
Article-I.D.: ncsc.8610130119.AA01495
Posted: Sun Oct 12 21:19:47 1986
Date-Received: Mon, 13-Oct-86 05:50:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Does anyone know of a PD time and date program that works with the mono monitor? Right now I have the Time/Date 1.0 by Matthew R. Singer dated 10/25/85. Sometimes after I enter the date it resets the computer and prompts again (I have it in my AUTO folder). Any comments/uuencoded prgs (!!!) are encouraged.

Jim Moore

From 575946116957370555
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa48a727a2d8e5a4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-12 18:45:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!NADC.ARPA!kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: Time and Date prg
Message-ID: <8610130152.AA12596@ucbvax.Berkeley.EDU>
Date: Sun, 12-Oct-86 21:45:47 EDT
Article-I.D.: ucbvax.8610130152.AA12596
Posted: Sun Oct 12 21:45:47 1986
Date-Received: Mon, 13-Oct-86 06:03:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Jim
Batteries Included has made BICLOCK.PRG available from Compuserve. It is also included as part of THUNDER V1.3.. I tried The Compuserve version with the Mono Monitor in an AUTO folder and it got hung up. However, The version with THUNDER works fine. It looks like there is more to the AUTO folder than meets the eye!!!

Ron Kushnier
kushnier@nadc.arpa

From -6114767715842115764
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,67caef7c0c994b17,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 04:20:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: MicroEmacs 3.7i
Message-ID: <MDCG.WAYNE.12246443018.BABYL@MIT-OZ>
Date: Mon, 13-Oct-86 07:20:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12246443018.BABYL
Posted: Mon Oct 13 07:20:00 1986
Date-Received: Tue, 14-Oct-86 05:05:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Three questions regarding MicroEmacs 3.7i:

     (1) What commands will the Parameters Box accept when opening the program?

     (2) In MicroEmacs 3.6, the command ^X C opened a path to an MS-DOSlike command processor called COMMAND.TOS. In the new version, trying to invoke the command processor produces the warning, "Not in TOS." Is this easily fixable?

     (3) Is it possible to store default settings for mode, fill column, etc. in an init file (perhaps the rc file)?

Thanks,

Wayne McGuire
(wayne@oz.ai.mit.edu)

From -7366716636037300148
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36703fa808fb47e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 05:35:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!bellcore!ulysses!sfmag!sfsup!mhuxm!mhuxn!mhuxl!cbz
From: cbz@mhuxl.UUCP (Craig B. Ziemer)
Newsgroups: net.micro.atari16
Subject: ARC and ALITE comments
Message-ID: <1098@mhuxl.UUCP>
Date: Mon, 13-Oct-86 08:35:22 EDT
Article-I.D.: mhuxl.1098
Posted: Mon Oct 13 08:35:22 1986
Date-Received: Tue, 14-Oct-86 07:12:10 EDT
Organization: AT&T Bell Laboratories, Reading, PA.

Lines: 18

I guess I'll add my two cents to the ARC/ALITE saga. I was able to
successfully unpackage ARC and ALITE, uudecode and download to my ST.
Then I ran ARC.TTP on ALITE.ARC and got the proper files. When I
double-clicked on ALITE.PRG I saw the introductory slide with instruc-
tions on how to continue and heard some beautiful Bach-like music.
However, when I tried to continue (with the "N" or "S" commands)
nothing happened. So my question is, does 1ALITE.PIC contain only
the intro slide or is there more? The music was impressive, but I
expected to see more. The only possible problem I noticed was that
Xmodem told me it was transferring 192 blocks for ALITE.ARC, but 193
were actually transferred. Any suggestions Rich, or anyone else???

Craig Ziemer
mhuxl!cbz

P.S. FormatPlus is GREAT!!!

From -6813717142452759541
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4137b28767c8b0b0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 06:06:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (SH-204 hard disk owners - (nf)
Message-ID: <96100026@exunido.UUCP>
Date: Mon, 13-Oct-86 09:06:00 EDT
Article-I.D.: exunido.96100026
Posted: Mon Oct 13 09:06:00 1986
Date-Received: Fri, 17-Oct-86 08:04:48 EDT
References: <432@atari.UUCP>
Lines: 28
Nf-ID: #R:atari:-43200:exunido:96100026:000:1430
Nf-From: exunido!uh   Oct 13 14:06:00 1986

>it before letting it out again. It will be distributed *soon* on
>Compuserve, on the Atari BSS, and to dealers. [Not on usenet, though,
>for obvious reasons.]

What reasons, pardon. We developers here in Europe would be also very
interested in such updates, because the communication between Atari (US)
and for instance Atari (Germany) is not even poor, it is lousy.
We get the update here always half a year later or even longer.
Last week I heard, that the official version of GDOS is published to
the developers in the US over a month ago, and here in Germany:
The German subsidary even doesn't know, that something like that exists,

though Atari himself always proudly tells, that the German market is one of the best for the ST series.
But the very best is:
About a year ago I was flamed very much by members of Atari (US) and other people, because I have posted the CP/M-Emulator (here in Germany public domain) to usenet. Now neil@atari says that Atari (US) will put this emulator also into the public domain --- and now he asks us kids here in Europe, how to put the utilities onto CP/M disks. You must decide at Atari: if you want to take, you also must give. Some comment on this from Atari (Neil, Landon) would be very nice.

Greetings

Uwe Hoch
Computer Science Department, University of Dortmund
4600 Dortmund 50, P.O. Box 500500, W.-Germany
E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From 5155424967090193011
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,498315c73a371c51,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 08:14:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!nike!ucbcad!ucbvax!XEROX.COM!Opstad.osbunorth
From: Opstad.osbunorth@XEROX.COM
Newsgroups: net.micro.atari16
Subject: CZ-101 MIDI questions
Message-ID: <861013-081504-233@Xerox>
Date: Mon, 13-Oct-86 11:14:29 EDT
Article-I.D.: Xerox.861013-081504-233
Posted: Mon Oct 13 11:14:29 1986
Date-Received: Tue, 14-Oct-86 06:08:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

Having recently bought a CZ-101 and hooked it to my ST, I'm in a "transport of musical delight"! However, the documentation that comes with the synth is quite awful, and lacks certain information. Since the CZ-101 is supposed to be a hot seller among ST fans, I'm hoping someone out there can answer these questions:

1) For "system exclusive" MIDI messages, what is Casio's manufacturer ID code?

2) Also for "system exclusive" MIDI messages, the manual lists the various names of messages that the synth responds to, but not their encodings. Does anyone know the exact sequence of bytes and their values?

By the way, if you're looking for a good book on MIDI, one has finally come out. "MIDI for Musicians", by Craig Anderton, is a VERY well-written and clear presentation of MIDI and how it works. I recommend it! (standard disclaimer here)

Thanks for your time!

Dave Opstad (Opstad.osbunorth@Xerox.COM)

From 8466261483115810005
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d247352be6e1d3e8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 09:18:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!cornell!batcomputer!wayne
From: wayne@batcomputer.TN.CORNELL.EDU (wayne smith)
Newsgroups: net.micro.atari16
Subject: Re: ARCSHELL part 1 or 2
Message-ID: <1205@batcomputer.TN.CORNELL.EDU>
Date: Mon, 13-Oct-86 12:18:57 EDT
Article-I.D.: batcompu.1205
Posted: Mon Oct 13 12:18:57 1986
Date-Received: Fri, 17-Oct-86 07:20:02 EDT
References: <1600@cwruecmp.UUCP>
Reply-To: wayne@batcomputer.UUCP (wayne smith)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 4
Summary: severely truncated

Our part 1 was truncated to 60 lines. Can you repost?

Thanks

From 7371920598667384402
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35bd3d1a675103c3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 11:42:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!SRI-NIC.ARPA!DENNETT
From: DENNETT@SRI-NIC.ARPA (Steve Dennett)
Newsgroups: net.micro.atari16
Subject: Atari KERMIT
Message-ID: <12246523446.36.DENNETT@SRI-NIC.ARPA>
Date: Mon, 13-Oct-86 14:42:29 EDT
Article-I.D.: SRI-NIC.12246523446.36.DENNETT
Posted: Mon Oct 13 14:42:29 1986

Date-Received: Tue, 14-Oct-86 06:21:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Hello,

a co-worker is looking for KERMIT to run on his ST. Does anyone know
of someone who is distributing KERMIT on disk for the ST (or any other
public domain comm program that includes the KERMIT protocol)? Thanks
for the help.

Steve Dennett
dennett@sri-nic.arpa

From 6125382271230399201
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77ae046b2820bbbe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 11:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: 520 memory upgrade problems
Message-ID: <8610131914.AA25333@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 14:51:00 EDT
Article-I.D.: ucbvax.8610131914.AA25333
Posted: Mon Oct 13 14:51:00 1986
Date-Received: Tue, 14-Oct-86 06:27:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

Could someone give me some ideas about what to try to salvage my memory
upgrade? I have a 520 with the rev C board. I followed the instructions
for the upgrade carefully and am reasonably confident that I have not made
any mistakes. I removed the capacitors, piggybacked the new ram chips,
reinstalledthe capacitors, ran the new cas low and cas high buses and the
new ras bus, installed the 68 ohm resstors in series with those lines to
the mmu. The next part of the upgrade called for the cutting of the old
cas and ras lines to the original memory bank and then remaking the
contacts with a 68 ohm resistor in series. On the rev C board, atari has
already cut these traces and installed 68 ohm resistors on the cas lines
at the ram chips. kkSo I just cut the ras line and added the 68 ohm resistor,
thankig atari for making my job a little easier. I checked all resistances
from the mmu to the appropriate bus and all looked great. When I rebooted
my 520 everything looked fine except the new memory was not there! So I
used basic to check things out. I have memory that I can write to from
$80000 to $9FFFF. All bits in high and low addresses work swell. From

$A0000 on up I get $48 and $80 in odd and even (or even and odd) addresses
So it appears that the computer is willing to read and write from the low
128k or the addition but not above that. All of the base 512k is there.
Could someone please send me some ideas such as how the mmu recognizes whether
the second bank is made out of 64k, 25k or 1M drams? Thanks very much.

peter lorraine
qbzj@cornella.bitnet

From 9205347103840325905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ada427b68088aedf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 11:52:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!husc6!husc4!moews
From: moews@husc4.harvard.edu (david moews)
Newsgroups: net.micro.atari16
Subject: The last line of UUENCODEd files
Message-ID: <389@husc6.HARVARD.EDU>
Date: Mon, 13-Oct-86 14:52:15 EDT
Article-I.D.: husc6.389
Posted: Mon Oct 13 14:52:15 1986
Date-Received: Tue, 14-Oct-86 06:10:53 EDT
References: <861009090656.000024EA.CALU.MA@UMass> <1346@lsuc.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: moews@husc4.UUCP (david moews)
Organization: Harvard Science Center
Lines: 31

In article <1346@lsuc.UUCP> jimomura@lsuc.UUCP (Jim Omura) writes:
>
> ...I decoded it [UNITERM] last night and it didn't run. The ending of the
>encode looks a bit funny to me. The last line didn't start with
>an 'M' like the rest....

    The last (nonblank) line of UUENCODEd files doesn't have to start with an
'M'; the ASCII code of the first character in each line is 32 + the number of
bytes that the line will decode to (so 'M' = 45 bytes, after decoding). Thus,
if the total number of bytes in the original file is not a multiple of 45,
the last nonblank line will be shorter than normal and will start with some
character other than an 'M'. Here's an example: I took the following 2 lines
(93 bytes)

This is a test file to demonstrate UUENCODE.
This is the second, and last, line of the file.

and UUENCODEd them; the result is

```
begin 644 file
M5&AI<R!I<R!A('1E<W0@9FEL92!T;R!D96UO;G-T<F%T92!5545.0T]$12X*
M5&AI<R!I<R!T:&4@<V5C;VYD+"!A;F0@;&%S="P@;&EN92!O9B!T:&4@9FEL
#92X*
```

end

. The '#' in the last line indicates that after the 90 bytes contained in the first two lines, there are 3 bytes left over.
--
David Moews   moews@husc4.harvard.edu   ...!seismo!harvard!husc4!moews

From -7446397960644888408
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d452d22ae780db9
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,6d452d22ae780db9
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-10-13 12:14:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <6202@topaz.RUTGERS.EDU>
Date: Mon, 13-Oct-86 15:14:53 EDT
Article-I.D.: topaz.6202
Posted: Mon Oct 13 15:14:53 1986
Date-Received: Tue, 14-Oct-86 06:11:47 EDT
References: <6109@topaz.RUTGERS.EDU> <439@atari.UUcp>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8
Xref: watmath net.micro.atari8:507 net.micro.atari16:2529
Cc: appelbau

Thanks Neil. I just got the new issue in the mail the other day. It really good!
Now I know why it takes you a while to answer our questions.
How about giving some of us Net users a tours of Atari??
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbau

From 3857486498784043096
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 15:10:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cgoudeseune

From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <12069@watnot.UUCP>
Date: Mon, 13-Oct-86 18:10:12 EDT
Article-I.D.: watnot.12069
Posted: Mon Oct 13 18:10:12 1986
Date-Received: Tue, 14-Oct-86 04:54:50 EDT
References: <2939@sdcc6.ucsd.EDU> <397@mntgfx.mntgfx.UUCP>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 13
Keywords: Atari C-source
Xref: watmath net.lang.c++:371 net.micro.atari16:2519
Summary: possible solution

I hear all these complaints that most C's only support 8-character
identifiers, and the C++ preprocessor *needs* thirty-two.

Say we use only 7-character letters-only identifiers.
26^7 = 8 031 810 176.
Seeing as how any C++ preprocessor is unlikely to produce over 8 billion
different identifiers, is there a good reason why a little filter couldn't
be inserted between C++'s output and C's input to shrink the size of these
huge identifiers to a manageable size.
Sure, it's slow; we've got a 8 MHz 68000. Sure, it's a kludge; it works!
(I hope)

Camille

From -7168407902492326642
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,774e18c0ce32695d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 15:25:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cgoudeseune
From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.micro.atari16
Subject: Re: Resource Construction ... ?
Message-ID: <12070@watnot.UUCP>
Date: Mon, 13-Oct-86 18:25:51 EDT
Article-I.D.: watnot.12070
Posted: Mon Oct 13 18:25:51 1986
Date-Received: Tue, 14-Oct-86 04:55:29 EDT
References: <456@sask.UUCP>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 6

Summary:

[]
My megamax disks came with a readme file that says MMRCP's "merge"
facility isn't yet implemented (i.e. it ignores that selection.)
Ditto for "abandon". It says nothing about "info", though.

     Camille

From -3682966501275764827
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,524ed0803ba4a1a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 16:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: This is getting Ridiculous
Message-ID: <8610132351.AA00633@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 19:31:00 EDT
Article-I.D.: ucbvax.8610132351.AA00633
Posted: Mon Oct 13 19:31:00 1986
Date-Received: Tue, 14-Oct-86 06:48:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

Date: 13 October 1986, 15:29:05 PST
From: Kevin J. Burnett   x3330   <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD.EDU>
Subject: This is getting Ridiculous
Forwarded-from: KJBSF%SLACVM.BITNET@WISCVM.WISC.EDU
Subject: This is getting ridiculous

Over the period Thursday-Sunday, I received about 20000 lines of mail from
the info-atari16 mailing list, most of it uuencoded programs that I neither
needed nor wanted. I don't enjoy having to wade through all this junk,
especially when I have a program that automatically concatenates all of the
atari messages into one file. There is no way to differentiate between a
1500 line program and a regular message. It would be nice if one of the
following could be done:
a) A separate list for programs is created
b) we adopt some special Subject: line to differentiate programs
c) we stop postingg such long things over the net

I don't enjoy getting 9000 lines of proff or whatever and then hearing in
another message that the whole pile doesn't work, and I'm sure the people
who run the system here don't like having my reader jammed like this.

From -5427652233324893513

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5c4e79ddbcb357b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 17:11:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!LLL-MFE.ARPA!
PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: uEmacs3.7i
Message-ID: <8610140050.AA01925@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 20:11:00 EDT
Article-I.D.: ucbvax.8610140050.AA01925
Posted: Mon Oct 13 20:11:00 1986
Date-Received: Tue, 14-Oct-86 06:48:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Question on uE3.7i. What does the command 'add-global-mode' do? I had assumed
this was to change the text color, but nothing happens. Also note that mode
blue is no longer defined.

--Pat

From 4070884338618492735
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c920834c127e16ff,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 17:24:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!sri-spam!sri-unix!hplabs!tektronix!uw-
beaver!uw-june!entropy!dataio!pilchuck!apcisea!hays
From: hays@apcisea.UUCP (JOHN HAYS)
Newsgroups: net.micro.atari16
Subject: ST RS-232 Handshake
Message-ID: <131@apcisea.UUCP>
Date: Mon, 13-Oct-86 20:24:47 EDT
Article-I.D.: apcisea.131
Posted: Mon Oct 13 20:24:47 1986
Date-Received: Fri, 17-Oct-86 09:17:04 EDT
Organization: Apollo Computer, Inc, Bellevue, WA
Lines: 13
Keywords: 1040 ST RS-232 HARDWARE HANDSHAKE

This is my first ever posting!

Has anyone been able to get hardware flow control to work
on the 1040ST?

Code sample 'C' or 'OSS PASCAL' would be appreciated.

Thanks -

John Hays, KD7UW (NAPRA)
{uw-beaver!tikal!pilchuck|decvax!wanginst!apollo}!apcisea!{hays|kd7uw}
CS: 72725,424
Genie: KD7UW

From -4389763490521129945
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,48434b27c69f7530,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 17:32:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.gatech.EDU (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: Re: emacs 3.7i how to define a macro in the .RC file?
Message-ID: <2371@gitpyr.gatech.EDU>
Date: Mon, 13-Oct-86 20:32:35 EDT
Article-I.D.: gitpyr.2371
Posted: Mon Oct 13 20:32:35 1986
Date-Received: Tue, 14-Oct-86 07:06:52 EDT
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology
Lines: 24

Can someone tell me how to define a macro in a emacs.rc file for the
recently posted emacs 3.7i? I've tried:

```
start-macro
ksdf;lksdf sdksdflk sdf  ;; <-- text to insert...
end-macro
universal-argument
1
store-macro
```

unfortunately it complains about an unknown function...

BTW, this is a great implementation! the cursor follows the mouse, 40 lines
in mono, yippee!

=-=
No problem is so formidable that you can't just walk away from it.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,

uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From 149161126968500622
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc6e3d4544022b40,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 18:08:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!rutgers!lll-crg!lll-lcc!unisoft!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: net.micro.amiga
Message-ID: <2863@islenet.UUCP>
Date: Mon, 13-Oct-86 21:08:49 EDT
Article-I.D.: islenet.2863
Posted: Mon Oct 13 21:08:49 1986
Date-Received: Wed, 15-Oct-86 20:30:06 EDT
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 33

To: net.micro.atari16, net.micro.amiga
Subject: Passing Thru...
Organization: Islenet Inc., Honolulu
Cc:
Bcc:

This from Personal Computing, Oct. '86:

10 Unexpected Personal Computing Flops
or Under-Achievers

1) PCjr
2) Lisa
3) IBM Portable
4) Jazz
5) Apple III
6) Tandy 2000
7) DEC Rainbow
8) VisiON
9) Amiga
10) Ovation

Does this tell us something? Does anyone know (preferable not
connected with Atari or Commodore) what the *actual* figures
are for machines (ST vs. Amiga) are thru 3rd quarter '86?

I shall change my name to George... curious George, that is.

Aloha,

Jonathan Spangler

UUCP: {ihnp4,vortex,dual}!islenet!jons
CIS: 71560,322

From -3088439090035928909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8dadfa872b8178e3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 18:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Scribble-->Proff (v.2) part 1 of 3
Message-ID: <8610140240.AA04231@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 21:10:00 EDT
Article-I.D.: ucbvax.8610140240.AA04231
Posted: Mon Oct 13 21:10:00 1986
Date-Received: Tue, 14-Oct-86 07:12:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 378

```
#       This is a shell archive.
#       Remove everything above and including the cut line.
#       Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:    Shell Archiver
#       Run the following text with /bin/sh to create:
#       readme
#       scribe.h
#       scribe.c
#       scribe.mac
# This archive created: Mon Oct 13 21:03:36 1986
sed 's/^x//' << \SHAR_EOF > readme
xScribe-->Proff v. 2
x
xThis is an update of my preliminary posting and includes a number of
xenhancements.  The program now supports "devices" via the @device() command.
xThere is an array of structures in device.c that can be edited to add more
xdevices (only Brother/Diablo daisy wheel printers are fully supported).  The
xfile var.c includes the dynamic memory allocator, lookup, and installation
xfor the string, value, and index commands.  The chapter and section commands
xalso use the variable table maintained by the routines in var.c.
x
xTwo new commands in device.c allow you to modify the pitch and line height
xon your printer, assuming it has minimum horizontal and vertical movement
xstrings.  They take integers as arguments in the style of WordStar (i.e.
x@pitch(10) sets your printer to 12 pitch, and @height(8) sets the line
xheight to 6 lines per inch.  The @sub(text) command creates a subscript out
xof 'text' and @super(text) superscripts the text.  If your printer is
xdefined as a DEVPLN (see scribe.h) these commands turn into null strings.
```

xIf, on the other hand, you have a DEVFNCY, the program will insert the
xcontrol codes that you have defined for your printer for the commands (and
xthe @u() @b() commands).
x
xCaveats:
x
xSince device.c has the actual ASCII printer codes in it, you may need
xto device.c to repair any mailer changes.
x
xUsing the @u() and @b() commands changes your line length in such a way that
xproff can no longer justify the line fully. That's why this program forces
xproff to default to .nj rather than .ju.
x
xCurrently the index command simply writes the indexed word to a file with
xthe name infilename.NDX and does nothing more. This is as far as the
xpreprocessor can go because it doesn't know about proff's final page
xnumbers.
x
xThe @enumerate() command does not always format the enumerated environment
xas desired; it indents the paragraph by one character.
x
xWhile the @need() command always gets through, proff disregards it at times.
x
xThe size of a single environment is limited to 32K simply because I was too
xlazy to figure out a dynamic allocation function for lines. It just uses a
xgiant static array, much larger than most should need. But forgetting to
xclose an environment can lead to overwriting a buffer if your file is large
xenough (probably about 30K or so). I've used it on 50K texts without
xproblem, but I'm rather religious about fences since GNU_EMACS understands
x@environment{} names.
x
xChapter, section, and string variable values are stored in static arrays
xinside a circularly linked list of variable structures. Values are limited
xto 255 characters, but no checking is done. Labels are limited to 31
xcharacters.
x
xThis is a one pass preprocessor. Environments can be nested, but string
xvariables cannot contain references to other variables. Example
x@string(name="Neil") @string(atarirep=name) "The Atari rep is
x@value(atarirep)" will not work as expected.
x
xThe @include(file) command does not really include the file; it just tells
xproff to do so. If the included file also contains directives for this
xprogram, it will need to be processed before proff includes it.
x
xThe argv parser creates an outfilename based on the infilename. Example if
xoutfile == FILE.MSS, the program will write out a file FILE.PRF to the same
xdrive and directory. If the @index() commands shows up, the file FILE.NDX
xwill be created. The program only uses four files because it frees up the
xstandard I/O files to use putchar(), getchar(), etc. for I/O.
x
xIt also looks into the STREAM structure, so if you have a braindamaged
xcompiler that doesn't let you find stdout->ptr you'll have to repair

```
xlastchar in envir.c.
x
xComing attractions:
x
x@case{atarirep,
x
xNeil, "Write this out to the file."
x
xJohn, "But don't write this."
x
xNULL, "[]".
x
xelse, "Got no name for atarirep."}
x
x@style(linewidth 39 pica) Style commands aren't too useful if you can't use
xpicas, micas, and ems.
x
x@time(GMT) (i.e. insert time using GMT standard.  This assumes you've set
xthe default time and the formatter time flag with the @style(time EST).)
x
x@note(Make this a fottnote, endnote, or inline note)  Endnote and inline are
xeasy, but footnote is real hard.
x
xI hope someone finds this program useful.
x
xRobert Royar
x
xrdroya01@ulkyvx.bitnet
x
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > scribe.h
x/* Header for scribe modules */
x#include <stdio.h>
x
x#define MAXTEXT 32768  /* an array to hold environment for text */
x#define DEFLFT 0       /* default left margin */
x#define DEFRHT 65      /* default right margin */
x#define DEFSPC 1       /* default line spacing */
x#define DEFPRN "plain" /* default printer name */
x#define DEFFIL ".nj\n.ap"      /* default fill parameters */
x#define DEFPGL 66      /* default page length */
x#define DEVPLN 1       /* our output device is plain */
x#define DEVFNCY 0      /* our output device is fancy */
x#define VARNUM 2       /* the variable is a number */
x#define VARSTR 1       /* the variable is a string */
x#define VARNDX         0       /* the variable is indexed  */
x#define NVARTBL        128     /* static arrays for variables */
x
xextern int pglen;      /* current page length */
xextern int rghmrg;     /* current right margin */
xextern int lftmrg;     /* current left margin */
xextern int lspcng;     /* current line spacing */
xextern int pmrg;       /* current paragraph margin (.ti) */
```

```
x
x/* variables mostly assigned in var.c */
x
xextern char curvlbl[32];       /* current variable label       */
xextern char cursval[256];      /* value of string or index variable */
xextern int curnval;            /* current int variable */
xextern int pagenum;            /* useless page number var for later */
xextern int chapnum;            /* chapter variable for @chapter() */
xextern int sectnum;
xextern char title[256];
xextern char chaptitle[256];
xextern char secttitle[256];
x
xextern char text[MAXTEXT];
xextern int fence;
xextern char command[15];
xextern unsigned int txtind;
xextern int ndxfile;
xextern FILE *ndxfp;
xextern char ofname[80];
xextern char ifname[80];
xextern char *strcat(), *strcpy(), *rindex();
xextern FILE *fopen(), *freopen();
x
x/* printer strings assigned in device.c */
x
xextern char prnname[15];
xextern char bdon[15];
xextern char bdoff[15];
xextern char ulon[15];
xextern char uloff[15];
xextern char pinit[15];
xextern char preset[15];
xextern char ptch[15];
xextern char lhght[15];
xextern int  devflag;   /* type of current output device */
x
x/* structure used by var.c functions to create and maintain a variables'
x * list.
x */
x
xtypedef struct VARTBL  {
x       struct  VARTBL  *v_fp;
x       struct  VARTBL  *v_bp;
x       char    label[32];
x       char    svalue[256];
x       int     nvalue;
x       int     type;
x}      VARTBL;
x
xextern VARTBL  *valloc(), *getvar();
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > scribe.c
```

```
x/* scribe.c preprocessor for proff to convert scribble files to proff */
x
x#include "scribe.h"
x#include <ctype.h>
x
xint pglen = DEFPGL;    /* current page length */
xint rghmrg = DEFRHT;   /* current right margin */
xint lftmrg = DEFLFT;   /* current left margin */
xint lspcng = DEFSPC;   /* current line spacing */
xint pmrg = DEFLFT;     /* current paragraph margin (.ti) */
x
xchar command[15];      /* current command name */
xint fence;             /* expected terminating fence for current env. */
xunsigned int txtind;   /* index to current place in text array */
xchar text[MAXTEXT];    /* an array to hold all the text you want */
xchar ofname[80];
xchar ifname[80];
x
xmain(argc,argv)
xint argc;
xchar *argv[];
x{
x
x       register int c;
x
x       fprintf(stderr,"Scribble --> Proff %c 1986\n\n",0xbd);
x       if (argc < 2) {
x               fprintf(stderr,"usage: SCRIBE infile\n");
x               exit(1);
x       }
x       makename(argv[1]);
x       if (freopen(ifname,"r",stdin) != stdin) {
x               fprintf(stderr,"SCRIBE cannot read from file %s\n",ifname);
x               exit(1);
x       }
x       if (freopen(ofname,"w",stdout) != stdout) {
x               fprintf(stderr,"SCRIBE cannot write to file %s\n",ofname);
x               exit(1);
x       }
x       initdef();
x       initvar();
x       fprintf(stderr,"Formatting: %s\nOutput : %s\nDevice: %s\n",
x       ifname,ofname,prnname);
x       while ((c=getchar())!=EOF) {
x               if (c == '@')   {
x                       fence = getcmd(TRUE);
x                       execute(TRUE);
x               }
x               else
x                       putchar(c);
x       }
x       if (ndxfile == YES)
x               fclose(ndxfp);
```

```
x       exit(0);
x}
x
xmakename(name)
xchar name[];
x{
x       char *ptr;
x
x       strcpy(ifname,name);
x       strcpy(ofname,name);
x       if ((ptr = rindex(ofname, '.')) != NULL)
x               ptr[0] = '\0';
x       strcat(ofname,".PRF");
x       return;
x}
x
xinitdef()
x{
x       printf(".po %d\n.rm %d\n.ls %d\n.pl %d\n",lftmrg,rghmrg,lspcng,pglen);
x       puts(DEFFIL);
x       strcpy(prnname,DEFPRN);
x       setdvc(TRUE);
x       return;
x}
x
xgetcmd(f)
xint f;
x{
x       register int c;
x       register int i;
x       i = 0;
x
x       switch (f)
x               {
x               case TRUE:      {
x                               while ((c=getchar())!=EOF)
x                                       if (isalpha(c)){
x                                               command[i++] = c;
x                                       }
x                                       else
x                                               break;
x                               command[i] = '\0';
x                               break;
x                       }
x               case FALSE:     {
x                               while ((c=text[++txtind]))
x                                       if (isalpha(c)){
x                                               command[i++] = c;
x                                       }
x                                       else {
x                                               ++txtind;
x                                               break;
x                                       }
```

```
x                               command[i] = '\0';
x                               break;
x                       }
x               default:        c = -1; break;  /* basic error */
x               }
x       /* return closing fence */
x       if (c == (int)'[')
x               return((int)']');
x       else if (c == (int)'(')
x               return((int)')');
x       else if (c == (int)'{')
x               return((int)'}');
x       else if (c == (int)'<')
x               return((int)'>');
x       else
x               return(-1);     /* error */
x}
x
xgettext()
x{
x       register int c;
x
x       txtind = 0;     /* reset index */
x
x       while ((c=getchar())!=EOF) {
x               if (c == fence)
x                       break;
x               text[txtind++] = c;
x       }
x       text[txtind] = '\0';
x       txtind = 0;     /* reset counter for next function */
x       return(c);      /* c == closing fence */
x}
x
xerror()
x{
x       fprintf(stderr,"\nEnvironment not closed : %s\n", command);
x       return;
x}
x
xfatal()
x{
x       fprintf(stderr,"Fatal error in style command.\nCannot parse:\n%s",text);
x       exit(1);
x}
x
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > scribe.mac
x.! ----------- macros ----------
x.! sect - produce a bold section header and
x.! enter a contents line. First parameter
x.! is indent level for contents line.
x.define sect
```

```
x.sp
x.cl $1 $2 $3 $4 $5 $6 $7 $8 $9
x$2 $3 $4 $5 $6 $7 $8 $9
x.en
x.!
x.! macros to create a point-form lists.
x.!------------
x.define list
x.br
x.ls 1
x.in +6
x.en
x.!------------
x.define item
x.br
x.ls 1
x.ti -3
x$1
x.en
x.!------------
x.define nolist
x.in -6
x.ls 2
x.en
x.!------------
SHAR_EOF
#       End of shell archive
exit 0
%NONAME-W-NOMSG, Message number 00000000
%SYSTEM-F-NOLOGNAM, no logical name match


From -2999559075188995499
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c6dc1b7801f261bd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 18:12:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Scribble-->Proff (v.2) part 2 of 3
Message-ID: <8610140449.AA06375@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 21:12:00 EDT
Article-I.D.: ucbvax.8610140449.AA06375
Posted: Mon Oct 13 21:12:00 1986
Date-Received: Tue, 14-Oct-86 07:21:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 859

#       This is a shell archive.
#       Remove everything above and including the cut line.
```

```
#       Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:    Shell Archiver
#       Run the following text with /bin/sh to create:
#       envir.c
#       device.c
# This archive created: Mon Oct 13 21:04:59 1986
sed 's/^x//' << \SHAR_EOF > envir.c
x/* envir.c  major and minor environments for scribble -> proff preprocessor */
x
x#include "scribe.h"
x
xstyle(f)
xint f;
x{
x       char stylstr[512];
x       register int i;
x       register int c;
x       int myfence;
x
x       i = 0;
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence) {
x                       error();
x                       fatal();
x                       }
x       while ((c=text[txtind]) != myfence)
x               stylstr[i++] = text[txtind++];
x       ++txtind;
x       stylstr[i] = '\0';
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       printf("@style(%s)\n",stylstr);
x       return(TRUE);
x}
x
xsp(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".sp",stdout);
```

```
x       while ((c=text[txtind]) != myfence)
x               fputc(text[txtind++],stdout);
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       return(TRUE);
x}
x
xux(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".ul all\n.ul on",stdout);
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".ul off");
x       return(TRUE);
x}
x
xinclude(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".source ",stdout);
x       while ((c=text[txtind]) != myfence)
x               fputc(text[txtind++],stdout);
x       ++txtind;
```

```
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       return(TRUE);
x}
x
xvrbate(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".save\n.nap\n.nf\n.ls 1");
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".restore");
x       return(TRUE);
x}
x
xenumer(f)
xint f;
x{
x       register int c;
x       int myfence;
x       register int i;
x
x       i = 1;
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".save\n.list\n.item 1.",stdout);
x       if (text[txtind] != '\n')
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
```

```
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x               if (lastchar(stdout) == '\n' && text[txtind] == '\n')
x                       printf(".item %d.",++i);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".nolist\n.restore");
x       return(TRUE);
x}
x
xquote(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".save\n.in +5\n.rm -5\n.ls 1");
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".restore"); /* turn it off */
x       return(TRUE);
x}
x
xitemz(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
```

```
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".save\n.list\n.br\n.item -  ",stdout);
x       if (text[txtind] != '\n')
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x               if (lastchar(stdout) == '\n' && text[txtind] == '\n')
x                       fputs(".item - ",stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".nolist\n.restore");
x       return(TRUE);
x}
x
xundent(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".in +5\n.ti -5");
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x               if (lastchar(stdout) == '\n' && text[txtind] == '\n')
x                       fputs(".ti -5",stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".in -5");
x       return(TRUE);
x}
x
xunbound(f)
xint f;
```

```
x{
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       printf(".%s\n",command); /* turn on command */
x       return(TRUE);
x}
x
xsubh(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".ul all\n.sp 2\n.ul on");
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".ul off\n.sp 2");
x       return(TRUE);
x}
x
xhead(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(".sp 4\n.ce on");
x       puts(bdon);
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
```

```
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       puts(bdoff);
x       puts(".ce off\n.sp 2");
x       return(TRUE);
x}
x
xnewpage()
x{
x       putchar('\n');
x       puts(".bp");
x       return(TRUE);
x}
x
xchapter(f)
xint f;
x{
x       register int i;
x       register int c;
x       int myfence;
x       i = 0;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               chaptitle[i++] = text[txtind++];
x       }
x       chaptitle[i] = '\0';
x       ++txtind;
x       printf("\n.bp\n.sp 4\n.ce on\n%s\n.cl 0 %d %s\n%s\n%s\n.sp 4\n.ce off\n"
,
x       bdon,chapnum,chaptitle,chaptitle,bdoff);
x       strcpy(curvlbl,"chapter");
x       strcpy(cursval,chaptitle);
x       putvar(VARSTR);
x       sectnum = 1;
x       ++chapnum;
x       return(TRUE);
x}
```

```
x
xsection(f)
xint f;
x{
x       register int i;
x       register int c;
x       int myfence;
x       i = 0;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               secttitle[i++] = text[txtind++];
x       }
x       secttitle[i] = '\0';
x       ++txtind;
x       printf("\n.sp 2\n%s\n.cl 1 %d.%d %s\n%d.%d %s\n%s\n.sp 2\n",
x       ulon,chapnum-1,sectnum,secttitle,chapnum-1,sectnum,secttitle,uloff);
x       strcpy(curvlbl,"section");
x       strcpy(cursval,secttitle);
x       putvar(VARSTR);
x       sectnum++;
x       return(TRUE);
x}
x
xhe(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".he ",stdout);
x       while ((c=text[txtind]) != myfence)
x               fputc(text[txtind++],stdout);
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
```

```
x       return(TRUE);
x}
x
xfo(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".so ",stdout);
x       while ((c=text[txtind]) != myfence)
x               fputc(text[txtind++],stdout);
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       return(TRUE);
x}
x
xneed(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       fputs(".need ",stdout);
x       while ((c=text[txtind]) != myfence)
x               fputc(text[txtind++],stdout);
x       ++txtind;
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       return(TRUE);
x}
x
xcomment(f)
xint f;
x{
x       register int c;
x       int myfence;
x
```

```
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       while ((c=text[++txtind]) != myfence);
x       return(TRUE);
x}
x
xlastchar(fp)
xFILE *fp;
x{
x       register char c;
x       register char *optr;
x
x       optr = fp->_ptr;
x       c = *--optr;
x       return(c);
x}
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > device.c
x/* device.c  printer tables to allow the @device() directive and direct
x * printer control.
x */
x
x#include "scribe.h"
x
x/* printer strings for device support */
x
xchar prnname[15];
xchar bdon[15];
xchar bdoff[15];
xchar ulon[15];
xchar uloff[15];
xchar hlfdn[15];
xchar hlfup[15];
xchar pinit[15];
xchar preset[15];
xchar ptch[15];
xchar lhght[15];
xint devflag;
x
xtypedef struct {
x       char prnname[15];
x       char bdon[15];
x       char bdoff[15];
x       char ulon[15];
x       char uloff[15];
x       char hlfdn[15];
x       char hlfup[15];
x       char init[15];
x       char reset[15];
x       char ptch[15];
```

```
x       char lhght[15];
x       int devflag;
x}DVCTAB;
x
xDVCTAB devtab[] = {
x       /* vanilla */
x       "plain",
x       ".bd on",".bd off",".ul on",".ul off",
x       "","",
x       "",".bp",
x       "","",DEVPLN,
x
x       /* Brother HR-15,25,35 */
x       "Brother",
x       "W","&","E","R",
x       "U","D",
x       ".wr 27 13 80",".wr 27 13 80",
x       "","",DEVFNCY,
x
x       /* QUME */
x       "Qume",
x       "W","&","E","R",
x       "U","D",
x       ".wr 27 13 50",".wr 27 15 50",
x       "","",DEVFNCY,
x
x       /* Prowriter Jr. */
x       "Prowriter",
x       "E","F","-","-",
x       "T","S\0",
x       "@","@",
x       "","",DEVFNCY,
x
x       /* Epson LX-80 */
x       "LX-80",
x       "E","F","-","-",
x       "T","S\0",
x       "@","@",
x       "","",DEVFNCY,
x
x       /* Epson RX-80 */
x       "RX-80",
x       "E","F","-","-",
x       "T","S\0",
x       "@","@",
x       "","",DEVFNCY,
x
x       /* Atari */
x       "Atari",
x       "E","F","-","-",
x       "T","S\0",
x       "@","@",
x       "","",DEVFNCY
```

```
x
x       /* coming soon */
x       /* FILE */
x       /* CON: */
x};
x
x#define NDEVTAB (sizeof(devtab)/sizeof(devtab[0]))
x
xsetdvc(f)
xint f;
x{
x       register DVCTAB *dtp;
x
x       dtp = &devtab[0];
x       while (dtp < &devtab[NDEVTAB]) {
x               if (strcmp(dtp->prnname,prnname)==0) {
x                       strcpy(bdon,dtp->bdon);
x                       strcpy(bdoff,dtp->bdoff);
x                       strcpy(ulon,dtp->ulon);
x                       strcpy(uloff,dtp->uloff);
x                       strcpy(hlfdn,dtp->hlfdn);
x                       strcpy(hlfup,dtp->hlfup);
x                       strcpy(pinit,dtp->init);
x                       strcpy(preset,dtp->reset);
x                       strcpy(ptch,dtp->ptch);
x                       strcpy(lhght,dtp->lhght);
x                       devflag = dtp->devflag;
x                       return(f);
x               }
x               ++dtp;
x       }
x       fprintf(stderr,"Device %s is not defined, using %s\n",prnname,DEFPRN);
x       strcpy(prnname,DEFPRN);
x       setdvc(f);
x       return(f);
x}
x
xdevice(f)
xint f;
x{
x       register int i;
x       register int c;
x       int myfence;
x
x       i = 0;
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (lastchar(stdout) != '\n')
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
```

```
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               prnname[i++] = text[txtind++];
x       }
x       prnname[i] = '\0';
x       ++txtind;
x       setdvc(f);
x       fprintf(stderr,"%cNow formatting for device %s\r",0x07,prnname);
x       return(TRUE);
x}
x
xheight(f)
xint f;
x{
x       char hstr[15];
x       register int i;
x       register int c;
x       int myfence;
x       int ascstr;
x
x       i = 0;
x       myfence = (f == TRUE ? '\0' : fence);
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       while ((c=text[txtind]) != myfence)
x               hstr[i++] = text[txtind++];
x       hstr[i] = '\0';
x       ++txtind;
x       ascstr = atoi(hstr);
x       if (devflag == DEVFNCY) {
x               fputs(lhght,stdout);
x               putchar(ascstr);
x       }
x       return(TRUE);
x}
x
xpitch(f)
xint f;
x{
x       char pstr[15];
x       register int i;
x       register int c;
x       int myfence;
x       int ascstr;
x
x       i = 0;
x       myfence = (f == TRUE ? '\0' : fence);
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
```

```
x       while ((c=text[txtind]) != myfence)
x               pstr[i++] = text[txtind++];
x       pstr[i] = '\0';
x       ++txtind;
x       ascstr = atoi(pstr);
x       if (devflag == DEVFNCY) {
x               fputs(ptch,stdout);
x               putchar(ascstr);
x       }
x       return(TRUE);
x}
x
xu(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(ulon,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(uloff,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       return(TRUE);
x}
x
xbold(f)
xint f;
x{
x       register int c;
x       int myfence;
x       int nowrt = FALSE;
x
```

```
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(bdon,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(bdoff,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       return(TRUE);
x}
x
xsuper(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(hlfup,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
```

```
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(hlfdn,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       return(TRUE);
x}
x
xsub(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0': fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(hlfdn,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       while ((c=text[txtind]) != myfence) {
x               if (c == '@') {
x                       fence=getcmd(FALSE);
x                       execute(FALSE);
x               }
x               fputc(text[txtind++],stdout);
x       }
x       ++txtind;
x       if (devflag == DEVPLN)
x               if (lastchar(stdout) != '\n')
x                       putchar('\n');
x       fputs(hlfup,stdout);
x       if (devflag == DEVPLN)
x               putchar('\n');
x       return(TRUE);
x}
x
xreset(f)
xint f;
x{
x       register int c;
x       int myfence;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
```

```
x                       error();
x       while ((c=text[++txtind]) != myfence);
x       puts(preset);
x       return(TRUE);
x}
SHAR_EOF
#       End of shell archive
exit 0
%NONAME-W-NOMSG, Message number 00000000


From 1801458829145969992
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,de4b8968bfc3a1d7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 18:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Scribble-->Proff (v.2) part 3 of 3
Message-ID: <8610140413.AA05794@ucbvax.Berkeley.EDU>
Date: Mon, 13-Oct-86 21:16:00 EDT
Article-I.D.: ucbvax.8610140413.AA05794
Posted: Mon Oct 13 21:16:00 1986
Date-Received: Tue, 14-Oct-86 07:17:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 367

#       This is a shell archive.
#       Remove everything above and including the cut line.
#       Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:    Shell Archiver
#       Run the following text with /bin/sh to create:
#       keytab.c
#       var.c
#       lnk.
# This archive created: Mon Oct 13 21:06:08 1986
sed 's/^x//' << \SHAR_EOF > keytab.c
x/* keytab.c main key table for environment command lookup.  Edit this file
x * to add or delete recognized command names.  All table lookup is based
x * on D. G. Conroy's original MicroEmacs execute() function.
x */
x
x#include "scribe.h"
x
xtypedef struct {
x       char name[15];
x       int (*keyfunc)();
x}ENVTAB;
```

```
x
xextern int enumer;
xextern int quote;
xextern int vrbate;
xextern int itemz;
xextern int ux;
xextern int u;
xextern int bold;
xextern int sp;
xextern int newpage;
xextern int he;
xextern int fo;
xextern int style;
xextern int head;
xextern int subh;
xextern int chapter;
xextern int include;
xextern int need;
xextern int comment;
xextern int undent;
xextern int super;
xextern int sub;
xextern int reset;
xextern int ndex;
xextern int string;
xextern int value;
xextern int section;
x
xENVTAB envtab[] = {
x       "enumerate",    &enumer,
x       "quotation",    &quote,
x       "verbatim",     &vrbate,
x       "itemize",      &itemz,
x       "ux",           &ux,
x       "u",            &u,
x       "i",            &u,
x       "b",            &bold,
x       "blankspace",   &sp,
x       "newpage",      &newpage,
x       "pageheading",  &he,
x       "pagefooting",  &fo,
x       "style",        &style,
x       "heading",      &head,
x       "subheading",   &subh,
x       "chapter",      &chapter,
x       "include",      &include,
x       "need",         &need,
x       "undent",       &undent,
x       "device",       &device,
x       "pitch",        &pitch,
x       "height",       &height,
x       "super",        &super,
x       "sub",          &sub,
```

```
x       "reset",        &reset,
x       "index",        &ndex,
x       "string",       &string,
x       "value",        &value,
x       "section",      &section,
x       "comment",      &comment
x};
x
x#define NENVTAB (sizeof(envtab)/sizeof(envtab[0]))
x
xexecute(f)
xint f;
x{
x       register ENVTAB *etp;
x       int status;
x
x       etp = &envtab[0];
x       while (etp < &envtab[NENVTAB]) {
x               if (strcmp(etp->name,command)==0) {
x                       status = (*etp->keyfunc)(f);
x                       return(status);
x               }
x               ++etp;
x       }
x       fprintf(stderr,"no code table for: %s\n",command);
x       return(unbound(f));     /* just set it up as a proff command */
x}
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > var.c
x/* var.c functions to assign and retrieve variables in text.  Also the index
x * function is in this section.
x */
x
x#include "scribe.h"
x#include <ctype.h>
x
x#define        NBLOCK  16
x
xint ndxfile    = NO;   /* we don't yet have an index filed opened */
xchar curvlbl[32];      /* current variable label       */
xchar cursval[256];     /* value of string or index variable */
xint curnval;           /* current int variable value */
xint pagenum=1;         /* useless page number var for later */
xint chapnum=1;         /* chapter variable for @chapter() */
xint sectnum=1;         /* section variable for @section() */
xchar title[256];
xchar chaptitle[256];
xchar secttitle[256];
xextern FILE *fopen();
xFILE *ndxfp;
xextern char *malloc();
xVARTBL *vheadp;        /* variable table header pointer */
xVARTBL *curvp;         /* current variable table pointer */
```

```
x
x/* start up the variables table at the root */
x
xinitvar(f)
xint f;
x{
x       strcpy(&curvlbl[0],"ROOTNODE");
x       strcpy(&cursval[0],"");
x       vheadp = valloc(0);
x       vheadp->v_fp = vheadp;
x       vheadp->v_bp = NULL;
x       strcpy(vheadp->label,&curvlbl[0]);
x       strcpy(vheadp->svalue,&cursval[0]);
x       vheadp->type=VARSTR;
x       curvp = vheadp;
x       return(f);
x}
x
x/* put a, possibly preallocated, variable into the table */
x
xputvar(f)
xint f;         /* f == type of variable */
x{
x       register VARTBL *vtp;
x
x       /* perhaps we've already defined this variable */
x       if ((vtp=getvar(FALSE))==(VARTBL *)NULL) {
x               vtp = valloc(); /* no, then allocate space */
x               if (curvp == vheadp) {  /* special case first time after init */
x                       vtp->v_fp = vheadp;
x                       vtp->v_bp = vheadp;
x                       vheadp->v_fp = vtp;
x               }
x               else {
x                       vtp->v_fp = vheadp;
x                       vtp->v_bp = curvp;
x                       curvp->v_fp = vtp;
x               }
x               curvp = vtp;
x       }
x       if (f == VARSTR) {
x               strcpy(vtp->label,curvlbl);
x               strcpy(vtp->svalue,cursval);
x               vtp->type=VARSTR;
x       }
x       else if (f == VARNUM) {
x               strcpy(vtp->label,curvlbl);
x               vtp->nvalue=curnval;
x               vtp->type=VARNUM;
x       }
x       else if (f == VARNDX) {
x               strcpy(vtp->label,curvlbl);
x               strcpy(vtp->svalue,cursval);
```

```
x               vtp->type=VARNDX;
x       }
x       else {
x               fprintf(stderr,"Bad argument to putvar(): %d\n",f);
x               return(FALSE);
x       }
x       return(TRUE);
x}
x
xVARTBL *
xgetvar(f)
xint f;         /* f==TRUE really get var; f==FALSE just return pointer */
x{
x       VARTBL *vtp;
x
x       vtp = curvp;
x
x       while (vtp->v_bp != NULL) {
x               if (strcmp(vtp->label,curvlbl)==0) {
x                       if (f == FALSE)
x                               return(vtp);
x                       if (vtp->type == VARSTR) {
x                               strcpy(cursval,vtp->svalue);
x                               return(vtp);
x                       }
x                       else if (vtp->type == VARNUM) {
x                               curnval = vtp->nvalue;
x                               return(vtp);
x                       }
x                       else if (vtp->type == VARNDX)
x                               return(vtp);
x                       else {
x                               fprintf(stderr,"Bad argument to getvar(): %d\n",
f);
x                               return((VARTBL *)NULL);
x                       }
x               }
x               vtp = vtp->v_bp;
x       }
x       return((VARTBL *) NULL);
x}
x
xVARTBL
x*valloc()
x{
x        register VARTBL   *vp;
x        register int    size;
x
x        size = (NBLOCK-1) & ~(NBLOCK-1);
x        if (size == 0)
x                size = NBLOCK;
x        if ((vp=(VARTBL *)malloc(sizeof(VARTBL)+size)) == NULL) {
x                fprintf(stderr,"Fatal Error: out of space in variable table\n")
```

```
;
x                exit(1);
x       }
x        return (vp);
x}
x
xndex(f)                /* not index() because that name is taken */
xint f;
x{
x       register int i;
x       register int c;
x       int myfence;
x       i = 0;
x
x       if (ndxfile == NO)
x               mkndxf();
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       while ((c=text[txtind]) != myfence)
x               cursval[i++] = text[txtind++];
x       cursval[i] = '\0';
x       ++txtind;
x       strcpy(curvlbl,"NDXVAR");
x       putvar(VARNDX);
x       fputs(cursval,ndxfp);
x       fputc('\n',ndxfp);
x       return(TRUE);
x}
x
xmkndxf()
x{
x       char *ptr;
x       char ndxname[80];
x
x       strcpy(ndxname,ifname);
x       if ((ptr = rindex(ndxname, '.')) != NULL)
x               ptr[0] = '\0';
x       strcat(ndxname,".NDX");
x       if ((ndxfp=fopen(ndxname, "w")) == NULL) {
x               fprintf(stderr,"Fatal Error: scribe cannot open %s for writing\n
");
x               exit(1);
x       }
x       ndxfile = YES;
x       return;
x}
x
xstring(f)
xint f;
x{
```

```
x       register int i;
x       register int c;
x       int myfence;
x
x       i = 0;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       while ((c=text[txtind]) != '=') {
x               if (isspace(c)) {
x                       txtind++;
x                       continue;       /* skip blanks */
x               }
x               else if (c == myfence) {
x                       fprintf(stderr,"Improper assignment to string\n");
x                       return(FALSE);
x               }
x               else
x                       curvlbl[i++] = text[txtind++];
x       }
x       curvlbl[i] = '\0';
x       i = 0;
x       txtind++;
x       while (text[txtind] != myfence)
x               cursval[i++] = text[txtind++];
x       cursval[i] = '\0';
x       ++txtind;
x       putvar(VARSTR);
x       return(TRUE);
x}
x
xvalue(f)
xint f;
x{
x       register int i;
x       register int c;
x       int myfence;
x
x       i = 0;
x
x       myfence = (f == TRUE ? '\0' : fence);
x
x       if (f == TRUE)
x               if (gettext() != fence)
x                       error();
x       while ((c=text[txtind]) != myfence) {
x               if (isspace(c)) {
x                       txtind++;
x                       continue;       /* skip blanks */
x               }
```

```
x               else
x                       curvlbl[i++] = text[txtind++];
x       }
x       curvlbl[i] = '\0';
x       ++txtind;
x       if (getvar(TRUE)!= (VARTBL *)NULL) {
x               i = 0;
x               while (c=cursval[i++])
x                       if (c != '\"')
x                               putchar(c);
x       }
x       else {
x               fprintf(stderr,"@VALUE: variable not found '%s'\n",curvlbl);
x               return(FALSE);
x       }
x       return(TRUE);
x}
x
SHAR_EOF
sed 's/^x//' << \SHAR_EOF > lnk.
xscribe.68k=gemstart,scribe,keytab,var,device,envir,gemlib[in[_nofloat]]
x
SHAR_EOF
#       End of shell archive
exit 0
%NONAME-W-NOMSG, Message number 00000000
```

```
From -89288770215185051
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 19:32:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihuxl!walt2
From: walt2@ihuxl.UUCP (Walt Kurszewski)
Newsgroups: net.micro.atari16
Subject: 1040ST questions
Message-ID: <1978@ihuxl.UUCP>
Date: Mon, 13-Oct-86 22:32:40 EDT
Article-I.D.: ihuxl.1978
Posted: Mon Oct 13 22:32:40 1986
Date-Received: Tue, 14-Oct-86 07:20:20 EDT
Distribution: net
Organization: AT&T Bell Labs, Naperville, IL
Lines: 29

Fellow Netlanders,

I'm about to drop $1045 on a 1040ST with a color monitor.  Being a conscientious
consumer (tight wad), I've got a few questions.  I know the following topics
have been kicked around this group in previous months, so feel free to mail
your replies to me.
```

What's in the developers kit? Tons of (useful?) documentation, a C compiler, an assembler, a linker. Does it include a communication package to upload and download files from the UNIX system at work? How buggy/fast is the C compiler that comes with the developers kit? 300 frogskins is quite a bit, would I get my monies worth with this?

My other options for a C compiler are Lattice (slow, but I can get it for ~$125) or Megamax (fast but I don't know how buggy or how much it costs). I'll need an assembler that I can link with the C compiler. Is there any public domain C/assembler/linker?

I also need a communication package. From what I understand, a vt100 emulator has communication capabilities that will work on the UNIX systems at work. Does a public domain vt100 emulator exist? How do I get my paws on it if I can't upload/download?

What are good/bad documentation sources? Books? Magazines? I'm new to the PC world and I'm pretty much lost. If any experienced 1040ST person would be willing to mentor me via e-mail I'd appreciate it. Thanks.

Walt Kurszewski
ihuxl!walt2

From 247792230587485037
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,579019d7e681d2d9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 20:44:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!lll-crg!seismo!umcp-cs!eneevax!iarocci
From: iarocci@eneevax.UUCP (Bill Dorsey)
Newsgroups: net.micro.atari16
Subject: Re: Bug in Spell.prg ??
Message-ID: <218@eneevax.UUCP>
Date: Mon, 13-Oct-86 23:44:14 EDT
Article-I.D.: eneevax.218
Posted: Mon Oct 13 23:44:14 1986
Date-Received: Fri, 17-Oct-86 07:25:28 EDT
References: <1704@alvin.mcnc.UUCP>
Reply-To: iarocci@eneevax.UUCP (Bill Dorsey)
Organization: U of Maryland, EE Dept., College Park, MD
Lines: 32
Keywords: bug spell pascal

In article <1704@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
>
>I've encountered a somewhat annoying problem with the Spell pgm.
>posted some days back by Eric Terrel.. it occasionally wants
>to trash the file that is being checked for incorrect
>spellings. At one point I backspaced all the way over a word in the
>dialog box which asks if the spelling is Ok, add to dictionary or not,

>etc., and then selected 'NO'. The program quit, but it seemed to cut
>off my file at the point which it had reached (ie. till where it had
>checked for incorrect spellings). On other occasions I'm not sure
>what I did but the file was chomped. So, it's probably a good idea to
>make a copy of the file before running Spell on it (till the bug is
>fixed).
>
>   -ravi

I encountered another problem with spell.prg: I tried to use a dictionary
file with about 25,000 words in it, but I got a program error message. I
checked the file to see if it was in the same format that spell generates
when you add words to the dictionary, and it was. Is there some kind of
limitation on the number of words spell can check? Does it try to load the
entire dictionary into ram, for example?

--

| Bill Dorsey |
| 'Imagination is more important than knowledge.' |
| - Albert Einstein |
| ARPA : iarocci@eneevax.umd.edu |
| UUCP : [seismo,allegra,rlgvax]!umcp-cs!eneevax!iarocci |

From -473152794070721517
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9be9ab8643c10b16,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-13 21:41:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!pyramid!prls!
philabs!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16
Subject: Help with AUTO folder programs
Message-ID: <1709@alvin.mcnc.UUCP>
Date: Tue, 14-Oct-86 00:41:18 EDT
Article-I.D.: alvin.1709
Posted: Tue Oct 14 00:41:18 1986
Date-Received: Wed, 15-Oct-86 21:41:43 EDT
Organization: Microelectronics Center of NC; RTP, NC
Lines: 10

     Would someone please tell me in what order the programs
in the AUTO folder run at bootup? I think I've tried every
combination possible (times, names), but I still can't figure it out -
the same program *always* boots first! Thanks in advance,

                                -ravi

{decvax, ucbvax, uhnp4}!mcnc!ravi
ravi@mcnc.UUCP

From 5798772871132082927
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f101871485b5240,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 02:05:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
EGK%OZ.AI.MIT.EDU
From: EGK%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU ("Edjik")
Newsgroups: net.micro.atari16
Subject: kilo chars of krap
Message-ID: <12246680556.26.EGK@OZ.AI.MIT.EDU>
Date: Tue, 14-Oct-86 05:05:31 EDT
Article-I.D.: OZ.12246680556.26.EGK
Posted: Tue Oct 14 05:05:31 1986
Date-Received: Fri, 17-Oct-86 07:39:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Is anyone else besides me getting sick of getting many masgs of
tens of kilo chars in size of what looks like a drunk writing
teco macros?

My poor mail file blows up and chokes MM more frequently with such
stuff. why cant people just send a pointer to their program and let
those who want it get it or request it individualy. It used to be
considered anti-social to send such masssive files unsolicited.

People on usenet who have to pay phone charges will appreciate your
courtesy. My mailbox will love you too.

thank you for your support.

--E+

From 7572339462105201430
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,524ed0803ba4a1a4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 05:34:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!
XEROX.COM!"Michael_Krause.ROCH"

From: "Michael_Krause.ROCH"@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: This is getting Ridiculous
Message-ID: <861014-053527-2135@Xerox>
Date: Tue, 14-Oct-86 08:34:55 EDT
Article-I.D.: Xerox.861014-053527-2135
Posted: Tue Oct 14 08:34:55 1986
Date-Received: Fri, 17-Oct-86 08:13:16 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "Michael_Krause.ROCH"@Xerox.COM
Organization: The ARPA Internet
Lines: 12

I agree with you about the heavy traffic. I've enjoyed getting all of
the great stuff about the Atari ST's but the GARBAGE is rediculous. I
never did count but I probably received over 150 - 200 messages weekly
just from this list. I don't have an ST but was(?) interested in
getting one. It seems to me that the actual expense of communicating
all of the encrypted code to my mail box alone is a price that I would
not want to pay and am sure that others feel the same way. So......

It's been nice but see you around. No more Atari mail for me; I've had
enough.

Mike

From 6380226452815927149
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,6d452d22ae780db9
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,6d452d22ae780db9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 05:41:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <1402@ihlpl.UUCP>
Date: Tue, 14-Oct-86 08:41:15 EDT
Article-I.D.: ihlpl.1402
Posted: Tue Oct 14 08:41:15 1986
Date-Received: Fri, 17-Oct-86 07:50:03 EDT
References: <6109@topaz.RUTGERS.EDU> <439@atari.UUcp>
Organization: AT&T Bell Labs, Naperville, IL
Lines: 27
Xref: watmath net.micro.atari8:509 net.micro.atari16:2547

> In article <6109@topaz.RUTGERS.EDU>, appelbau@topaz.RUTGERS.EDU (Marc L.
Appelbaum) writes:
> >
> > I remember that a while ago Neil Harris said that Atari Explorer would

> > be published in July, well it's now October and no Atari Explorer.
> > What's happening with it? Is it still going to be "Atari's Vioce?"
>
> I have in my office the new issue of Atari Explorer. Newsstands should
> be receiving them already, as should the existing subscribers.
>
> As promised in the editorial, the next issue will be out in a little less
> than 2 months.
>
> --->Neil @ Atari

I have in my hand the new Sept/Oct issue of Atari Explorer that I picked
up from A local dealer at our local Atari club meeting last evening. He
said he had just received them Monday. It is 80 pages long, not counting
the covers. Quite a bit of information including a rather extensive
readers survey. This issue seemed to contain more news on the ST than the
8-bit but they emphasized Atari's commitment to continued support of the
8-bit computers. There is a review of the SH204 Hard Disk for the ST which
I had a chance to see runing last night.

Kit Kimes
AT&T-ISL
Naperville, IL
...ihnp4!iwvae!kimes

From 6795957729131811836
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce7bf532c70c94c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 06:51:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari16
Subject: Re: Re: No Available 1040's - (nf)
Message-ID: <1403@ihlpl.UUCP>
Date: Tue, 14-Oct-86 09:51:08 EDT
Article-I.D.: ihlpl.1403
Posted: Tue Oct 14 09:51:08 1986
Date-Received: Fri, 17-Oct-86 07:53:29 EDT
References: <1159@batcompu.UUCP> <96100025@exunido.UUCP>
Organization: AT&T Bell Labs, Naperville, IL
Lines: 19

> in Germany Atari has dropped the prices for the 1040 last week (Oct 1st)
> from former DM 3298,-- ($ 1650,--) to DM 2498,-- ($ 1250,--). The rumor was
> that the 1040 was sold only very bad. The new price is about DM 400,--
> ($ 200) below a 520 with same specs only in more parts and with separate
> power supplies. The price for 520 and 260 has NOT been dropped!!!
>
>   Uwe Hoch

According to rumors I have heard (I believe they come from CompuServe),
Toys 'R Us will be selling the 520ST with ss disk drive around
Christmas time for $250. This doesn't include monitor but since the
new 520ST's have an RF modulator, you can use a TV set until you rebuild
your savings account (:-)). It would certainly make an excellent starter
setup.

Kit Kimes
AT&T-ISL
Naperville, IL
...ihnp4!iwvae!kimes

From 7768231697963477198
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b3f526709552cb5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 07:50:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!rutgers!lll-crg!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Addition
Message-ID: <80@its63b.ed.ac.uk>
Date: Tue, 14-Oct-86 10:50:56 EDT
Article-I.D.: its63b.80
Posted: Tue Oct 14 10:50:56 1986
Date-Received: Mon, 20-Oct-86 22:43:55 EDT
Reply-To: csan@its63b.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 3

Please add me to the mailing list .
Fanx.
--Andie Ness

From 9080052035218065875
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e1e2d2b84316aa3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 08:01:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!rutgers!lll-crg!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (Andie)
Newsgroups: net.micro.atari16
Subject: Re: MONST
Message-ID: <81@its63b.ed.ac.uk>
Date: Tue, 14-Oct-86 11:01:48 EDT
Article-I.D.: its63b.81
Posted: Tue Oct 14 11:01:48 1986
Date-Received: Mon, 20-Oct-86 22:44:16 EDT
References: <8610101635.AA02768@ucbvax.Berkeley.EDU>

Reply-To: csan@its63b.ed.ac.uk (Andie)
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 10

In article <8610101635.AA02768@ucbvax.Berkeley.EDU> ACS19@UHUPVM1.BITNET (Mike
Vederman) writes:
>I accidentily threw away the uuencoded version of MONST posted a while ago.
>Since I have discovered how to successfully uudecode all files now, could
>someone please send me the file(s). I have the docs that were just posted.
>Thanks,
>
>Mike

I would also appreciate a copy !
--Andie

From 6322414769121072900
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c02926c7c45b943
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 08:13:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: 1040ST questions
Message-ID: <6214@topaz.RUTGERS.EDU>
Date: Tue, 14-Oct-86 11:13:41 EDT
Article-I.D.: topaz.6214
Posted: Tue Oct 14 11:13:41 1986
Date-Received: Fri, 17-Oct-86 07:48:58 EDT
References: <1978@ihuxl.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 11
Cc: appelbau

 For up/downloading with a UNIX you could use KERMIT, I don't know if
it is included with the kit or not. If not you could get from a local
user group. To ul/dl with kermit is fairly simple. At the UNIX end
you type kermit to get into kermit. To send files type send filename,
to recieve files type get files.   It's basicly the same on the ST
end.
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbau

From -7397052496227561242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,78df5290ea7c693,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-14 08:21:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: BUG in SPELL
Message-ID: <8610141521.AA04358@ohio-state.ARPA>
Date: Tue, 14-Oct-86 11:21:16 EDT
Article-I.D.: ohio-sta.8610141521.AA04358
Posted: Tue Oct 14 11:21:16 1986
Date-Received: Fri, 17-Oct-86 20:11:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I tested the SPELL program and was able to duplicate the error described:

When asked about the possible misspelling of a word, I deleted it by backspacing over it. The program quit, and the portion of the file right before the deleted word was erased.

I've looked at the source code, and have found the problem - the program thinks that it's done when an empty string is returned by one of the procedures. I'll fix it tonight and redistribute the source and uuencoded executable this evening.

Thanks for pointing out the problem!

Eric Bergman-Terrell

From -5591556526814204531
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3285def2cae1026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 08:16:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!lll-crg!seismo!
rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: OS9 mudules to run in GEM
Message-ID: <454@cci632.UUCP>
Date: Fri, 3-Oct-86 11:16:51 EDT
Article-I.D.: cci632.454
Posted: Fri Oct 3 11:16:51 1986
Date-Received: Sat, 4-Oct-86 12:37:33 EDT
References: <husc6!endor!olson@rsch.wisc.edu>
<8609300312.AA02344@ucbvax.Berkeley.EDU> <1138@batcomputer.TN.CORNELL.EDU>
Reply-To: rb@ccird1.UUCP (Rex Ballard)

Organization: CCI, Rochester Development, Rochester, NY
Lines: 30
Summary: O.S. basics.

In article <1138@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner)
writes:
>[]
>
>I don't see why an ST implementation of OS9 couldn't include access
>to the GEM graphics routines (VDI, and perhaps parts of AES). These
>are in ROM anyway, might as well use them, or allow OS9 programs to
>use them. (Portability? Ever tried running a graphics program on
>an 'IBM-compatible' just to find out you've got the wrong graphics
>card? 'Compatibility' is a myth!)
>- Moshe Braner

Actually, it's even easier than it looks. Both GEM and OS-9 use
"vector tables" to access their "BIOS" routines. OS-9 could
simply be an additional group of vector tables. OS-9 also has
a nice capability in that it can use traps to access it's own,
or somone elses routines. The basic ingredients of VDI are
not that different, perhaps a few arguments would have to be
moved from one place to another.

As to 'IBM-compatible', anyone who has ever made a "plug compatible"
accessory for IBM knows how risky a proposition this can be. I've
worked for two different companies that stopped working for IBM
when the risks didn't pay off.

The main advantage of OS-9 is that object code compatibility can
be obtained without even so much as re-compilation.

Speed of execution might be a minor issue, but probably not significant
with processors running nearly 1 mips, and actual bit-bumping being
done by other chips.

From 5951365665374135882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,56be6822739dd230,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 09:44:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: MAC emulator (ROM part numbers)
Message-ID: <8610031644.AA00578@ames-nas.ARPA>
Date: Fri, 3-Oct-86 12:44:49 EDT
Article-I.D.: ames-nas.8610031644.AA00578
Posted: Fri Oct 3 12:44:49 1986
Date-Received: Sat, 4-Oct-86 12:29:17 EDT
References: <8610021143.AA19515@ames-nas.ARPA>

Sender: uucp@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

According to the Magic Sac documentation, the Apple part numbers are either

324-00220-A (c) Apple 84 and 324-00221-A (c) Apple 84

or

324-00220-B (c) Apple 84 and 324-00221-B (c) Apple 84

The part numbers specify to Apple PROMS. I am using the Rev B parts, and they seem to work.

I have been told that Apple wants a high price for the parts, and that better deals can be made through distributers.

Marty

From 8477135420370166266
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7897b7873f19ed4c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 10:00:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!NDSUVM1.BITNET!UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: Many questions...
Message-ID: <8610031818.AA03032@ucbvax>
Date: Fri, 3-Oct-86 13:00:00 EDT
Article-I.D.: ucbvax.8610031818.AA03032
Posted: Fri Oct 3 13:00:00 1986
Date-Received: Sat, 4-Oct-86 12:30:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 75

Hello...

Well, I have had my ST for about 6 months now, and I have developed a few problems or questions, which follow. Much thanks in advance for the help...

1) I have heard (or think I did) a rumor that the CP/M emulator was put into the public domain, and was available from the Atari BBS.

Any truth to this? As well, how compatable is compatable? Which video emulation is available?

2) I have also heard tell of a MS-DOS software based emulator which will be available shortly at around 100-150$. Any truth to this? I heard it flunks the Flight Simulator test, and is twice as slow as the IBM (which is awfully slow to start with). Can it run BASICA programs?

3) Finally, and most importantly, GEM under OSS Personal Pascal is completely useless to me, for everytime I run a program (one I have written, or the spelling checker recently posted), I get:

```
Bus Error Accessing $4675636B
Error in *unknown*
at PC $00FECC08
```

Is this a problem with Personal Pascal or my ST (gulp)? I have no trouble running TOS P.P. programs, or GEM programs written with anything else, so I'm lost... I have a 520ST with rev B. TOS in ROM and 512K. I bought the P.P. with the revised manual (all the mistakes had been fixed.)

I have tried in vain for a week or so to get through to OSS, but all I have managed to get is a busy signal and a sore finger.

FLAME ON:

I bought Personal Pascal for many reasons, but one was that I had heard that they offered "great" support. I don't know about that, but the support can be as great as you want, and if no one can get through because you don't have enough people to handle the masses, then we get screwed. I bought the system, I sent in my registration card, but I can't even get through on the 'Pay for it' line. Pretty aggravating... And I don't think providing a 'free' BBS is much of a solution, either. If I want that approach, I have to get a modem, and then pay for the privilege of long distance charges while I "sign up" and then keep calling back until I am answered. I can't ask questions without another phone call.

I have the same gripe about some of the retailers. Living in the wilds of the far north, the nearest STore is 300 miles away, and I am forced to use mail-order. For P.P. I shopped around, and decided that Black Patch offered the best deal. However, in a couple days of trying, all I got was the busy signal. Finally I said "to hell with them" and called someplace else that was higher, but that I got through to on the first try. They continue to get my business.

After all, if you are doing _that_ much business, it seems intelligent to add more staff and another phone line to increase your revenue. It doesn't seem, however, that this has occured to any of them at all. When I called 47th Street Photo to order my ST, I got through the first or second time, and was through with my transaction in minutes. I may be at university, but that doesn't mean my time isn't valuable.

FLAME OFF.

Sorry about the griping...

a.d. jensen,
Department of Geography
University of North Dakota
Grand Forks, ND

<ud040164%ndsuvm1.bitnet@wiscvm.wisc.edu>

"Forty below keeps the riff-raff out." - (North Dakota state motto)

From 1887488956069666463
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 12:45:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!cit-vax!elroy!smeagol!usc-oberon!sdcrdcf!
ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <3734@ism780c.UUCP>
Date: Fri, 3-Oct-86 15:45:51 EDT
Article-I.D.: ism780c.3734
Posted: Fri Oct 3 15:45:51 1986
Date-Received: Mon, 6-Oct-86 18:39:43 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Followup-To: net.micro.68k
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 19
Xref: mnetor net.micro.68k:1344 net.micro.amiga:5075 net.micro.atari16:2329
net.micro.mac:7420

[followups to net.micro.68k please!]

In article <1870@well.UUCP> das@well.UUCP (David Shayer) writes:
>
>To say that Compaq has "released" an 80386 based computer is stretching
>things a bit too, don't you think. They announced it, but said it would
>be available after January. This is similar to what Motorola announced.

The Compaq machine may not be available yet, but the 80386 is. For now,
the 68030 is just something to be aware of when you design a 68020 system
so that you will be able to upgrade when the '30 becomes available.

--
member, all HASA divisions   POELOD ECBOMB
                         ----
                                ^-- Secret Satanic Message

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From -4401980568737937391
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 13:54:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!mordor!lll-crg!lll-lcc!pyramid!
amdahl!kim
From: kim@amdahl.UUCP (Kim DeVaughn)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <3853@amdahl.UUCP>
Date: Fri, 3-Oct-86 16:54:18 EDT
Article-I.D.: amdahl.3853
Posted: Fri Oct 3 16:54:18 1986
Date-Received: Sat, 4-Oct-86 12:56:25 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Organization: Amdahl Corporation, Sunnyvale, CA 94086
Lines: 21
Xref: watmath net.micro.68k:1935 net.micro.amiga:5134 net.micro.atari16:2338
net.micro.mac:8121

In article <1870@well.UUCP>, das@well.UUCP (David Shayer) writes:
> To say that Compaq has "released" an 80386 based computer is stretching
> things a bit too, don't you think. They announced it, but said it would
> be available after January. This is similar to what Motorola announced.

Nope. Fry's Electronics (and supermarket) here in Sunnyvale had one in
already and sold it (I *think* the salesman said $5995). They said they
were expecting "several" more in "any day now".

They may not be widely available yet, but they aren't "vaporware" either!

/kim

--
UUCP: {sun,decwrl,hplabs,pyramid,ihnp4}!amdahl!kim
DDD: 408-746-8462
USPS: Amdahl Corp. M/S 249, 1250 E. Arques Av, Sunnyvale, CA 94086
CIS: 76535,25

[Any thoughts or opinions which may or may not have been expressed]
[herein are my own. They are not necessarily those of my employer.]

From -6762771256549817607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-03 14:23:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: Re: The Motorola 68030
Message-ID: <833@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 3-Oct-86 17:23:11 EDT
Article-I.D.: cbmvax.833
Posted: Fri Oct 3 17:23:11 1986
Date-Received: Sat, 4-Oct-86 12:16:59 EDT
References: <205@mipos3.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 123
Xref: watmath net.micro.68k:1934 net.micro.amiga:5129 net.micro.atari16:2330
net.micro.mac:8118

> Keywords: here we go again...

> Of course, there is no comparison between the two classes of machines,
> because you in here introduce more than two classes of machines. I would not
> put Sun workstations and Turbo Amigas in the same class of machine simply
> because the Amiga does not support any kind of memory management. If you
> want to have a grown-up machine, one that supports multi-user/multi-tasking
> you really need to have this.

Its nice to have, but required only if your OS demands it.

> Not until you have the 68030, or you make an entire subsystem
> plug in with a 68020 and an mmu, can you claim to have upgraded your Amiga

> the way plugging a 286 upgrades a pc.

I don't claim that the 68020 upgrade for a 68000 machine is like a '286 upgrade for an 8088 machine. I claim its a generation removed. The 8088 is an 8/16 bit processor, the '286 a 16/16. The 68000 is a 16/32, the '020 a 32/32. A processor with a good MMU can run UNIX, quickly, and have all the advantages of a protected OS. A non-protected OS can suffer from misbehaved programs and slow context swaps (if its multitasking, which the MS-DOS operating system emphatically isn't. Oranges vs. oranges, remember). A Turbo upgrade for an Amiga can deliver much the same level of performance as a Sun and still use standard off-the-shelf Amiga software and operating system, and it can take advantage of the extra capabilities of the 68020. MS-DOS runs fine on a '286 PC, but it can't use the extended memory addressing capabilities -- unless you kludge it, MS-DOS has a ceiling of 640K. AmigaDOS has a ceiling of 4 Gigabytes.

I wouldn't try to run UNIX on a basic Turbo Amiga; UNIX isn't designed to run well without an MMU; the context swapping between processes is going to make it a dog. But the Amiga Exec was designed to provide a fast multitasking environment on a machine without an MMU. It supports 68000, 68010, and 68020 processors in a processor-independent way; the Amiga Exec knows which processor is in place and provides functions to handle the differences, like the different exception stacks. All the AmigaDOS software will work as is with the 68020, or it can be upgraded to take advantage of special 68020 enhancements. These upgrades, however, can be incremental, as each of the many software subsystems in the Amiga Kernal and DOS can be replace independently of each other. How much of the '286 instruction set, etc. will even work under MS-DOS, assuming I were to, say, rewrite the floating point libraries for the '286 and '287 coprocessor?

Of course an unprotected multitasking environment is dangerous for poorly behaved programs, but so is a single tasking environment on a machine without adequate hardware support (like a PC). I wouldn't expect to see a good UNIX running on the Amiga without an MMU; then again, an 80286 UNIX has to deal with its own set of inefficiencies, namely the 64K paging limitations that still exist even in protected mode. For a state of the art UNIX environment I need to an an MMU to my Amiga, you need to add a '386 to your PC. An integral/standard MMU is a good idea; Intel finally go one right :-).

> In the first place, msdos, while not taking advantage of the functionality
> of the 286 or the 386, is certainly not a kludge when run on them.

True. Lots of folks think the 8086 modes are kludges; I believe they're not. And the problems with the '286 native mode and MS-DOS are due to both the design of the '286 and the design of MS-DOS.

> In addition, when you go from one type of 68* based box to another, you
> also need to rewrite the operating system, because the memory management
> systems are incompatible.

Not helped much by the two different late-coming 680xx MMUs. I know, any

standard MMU is better than none at all.

> People have also generated 286-based cards that plug into plain old IBM pcs
> and have gained a significant performance upgrade, while running their old
> software. I'm sure the same thing can and will happen with the 386.

That's really only the advantage of going to a 16 bit (or 32 bit) bus
versus the old 8 bot of the 8088, plus the faster speed of the thing. But
like I said, I can get a much more significant increase in power with the
68020 card in the Turbo Amiga -- double the clock speed, double the data
fetch, and extend that memory limit to the full 32 bit address bus. Now
I know that this can't be done with every 68000 based micro; many of them
do thing that require a 68000 only. That's an OS design issue. And why
I'm glad I have an Amiga.

> And Unix implementations for 8086-based chips have been floating around for
> at least 5 years. MS-DOS already is a 16-bit os, and always has been.
> When going from a 68020 to a 68030, you will have to rewrite the os to take
> advantage of the memory management that the 68030 provides...otherwise you
> just have a little faster 68020, much like you can use a 286 as a faster
> 8086. How about if we compare apples to apples? Can you say "incoherency?"

I'll leave the "incoherency" to you. You're flaming for running a 68000
with no MMU, then you suggest Unix for 8086-based chips? If I want
segmentation as a form of memory mamagement, there's nothing stopping
me from requiring my 68000 environment to support only register
relative addressing. But anything that _requires_ 64K segments shouldn't
be bothering with UNIX. And as I said, my move to an '020 or '030 already
gives me much more than just a faster 68000. To use an MMU would require
a few sections of the OS to be rewritten, but its no big deal. The
hard part is going the other way, which is why memory management is
required for UNIX speed, protection issues aside.

>>P.S. BTW, have you guys heard about the 78000 (!?) See Nanobytes in
>>the latest BYTE (the //GS issue). This is a RISC uprocessor with a
>>rated speed of 20 (VAX-equivalent?) MIPS . . . this kind of speed
>>totally blows away the RT PC (note: the RT PC performed just a hair
>>better than an PC AT in benchmarks . . . see PC World or PC magazine
>>of a month ago. . . not very impressive . . .)
>
> Oh, this is great. Yet another paper product. This one, they haven't
> even had a press release on! I guess it must be more than a year
> away (:-)).
> --
> The above views are personal.
>
> I've seen the future, I can't afford it...

> Ken Shoemaker, Microprocessor Design, Intel Corp., Santa Clara, California
> uucp: ...{ hplabs|amdcad|qantel|pur-ee|scgvaxd|oliveb }!intelca!mipos3!kds
> csnet/arpanet: kds@mipos3.intel.com
--
==========

Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     These opinions are my own, though if you try them out, and decide
     that you really like them, a small donation would be appreciated.

From -8718614700314502326
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,afa9f207ba7caa70,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 163a0f,afa9f207ba7caa70,start
X-Google-Attributes: gid163a0f,public
X-Google-ArrivalTime: 1986-10-03 14:26:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!nike!ucbcad!ucbvax!sdcsvax!sdcc6!
ix181
From: ix181@sdcc6.ucsd.EDU (John Ogawa)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: C++ preprocessor wanted
Message-ID: <2939@sdcc6.ucsd.EDU>
Date: Fri, 3-Oct-86 17:26:08 EDT
Article-I.D.: sdcc6.2939
Posted: Fri Oct 3 17:26:08 1986
Date-Received: Sat, 4-Oct-86 12:43:42 EDT
Organization: University of California, San Diego
Lines: 12
Keywords: Atari C-source
Xref: watmath net.lang.c++:360 net.micro.atari16:2337

>>>>>>>>>>> Eat away you monster!!! <<<<<<<<<<

I am an avid C++ fan who is about to get an Atari 1040ST and a C
package. My question is: is there any way to get a C++ package for
the 1040? Alternately, is there any C source code for CC that I can
get my hands on?

Thanks in advance.

          John Ogawa
          UC San Diego

From 3034367253265571231
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 15:55:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!
ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16

Subject: Re: GNU_EMACS and uEMACS
Message-ID: <3749@ism780c.UUCP>
Date: Fri, 3-Oct-86 18:55:16 EDT
Article-I.D.: ism780c.3749
Posted: Fri Oct 3 18:55:16 1986
Date-Received: Mon, 6-Oct-86 18:41:13 EDT
References: <109200001@ccvaxa> <791@cbmvax.cbmvax.cbm.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 21

In article <109200001@ccvaxa> preece@ccvaxa.UUCP writes:
>
> People should realize that some of the nicest features of GNUemacs
> are things that would be lost in a port to the ST: compiling from
> inside an edit session, shell windows, and filtering regions
> through commands are obviously not going to work without
> Unix multitasking. It's still a nice editor, and without those
> features it might be small enough to fit...
>

Why do you need multitasking to filter a region through a command?
As long as the system provides a way to specify what program to use
as a shell you should be able to do filters.

--
member, all HASA divisions   POELOD ECBOMB
                         ----
                                ^-- Secret Satanic Message

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From -2967724599656582425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fe3a054cf4f8166
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 16:37:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!
ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: Future of GEM / Simultask
Message-ID: <3750@ism780c.UUCP>
Date: Fri, 3-Oct-86 19:37:36 EDT
Article-I.D.: ism780c.3750
Posted: Fri Oct 3 19:37:36 1986
Date-Received: Mon, 6-Oct-86 18:41:37 EDT
References: <MDCG.WAYNE.12243490621.BABYL@MIT-OZ>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA

Lines: 85

Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire) typed:
>
>Question: has anyone on the list taken a close look at Simultask? The
>review remarks that Simultask runs within an (apparently windowing)
>interface/shell called PC 6300 Plus Office that is somewhat slower than
>Microsoft Windows and Desqview, and not quite as sophisticated as the AT&T
>7300 user interface. How does this interface compare with the Mac/GEM
>style of windowing? Is it a suitable model for a 4-meg multitasking Atari?
>

The windowing system on the 6300 Plus is not really a general windowing system (at least on the ones I have seen. The ones I have seen are kind of old, so this may have changed).

When you run the thing, you get a box on the screen that looks something like this:

```
XXX Office XXXXXXXXXXXXXXXXXXXXX
X                               X
X -Administration               X
X  Commands                     X
X  Printer Information          X
X  Unix System                  X
X                               X
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

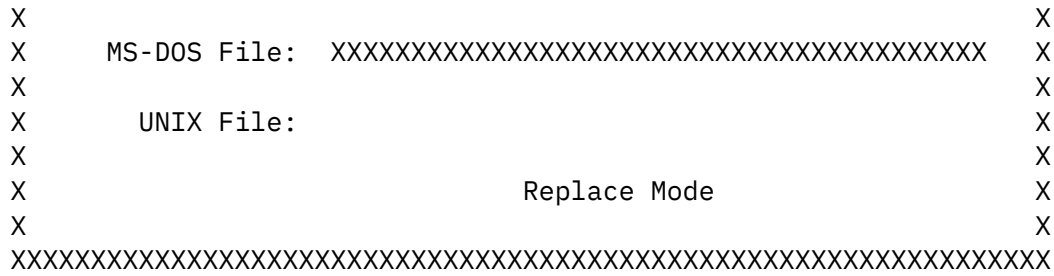
The "X"s are really solid rectangles of inverse video, and the command with the "-" next to it is in inverse video. You use the arrow keys to move up and down the menu and hit return to select an item.

Some commands bring up other menus, for example, "Commands" makes the screen look like this.

```
.Office.................
.                       .
.  Administation        .
. -Commands X Commands XXXXXXXXXX
.  Printer  X                  X
.  Unix SystX -Color            X
.           X  DOS-to-UNIX      X
.............X  Logout          X
          X  Shutdown         X
          X  UNIX-to-DOS      X
          X                   X
          XXXXXXXXXXXXXXXXXXXX
```

At the bottom of the screen are labels for the function keys. It also supports something that is like what a Mac user would call a Dialog Box. For example, selecting "DOS-to-UNIX" clears the screen and draws this:

```
XX DOS-to-UNIX Copy XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
```



Compared to Mac, ST, Amiga, etc, this is not that impressive. Compared to MS-DOS, it is perhaps something to get excited about.

The way the 6300 Plus runs DOS tasks is kind of interesting. UNIX runs in protected mode, and DOS wants to be in real mode. They have implemented some external (to the CPU) mapping hardware so that they can have memory that is not available to real mode. They put DOS in the memory that is available to real mode, and all the UNIX stuff in the memory that isn't.

To switch to the DOS task, they RESET the CPU (this is the only way to go from protected mode to real mode). The DOS task then runs in real mode. When it needs to do something that UNIX needs to know about, the external hardware makes the CPU go back to real mode and UNIX runs. (There is also a watchdog timer to force this if a DOS task gets into a loop).

The person who thought of this is either a genius, or insane (probably both!)
--
member, all HASA divisions POELOD ECBOMB
                  ----
                         ^-- Secret Satanic Message

Tim Smith USENET: sdcrdcf!ism780c!tim Compuserve: 72257,3706
     Delphi or GEnie: mnementh

From 8593121889803054561
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4debade249d55fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 18:16:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cuae2!ihnp4!ihopa!riccb!djb
From: djb@riccb.UUCP (Dave J. Burris)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell
Message-ID: <743@riccb.UUCP>
Date: Fri, 3-Oct-86 21:16:41 EDT
Article-I.D.: riccb.743
Posted: Fri Oct 3 21:16:41 1986
Date-Received: Sat, 4-Oct-86 13:21:50 EDT
References: <5803@ut-sally.UUCP>
Organization: Rockwell Telecommunications, Downers Grove,Il.

Lines: 36

> A friend of mine who has the Micro C-Shell program is having difficulty
> getting it to operate in the 2(multi) user mode.
> He altered the /etc/passwd file and that allowed him to log-on, but
> immediately after logging on, it brought him back to the login: prompt.
> He is definately getting logged on under the new account name, but for some
> reason the shell prompt never appears.
>
> It would go something like this:
>
> Login: john
> Password:
>
> Welcome to the Micro C-shell Multi tasking .. etc...
>
> Last Login Monday September etc ...
>
>
> Login:
>
> --------
> And that's it. It just goes back to Login: and does the same thing with
> all user names.
> Does anyone out there have any ideas why this is not working? Has anyone
> else had a similar experience with this piece of software?
> Thanks in advance.
> j.h.

Check the default shell field of the login entry of \etc\passwd for the
offending login. Make certain that the csh.prg file can be found. You should
also check the user's login.sh file to see if the path is being set to
something weird.

--
Dave Burris
..!ihnp4!ihopa!riccb!djb
Rockwell Switching Systems, Downers Grove, Il.

From -176410006883704236
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4de5bb2da2a75ed8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 19:16:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!sdcsvax!noscvax!cod!
myers
From: myers@cod.UUCP (Margaret E. Myers)
Newsgroups: net.micro.atari16
Subject: Re: VT100 emulator wanted
Message-ID: <162@cod.UUCP>
Date: Fri, 3-Oct-86 22:16:24 EDT

Article-I.D.: cod.162
Posted: Fri Oct 3 22:16:24 1986
Date-Received: Sat, 4-Oct-86 13:18:01 EDT
References: <411@zen.BERKELEY.EDU>
Organization: Naval Ocean Systems Center, San Diego
Lines: 12
Summary: vt100 emulator

I have ST-TERM from Commnet Systems v2.0. It has a fairly complete
vt100 mode. I have been able to use it with eve on vms, and with
vi on unix without any problems. It does lack 132 column mode, and
half and double size characters... and some other esoteric features
such as a reverse video that works consistently.

all in all I would probably buy it again...

MM

From -6990503745791810661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-03 19:59:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!decwrl!sun!plx!ed
From: ed@plx.UUCP
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: 68030 vs. 80386 (was The Mot. 68030)
Message-ID: <289@plx.UUCP>
Date: Fri, 3-Oct-86 22:59:09 EDT
Article-I.D.: plx.289
Posted: Fri Oct 3 22:59:09 1986
Date-Received: Mon, 6-Oct-86 18:25:55 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<654@dragon.fluke.UUCP>
Organization: Plexus Computers; San Jose, CA
Lines: 23
Xref: mnetor net.micro.68k:1341 net.micro.amiga:5070 net.micro.atari16:2324
net.micro.mac:7417

> Uh oh, it's the CPU wars again...[Warning -- 68000 partisan]
>
> It seems to me that the 68030, not the 68020, competes with the '386. Isn't

> this right? Intel seems proud of the fact that they have arrived first in
> the market at each 'generation' (8086 vs. 68000, 80286 vs. 68020, 80386 vs.
> 68030). But what do they think of the relative power of the competing
> devices? I note that Commodore Amiga (and other vendors) sell software
> emulators for the 8086 that have reasonable performance on the 68000.

Obviously, a non-amiga-owner. Anyone who has had experience whith
the "Down's Syndrome" PC emulator (Transformer) realizes that software
emulations (interpretive ones) are absolute SH*T. Don't get me wrong,
I think the 386 is gonna lose in the CPU wars.

COME ON GUYS!! KEEP THIS DISCUSSION IN net.micro.68k or net.micro.pc

OK??

Ed Chaban
Plexus Computers Inc.
Phone: (408) 943-2226
Net: sun!plx!ed

From -5973491338424474892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-03 19:59:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!rodney
From: rodney@gitpyr.UUCP (RODNEY RICKS)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <2324@gitpyr.UUCP>
Date: Fri, 3-Oct-86 22:59:52 EDT
Article-I.D.: gitpyr.2324
Posted: Fri Oct 3 22:59:52 1986
Date-Received: Mon, 6-Oct-86 18:36:42 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU> <205@mipos3.UUCP>
Reply-To: rodney@gitpyr.UUCP (RODNEY RICKS)
Organization: Georgia Institute of Technology, Atlanta, Ga.
Lines: 29
Keywords: here we go again...
Xref: mnetor net.micro.68k:1343 net.micro.amiga:5072 net.micro.atari16:2327
net.micro.mac:7419

In article <205@mipos3.UUCP> kds@mipos3.UUCP (Ken Shoemaker ~) writes:

>   Not until you have the 68030, or you make an entire subsystem
>plug in with a 68020 and an mmu, can you claim to have upgraded your Amiga
>the way plugging a 286 upgrades a pc.

Actually, one can easily support this claim. In both cases, you still have
the same level of memory protection as before. Correct me if I'm wrong (and
I know you will :-)), but MSDOS doesn't work in the 80286 protected mode, does
it? Since this is this case, upgrading to a 286 does not give any more
protection when using the standard OS. Sure, you have memory protection for
UNIX and its clones, but if that's what you're talking about, then you're
comparing apples and oranges (which is quickly becoming a very popular term
in this discussion).

>>P.S. BTW, have you guys heard about the 78000 (!?) See Nanobytes in
>
>Oh, this is great. Yet another paper product. This one, they haven't
>even had a press release on! I guess it must be more than a year
>away (:-)).

According to the BYTE article, it is due in the first quarter of next year.

Rodney Ricks,
   (Not officially respresenting...)   The 64 Store. Atlanta, Georgia 30339

UUCP: ...!{akgua,allegra,amd,hplabs,ihnp4,seismo,ut-ngp}!gatech!gitpyr!rodney
 or :   !gatech!gt-oscar!rodney
Mail: 4265 Hidden Valley Dr. College Park, Ga. 30349

From 3806198476677244868
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 22:34:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!vrdxhq!BMS-AT!stuart
From: stuart@BMS-AT.UUCP (Stuart D. Gathman)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <238@BMS-AT.UUCP>
Date: Sat, 4-Oct-86 01:34:26 EDT
Article-I.D.: BMS-AT.238
Posted: Sat Oct 4 01:34:26 1986
Date-Received: Tue, 7-Oct-86 20:04:41 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
Organization: Business Management Systems, Inc., Fairfax, VA

Lines: 12
Keywords: here we go again...
Summary: Why Darling! How thrilling!
Xref: mnetor net.micro.68k:1352 net.micro.amiga:5102 net.micro.atari16:2339
net.micro.mac:7435

In article <200@mipos3.UUCP>, kds@mipos3.UUCP (Ken Shoemaker ~) writes:
> silicon. I suppose that Intel should feel flattered in that it seems
> to me that Mot, in each case, has conceeded defeat: the 68010 to the
          . . .
> market share, they have to have a media blitz, rolling out their newest,
> half baked, family jewels. Its all pretty comic!

I enjoy just watching the competition! The one-upmanship of Motorola
and Intel makes for a furious rate of advance in technology. Let's
just have a clean, fair fight and we all benefit.
--
Stuart D. Gathman <..!seismo!{vrdxhq|dgis}!BMS-AT!stuart>

From 4186799945800833955
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 22:54:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <7183@utzoo.UUCP>
Date: Sat, 4-Oct-86 01:54:36 EDT
Article-I.D.: utzoo.7183
Posted: Sat Oct 4 01:54:36 1986
Date-Received: Sat, 4-Oct-86 01:54:36 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP>,
<200@mipos3.UUCP>
Organization: U of Toronto Zoology
Lines: 20
Keywords: here we go again...

> And what about the new family jewels? Should I feel vindicated that Mot
> has finally decided that on-chip memory management is a good idea? ...

Only when Intel decides that on-chip caches are a good idea. The 68030
has *both*. So does the Clipper, by the way. The MIPS chip set likewise

does the MMU and half (the hard half) of the cache. Where's Intel?

> ...what about performance? Why would a new, ultra-high end user choose
> the 68030 over, say, the Clipper, or the MIPS chips, each of which
> (if you believe the numbers) should exceed the 68030's performance (with
> the promise of delivering more sooner) and are available, in some semblance,
> today?

Probably no particularly good reason except compatibility. I notice,
however, that the line of argument has shifted slightly: we don't hear
the word "Intel" any more.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -9065342529691860439
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 23:00:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <7185@utzoo.UUCP>
Date: Sat, 4-Oct-86 02:00:18 EDT
Article-I.D.: utzoo.7185
Posted: Sat Oct 4 02:00:18 1986
Date-Received: Sat, 4-Oct-86 02:00:18 EDT
References: <2270@gitpyr.UUCP>, <82@lmi-angel.UUCP>
Organization: U of Toronto Zoology
Lines: 9

> ...Remember, the 68020 is in the same generation as the 80386...

Really? 386-based machines have just barely started shipping. And all
the software runs them as if they were 8088s, or 286s at best if you're
lucky. 68020 machines have been in the field, with software support, for
quite some time now. I'd say the 020 has a half-generation lead.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -5985292283903558905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-03 23:04:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.68k,net.micro.mac,net.micro.amiga,net.micro.atari16
Subject: Re: The Motorola 68030
Message-ID: <1177@hoptoad.uucp>
Date: Sat, 4-Oct-86 02:04:46 EDT
Article-I.D.: hoptoad.1177
Posted: Sat Oct 4 02:04:46 1986
Date-Received: Sat, 4-Oct-86 14:04:07 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<3853@amdahl.UUCP>
Followup-To: net.micro.68k
Organization: Nebula Consultants in San Francisco
Lines: 38
Xref: watmath net.micro.68k:1939 net.micro.mac:8124 net.micro.amiga:5139
net.micro.atari16:2344

[==> Followups have been redirected to net.micro.68k <== If you care
about this topic, please start reading about it there. The mac/amiga/atari
users have enough to talk about without Intel/Motorola flames. I'm just glad
nobody has tried including net.micro.pc, then the flames would really start!]

I believe it is correct to compare the 80386 with the 68020, on a feature
by feature basis. They are both the first 32-bit processor from each
company, have similar cycle and instruction times, addressing capabilities,
etc.

In the past Intel has been first to market each level of chip.
However, they spent too much time at the 16-bit level (on the 186 and
286, both of which took longer than expected), and Motorola worked hard
to get out of the gate first at the 32-bit level. (My favorite "why
IBM chose the 8088" rumor is that Motorola couldn't build them 1/4
million chips the first year and Intel could since they had been
ramping up longer. Be interesting to see if Motorola's taking the lead
at 32 bits makes any difference now.)

My impression is that the relative power of each chip relates strongly
to its design date. Thus, Motorola chips have tended to be more
powerful than the corresponding Intel chips, because they were designed
slightly later. The 80386 should be faster than the 68020, since it is

coming out about a year later. They made a big mistake in leaving out
the cache, though they did put in a neat feature for interleaved memory
access, so it probably runs in roughly the same speed range unless you
give it a fancy memory subsystem. (If a fancy memory is assumed,
though, then the faster possible clock rate on the 68020 comes into
play, maybe making it an even heat again.) The 68030 will be faster
than both, since it will be yet another year later. And so on...

I'm not going to argue the merits of Intel versus Motorola. It is clear
to me that both have learned from each other. Now it is up to us, the
users, to learn to write our stuff portably so we can move it to the machine
of whoever is learning the fastest at each point in time.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -2496415242082763030
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 23:05:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <7186@utzoo.UUCP>
Date: Sat, 4-Oct-86 02:05:46 EDT
Article-I.D.: utzoo.7186
Posted: Sat Oct 4 02:05:46 1986
Date-Received: Sat, 4-Oct-86 02:05:46 EDT
References: <2270@gitpyr.UUCP>
Organization: U of Toronto Zoology
Lines: 12
Keywords: here we go again...

> ... When going from a 68020 to a 68030, you will have to
> rewrite the os to take advantage of the memory management that the 68030
> provides...otherwise you just have a little faster 68020, much like you
> can use a 286 as a faster 8086. How about if we compare apples to apples?

Okay, we'll compare apples to apples: how's the 32-bit-mode code generator
for the 386 coming? If you don't have that, you just have a little faster
80286. Rewriting the code generator and recompiling everything strikes me
as rather more work than hacking up the MMU section of the kernel.

Especially since the 286->386 conversion is also going to mean hacking
up the MMU stuff to cope with 32-bit addresses.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -2812599316937449919
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bd5d14130b0d83c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 23:13:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: vt-220 emulators???
Message-ID: <8610031931.AA00499@mitre-bedford.ARPA>
Date: Sat, 4-Oct-86 02:13:51 EDT
Article-I.D.: mitre-be.8610031931.AA00499
Posted: Sat Oct 4 02:13:51 1986
Date-Received: Sat, 4-Oct-86 13:39:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

Does anyone know if there is a vt-220 emulator for the ST line? (as opposed
to vt-100 emulators) If so, who has em and what (if anything) do they cost.

-John Sangster
jhs@mitre-bedford.arpa

From -3359788403121313826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c16b603282ebe0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 01:07:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: BAMMI's MAKE and ST <-> CPM
Message-ID: <1591@cwruecmp.UUCP>
Date: Sat, 4-Oct-86 04:07:37 EDT
Article-I.D.: cwruecmp.1591
Posted: Sat Oct 4 04:07:37 1986
Date-Received: Mon, 6-Oct-86 18:34:56 EDT
References: <8610031214.AA21791@ucbvax.Berkeley.EDU>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 162

Newsgroups: net.micro.atari16
Subject: Re: BAMMI's MAKE and ST <-> CPM
Summary:
Expires:
References: <8610031214.AA21791@ucbvax.Berkeley.EDU>
Sender:
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Followup-To:
Distribution:
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Keywords:

In article <8610031214.AA21791@ucbvax.Berkeley.EDU> RDROYA01@ULKYVX.BITNET (Robert Royar) writes:
>The following code fragments are from the bammi@case MAKE.PRG.
>
 ......
>
>struct name   namehead = {
>   (struct name *)NULL,
>   (char *)NULL,
>   (struct line *)NULL,
>   (time_t)0,
>   (uchar)0
>   };
>
>I have been unable to get the program working. The program exits with
>a "no memory for macro" error and the touch program "touches" all
>files back to the date that TOS was born (i.e. midnight sometime in
>November 1985). So question one is, "has anyone other than those at
>CASE gotten this program to work?"
>
 I know of alteast 2 dozen people who have gotten make to work outside of CASE, and with various compilers (lattice, megamax). I ran it through Mark Williams too, and it works just fine.
 Most people who have been having problems with 'no memory ...' type of errors, have been making the mistake of linking make with the version of gemstart.o that was distributed with the development system. That particular version only reserves 1K for stack+heap, and gives the rest back to the system.
All that is needed is that you edit gemstart.s and on the line that reads
     add.l   #$500,d0 * d0=basepage+textlen+datalen+bsslen
*   (plus 1K of user stack)
and change the $500 to some much larger number like $4000 (16k). Better yet, use the new gemstart.s available on CompuServe, that has the various memory models. I hope that this is your problem.

As far is touch goes, both the stand alone touch program, and the touch function within make, get the current time from the IKBD and not from Gem's counters. So if you only set the current time via the control panel, and have not set the IKBD's time (they are independent counters, and the

control panel acc. does not set the IKBD time) the time you will get
will be wrong. I am almost certain, from your description of the problem,
that this is the case. The reason i chose to read the time from IKBD rather
than from Gemdos is that the IKBD clock survives resets, while the Gemdos
clock does not. Besides, i have long ago, thrown away the control panel
accessory.
To set the IKBD clock there are atleat a dozen PD programs. Many of them
sit in the auto-folder. Almost all of them set both the counters.

-My second question has to do with the last cast in the structure
-initializer. Here's the scenario. My dev pack has been ordered and
-should arrive next week, so I compiled the code with the CP/M-68K
-compiler (which is identical to the early ST version right down to the
-serial numbers). I had a friend compile it on the ST with his DEV
-pack and he got the same errors. The early Alcyon compiler only
-supports unsigned ints, so uchar is defined as char in a header file.
-But the code parser (c068) balks at the coercion with the error
-"invalid initializer" which means I tried to init a variable with
-something other than a constant. Even the cast (char)'\0' got the
-same error. Now I know the last element of that structure has to be a
-character constant or the structure will not be filled properly.
-
-The code generated for a structure like this goes ahead and fills the
-remainder of the space to allign on a word boundary, but the size of
-the last element determines how that element will actually be stored
-and accessed. Structure initialization and size has been a known bug
-in the Alcyon compiler at least since 1983. One problem with this
-structure is that all of the beginning elements are 32 bits long.
-Alcyon has trouble, and always had, with structures or function
-parameter lists that all have the same (long) size.

     All of the above comments are appreciated. I think you will
find that the new version of Alcyon V2.14 handles structures quite well.
Maybe i should have checked with my old compiler disks, but i did'nt since
the new version had been out for more than a couple of months when this
article was posted.
I guess (have'nt tried) you can go ahead and declare uchar as an int, and just
put a '0' for the last initializer, and it should tide you over till you get
your devl system. Sounds like your friend needs to get the dev. sys. upgrade
too.

-Another minor beef. If you
-
-#define uchar char
-
-Sometines the preprocessor has trouble in an expansion that involves a
-cast. If you
-
-#define void
-
-casts again can lead to difficult to track errors. Is there a reason
-to avoid typedef in these situations? Why not use

```
-
-typedef uchar char;
-typedef void int;  /* after all Alcyon expects int returns by default */
-                   /* even when none are specified.  Check the stack */
-                   /* popping code it produces after a jsr */
-
```

voids are NOT int's. V2.14 supports voids just fine.
I just tried a small example. It does not produce any extraneous code. Besides the stack popping code is there to pop the arguements off the stack. A value, if any, is returned in d0, so the stack popping code has nothing to do with the type of value returned by a function. I think 'typedef void int' is a bad idea, as any compiler (such as v2.14) will complain because void is now a reserved word, and can't be used as an identifier.
I do throughly agree on your point about using casts. Typedefs should be used when possible (see comment below too).

>Defines are hard to track down in a preprocessor output file because
>they all dissapear. But a typedef follows through that output, and
>you can see what a cast or value is. DRI used to
>
>#define FILE struct _iobuf
>
>That made a file definition bug a real bear to find. However,
>
>typedef FILE struct _iobuf;
>
>is more logical and closer to the intentention of using FILE
>structures in the first place.
>

Totally agree on the above point. Since i ported neil's code i just followed the same style. I usually do use typedefs.

>While I'm on the DRI soapbox. I compared the AR68 output for gemlib
>to that for the old clib libraries (is AR68 available for the ST
>yet?).

Yes, a working version comes with the dev. sys. update. there is also a Pd version available.

> .....
>effort to move to the ST. It's ridiculous that there's no equivalent
>to "real" xmodem i.e 1024 packets, true CRC, batch files, 19200 baud,
>scripts, etc. in the ST PD library. 19200 is great for moving files
>between the ST and your other computer, whatever that may be.
>

I routinely use xmdm to transfers files and in terminal mode at 19.2K. One of the person's here has also implemented chuck fosberg's (sp ?) Ymodem protocol (rz/sz) and that handles 1K packets pretty well. Hopefully it will have adapting windows one day. I agree that we could use PD gems from the Cp/m world too. So as the old saying goes "Put your money where your mouth is" and post some!

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 1027698799835588984
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ac5e7fcc114ed7d8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 11:12:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Monochrome Draw/Paint (Query)
Message-ID: <8610041812.AA00881@Yale-Bulldog.YALE.ARPA>
Date: Sat, 4-Oct-86 14:12:25 EDT
Article-I.D.: Yale-Bul.8610041812.AA00881
Posted: Sat Oct 4 14:12:25 1986
Date-Received: Mon, 6-Oct-86 18:46:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 31

Is there a draw/paint program available for the ST that works with a
monochrome monitor? Any pointers and reviews will be highly appreciated.

(Minor flame on)

It is annoying that "standard" software included in the package that you buy
(in this case, NeoChrome) does not even work. Why include it at all instead
of a reasonable substitute that DOES work? It's like buying an expensive
tape deck with auto-reverse, and then finding out that it doesn't work with
the particular tape head they used in the deck.

(Minor flame off)

While I'm on the subject, does anyone know why the monitors were designed to
be incompatible? Especially since the monochrome is higher resolution than
the color, it would seem natural (and pretty trivial) to design them such
that you would get a grey approximation to the color display if you had a
monochrome plugged in. I'm sure compatibility wouldn't hurt the sales any.

One further query: Does anyone know of a "calculator" desk accessory?

Thanx... -- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: ...{decvax, etc.}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 6235762022531129975
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 11:50:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!cit-vax!ll-xn!mit-amt!mit-eddie!genrad!
decvax!dartvax!merchant
From: merchant@dartvax.UUCP (Peter Merchant)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: Re: The Motorola 68030
Message-ID: <5231@dartvax.UUCP>
Date: Sat, 4-Oct-86 14:50:07 EDT
Article-I.D.: dartvax.5231
Posted: Sat Oct 4 14:50:07 1986
Date-Received: Tue, 7-Oct-86 19:47:51 EDT
References: <205@mipos3.UUCP> <833@cbmvax.cbmvax.cbm.UUCP>
Organization: Dartmouth College, Hanover, NH
Lines: 19
Xref: mnetor net.micro.68k:1349 net.micro.amiga:5093 net.micro.atari16:2335
net.micro.mac:7428

> ...the advantages of a protected OS. A non-protected OS can suffer from
> misbehaved programs and slow context swaps (if its multitasking, which the
> MS-DOS operating system emphatically isn't. Oranges vs. oranges, remember).
> A Turbo upgrade for an Amiga can deliver much the same level of performance
> as a Sun and still use standard off-the-shelf Amiga software and operating
> system, and it can take advantage of the extra capabilities of the 68020.
> MS-DOS runs fine on a '286 PC, but it can't use the extended memory
> addressing capabilities -- unless you kludge it, MS-DOS has a ceiling of
> 640K. AmigaDOS has a ceiling of 4 Gigabytes.
> --
> ==
> Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

Quick trivia question: How about MS-Windows? That does multitasking...how
   well does it work an 80386? I've almost been tempted to go to Computer-
   land and give it a try...
--
"Oh, I can't wait all my life   Peter Merchant
 On a street of broken dreams."

From -2555468931083337637
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 12:54:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: No Available 1040's
Message-ID: <459@cci632.UUCP>
Date: Sat, 4-Oct-86 15:54:16 EDT
Article-I.D.: cci632.459
Posted: Sat Oct 4 15:54:16 1986
Date-Received: Mon, 6-Oct-86 18:37:12 EDT
References: <21269@rochester.ARPA>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 12
Summary: Dealer practices.

Much of this has to do with the dealer. One dealer here
took prepaid orders of many times their agreed on allocation
schedule.

Other dealers have been taking no back-orders and are still selling
them as they come in.

The dealer that took the back-orders was trying to corner the local
market (which would be easy to do here). Atari has had the wisdom
to protect the supply to other dealers. Without that protection,
the ST's would ONLY be available mail-order. Not the best choice.

From 8736536177294204258
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e110e45e8bf9a9f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 14:03:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HI-MULTICS.ARPA!JEllsworth
From: JEllsworth@HI-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: removal
Message-ID: <861004210357.715456@HI-MULTICS.ARPA>
Date: Sat, 4-Oct-86 17:03:00 EDT
Article-I.D.: HI-MULTI.861004210357.715456
Posted: Sat Oct 4 17:03:00 1986
Date-Received: Mon, 6-Oct-86 18:48:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 1

Please remove me from the info-atari16 mail list. Thanks.

From 6697007355909743749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8363339d1c532aee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 15:58:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Faster floppy i/o programs
Message-ID: <1328@trwrb.UUCP>
Date: Sat, 4-Oct-86 18:58:03 EDT
Article-I.D.: trwrb.1328
Posted: Sat Oct 4 18:58:03 1986
Date-Received: Tue, 7-Oct-86 20:03:30 EDT
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 155
Keywords: frmtplus, veroff, veron
Summary: Shar file containing 3 uuencoded programs

Tired of slow floppy i/o? Extract the following and read the readme file.

```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - readme
sed -e 's/^X//' > readme << '!FaR!OuT!'
XThis shell archive contains the following files:
X
X    veron.s       source code for veron.prg
X    veron.uue uuencoded veron.prg
X    veroff.s  source code for veroff.prg
X    veroff.uue    uuencoded veroff.prg
X    frmtplus.uue  uuencoded frmtplus.prg (from Atari BBS)
X
XFrmtplus.prg is an executable version of the basic program published in
Xthe September edition of ANALOG magazine.  Place it in the AUTO folder of
Xof your RAM TOS boot disk and then format disks as usual from the desktop.
XThese F+ formatted disks contain extra disk format information at the end
Xof each track, in the area where the "unused" sector would be located.
XRead/write operations on these disks are much faster than read/write
Xoperations on vanilla TOS formatted disks.  So much faster, in fact,
Xthat it makes the extra effort required to format disks this way _well_
Xworth the effort.  Please refer to the original article in ANALOG for
Xmore info.
```

```
X
XTo compliment FRMTPLUS, I've written VEROFF.PRG and VERON.PRG.  Veroff
Xturns off the floppy verifies, thereby increasing disk write throughput
Xby a factor of 2.  I've installed veroff in the AUTO folder of my ROM TOS
Xsystem disk and have experienced no problems with it to date.  On those
Xrare occasions when I'm feeling particularly paranoid, I execute veron
Xto turn the verify back on again.
X
XFor those of you without uudecode, simply assemble the .s files, and then
Xlink and relmod with no other libs - as in:
X
X    as68 -l -u veroff.s
X    link68 [u]veroff.68k=veroff.o
X    relmod veroff
X
XEnjoy.
X
X _________ ______ ____ _____ ___
X/_________//___   ||__|/____|/__/   Richard E. Sansom
X   ___    ____/  / ____________     TRW Electronics & Defense Sector
X  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
X /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
X/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
!FaR!OuT!
echo x - veron.s
sed -e 's/^X//' > veron.s << '!FaR!OuT!'
X*
X* veron.s -- program to turn floppy write verify on.
X*
X
X_fverify .equ $444     * floppy verify flag
X
X        .text
X        .globl   _veron
X
X_veron:      lea  stack,sp * set up usp
X        clr.l    -(sp)         * usp becomes ssp
X        move.w   #$20,-(sp)    * call GEMDOS Super() call
X        trap #1        * enter supervisor mode
X        addq.l   #6,sp         * clean up the stack
X        move.w   #$ffff,_fverify    * set the floppy verify flag
X        move.l   d0,-(sp) * restore the ssp
X        move.w   #$20,-(sp)    * call Super() again
X        trap #1        * exit supervisor mode
X        addq.l   #6,sp         * clean up the stack
X        clr.l    -(sp)         * all done
X        trap #1        * back to the os
X
X        .bss
X
X        .ds.l    $10       * user stack
Xstack:       .ds.l    1         * top of the user stack
X
```

```
X         .end
!FaR!OuT!
echo x - veron.uue
sed -e 's/^X//' > veron.uue << '!FaR!OuT!'
Xbegin 664 veron.prg
XM8!H    F         $0                  $_Y    9D*G/SP ($Y!7(\S
X:_/__   $1"\ /SP ($Y!7(]"ITY!     @
X
Xend
!FaR!OuT!
echo x - veroff.s
sed -e 's/^X//' > veroff.s << '!FaR!OuT!'
X*
X* veroff.s -- program to turn floppy write verify off.
X*
X
X_fverify .equ $444     * floppy verify flag
X
X         .text
X         .globl   _veroff
X
X_veroff: lea  stack,sp * set up usp
X         clr.l    -(sp)         * usp becomes ssp
X         move.w   #$20,-(sp)    * call GEMDOS Super() call
X         trap #1        * enter supervisor mode
X         addq.l   #6,sp         * clean up the stack
X         move.w   #0,_fverify   * clear the floppy verify flag
X         move.l   d0,-(sp)  * restore the ssp
X         move.w   #$20,-(sp)    * call Super() again
X         trap #1        * exit supervisor mode
X         addq.l   #6,sp         * clean up the stack
X         clr.l    -(sp)         * all done
X         trap #1        * back to the os
X
X         .bss
X
X         .ds.l    $10       * user stack
Xstack:       .ds.l    1         * top of the user stack
X
X         .end
!FaR!OuT!
echo x - veroff.uue
sed -e 's/^X//' > veroff.uue << '!FaR!OuT!'
Xbegin 664 veroff.prg
XM8!H    F         $0                  $_Y    9D*G/SP ($Y!7(\S
X:_/__   $1"\ /SP ($Y!7(]"ITY!     @
X
Xend
!FaR!OuT!
echo x - frmtplus.uue
sed -e 's/^X//' > frmtplus.uue << '!FaR!OuT!'
Xbegin 664 frmtplus.prg
XM8!H   $>   !.     @                  $AY   !'C\\  E.05R/#'@%
```

```
XM*5 89@  $"/\     @   EI@   L#'@&(% 89@  $"/\         EI@   4
XM2'D   &:/SP "4Y!7(]@  "V0J<_/  @3D%<CR/    "5BI\    _MOY   "
XM6AM\   %;!M\  P%;2I\  !?_MOY   "6AM\ "(%8QM\  (%@AM\ !@%@QM\
XM &$%?!M\   %?1M\ !\%?AM\ '@%?RA-)DW9_   )/;7_   !/8J/    2P8
XMVU'-__P;?  !)2$;? !O)4\;? !L)7,;? !.)78;? !U)7<O.0   E8_/  @
XM3D%<CTAY   !_S\\  E.05R/2'D   ([/SP "4Y!7(\_/  !3D%4CT)G3D$J
XM*BH@1D]234%4(%!,55,@*BHJ"@T*#4]R:6=I;F%L('!R;V=R86T@8GD@0G)I
XM86X@1'5G9V%N+@H-5')A;G-L871E9"!T;R V.# P,"!A<W-E;6)L>2!L86YG
XM=6%G90H-8GD@0VAA<FQE<R!&+B!*;VAN<V]N+@H-"@T &W @*B!!0D]25"$@
XM*B ;<0H-5&AI<R!P<F]G<F%M(&]N;'D@=V]R:W,@=VET:"!D:7-K+6)A<V5D
XM"@UV97)S:6]N<R!O9B!43U,A("@U+3(Y+3@U(&]R(#8M,C M.#4I"@T*#0 ;
XM<"!-;V1I9FEC871I;VX@<W5C8V5S<V9U;"$@&W$*#2TM+2!296%D>2!T;R!F
XM;W)M870@+2TM"@T*#0!0<F5S<R!A;GD@:V5Y('1O(&5X:70N+BXN       "
X*'!@*' P8:@X.  T*
X
Xend
!FaR!OuT!
exit
--
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom


From 2084051829982784234
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 16:00:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: No Available 1040's
Message-ID: <8610042253.AA18728@mitre-bedford.ARPA>
Date: Sat, 4-Oct-86 19:00:56 EDT
Article-I.D.: mitre-be.8610042253.AA18728
Posted: Sat Oct  4 19:00:56 1986
Date-Received: Tue, 7-Oct-86 19:01:45 EDT
References: <21269@rochester.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 4

I have also heard rumor (2) (Buy Commodore) from another source.

-John Sangster
jhs@mitre-bedford.arpa
```

From -1567581677088277483
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-04 16:28:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ll-xn!mit-amt!mit-eddie!genrad!decvax!
decwrl!glacier!mips!mash
From: mash@mips.UUCP
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <713@mips.UUCP>
Date: Sat, 4-Oct-86 19:28:55 EDT
Article-I.D.: mips.713
Posted: Sat Oct 4 19:28:55 1986
Date-Received: Tue, 7-Oct-86 19:58:15 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU> <205@mipos3.UUCP>
Reply-To: mash@mips.UUCP (John Mashey)
Organization: MIPS Computer Systems, Sunnyvale, CA
Lines: 71
Keywords: here we go again...
Xref: mnetor net.micro.68k:1351 net.micro.amiga:5100 net.micro.atari16:2337
net.micro.mac:7433

In article <205@mipos3.UUCP> kds@mipos3.UUCP (Ken Shoemaker ~) writes:
>In article <280@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>>P.S. BTW, have you guys heard about the 78000 (!?) See Nanobytes in
>>the latest BYTE (the //GS issue). This is a RISC uprocessor with a
>>rated speed of 20 (VAX-equivalent?) MIPS . . . this kind of speed
>>totally blows away the RT PC (note: the RT PC performed just a hair
>>better than an PC AT in benchmarks . . . see PC World or PC magazine
>>of a month ago. . . not very impressive . . .)
>
>Oh, this is great. Yet another paper product. This one, they haven't
>even had a press release on! I guess it must be more than a year
>away (:-)).

Ken has a right to be skeptical on this one! It also illustrates the silly
ways in which 3rd and 4th-hand information propagate around. I quote what
the Byte issue says: "Sources with Motorola's microprocessor group (Austin, TX)
confirm that two new central processing units will be released by that
company in the near future. (Stuff on 68030)...Due in the first quarter of
next year is the 20-MIPS 78000 CPU. Sources said the 78000 is a RISC processor
that represents an evolutionary progression of the 68020."

What we have is: a) Somebody from Moto talking off-the-record to somebody on the Byte staff. It is possible that not all Moto people would agree. b) Byte prints this, so now it looks official-looking. c) Somebody else mentions it in the net, and now, a chip that (I'd guess) hasn't yet been taped out "totally blows away the RT PC." Now it sounds like it exists right now... No wonder people get confused between claims and reality!

One has to wonder what even the 2 sentences in the article actually MEAN? "Due in the first quarter.." Does that mean:

a) Appears in a machine you can login on?
b) Appears in a board?
c) Production quantities?
d) Sample quantities?
e) First silicon?
f) Announcement of when any of a-e will happen?

"20-MIPS 78000 CPU" Does that mean?

a) Runs at 20Mhz, and can do peak 1 instruction per cycle?
b) Is 20X a VAX 11/780 doing real work?

Note that the conversion from peak MIPS to VAX-equivalent MIPS (or any other kind of real-live MIPS) can take on radically different factors: for example, on 68020s, the division factor seems like 4 (i.e., 16.67Mhz designs gives 8 peak Mips (2 cycles/instr) ==> 2 VAX mips. Clippers have a factor of about 6.6 (33 peak Mips ==> 5 Mips (according to published claims)). Depending on what the 78000 really will be, it might be as low as a 5Mips part (one would expect it to be higher).

"RISC processor that represents an evolutionary progression of the 68020." What does this mean?

a) Does it run 68020 object code?
b) Does it run a subset of the 68020 instructions?
c) Is it different object code, but "philosophically like the 68020"?

Sigh. As one can see, if one reads the literature uncritically, things that sound like information can be found to be rather content-free, i.e., "real" information is found to be "virtual."

Note: none of this is meant as an attack on the 78000, but on the weird process by which information leaks around and is jumbled up. As far as I know, the 78000 hasn't been announced by anyone for the record, and is mostly discussed with Moto customers (existing or potential) who want to do high-end systems and show signs of picking other vendors' micro-processors. Perhaps someone from Motorola might care to comment on the original article: one can choose to believe a vendor or not, but nobody should ascribe high credibility to 3rd-hand off-the-record comments, or knock the vendor for such "information".

--

-john mashey DISCLAIMER: <generic disclaimer, I speak for me only, etc>
UUCP: {decvax,ucbvax,ihnp4}!decwrl!mips!mash, DDD: 408-720-1700, x253
USPS: MIPS Computer Systems, 930 E. Arques, Sunnyvale, CA 94086

From -8585441637156556782

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-04 18:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!umcp-cs!eneevax!hsu
From: hsu@eneevax.UUCP (Dave Hsu)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <202@eneevax.UUCP>
Date: Sat, 4-Oct-86 21:09:00 EDT
Article-I.D.: eneevax.202
Posted: Sat Oct 4 21:09:00 1986
Date-Received: Tue, 7-Oct-86 19:54:22 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU> <205@mipos3.UUCP>
Reply-To: hsu@eneevax.UUCP (Dave Hsu)
Organization: Imperial Widget Research Center, Kingdom of Maryland
Lines: 114
Keywords: here we go again...
Xref: mnetor net.micro.68k:1350 net.micro.amiga:5097 net.micro.atari16:2336
net.micro.mac:7432

In article <205@mipos3.UUCP> kds@mipos3.UUCP (Ken Shoemaker ~) writes:
>In article <280@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>>
>> In re: Motorola's continual announcements . . . is it fair
>>to compare the 68030 to the 80386, etc.?
>>
>> Yes.
>
>Of course, there is no comparison between the two classes of machines, because
>you in here introduce more than two classes of machines. I would not
>put Sun workstations and Turbo Amigas in the same class of machine simply
>because the Amiga does not support any kind of memory management. If you
>want to have a grown-up machine, one that supports multi-user/multi-tasking
>you really need to have this. I have used 68k boxes without that have
>tried to do it, and it works, but you are just asking for trouble. That
>the same 286-based box can support an unprotected os like ms-dos and
>a protected os like Unix means that it can function in either of these
>two classes. Not until you have the 68030, or you make an entire subsystem
>plug in with a 68020 and an mmu, can you claim to have upgraded your Amiga
>the way plugging a 286 upgrades a pc.

Your assertion about classifying 68k based machines is more or less correct;
I wouldn't want to lump the Amiga and the Sun together. Yet. But sooner or

later Commodore will get their act together, and you can bet on the existence of an MMU in Atari's TT box next year, and that whatever design one uses, it will be infinitely easier to live with than the Intel segmentation design. A simple matter of extracting limited function from a limited design.

>> Another important point to make is that operating systems implemented on
>>the 68000 series chips will run fairly well on the higher-grade chips;
>>UNIX, AmigaDos/Intuition, Mac Operating System, ST GEM/TOS, et cetera are
>>all capable of taking advantage of the higher-level chips' capabilities
>
>In the first place, msdos, while not taking advantage of the functionality
>of the 286 or the 386, is certainly not a kludge when run on them. In
>addition, when you go from one type of 68* based box to another, you also
>need to rewrite the operating system, because the memory management systems
>are incompatible.

You just walked down the wrong alley for an Intel person. I dare say that there are far more diversified and completely alien implementations of the MS-DOS BIOS and kernal than there ever have been 68k implementations of Unix. In fact, the amount of dirty work needed to port Unix memory management from one 68k system to another pretty much is based on only two variables: which version of Unix, and whether or not you're demand paged. The minimum functionality required to run Unix well is easily accomodated by just about every 68k MMU design I've ever seen. What's a '386 user to do, use the warped `MMU' inherent in its predecessors? No...you need a rewrite. Motorola passed that trial years ago when the '010 was introduced.

> People have also generated 286-based cards that plug
>into plain old IBM pcs and have gained a significant performance upgrade, while
>running their old software. I'm sure the same thing can and will happen
>with the 386.

What a coincidence! Just about everybody else in the world has too! And if you're not convinced, I have some Apple-II+ accelerator boards I'd like you to meet.

> And Unix implementations for 8086-based chips have been
>floating around for at least 5 years.

Amazing. Commercial Unix implementations for 68000-based machines have been floating around for well over 5 years; check the ads in your old Byte issues.

>MS-DOS already is a 16-bit os, and always has been.

What are you trying to say? "And it always will be?" We're not discussing 6502's here. The 68k family is already a 32-bit processor, and always has been. Bus sizing is just another one of its strengths, if you will.

> When going from a 68020 to a 68030, you will have to
>rewrite the os to take advantage of the memory management that the 68030
>provides...otherwise you just have a little faster 68020, much like you
>can use a 286 as a faster 8086. How about if we compare apples to apples?
>Can you say "incoherency?"

Can you say "Yes, you are becoming incoherent"? When going from a 68020 to a 68030, you will have to throw away that PMMU chip you had sitting next to it. Code changes? Motorola claims you won't need any. I'll be more than happy to throw away another large power-sucking chip; I need the real-estate anyhow. When going from a '286 to a '386, you will have to rewrite the OS to take advantage of a real MMU. You guys DO have a real MMU, don't you? Otherwise, you have a little faster '286. As for improvements in Motorola's performance, a large number of programs benefitted wonderfully from the DBxx change in the '010, and that's the name of the game. Otherwise, why would NEC try to market the V20/V30 family?

>--
>The above views are personal.
>
>I've seen the future, I can't afford it...
>
>Ken Shoemaker, Microprocessor Design, Intel Corp., Santa Clara, California

Yes, the good people of Oakhill are jumping the gun a bit, but it isn't going to bother me a bit. As far a Joe Blow is concerned, his computer suddenly became faster and less power grubbing with a minimum of hardware redesign on my behalf. As far as I'm concerned, I just won an MMU and a data cache and saved myself a lot of money. Keep your iAPX toys, guys; I might look you over if you start running circles around Vax 8800's. If.

The opinions expressed within are entirely mine, and may not reflect the views of the University of Maryland. But a hell of a lot of my friends share them.

-dave
--
David Hsu (301) 454-1433 || -8798 || -8715 "I know no-thing!" -eneevax
Communications & Signal Processing Laboratory / EE Systems Staff
Systems Research Center, Bldg 093 / Engineering Computer Facility
The University of Maryland -~- College Park, MD 20742
ARPA: hsu@eneevax.umd.edu UUCP: [seismo,allegra,rlgvax]!umcp-cs!eneevax!hsu

"Hoy?"

From -8426589174412273047
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-04 21:15:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!watmath!watnot!watdcsu!

magore
From: magore@watdcsu.UUCP (M.A.Gore - ICR)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <2618@watdcsu.UUCP>
Date: Sun, 5-Oct-86 00:15:55 EDT
Article-I.D.: watdcsu.2618
Posted: Sun Oct 5 00:15:55 1986
Date-Received: Tue, 7-Oct-86 20:05:52 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<7183@utzoo.UUCP>
Reply-To: magore@watdcsu.UUCP (M.A.Gore - ICR)
Organization: U of Waterloo, Ontario
Lines: 45
Keywords: here we go again...
Xref: mnetor net.micro.68k:1353 net.micro.amiga:5103 net.micro.atari16:2340
net.micro.mac:7436

In article <7183@utzoo.UUCP> henry@utzoo.UUCP (Henry Spencer) writes:
>> And what about the new family jewels? Should I feel vindicated that Mot
>> has finally decided that on-chip memory management is a good idea? ...
>
>Only when Intel decides that on-chip caches are a good idea. The 68030
>has *both*. So does the Clipper, by the way. The MIPS chip set likewise
>does the MMU and half (the hard half) of the cache. Where's Intel?
>
>
>> ...what about performance? Why would a new, ultra-high end user choose
>> the 68030 over, say, the Clipper, or the MIPS chips, each of which
>> (if you believe the numbers) should exceed the 68030's performance (with
>> the promise of delivering more sooner) and are available, in some semblance,
>> today?
>
>Probably no particularly good reason except compatibility. I notice,
>however, that the line of argument has shifted slightly: we don't hear
>the word "Intel" any more.
>--
>   Henry Spencer @ U of Toronto Zoology
>   {allegra,ihnp4,decvax,pyramid}!utzoo!henry

     Hi, I just would like to bring up a new topic to think about.
I find that working at the chip level can be a great joy but *most* consumers
do not. They mostly run programs and only care if they run -fast enough-.
As far as writing programs go the compiler is where the real sweet occurs
yet compiler writers are *few* compared to end users. Then we have
to weigh just how many *good* applications can be addressed with only
a compiler rather then an assembler. This problem is more complex
-to be sure- but I would say that the compiler that is most mature
is the winner (at the time). That is because a buggy compiler can
cause much pain to developers... Market competition has to occur
to 'debug' the compilers etc.... What I am getting at is by no means the
fault of hardware design -just the first in high volume to market wins-...
I have a 68K and an 8086! but I can use both... Ok everybody -

lets here it for 'to each his own' (any cheers?). I think most people
don't get down to the hardware level like the rest of us. Well for now I'll
think about getting so sleep and dream of some *real* cpu's not like
the toys we have today but say in 10 years. (You know 10 years from
now when we have the computing power of a CRAY in a kid's toy.....:-)

Mike Gore
Institute for Computer Research.
These ideas/concepts do not imply views held by the University of Waterloo.

From 5734579799609338026
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-05 03:09:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ewhac
From: ewhac@well.UUCP (Leo 'Bols Ewhac' Schwab)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: Re: The Motorola 68030
Message-ID: <1884@well.UUCP>
Date: Sun, 5-Oct-86 06:09:55 EDT
Article-I.D.: well.1884
Posted: Sun Oct 5 06:09:55 1986
Date-Received: Tue, 7-Oct-86 19:33:51 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP>
Reply-To: ewhac@well.UUCP (Leo 'Bols Ewhac' Schwab)
Followup-To: talk.bizarre
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 45
Keywords: here we go again..., NO WE DON'T!!!!!
Summary: Also -- Re: Re: Re: Re: Re: Re: Re: Re: Mac vs. Amiga (vs. whatever)
Xref: mnetor net.micro.68k:1354 net.micro.amiga:5104 net.micro.atari16:2341
net.micro.mac:7437

[The following is a uuencoded program that will kill the line eater:]

> > > O F F I C I A L A N N O U N C E M E N T < < <

At the risk of contributing further to the problem, I hereby make
the following announcement:

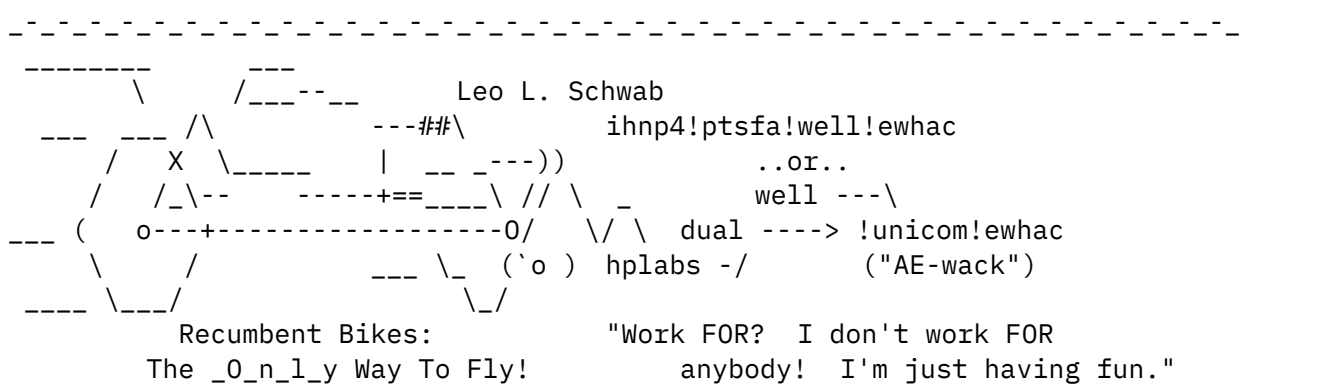
This line of discussion has ceased to be interesting. As a result,
the signal-to-noise ratio has gone way down.

Talking about vaoprware, after I think about it a while, only depresses me. I'm interested in what I can do now, not next year. Waiting is not my thing, doing neat stuff is.

We already went through The Boing Wars once already. Face it: designers will create wonderful ideas and stupid mistakes. Some have more of one than the other (I will privately mail my opinions to anyone who's interested; I don't think there will be a big response, do you?). This is the point: If machine 'x' really is sh*t, then why did person 'y' buy it? Furthermore, why did person 'y' keep machine 'x' after "seeing for himself" that it was sh*t? One machine will not please everyone, and that's why there are all different kinds. This is one of the advantages of living in America.

Please redirect followups to these threads of thought to the appropriate news group; I'm getting tired of sorting through 50 articles a day, only half of which are remotely interesting. To get an idea of what it's like, visit net.jokes sometime ("There are 320 new messages in net.jokes, only 7 of which are funny. Read now [ynq]?").

Don't followup to this article, as talk.bizarre might get annoyed (snicker, snicker...).



From 1231143091621545496
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9a508b47334b4f32,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 11:09:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: Problems getting 1040ST's
Message-ID: <8610051815.AA06379@ucbvax>
Date: Sun, 5-Oct-86 14:09:24 EDT
Article-I.D.: ucbvax.8610051815.AA06379
Posted: Sun Oct 5 14:09:24 1986
Date-Received: Tue, 7-Oct-86 19:39:22 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 14

Date: 5 October 86 11:07-PST
From: KJBSF@SLACVM
To: INFO-ATARI16@SCORE
Subject: Problems getting 1040ST's

Date: 5 October 1986, 11:05:35 PST
From: Kevin J. Burnett x3330 <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD>
Subject: Problems getting 1040ST's

I found the comments about people having problems getting 1040's at all interesting, especially because when I went to buy mine, I plonked down the check and walked out with a system. This makes me think that the problem might be with individual dealers doing strange things..

From -7122694015024223218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4224ca31df400abc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 12:11:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Graphics Demo Program
Message-ID: <8610051911.AA01102@ohio-state.ARPA>
Date: Sun, 5-Oct-86 15:11:05 EDT
Article-I.D.: ohio-sta.8610051911.AA01102
Posted: Sun Oct 5 15:11:05 1986
Date-Received: Tue, 7-Oct-86 19:41:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

The next file that I'll post is the OSS Personal Pascal source code for an amusing graphics demo program that I've written.

I would post the binary, but I do not have uuencode for my ST. If someone would send this to me, I'd be very grateful.

Enjoy the program,

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From -8083488877951174062
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d39da1e21ce233da
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 12:11:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!OHIO-
STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8610051911.AA01109@ohio-state.ARPA>
Date: Sun, 5-Oct-86 15:11:25 EDT
Article-I.D.: ohio-sta.8610051911.AA01109
Posted: Sun Oct 5 15:11:25 1986
Date-Received: Tue, 7-Oct-86 19:41:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 434

```
program spheres;

{
This program draws spheres of various sizes on the graphics screen.
}

const
  {$i gemconst.pas}
  maxx        = 639;
  minx        =   0;
  maxy        = 399;
  miny        =   0;
  white_color =   0;
  black_color =   1;

  pi = 3.141592654;

type
  {$i gemtype.pas}
  mode_type = (draw, erase);

var
  plotting_window : integer;
  quit            : boolean;


{$i gemsubs.pas}


procedure start_graphics(var plotting_window : integer);

{
Set up and clear a plotting window.
```

```
}

var
  null_string : string;

begin

  null_string := '';

  hide_mouse;

  plotting_window := new_window(0, null_string, 0, 0, maxx + 1, maxy + 1);
  open_window(plotting_window, 0, 0, maxx + 1, maxy + 1);

  paint_color(white_color);
  paint_rect(0, 0, maxx + 1, maxy + 1);
  line_color(black_color);

end;


procedure stop_graphics(plotting_window : integer);

{
Delete plotting window.
}

begin

  close_window(plotting_window);
  delete_window(plotting_window);

  show_mouse;

end;


function point_in_range(x, y : integer) : boolean;

{
Return true only when point (x, y) is on the screen.
}

begin

  point_in_range := (x >= 0) and (x <= maxx) and
                    (y >= 0) and (y <= maxy);

end;


procedure point(x, y : integer);
```

```
{
Plot a point on the screen if it is in range.
}

begin

  if point_in_range(x, y)
    then plot(x, maxy - y);

end;


function min(a, b : integer) : integer;

{
Return the lesser of a and b.
}

begin

  if a < b
    then min := a
    else min := b;

end;


function max(a, b : integer) : integer;

{
Return the greater of a and b.
}

begin

  if a > b
    then max := a
    else max := b;

end;


procedure draw_line(x0, y0, x1, y1 : integer; draw_mode : mode_type);

{
Draw or erase a line on the screen if at least one point is within the
boundries of the screen.
}

begin

  if point_in_range(x0, y0) or point_in_range(x1, y1)
    then begin
```

```
      x0 := max(x0, 0);
      y0 := max(y0, 0);
      x1 := max(x1, 0);
      y1 := max(y1, 0);

      x0 := min(x0, maxx);
      y0 := min(y0, maxy);
      x1 := min(x1, maxx);
      y1 := min(y1, maxy);

      if draw_mode = erase
        then line_color(white_color);

      line(x0, maxy - y0, x1, maxy - y1);

      if draw_mode = erase
        then line_color(black_color);

    end;

end;


function mouse_button_pressed : boolean;

{
Return true when the left mouse button is depressed (false otherwise).  Do
not wait for button to be pressed.
}

const
  left_button = $0001;
  button_down = $0001;

var
  event,
  discard      : integer;
  message_area : message_buffer;

begin

  event := get_event(e_button | e_timer, left_button, button_down, 0, 0,
                     false, 0, 0, 0, 0, false, 0, 0, 0, 0,
                     message_area, discard, discard, discard,
                     discard, discard, discard);

  mouse_button_pressed := (event & e_button) <> 0;

end;


function random(low_value, high_value : integer) : integer;
```

```
{
Return a pseudorandom integer between low_value and high_value (inclusive).
Low value must be less than high value.
}


  function random_24_bit : long_integer;

  {
  Return 24 bit pseudorandom integer.
  }

  xbios(17);


begin

  random := int(low_value + (random_24_bit mod (high_value - low_value + 1)));

end;


procedure calc_y(x, z, radius : real; var result : real;
                              var valid_args : boolean);

{
Given the x and z coordinate and the radius of a circle, this procedure
returns the value of y.  If there is no value of y for the given arguements,
valid arguements is false.
}

var
  y_squared : real;

begin

  y_squared := sqr(radius) - sqr(x) - sqr(z);

  valid_args := true;

  if y_squared >= 0.0
    then result := sqrt(y_squared)
    else valid_args := false;

end;


procedure y_rotation(var x, z : real; angle : real);

{
Rotate a point about the y axis.
}
```

```
var
  temp_x,
  sin_angle,
  cos_angle : real;

begin

  { Compute these values only once. }
  sin_angle := sin(angle);
  cos_angle := cos(angle);

  temp_x := x *   cos_angle  + z * sin_angle;
  z      := x * (-sin_angle) + z * cos_angle;

  x := temp_x;

end;


procedure draw_sphere(plotting_window : integer; radius, x_center, y_center,
                                  rotation_angle : real; var quit : boolean);

{
Draw a wire-frame sphere rotated about the y axis.  The center
of the sphere prior to rotation is (x_center, y_center).
}

const
  z_delta = 4.0;

var
  x,
  z,
  plot_x,
  plot_y,
  plot_z     : real;
  valid_args : boolean;

begin

  z := -radius;

  quit := false;

  while (z <= radius) and not quit do begin

    x := -radius;

    while x <= radius do begin

      plot_x := x;
      plot_z := z;
```

```
      calc_y(plot_x, plot_z, radius, plot_y, valid_args);

      if valid_args
        then begin

          y_rotation(plot_x, plot_z, rotation_angle);

          { Hide lines if drawing the front of a sphere. }
          if plot_z >= 0.0
            then draw_line(round(plot_x + x_center), round( plot_y + y_center),
                           round(plot_x + x_center), round(-plot_y + y_center),
                                                                    erase);

          point(round(plot_x + x_center), round( plot_y + y_center));
          point(round(plot_x + x_center), round(-plot_y + y_center));

        end;

      x := x + 1.0;

    end;

    quit := mouse_button_pressed;
    z := z + z_delta;

  end;

end;


procedure introduce_program;

{
Introduce the program with a dialog box.
}

const
  { Width (in characters) of dialog box }
  box_width = 64;
  color     = $1180;

  { Strings that will be inserted into dialog box. }
  str_1     = 'Spheres 1.0 - A Graphics Demo Program';
  str_2     = 'Written by Eric Bergman-Terrell';
  str_3     = 'of Cadenza Software, Ltd.';
  str_4     = '1704 Imperial Ridge, Las Cruces, NM  88001, USA';
  str_5     = 'Portions of this product are copyright (c) 1986, OSS and CCD';
  str_6     = 'Used by Permission of OSS';
  str_7     = 'This software has been placed in the public domain.';
  str_8     = 'Hold down left mouse button to quit.';
  start_str = 'BEGIN';
```

```
var
  intro_box     : dialog_ptr;
  line_1,
  line_2,
  line_3,
  line_4,
  line_5,
  line_6,
  line_7,
  line_8,
  start_button,
  button_pushed : integer;
  start_item    : tree_index;

begin

  { Set up the mouse the be an arrow. }
  init_mouse;
  set_mouse(m_arrow);

  { Get a dialog box. }
  intro_box := new_dialog(8, 0, 0, box_width, 18);

  { Insert strings into dialog box. }
  line_1 := add_ditem(intro_box, g_text, none, 1, 1, box_width, 1, 0, color);
  line_2 := add_ditem(intro_box, g_text, none, 1, 3, box_width, 1, 0, color);
  line_3 := add_ditem(intro_box, g_text, none, 1, 4, box_width, 1, 0, color);
  line_4 := add_ditem(intro_box, g_text, none, 1, 5, box_width, 1, 0, color);
  line_5 := add_ditem(intro_box, g_text, none, 1, 7, box_width, 1, 0, color);
  line_6 := add_ditem(intro_box, g_text, none, 1, 8, box_width, 1, 0, color);
  line_7 := add_ditem(intro_box, g_text, none, 1, 11, box_width, 1, 0, color);
  line_8 := add_ditem(intro_box, g_text, none, 1, 13, box_width, 1, 0, color);
  start_button := add_ditem(intro_box, g_button,
                            exit_btn | selectable | default,
                            30, 16, length(start_str), 1, 0, color);

  { Adjust the strings in the dialog box. }
  set_dtext(intro_box, line_1, str_1, system_font, te_center);
  set_dtext(intro_box, line_2, str_2, system_font, te_center);
  set_dtext(intro_box, line_3, str_3, system_font, te_center);
  set_dtext(intro_box, line_4, str_4, system_font, te_center);
  set_dtext(intro_box, line_5, str_5, system_font, te_center);
  set_dtext(intro_box, line_6, str_6, system_font, te_center);
  set_dtext(intro_box, line_7, str_7, system_font, te_center);
  set_dtext(intro_box, line_8, str_8, system_font, te_center);
  set_dtext(intro_box, start_button, start_str, system_font, te_center);

  center_dialog(intro_box);

  { Introduce the program. }
  button_pushed := do_dialog(intro_box, start_item);

  end_dialog(intro_box);
```

```
  delete_dialog(intro_box);

end;


begin

  if init_gem >= 0
    then begin

      introduce_program;

      { Prepare to plot. }
      start_graphics(plotting_window);

      repeat

        draw_sphere(plotting_window, random(20, (maxx + 1) div 6),
                                 random(0, maxx), random(0, maxy),
                                pi * (random(0, 25) / 100), quit);

      until quit;

      stop_graphics(plotting_window);

      exit_gem;

    end;

end.
```

```
From -82790309447173568
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cdaffc77002c8e8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 12:49:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: How do I send messages to someone?
Message-ID: <6086@topaz.RUTGERS.EDU>
Date: Sun, 5-Oct-86 15:49:09 EDT
Article-I.D.: topaz.6086
Posted: Sun Oct  5 15:49:09 1986
Date-Received: Tue, 7-Oct-86 19:43:08 EDT
References: <436@zen.BERKELEY.EDU>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 6
Cc: appelbau
```

In vnews use the reply function, by typing 'r' to vnews. Of course
if you're trying to arpa mail without arpa privs then your stuck.
--
Marc L. Appelbaum
Arpa: appelbau@blue.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!ru-blue!appelbau

From 4791272489982558000
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4224ca31df400abc
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 16:49:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!OHIO-
STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Graphics Demo Program
Message-ID: <8610052349.AA03308@ohio-state.ARPA>
Date: Sun, 5-Oct-86 19:49:55 EDT
Article-I.D.: ohio-sta.8610052349.AA03308
Posted: Sun Oct 5 19:49:55 1986
Date-Received: Tue, 7-Oct-86 19:45:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

I forgot to mention that it will work only on monochrome systems. However,
it should be easy to modify it to run on color systems.

Bergman-Terrell

From 5731966125786887351
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,40cfb22057d70a77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-05 21:48:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!OHIO-
STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: executable files for spell.pas and spheres.pas
Message-ID: <8610060448.AA05468@ohio-state.ARPA>
Date: Mon, 6-Oct-86 00:48:11 EDT
Article-I.D.: ohio-sta.8610060448.AA05468
Posted: Mon Oct 6 00:48:11 1986
Date-Received: Tue, 7-Oct-86 20:34:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 7

I've finally figured out how to send uuencoded binaries of
my programs. The next two postings that I'll make will be
the executable files corresponding to spell.pas and
spheres.pas

Terrell

From -5485690045316540122
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c25e532cc0503b8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 04:21:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!Ulrich.wbst
From: Ulrich.wbst@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Missing Gem Functions?
Message-ID: <861006-042116-3507@Xerox>
Date: Mon, 6-Oct-86 07:21:26 EDT
Article-I.D.: Xerox.861006-042116-3507
Posted: Mon Oct 6 07:21:26 1986
Date-Received: Tue, 7-Oct-86 21:01:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Balma and Fitler's book contains references to three Gem Functions that
are available on the IBM version of Gem. These functions are not listed
in the Abacus book. They are:

appl_find
appl_tplay
appl_trecord

Are they missing from the Atari implementation?

Denny

From -3423419668279268110
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522de78713dda03c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 07:38:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HNYKUN52.BITNET!FONETIEK
From: FONETIEK@HNYKUN52.BITNET
Newsgroups: net.micro.atari16
Subject: Proff sources

Message-ID: <8610061437.AA18001@ucbvax>
Date: Mon, 6-Oct-86 10:38:25 EDT
Article-I.D.: ucbvax.8610061437.AA18001
Posted: Mon Oct 6 10:38:25 1986
Date-Received: Tue, 7-Oct-86 23:29:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

DATE: 6 OCT 86 11:00
FROM: FONETIEK%HNYKUN52.BITNET@WISCVM.WISC.EDU (W. Bloemberg)
SUBJECT: Proff sources
TO: info-atari16@SU-SCORE.ARPA

A few weeks ago I got UNITERM, but it is almost impossible to read the
documentation without Proff, so if anyone could send me the Proff
sources I would be very grateful..
                                    Wilfried Bloemberg

From 166038159577858041
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdb42cec1522259c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 08:03:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UniTerm V1.4 (at last....)
Message-ID: <8610070729.AA03202@ucbvax>
Date: Mon, 6-Oct-86 11:03:16 EDT
Article-I.D.: ucbvax.8610070729.AA03202
Posted: Mon Oct 6 11:03:16 1986
Date-Received: Tue, 7-Oct-86 23:49:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

At last.....Tomorrow I will post UniTerm V1.4 to the net, look for following
files:

      UniTerm 1, Part 1 of 6
      (Read.Me,UniRsc.UUE)

      UniTerm 2, Part 2 of 6
      (Keyedit.UUE)

      UniTerm 3, Part 3 of 6
      (Uniterm.a)

      UniTerm 4, Part 4 of 6

(UniTerm.b)

UniTerm 5, Part 5 of 6
(UniTerm.c)

UniTerm 6, Part 6 of 6
(UniTerm.d)

A update of the documentation is still being done and will be sent to the sites which didn't receive the original posting.

Simon Poole
K538915.CZHRZU1A.BITNET

From 360588237846383212
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,f0049af0f639ee2d,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,f0049af0f639ee2d,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f0049af0f639ee2d,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,f0049af0f639ee2d,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-06 09:12:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: veroff, veron, frmtplus, and foul up
Message-ID: <1329@trwrb.UUCP>
Date: Mon, 6-Oct-86 12:12:15 EDT
Article-I.D.: trwrb.1329
Posted: Mon Oct 6 12:12:15 1986
Date-Received: Wed, 8-Oct-86 00:49:46 EDT
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 24
Keywords: oops...
Xref: mnetor net.micro.68k:1360 net.micro.amiga:5130 net.micro.atari16:2365
net.micro.mac:7464

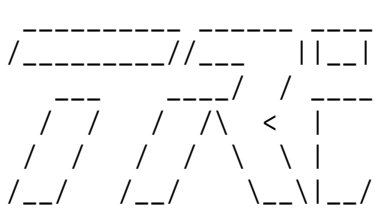
Wouldn't you know, I managed to mess up my only posting in months. The veroff.uue is actually _another_ copy of veron.uue. Hoever, the fix is simple enough: you can 1) actually assemble the veroff.s file, or 2) edit the uudecoded version of the bad veroff.uue. To do the latter, you must replace the 0xffff at offset 0x2e and 0x2f with 0x0000.

```
0000000  601a 0000 0026 0000 0000 0000 0044 0000
0000020  0000 0000 0000 0000 0000 0000 4ff9 0000
```

```
0000040  0066 42a7 3f3c 0020 4e41 5c8f 33fc ffff <--- replace ffff with 0000
0000060  0000 0444 2f00 3f3c 0020 4e41 5c8f 42a7
0000100  4e41 0000 0002 0000
```

Sorry for the foul up.

-Rich
--



Richard E. Sansom
TRW Electronics & Defense Sector
One Space Park Drive, R3/1028
Redondo Beach, CA 90278
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From 8946224668460506506
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,402681862178e208,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 10:20:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: honest i just opened the door a crack and it escaped (uE3.7i)
Message-ID: <595@imagen.UUCP>
Date: Mon, 6-Oct-86 13:20:14 EDT
Article-I.D.: imagen.595
Posted: Mon Oct 6 13:20:14 1986
Date-Received: Wed, 8-Oct-86 00:48:54 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 36

lineater ? we don't need no stinkin' lineater !

the next 4 postings (which knowing the net will end up preceeding
this posting (:-) contain a brief explanation of the features of
the latest port of microemacs 3.7i and the uuencoded version. to get
it; remove heading etc. from the 4 postings, cat them together,
unshar them, and uudecode emacs.uue. the sum's for the files follow:

```
56189    99 emacs.shar
43567    68 emacs.ttp
40157    94 emacs.uue
54370    30 part 1 of 4 (without headings, .signatures etc.)
45955    32 part 2 of 4
29676    32 part 3 of 4
01530     7 part 4 of 4
```

and just for the heck of it

```
-rw-rw-r--  1 turner     101376 Oct  6 10:06 emacs.shar
-rw-rw-r--  1 turner      69396 Oct  6 09:58 emacs.ttp
-rw-rw-r--  1 turner      95640 Oct  6 10:04 emacs.uue
-rw-rw-r--  1 turner      30587 Oct  6 10:07 part 1
-rw-rw-r--  1 turner      32000 Oct  6 10:07 part 2
-rw-rw-r--  1 turner      32000 Oct  6 10:07 part 3
-rw-rw-r--  1 turner       6789 Oct  6 10:07 part 4
--
----
         It aint life that gets me down, it's gravity

Name:     James M. Turner
Mail:     Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T:     (408) 986-9400
UUCP:     ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie     : D-ARCANGEL


From -9066685549950001607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1a62d3da6df8f79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:01:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: ST Developer's Kit
Message-ID: <433@atari.UUcp>
Date: Mon, 6-Oct-86 14:01:28 EDT
Article-I.D.: atari.433
Posted: Mon Oct  6 14:01:28 1986
Date-Received: Wed, 8-Oct-86 19:34:11 EDT
References: <8609301756.AA11996@inria.UUCP>
Organization: Atari Corp/Mktg
Lines: 27

In article <8609301756.AA11996@inria.UUCP>, didier@lasso.UUCP writes:
> I work in France, but would like to use the developer's kit distributed in
> the US.

The telex number for Atari US is 172508 ATARICHQ SUVL

Contact Cindy Clavernan.  The price is still $300 but she will have to tell
you what shipping costs to add.

I doubt there's any difference between the US kit and the one in France, but
it's your nickle.
```

Ubiquitously,

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -6753113159041149992
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f110d9358193c87e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:12:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Detailed Documentation
Message-ID: <434@atari.UUcp>
Date: Mon, 6-Oct-86 14:12:15 EDT
Article-I.D.: atari.434
Posted: Mon Oct 6 14:12:15 1986
Date-Received: Wed, 8-Oct-86 19:34:24 EDT
References: <21268@rochester.ARPA>
Organization: Atari Corp/Mktg
Lines: 31

In article <21268@rochester.ARPA>, stuart@rochester.ARPA writes:
> From: Stuart Friedberg <stuart>
>
> This is a question which can only be answered by "the voice of Atari"
> concerning the for-retail-sale documentation that was expected to be
> available around the end of the year.
>
> Does this documentation make the documentation of the developer's kit
> redundant?

Yes, it is a complete rewrite of everything in the developers documentation.

> If the retail documentation does NOT cover all of this stuff, I'm going
> to (have to) pay the $50 to become a registered developer and the $300
> for the developer's kit.

What $50? There is no separate $50 fee, just the $300 for the kit.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 3839113560394447237
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:15:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: No Available 1040's
Message-ID: <435@atari.UUcp>
Date: Mon, 6-Oct-86 14:15:44 EDT
Article-I.D.: atari.435
Posted: Mon Oct 6 14:15:44 1986
Date-Received: Wed, 8-Oct-86 19:34:41 EDT
References: <21269@rochester.ARPA>
Organization: Atari Corp/Mktg
Lines: 33

In article <21269@rochester.ARPA>, stuart@rochester.ARPA writes:

> I am now going to relate some statements that I can not confirm
> personally. Treat them as rumor, but notice that I have signed this
> message. There are no 1040's in the warehouse. There are no 1040's in
> production. Atari has been accepting orders, and payment, in order to
> build up liquid assets. I have heard two conjectured motivations:
> (1) build up capital for production facilities, and (2) buy Commodore.
> I choose not to speculate, but these statements are consistent with
> the observed facts.

The 1040ST's are in production and on their way. We sold out due to a
spectacular Summer.

Accepting money for a product which cannot be shipped does not build up

assets -- there is a liability added to the books for each undelivered
machine.

And the shortage is a situation which will be cleared up momentarily.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -7994323500702152113
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7897b7873f19ed4c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:23:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Many questions...
Message-ID: <436@atari.UUcp>
Date: Mon, 6-Oct-86 14:23:17 EDT
Article-I.D.: atari.436
Posted: Mon Oct 6 14:23:17 1986
Date-Received: Wed, 8-Oct-86 19:34:56 EDT
References: <8610031818.AA03032@ucbvax>
Organization: Atari Corp/Mktg
Lines: 37

In article <8610031818.AA03032@ucbvax>, UD040164@NDSUVM1.BITNET (a.d. jensen)
writes:

> 1) I have heard (or think I did) a rumor that the CP/M emulator was
>   put into the public domain, and was available from the Atari BBS.
>   Any truth to this? As well, how compatable is compatable? Which
>   video emulation is available?

We hope to make it available shortly. One snag -- if you download CP/M and
the utilities, there is no way to get the utilities into the CP/M format.
The utility to transfer files from TOS disk format to CP/M disk format
happens to be written under CP/M. If any of our European friends know of a
solution to this (it is rumored that CP/M is being passed around on BBSs

over there) please let me know right away!

> 2) I have also heard tell of a MS-DOS software based emulator which
>   will be available shortly at around 100-150$. Any truth to this?
>   I heard it flunks the Flight Simulator test, and is twice as slow
>   as the IBM (which is awfully slow to start with). Can it run
>   BASICA programs?

The PC emulator will be a bit more costly than described and will function a whole lot better. It will be approximately the same speed as a PC. It should pass the FS test.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 5187999777371117561
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e24188ce48af1c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:25:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!RITVAXC.BITNET!STO9719
From: STO9719@RITVAXC.BITNET
Newsgroups: net.micro.atari16
Subject: Inquire on music player
Message-ID: <8610061825.AA20912@ucbvax>
Date: Mon, 6-Oct-86 14:25:29 EDT
Article-I.D.: ucbvax.8610061825.AA20912
Posted: Mon Oct 6 14:25:29 1986
Date-Received: Wed, 8-Oct-86 00:04:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Hello, I was wondering if there is any music studio song players
available similar to the Sid player for the C64. I just want to
download ".sng" files from the local BBS and play them with out
needing the music studio package.

---- Steve Organek@RITVAXA.BITNET

From 2254897064252826775
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:27:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: No Available 1040's
Message-ID: <437@atari.UUcp>
Date: Mon, 6-Oct-86 14:27:32 EDT
Article-I.D.: atari.437
Posted: Mon Oct 6 14:27:32 1986
Date-Received: Wed, 8-Oct-86 19:35:12 EDT
References: <21269@rochester.ARPA> <8610042253.AA18728@mitre-bedford.ARPA>
Organization: Atari Corp/Mktg
Lines: 22

In article <8610042253.AA18728@mitre-bedford.ARPA>, jhs@MITRE-BEDFORD.ARPA
writes:
> I have also heard rumor (2) (Buy Commodore) from another source.

God forbid!

I had a nightmare last year about Atari buying Commodore. We had to go back
there and clean up the mess! No thank you.

--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -9017524865331288511
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f4b5e674ec83c0e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 11:42:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA

Newsgroups: net.micro.atari16
Subject: Re: Reset survivable RAM disk and Atari HD problem fixed!
Message-ID: <8610061842.AA21123@ucbvax>
Date: Mon, 6-Oct-86 14:42:50 EDT
Article-I.D.: ucbvax.8610061842.AA21123
Posted: Mon Oct 6 14:42:50 1986
Date-Received: Wed, 8-Oct-86 00:04:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 41

> Well after a bit of digging and disassembly my brother (a sharp troop) found the correct combination to get the reset surviving RAM disk to play as drive F: in a HD system (Atari 20meg). I don't have the code right now handy but will post it this weekend (the hex file again or uuencoded). In essence the patch was applied to two places. First, as was mentioned before on this news group you need to change the bit set in the 'drivebits' variable down in low memory. The BSET #3,d0 needs to be BSET #5,d0 (for drive F:). The other patch is applied to the compare instruction in the code that is executed when RWABS calls the RAM Disk. The RAM disk checks the device number and if it's not the right number it passes control through a JMP instruction to the Hard disk vector the RAM disk saved at boot time. As I said I can't remember off the top of my head what the exect CMP instruction is and what it must be changed to, but you should be able to find it. If not, just wait for the posting. The above patches imply that the RAM disk need be executed after the hard disk driver is installed, so it may take over and save the hard disk vectors.

There are actually two more places that the drive number is used: in the code that is executed when GETBPB (get bios parameter block) is called and the code that is executed when MEDIACH (media change) is called.

Also, I believe that the hard disk driver thinks it owns drives C:, D:, E:, and F:, although perhaps it gives up control of F: if you are not using that partition. The safe thing is to install the ramdisk as something > F:.

> Anyways they are both living happily in the system. 1 360k drive A:, 1 720k drive B:, 1 4meg drive C:, 1 6meg drive D:, 1 10meg drive E:, and 1 500k drive F:. Veerrrry Niiice!

Have you done a SHOW INFO on drives D and F? If indeed you forgot to correct the device number comparison for the GETBPB call, then I would expect both to be incorrect: GETBPB calls for drive D would be intercepted by the ramdisk driver and show a size of only 500k, whereas calls for drive F would be passed on to the hard disk driver, which would do who-knows-what. Perhaps your brother actually fixed all three calls.

--Mike Fischer <fischer@yale.arpa>

From 5555008714964110402
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bde369034207ac43
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 13:34:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!caip!clyde!watmath!watnot!cgoudeseune
From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.micro.atari16
Subject: Re: mail list
Message-ID: <12053@watnot.UUCP>
Date: Mon, 6-Oct-86 16:34:03 EDT
Article-I.D.: watnot.12053
Posted: Mon Oct 6 16:34:03 1986
Date-Received: Tue, 7-Oct-86 23:40:24 EDT
References: <2937@sdcc6.ucsd.EDU>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Organization: U of Waterloo, Ontario
Lines: 2

Please add me to the mailing list too. Thanks,
     Camille.

From 4105177922254302527
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,818ef080a8553820
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 13:56:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!vrdxhq!verdix!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: HD and Reset Survivable Ram Disk, And MW C review wanted
Message-ID: <394@mntgfx.mntgfx.UUCP>
Date: Mon, 6-Oct-86 16:56:49 EDT
Article-I.D.: mntgfx.394
Posted: Mon Oct 6 16:56:49 1986
Date-Received: Thu, 9-Oct-86 02:29:45 EDT
References: <8610010714.AA07549@ucbvax.Berkeley.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 14
Summary: C compiler info

A couple of miscellaneous notes about ST C compilers...

Mark Williams and David Beckemeyer are supposedly working together to make their use of environment variables (and on how they store environment variables in memory) compatible so that programs can be called from either shell regardless of what compiler/runtime package was used.

One reason for the difference in ST object file formats is that the "standard" GEMDOS format has a pretty limited symbol table (only eight character names & the Alcyon compiler prepends a character to externals so that you are limited to seven characters). The GST linker provides 32 significant characters; Mark Williams provides 16 significant characters; Megamax provides 10.

dgc

From 8120924414774554390
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58e692b5bd575548
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 07:10:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!lll-crg!lll-lcc!
styx!twg-ap!amdahl!pyramid!ucat!pesnta!amd!amdcad!cae780!leadsv!trimble
From: trimble@leadsv.UUCP (Gary Trimble)
Newsgroups: net.micro.atari16
Subject: Re: Beckemeyer SCSI board
Message-ID: <1125@leadsv.UUCP>
Date: Wed, 1-Oct-86 10:10:26 EDT
Article-I.D.: leadsv.1125
Posted: Wed Oct 1 10:10:26 1986
Date-Received: Sat, 4-Oct-86 05:49:13 EDT
References: <10@fornax.uucp>
Distribution: net
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 36
Summary: Here's the address..

In article <10@fornax.uucp>, chapman@fornax.uucp (John Chapman) writes:
> .
>
> According to postings earlier this summer Beckemeyer Dev. was to have
> released their SCSI interface and clock board in mid August. Does anyone
> know if they have done so? oe btter yet, has anyone actually got one and
> have anything to say about it?
>
Beckemeyer (actually Berkeley Microsystems) released their SCSI/clock board during the recent Atari expos at San Jose and back east. Some details:

    It costs $135 for the card or $250 with an adaptec controller.
    (mounting brackets available for $8)

    They have an integrated 34.4 Mbyte drive (all up) for $1200.

The card does not support full SCSI. It will only address one device on the bus and not deselect for the full "daisy-chaining" effects of SCSI.

Their address...Berkeley Microsystems
        1107 El Centro Avenue

Oakland, CA 94602

(415) 530-3436

I have no affiliation etc......

Gary M. Trimble
Lockheed Advanced Marine Systems

--

UUCP: {(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!trimble
{{allegra ihnp4 dual}!fortune!decvax!decwrl}!amdcad!cae780!leadsv!trimble

From 8194753605687709097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1703413cf79e3e91,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 07:29:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!ARDEC.ARPA!ekijak
From: ekijak@ARDEC.ARPA ("Edmund S. Kijak", POINT)
Newsgroups: net.micro.atari16
Subject: Resp to Peter Jaspers-Fayer
Message-ID: <8610011440.AA13083@ucbvax.Berkeley.EDU>
Date: Wed, 1-Oct-86 10:29:32 EDT
Article-I.D.: ucbvax.8610011440.AA13083
Posted: Wed Oct 1 10:29:32 1986
Date-Received: Fri, 3-Oct-86 11:36:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

To Peter Jaspers-Fayer

Make sure all cables and wiring are connected securely, sometimes they vibrate loose.
If that doesn't work, unplug the circuit cards and replug them in. Sometimes all the contacts are not making contact and the boards need to be reseated.
Make sure you ground yourself before (and occasionally while) you are handling the boards to avoid damaging the boards with static electricity. This is probably rare but if it still doesn't work, at least you know you haven't added anything to the problem. You can ground yourself by touching a cold water pipe or the screw that holds the cover on a conventional wall socket plate or switchplate..
Come to think of it, check to see that any socketted chips are seated properly. Sometimes all the chip pins are not making good contact. Also look for solder bridges or conductive dirt shorting circuit traces or chip pins.

From -3674746856024058045
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 07:55:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!higgin
From: higgin@cbmvax.cbm.UUCP (Paul Higginbottom)
Newsgroups: net.micro.atari16
Subject: Re: Multi-tasking
Message-ID: <820@cbmvax.cbmvax.cbm.UUCP>
Date: Wed, 1-Oct-86 10:55:46 EDT
Article-I.D.: cbmvax.820
Posted: Wed Oct 1 10:55:46 1986
Date-Received: Fri, 3-Oct-86 11:49:00 EDT
References: <109200001@ccvaxa> <791@cbmvax.cbmvax.cbm.UUCP> <15693@mordor.ARPA>
<1693@ptsfa.UUCP>
Reply-To: higgin@cbmvax.UUCP (Paul Higginbottom)
Organization: Commodore Technology, West Chester, PA
Lines: 30

In article <1693@ptsfa.UUCP> jmc@ptsfa.UUCP (Jerry Carlin) writes:
>Beckmeyer has just started shipping MT-CSHELL for the ST which is
>a MULTI-USER and multi-tasking OS that has a UNIX like flavor. It
>sits on-top of the TOS file structure and so does not have a 'chown'
>and other utilities but it feels a lot like Berkeley UNIX otherwise.
>It can run one 'gem' program on the regular screen but other TOS
>programs can be run from the serial-port user and the console user.
>--
>voice= 415 823-2441
>uucp={ihnp4,dual,qantel}!ptsfa!jmc

Sounds very interesting, but how does it allow you to run multiple
processes from the ST's on console/screen? Via UNIX & suffix to
command lines?

Also, on the Amiga, a Command-Line-Interface can be run from the serial
port (i.e., a terminal) with a new aux: device that just became available,
but it suffers from the problem that any program that doesn't use STRAIGHT
stdin/stdout isn't going to work too well. This includes using
Requesters(Amiga)/Alerts(?)(Atari) or even windowing.

I guess this MT-CSHELL would have the same problem, huh? I was AMAZED
when I hooked up a terminal to the ATT7300 (UNIX box with blitter/windowing
on the console) to discover that the windowing worked on the plain ol'
vt100, too! Now that's thoroughness. T'would be nice if these cheaper
boxes could do that, too. Must take gobs of code to do both, though.

     Paul.

Disclaimer: I do not work for anyone, and my opinions are my own.

From -532901234553028665
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,818ef080a8553820
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 08:22:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!daford
From: daford@watdragon.UUCP (Daniel Ford)
Newsgroups: net.micro.atari16
Subject: Re: HD and Reset Survivable Ram Disk, And MW C review wanted
Message-ID: <1528@watdragon.UUCP>
Date: Wed, 1-Oct-86 11:22:54 EDT
Article-I.D.: watdrago.1528
Posted: Wed Oct 1 11:22:54 1986
Date-Received: Thu, 2-Oct-86 21:40:56 EDT
References: <527@elmgate.UUCP>
Organization: U of Waterloo, Ontario
Lines: 15

I have both the 20 meg hard disk and the MW compiler. I'm quite pleased with
both. As far as ram disks go I had the same problems with trying to
install it as C D E or F. These seem to be reserved for the hard disk in
some way (Magic?). If you install it "anywhere" after F there are no problems
(provided your ram disk software lets you do that), I have mine installed
as "M".

The Mark W. stuff seems to be as close to a UNIX C environment as you can get
without UNIX. It has a complete UNIX "MAKE" and comes with a version of
uEMACS that is quite usable. If you put most of the stuff in a ram disk
most compiles are faster than on a VAX. It also comes with all the GEM
stuff you need. What they really need is a good debugger like "dbx".
I'd buy it again.

Dan Ford

From 620330113017577517
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 08:43:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!bellcore!ulysses!allegra!mit-eddie!genrad!decvax!
tektronix!tekcrl!vice!tekfdi!videovax!stever
From: stever@videovax.UUCP (Steven E. Rice, P.E.)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac

Subject: Re: The Motorola 68030
Message-ID: <1970@videovax.UUCP>
Date: Wed, 1-Oct-86 11:43:56 EDT
Article-I.D.: videovax.1970
Posted: Wed Oct 1 11:43:56 1986
Date-Received: Sat, 4-Oct-86 08:58:28 EDT
References: <2270@gitpyr.UUCP> <1837@well.UUCP>
Reply-To: stever@videovax.UUCP (Steven E. Rice, P.E.)
Distribution: net
Organization: Tektronix, Comm Group, TV R&D
Lines: 16
Keywords: new motorola chips mmu fast
Xref: watmath net.micro.68k:1920 net.micro.amiga:5085 net.micro.atari16:2305
net.micro.mac:8083

In article <1837@well.UUCP>, Stephen R. Walton (swalton@well.UUCP) writes:

>> The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>
> Think about this. That's a memory access time of 25 nanoseconds, more than
> 4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.

Whoa!!!!! The 68020 (and presumably the 68030) transfers long words (32 bits,
4 bytes) on its 32-bit data bus. What you are tripped up by is specmanship!
40 Mbytes/sec is 10 Mlong-words/sec. This comes to 100 nsec, which is fast,
but doable.

                        Steve Rice

{decvax | hplabs | ihnp4 | uw-beaver}!tektronix!videovax!stever

From 7614725945776374944
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4af47ff6d3edb72e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 09:02:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!sri-unix!hplabs!pesnta!
amd!amdcad!decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: 50 line editor.
Message-ID: <591@imagen.UUCP>
Date: Wed, 1-Oct-86 12:02:40 EDT
Article-I.D.: imagen.591
Posted: Wed Oct 1 12:02:40 1986
Date-Received: Sat, 4-Oct-86 10:23:06 EDT
References: <860929185414.00000870.ANWI.MA@UMass>
Organization: The Houses of the Holy
Lines: 25

>
> I am in need of an editor, any, which supports 50 line mode on a monochrome
> monitor for the ST. So far, most TOS editors work fine, but none of the ones
> I have support 50 lines. I had STEDT, and the one that comes with Personal
> Pascal. Anybody know? Help would be greatly appreciated.
>
> Rick Flashman
> AT&T: (413) 549-0173
> Bitnet: Flash%UMass.BITNET
> US Snail: 1040 N. Pleasant St, Puffton 381, Amherst, MA 01002.

the new version of MicroEmacs 3.7i (posting as soon as i get a few final
bugs out) will support both (40x80) and (25x80) on b/w monitors, why not
50 ? i dunno...
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1915178473425897029
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 09:19:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Re: A few questions
Message-ID: <8610011619.AA01597@Yale-Bulldog.YALE.ARPA>
Date: Wed, 1-Oct-86 12:19:13 EDT
Article-I.D.: Yale-Bul.8610011619.AA01597
Posted: Wed Oct 1 12:19:13 1986
Date-Received: Fri, 3-Oct-86 11:39:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 98

      In article <233@husc6.HARVARD.EDU> olson@endor.UUCP (Eric Olson) writes:
      >OK, guys, I have a few questions for anyone to try to field about the ST:
      >
      >- Why "lazy" menus? ... (i.e., make it like the Mac?).

         Ask the lawyers at Apple, Corp. (Weren't you around for the Apple vs.

> DRI discussion?) Anyway, there is a utility in the latest issue of STart
> magazine which claims to be able to make the ST do stuff "like the Mac".
>
> >- Holding down the arrow in a scroll bar doesn't cause continuous scrolling
> >(like on the Mac). WHY NOT? This seems like a very obvious thing to do.
>
> (See above answer)

Wait a minute. They couldn't make it look like the Mac, so they make it look *worse* than the Mac??? You lost me there. The Mac's not perfect (play with one for an hour and you'll see). For example, you could make the drop-down menus come down automatically when you move the cursor on them, then go away when you move the cursor off (rather than waiting for a mouse click). "Apple has tough lawyers" is no justification for sloppy software design.

> >In case you're wondering, I'm not too happy with the software on the ST.
> >It seems like a PC running GEM, not a small Mac. But, of course, it's
> >not a PC (although why not, marketingwise, I'll never understand), it has
> >a 68000. Running CP/M-68K (essentially). And GEM/VDI. And GEM/AES.
>
> >I'm slightly sorry to vent all these complaints, but I see very little to
> >praise. What is this machine good for?
>
> I dunno. Who would be dumb enough to buy a useless machine?
> - Joel Plutchak

I think you have totally missed the point of Eric's message. I think what he was saying is that the Atari is a LOT of machine. It's *much* nicer than a PC, and it's *much* nicer than a Mac, "hardwarewise". So why don't they get their act together and design some good software? Personally, I like the machine; I just think it has tremendous potential for improvement. You can either sell a raw machine or an ergonomically designed product; looks like the Atari hit the left end of this spectrum.

While we're on the subject, here's another design question I've been wondering about. The screen redraw algorithm seems to be completely brainwashed. Consider this: you have three windows open, say, on drives A, B, and D. You have only one physical drive, so it's doubling both as A and B. D is your ramdisk. Now you double-click on a file and go through the silly show/print/cancel dialog box to see it on the screen (why not just use a GEM window?). Now comes the fun part. The file ends, it tries redraws your screen. First it redraws the outline of the lowermost window (say, D). Now it makes you insert disk B in drive A, and redraws the outline of the B window. Next, you insert disk A in drive A, and it redraws the outline of the A window. Now it fills in the D window, and then the B window, and then the A window. Even without the disk change operation, this process takes several seconds, and results several rewrites of parts of your screen. Slow and annoying. There is NO reason to do this (our unmentionable competitor redraws the screen almost instantaneously). The OS doesn't check that you inserted the correct disk for B (i.e., the same disk it expected), nor does

it care if you insert a different disk for B when you get down to using B again. So why does it need to read the disk (slow, slow) when it redraws the screen?

If you really care about consistency of the window with the current disk in the drive (and it isn't obvious that you need to in all cases), it is easy to detect whether the user has ejected/reinserted a disk. In fact, you could easily update an open window automatically if the user changes a disk.

These aren't flames or complaints or "why did I buy this machine?" rantings; I'm only suggesting that with a little bit of thought, Atari can improve its desktop and user interface considerably *without* running over the Mac's copyrights. Why isn't there a MOVE operation, only a COPY? Why can't you rename folders? Why is file renaming hidden away in SHOW INFO? Why only four windows? Why use such an immutably large font in the windows (with broad scroll bars), thereby making what is really a larger screen than the Macs have look like it has much less space on it? Why make us adjust the volume of the monitor *every* time you turn it on, rather than saving it in DESKTOP.INF? There are several things in their design that could do with some polishing. And then there are several things that they didn't even think of. How about using the right mouse button as a way of getting help on a particular menu item while it is lit? Or even the HELP key? Even the Mac doesn't do this. I have a million *constructive* ideas if anyone wants to listen, and I'm sure anyone who has used the Atari for more than a day has a million of his/her own.

This isn't, of course, an issue of Atari vs. Mac. In fact, if they don't try to copy the Mac, they should be able to come up with something *better* than the Mac. (And then it'll be their turn to hire tough lawyers :-)).

-- Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: ...!yale!Ram-Ashwin
BITNET: Ram@yalecs

From 8465105189237032174
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 09:22:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: What RTFM means
Message-ID: <8610011622.AA08244@ames-nas.ARPA>
Date: Wed, 1-Oct-86 12:22:52 EDT
Article-I.D.: ames-nas.8610011622.AA08244

Posted: Wed Oct 1 12:22:52 1986
Date-Received: Fri, 3-Oct-86 11:37:23 EDT
References: <2304@gitpyr.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

RTFM == Read the Manual, Jack. . .   (;-)

From -3619359109054077235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-01 09:24:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!bellcore!ulysses!allegra!mit-eddie!genrad!decvax!
tektronix!uw-beaver!fluke!kurt
From: kurt@fluke.UUCP (Kurt Guntheroth)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: 68030 vs. 80386 (was The Mot. 68030)
Message-ID: <654@dragon.fluke.UUCP>
Date: Wed, 1-Oct-86 12:24:47 EDT
Article-I.D.: dragon.654
Posted: Wed Oct 1 12:24:47 1986
Date-Received: Sat, 4-Oct-86 08:55:56 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
Reply-To: kurt@dragon.UUCP (Kurt Guntheroth)
Organization: John Fluke Mfg. Co., Inc., Everett, WA
Lines: 22
Keywords: cpu wars
Xref: watmath net.micro.68k:1919 net.micro.amiga:5084 net.micro.atari16:2304
net.micro.mac:8082

Uh oh, it's the CPU wars again...[Warning -- 68000 partisan]

It seems to me that the 68030, not the 68020, competes with the '386. Isn't
this right? Intel seems proud of the fact that they have arrived first in
the market at each 'generation' (8086 vs. 68000, 80286 vs. 68020, 80386 vs.
68030). But what do they think of the relative power of the competing
devices? I note that Commodore Amiga (and other vendors) sell software
emulators for the 8086 that have reasonable performance on the 68000. What
about this? What about relative floating point performance of the
comparable chips when an application cannot afford the expensive 8087
coprocessor? What about the disastrous tradeoffs that must be made when a

program must access large data arrays? Even the lowly 68010 could operate in a true virtual memory environment, but Intel has only recently arrived at this performance level.

Now I agree that Mot. has jumped the gun substantially in their announcement of the 68030, and are therefore sinking to a rather low level of marketing. They join another company at that level, one who has a longstanding reputation for bogus benchmarks, late deliveries, non-functional production silicon, and offensive marketing.

[I am affiliated with neither Intel nor Motorola. Opinions are my own.]

From -4734904519884650562
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 09:53:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!think!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <294@husc6.HARVARD.EDU>
Date: Wed, 1-Oct-86 12:53:13 EDT
Article-I.D.: husc6.294
Posted: Wed Oct 1 12:53:13 1986
Date-Received: Fri, 3-Oct-86 00:56:03 EDT
References: <2270@gitpyr.UUCP> <1837@well.UUCP> <783@oakhill.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Distribution: net
Organization: Aiken Computation Lab, Harvard University
Lines: 40
Keywords: new motorola chips mmu fast
Xref: mnetor net.micro.68k:1299 net.micro.amiga:4975 net.micro.atari16:2252
net.micro.mac:7347

In article <783@oakhill.UUCP> tomj@oakhill.UUCP (Tom Johnson) writes:
>In article <1837@well.UUCP> swalton@well.UUCP (Stephen R. Walton) writes:
>>
>>>The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>>
>>Think about this. That's a memory access time of 25 nanoseconds, more than
>>4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.
>>...
>>   Stephen Walton, speaking for myself

>
>Try again, just because there is a 40MB/s bus transfer rate *does not* mean
>that there is a 25 ns bus cycle! If the processor transfers 4 bytes/xfer,
>then the bus transfer rate will be 40 MB/s on a **100** ns bus cycle time.
>...
>tom johnson   inhp4!ut-sally!oakhill!tomj

The 68020 (and presumably, the 030) has input lines asking the external device (memory, peripheral, etc) how wide it is. That way the processor can ask for a long from a byte-wide device and do 4 reads after the device says "but I'm only a little bitty byte wide". But I would be frightened away from an architecture where a true 32 bit processor has byte-wide main memory. Still, you build the machine with the fastest memory you can afford, and if it ain't fast enough, use wait states. Faster processor speed is still significant, especially in a processor with an on-chip cache. Remember: memory halfs in cost and doubles in speed every n years (where n used to be 5, and seems to be approaching 1). I realize there is a theoretical limit, until we all wise up and start using transphasors (transistors that switch laser light).

This brings up an interesting point. In the mid-70's, everyone started making processors with MORE instructions that do MORE processing each. This was, in part, due to memory bandwidth limitations. The new genre of RISC machines is going exactly the other way: processors with FEWER instructions, each of which does LESS processing, because memory bandwidth has improved. The RISC concept allows more specific manipulation of processing power (and therefore requires more intelligent compilers, to take advantage of the quantization of the processing unit). When's the 78000 due out?

-Eric

From -6347083613748153859
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3285def2cae1026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 11:16:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: OS9 mudules to run in GEM
Message-ID: <1138@batcomputer.TN.CORNELL.EDU>
Date: Wed, 1-Oct-86 14:16:09 EDT
Article-I.D.: batcompu.1138
Posted: Wed Oct 1 14:16:09 1986
Date-Received: Sat, 4-Oct-86 01:37:07 EDT
References: <husc6!endor!olson@rsch.wisc.edu>
<8609300312.AA02344@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10

Summary: Why not use the graphics routines in ROM?

[]

I don't see why an ST implementation of OS9 couldn't include access
to the GEM graphics routines (VDI, and perhaps parts of AES). These
are in ROM anyway, might as well use them, or allow OS9 programs to
use them. (Portability? Ever tried running a graphics program on
an 'IBM-compatible' just to find out you've got the wrong graphics
card? 'Compatibility' is a myth!)

- Moshe Braner

From -2974566287341740968
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1381e108a3316b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 12:29:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Executable file format
Message-ID: <399@unmvax.UUCP>
Date: Wed, 1-Oct-86 15:29:41 EDT
Article-I.D.: unmvax.399
Posted: Wed Oct 1 15:29:41 1986
Date-Received: Sat, 4-Oct-86 01:30:14 EDT
Organization: Univ. of New Mexico, Albuquerque
Lines: 14

     I'm working on porting an assembler/linker to the ST, but
I can't seem to find a description of the .PRG file format. What
goes in the header - what does the file have to have to be loaded by
the GEMDOS loader? Any specifics or directions to specific parts of
the developer's documentation would be most appreciated. I will
make this assembler/linker available when it is finished.
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From 5735073325808301622
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,848ac903cecd5694
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 12:55:04 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator (What's on the disk)
Message-ID: <8610011955.AA11220@ames-nas.ARPA>
Date: Wed, 1-Oct-86 15:55:04 EDT
Article-I.D.: ames-nas.8610011955.AA11220
Posted: Wed Oct 1 15:55:04 1986
Date-Received: Fri, 3-Oct-86 11:40:03 EDT
References: <3693@ism780c.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Once again, I apologize for starting this flaming session by not being clear what was on the disks I bought. The $40 bought four disks:

1) System/Finder
2) FreeTerm/Red Ryder
3) BMUG 9.blah (Some demos from the Boston Macintosh User's Group)
4) BMUG 14.blah (More demos from BMUG)

I assumed I was paying for the System/Finder, four blank diskettes, and the effort to make copies of the software, and that I am on my own for the shareware.

Alex Leavens did not try to mislead me about what I was buying. I assume rather than I know, because I didn't specifically asked. Everyone in the booth was open and honest about all questions I did ask.

Marty

From 5016273998539772354
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4d348c20beb0ae63,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 13:03:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Magic Sac continued
Message-ID: <8610012003.AA11273@ames-nas.ARPA>
Date: Wed, 1-Oct-86 16:03:43 EDT
Article-I.D.: ames-nas.8610012003.AA11273
Posted: Wed Oct 1 16:03:43 1986
Date-Received: Fri, 3-Oct-86 11:41:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

This weekend I was able to drag a 'real' MacIntosh home and hook it up to my Atari. Although I was able to transfer a lot of data between the machines using Kermit, I was unable to successfully use the Magic Sac 'transmit' program to move data between the machines.

The typical result was that both sides would start up correctly, the Macintosh side would reach the 'Waiting for the ST' prompt, and the Atari side would count backwards 987654321 and never get to the 0. This would always happened on the first transfer, except for once when I managed to transfer an entire diskette, which however turned out to be unusable.

Current status:

1) transmit program doesn't work with either Macintosh or Lisa
2) known bug in kernel prevents telecommunications programs from working
3) bug in Apple code prevents single drive systems from doing disk to disk copies.

I haven't tried to call Data Pacific again, and I haven't received an updated diskette from them, nor have I heard anything at all back from Alex Leavens about new copies of the diskettes I bought from him.

I would appreciate hearing from ANYONE who has had success with the transmit program; it's still posssible that my problem was with a bad copy of the utility.

From 3990345288972306626
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4de5bb2da2a75ed8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 13:44:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!zen!zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: VT100 emulator wanted
Message-ID: <411@zen.BERKELEY.EDU>
Date: Wed, 1-Oct-86 16:44:33 EDT
Article-I.D.: zen.411
Posted: Wed Oct 1 16:44:33 1986
Date-Received: Fri, 3-Oct-86 11:15:24 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 7

Uniterm doesn't work well under vt100. Does anyone know where I can acquire such vt100 that WORKS (either from public domain or buy it from someone company). Thanks.

Duy

Duy Le
UUCP: c160-fk@zooey

From -1446364735644377272
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 14:41:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!nike!oliveb!intelca!mipos3!kds
From: kds@mipos3.UUCP (Ken Shoemaker ~)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <205@mipos3.UUCP>
Date: Wed, 1-Oct-86 17:41:04 EDT
Article-I.D.: mipos3.205
Posted: Wed Oct 1 17:41:04 1986
Date-Received: Sat, 4-Oct-86 01:33:37 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU>
Reply-To: kds@mipos3.UUCP (Ken Shoemaker ~)
Organization: Intel, Santa Clara, CA
Lines: 85
Keywords: here we go again...
Xref: mnetor net.micro.68k:1304 net.micro.amiga:4984 net.micro.atari16:2266
net.micro.mac:7353

In article <280@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>
> In re: Motorola's continual announcements . . . is it fair
>to compare the 68030 to the 80386, etc.?
>
> Yes.
>
> Firstly, it is clear that Motorola's architecture is a lot
>cleaner than Intel's. Certainly their chips may be a year or so behind
>Intel (i.e. 68020 and 80286, 68010 and 80186, etc.); but their chips are
>far superior. Even if you insist on comparing the 68010 to the 80286
>it is not clear at all that the 80286 wins hands down; the '010 has an
>architecture more well-suited to implementation of multi-level interrupt
>multitasking systems. The fact is that for implementation of real
>systems the 68010 in many cases is a far more appropriate choice than
>the 80286. (about Unix implementation, see BYTE article last month.)
>And of course the 68020 is far and away the superior chip compared

>to the 80286, and the '020 has been available in real computer systems
>for some time. From this point of view it seems reasonable to compare the
>'286 to the '020 rather than the '010, and here the comparison is clear.
>'020s are used (as you all know) in Sun workstations, TurboAmigas, etc.
>'286s are used in ATs. There is really no comparison between the two
>classes of machine.

Of course, there is no comparison between the two classes of machines, because you in here introduce more than two classes of machines. I would not put Sun workstations and Turbo Amigas in the same class of machine simply because the Amiga does not support any kind of memory management. If you want to have a grown-up machine, one that supports multi-user/multi-tasking you really need to have this. I have used 68k boxes without that have tried to do it, and it works, but you are just asking for trouble. That the same 286-based box can support an unprotected os like ms-dos and a protected os like Unix means that it can function in either of these two classes. Not until you have the 68030, or you make an entire subsystem plug in with a 68020 and an mmu, can you claim to have upgraded your Amiga the way plugging a 286 upgrades a pc.

>   Another important point to make is that operating systems implemented on
>the 68000 series chips will run fairly well on the higher-grade chips;
>UNIX, AmigaDos/Intuition, Mac Operating System, ST GEM/TOS, et cetera are
>all capable of taking advantage of the higher-level chips' capabilities
>(especially UNIX and AmigaDos/Intuition), although some optimization
>wouldn't hurt. From the point of view of the Intel chips, the 8088-based
>MS-DOS is nothing more than a kludge on the 80286 and 80386; for that
>operating system to take advantage of those chips a complete re-write
>must be done, and is in the process of being completed as we speak.
>This new operating system however will most likely be incompatible to
>a great degree with the old, 8/16-bit MS-DOS and will contain major bugs
>for some time. AmigaDOS/Intuition has been running on the 68000 for
>about a year now, and Unix implementations for the 68000/68010 chips have
>been floating around for at least 3 or more years. To compare the 80386

In the first place, msdos, while not taking advantage of the functionality of the 286 or the 386, is certainly not a kludge when run on them. In addition, when you go from one type of 68* based box to another, you also need to rewrite the operating system, because the memory management systems are incompatible. People have also generated 286-based cards that plug into plain old IBM pcs and have gained a significant performance upgrade, while running their old software. I'm sure the same thing can and will happen with the 386. And Unix implementations for 8086-based chips have been floating around for at least 5 years. MS-DOS already is a 16-bit os, and always has been. When going from a 68020 to a 68030, you will have to rewrite the os to take advantage of the memory management that the 68030 provides...otherwise you just have a little faster 68020, much like you can use a 286 as a faster 8086. How about if we compare apples to apples? Can you say "incoherency?"

>P.S. BTW, have you guys heard about the 78000 (!?) See Nanobytes in
>the latest BYTE (the //GS issue). This is a RISC uprocessor with a
>rated speed of 20 (VAX-equivalent?) MIPS . . . this kind of speed

>totally blows away the RT PC (note: the RT PC performed just a hair
>better than an PC AT in benchmarks . . . see PC World or PC magazine
>of a month ago. . . not very impressive . . .)

Oh, this is great. Yet another paper product. This one, they haven't
even had a press release on! I guess it must be more than a year
away (:-)).
--
The above views are personal.

I've seen the future, I can't afford it...

Ken Shoemaker, Microprocessor Design, Intel Corp., Santa Clara, California
uucp: ...{ hplabs|amdcad|qantel|pur-ee|scgvaxd|oliveb }!intelca!mipos3!kds
csnet/arpanet: kds@mipos3.intel.com

From -6817743004528510251
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3285def2cae1026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 16:54:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: OS9 modules to run in GEM
Message-ID: <1343@lsuc.UUCP>
Date: Wed, 1-Oct-86 19:54:21 EDT
Article-I.D.: lsuc.1343
Posted: Wed Oct 1 19:54:21 1986
Date-Received: Thu, 2-Oct-86 20:44:00 EDT
References: <husc6!endor!olson@rsch.wisc.edu>
<8609300312.AA02344@ucbvax.Berkeley.EDU>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 31
Summary: OS-9 on the Atari

In article <8609300312.AA02344@ucbvax.Berkeley.EDU> SOFPJF@UOGUELPH.BITNET (Peter
Jaspers-Fayer) writes:
>
 ...
>But then the 'native' OS on the Tandy Color Computer with 64K (there I've
>admitted it!) was BASIC (yech), so it wasn't worth it.
>
>   In short: When you boot OS9, you can still run BIOS, but you kiss TOS,
>and GEM goodbye (I think). And as you say, I doubt OS9 has the libraries.
>Now, weather the ST version of OS9 has a SIMILAR type of windowing and
>menu system... I don't know, havn't seen the ST version, and I don't know
>how far it has gotten in it's evolution. Comments anyone?

I've been using OS-9 68K on the Atari for few days now (a week?)
and it's quite good, but doesn't currently have a GEM-like interface.
Rather, the /term emulates a Televideo 925 (not knowing much about
that particular terminal I can't say whether it's a complete emulation,
but I doubt it). The RESET vector does not seem to be affected by
OS-9. At least, if you reboot, you do so all the way back to GEM.
This is very inconvenient for a floppy disk system, but for a
Hard disk user it won't have much consequence. It does seem, however,
that GEM is still around if you can figure out a way to get at it.
I'm guessing in this much, but you never know till you try.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -3545320639943129523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e2533cc1c21c864e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 19:56:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!uiucuxa!glk309
From: glk309@uiucuxa.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Add to mail list
Message-ID: <100600001@uiucuxa>
Date: Wed, 1-Oct-86 22:56:00 EDT
Article-I.D.: uiucuxa.100600001
Posted: Wed Oct 1 22:56:00 1986
Date-Received: Sat, 4-Oct-86 11:47:59 EDT
Lines: 13
Nf-ID: #N:uiucuxa:100600001:000:242
Nf-From: uiucuxa.CSO.UIUC.EDU!glk309 Oct 1 21:56:00 1986

Please add me to your mail list

Gregory L. Kerr
@uiucuxa
110 E. Armory
Champaign, Il 61820
(217) 328-6146

Atari 520ST, mono and composite color

From 5462931325411833684
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 21:29:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Disk ejection isn't detectable
Message-ID: <8610020429.AA17928@ames-nas.ARPA>
Date: Thu, 2-Oct-86 00:29:02 EDT
Article-I.D.: ames-nas.8610020429.AA17928
Posted: Thu Oct 2 00:29:02 1986
Date-Received: Sat, 4-Oct-86 02:09:47 EDT
References: <8610011619.AA01597@Yale-Bulldog.YALE.ARPA>
Sender: serge@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

     Actually, it isn't possible to detect a disk eject in all cases, as a result of a hardware failing. Apparently, the machine cannot detect an eject if the diskette is write protected.

     This leads to a problem in Magic Sac, which requires the occasional use of function keys F1 and F2 to tell the Atari that the diskette is to be (or has been) ejected, so that the Mac Emulator will do the right thing.

From 7859905065838023359
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fe3a054cf4f8166,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 22:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Future of GEM / Simultask
Message-ID: <MDCG.WAYNE.12243490621.BABYL@MIT-OZ>
Date: Thu, 2-Oct-86 01:02:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12243490621.BABYL
Posted: Thu Oct 2 01:02:00 1986
Date-Received: Sat, 4-Oct-86 05:29:19 EDT
Sender: serge@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 30

Apropos the issue of what sort of multitasking operating/windowing system, GEM-based or otherwise, one would like to see on the new generation of Atari machines, this week's _Infoworld_, in a highly enthusiastic review of Simultask for the AT&T 6300 Plus, describes a few essential features:

"With Simultask, AT&T has pulled off an amazing stunt: This system runs Unix System V and offers MS-DOS as a task under Unix. What is amazing is that the MS-DOS task is as capable, compatible, and speedy as it is. MS-DOS in Simultask runs MS-DOS programs with the speed and compatibility of any 6-MHz PC AT compatible. In one instance, we found Simultask's MS-DOS more PC compatible than running MS-DOS directly....

"The AT&T 6300 Plus running Simultask offers an elegant one-box solution for those wishing to access both Unix and MS-DOS. You can use binary information in either environment with ease, and text information is easily converted from MS-DOS format to Unix and back."

Question: has anyone on the list taken a close look at Simultask? The review remarks that Simultask runs within an (apparently windowing) interface/shell called PC 6300 Plus Office that is somewhat slower than Microsoft Windows and Desqview, and not quite as sophisticated as the AT&T 7300 user interface. How does this interface compare with the Mac/GEM style of windowing? Is it a suitable model for a 4-meg multitasking Atari?

On a related topic: is anyone on the list aware of any recent research reports or studies which exhaustively compare, contrast, and evaluate the features of currently available windowing systems (X, Xerox, Sun, Symbolics, Microsoft, Macintosh, GEM, etc.)?

Wayne McGuire
(wayne@oz.ai.mit.edu)

From -4453291992521743725
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 22:41:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!rutgers!sri-spam!mordor!lll-crg!lll-lcc!well!
das
From: das@well.UUCP (David Shayer)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1870@well.UUCP>

Date: Thu, 2-Oct-86 01:41:08 EDT
Article-I.D.: well.1870
Posted: Thu Oct 2 01:41:08 1986
Date-Received: Sat, 4-Oct-86 05:35:12 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 35
Xref: watmath net.micro.68k:1912 net.micro.amiga:5078 net.micro.atari16:2297
net.micro.mac:8076

U>

>>In article <262@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>>Now that Motorola
>>has released this chip, they have in *every category of chip* a far
>>superior chip than does Intel.

>I agree that the Motorola chips are nicer in many ways than the Intel chips.
>But to say Motorola has "released" the chip is stretching things a bit. Not
>only has the 68030 not been formally introduced as a product yet, but the
>artciles I've read (e.g., Electronics, September 18, 1986) say volume
>production is more than a year away. The 80386 is here now, and actually
>has a system available (Compaq) which uses it. In other words, it's not
>really fair to compare that which Intel has now with what Motorola will have
>in a year. A more fair comparison is between the 68020 and the 80386.

To say that Compaq has "released" an 80386 based computer is stretching
things a bit too, don't you think. They announced it, but said it would
be available after January. This is similar to what Motorola announced.
By the way, IBM is said to be readying an announcment in January for
their 80386 based machine, which will be available in June. And don't
forget that a multitasking operating system won't be available until
around June either. Until then, these 80386 machines are just big
fast PC's. Meanwhile, Apple is readying a 68020 based machine for
release early next year.

Isn't vaporware fun!

David Shayer @ the Well

"Most of the time, for most programmers, what a compiler produces
is not object code, but error messages."

From 882865403835394999
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,7e2723c0358970ce,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,7e2723c0358970ce,start
X-Google-Attributes: gid142096,public

X-Google-Thread: 140593,7e2723c0358970ce,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 00:06:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!CORY!dillon
From: dillon@CORY (Matt Dillon)
Newsgroups: net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: ENOUGH ALREADY (was Re: 680x0)
Message-ID: <8610020706.AA07914@cory.Berkeley.EDU>
Date: Thu, 2-Oct-86 03:06:48 EDT
Article-I.D.: cory.8610020706.AA07914
Posted: Thu Oct 2 03:06:48 1986
Date-Received: Sat, 4-Oct-86 05:19:40 EDT
Sender: uucp@ucbvax.BERKELEY.EDU
Organization: University of California at Berkeley
Lines: 12
Xref: watmath net.micro.amiga:5073 net.micro.atari16:2292 net.micro.mac:8072

In case anybody's forgotten, there is a newsgroup called

     'net.micro.68k'

Why don't we all stop posting to multiple newsgroups and just post to
that. If you want to continue this line of thought, it's the ONLY
thing happenning on net.micro.68k right now.

                        -Matt

(I do admit to multiple postings early in the conv, but it's gone on
 too long for my tastes). This is of course, my opinion.

From 3674018950795516085
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1a62d3da6df8f79,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 00:22:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!lasso.UUCP!
didier
From: didier@lasso.UUCP
Newsgroups: net.micro.atari16
Subject: ST Developer's Kit
Message-ID: <8609301756.AA11996@inria.UUCP>
Date: Thu, 2-Oct-86 03:22:44 EDT
Article-I.D.: inria.8609301756.AA11996
Posted: Thu Oct 2 03:22:44 1986
Date-Received: Sat, 4-Oct-86 05:18:52 EDT
Sender: uucp@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

I work in France, but would like to use the developer's kit distributed in the

US, partly because I suspect it'll be more up-to-date than its French peer, and mainly because I'd rather use the same documents as everybody else on this net.

If somebody from Atari is reading this (the ubiquitous Neil Harris ?), maybe he/she can tell me if there's anything that says I can't do that (e.g. register as a developer in the US and develop in France). If there isn't, I would greatly appreciate an address (on my knees for a Telex number), pricing data ($300 + shipping ?) and an account number of some sort (to send the money to; wouldn't be personal money, the order would go through a company).

Help, this is urgent, my 1040 needs it !

Technical Q.: is it possible to bypass all the sound generation hardware on the Yamaha chip, and access directly the D/A converter ? If so, at which addresses do the appropriate registers live ?

Didier Giralt

LAAS-CNRS
7 av du Colonel Roche
31077 Toulouse Cedex
France

..!mcvax!inria!lasso!didier

From -8216931014600614460
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,848ac903cecd5694
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 04:37:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!NADC!kushnier
From: kushnier@NADC
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator (What's on the disk)
Message-ID: <8610021200.AA29757@ucbvax.Berkeley.EDU>
Date: Thu, 2-Oct-86 07:37:44 EDT
Article-I.D.: ucbvax.8610021200.AA29757
Posted: Thu Oct 2 07:37:44 1986
Date-Received: Sat, 4-Oct-86 05:42:19 EDT
Sender: kjd@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Marty,
Could you please specify the MAC ROM part numbers needed for the MAC Emulator.

I would like to check on availability before buying the board. Thanks,

Ron Kushnier

kushnier@nadc.arpa

From 6627197811206194917
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,56cd287d0a20c510,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 04:46:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: HARDDISKS
Message-ID: <8610021125.AA29449@ucbvax.Berkeley.EDU>
Date: Thu, 2-Oct-86 07:46:56 EDT
Article-I.D.: ucbvax.8610021125.AA29449
Posted: Thu Oct 2 07:46:56 1986
Date-Received: Sat, 4-Oct-86 05:37:55 EDT
Sender: serge@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

I got one of the ATARI hardisks (SH204) yesterday (the price for the SH204
has gone down from SFr 2190.- ($1290) to SFr 1490.- ($880) list price in the
last month (I payed SFr 1290.- ($760)).I spent most of the night
playing around with it and naturally :-) have some questions:

- How do you invoke the 40 subdirectory "feature" realiably?
  Do you actually have to open 40 subdirectorys? I had a total
  of 80 subdirectorys (not at one time) on the desktop last
  night and didn't notice any ill effects. This morning I did
  experience the bug after copying a lot of stuff from the
  harddisk to floppy (I didn't have any files in partition D:
  anymore), but I didn't count how many subdirectorys I had
  actually handled.
- The german handbook doesn't have a warning about having more
  than 40 subdirectorys in it (I have seen a US handbook and
  the rest of the german hanbook seems to be a one to one
  translation). Does this mean that the bug was fixed for
  german TOS or is the upper limit just higher? (I wonder
  what the legal implications of this is, if I trash my harddisk
  due to the bug?)
- Has anyone seen or used a backup program (PD or commercial)?
- Does anybody have a program like TREE (MS-DOS)?

BTW I would like chkdsk too, if its not too much trouble.

Simon Poole
K538915@CZHRZU1A.BITNET

From 3016296968999619977
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70

X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 09:36:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <302@husc6.HARVARD.EDU>
Date: Thu, 2-Oct-86 12:36:01 EDT
Article-I.D.: husc6.302
Posted: Thu Oct 2 12:36:01 1986
Date-Received: Sat, 4-Oct-86 05:48:11 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU> <1165@hoptoad.uucp>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University
Lines: 11
Keywords: here we go again...
Xref: watmath net.micro.68k:1916 net.micro.amiga:5082 net.micro.atari16:2301
net.micro.mac:8078

In article <1165@hoptoad.uucp> farren@hoptoad.UUCP (Mike Farren) writes:

>Mac OS dies on anything higher than
>a 68000...

This isn't true. The Prodigy 4, a Mac running a 16 MHz 68020 w/68881 FPC
works just fine. Some things want to run with the cache off (because they
contain self-modifying code). I'm not sure whether the 128K Mac ROMs are
a requirement for this, but, most definitely, the Mac WILL RUN ON A 68020.

-Eric

From -3686290493916691944
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e640a22d07ed112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 09:52:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XEROX.COM!BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Regent Base experience
Message-ID: <861002-095219-1181@Xerox>
Date: Thu, 2-Oct-86 12:52:15 EDT

Article-I.D.: Xerox.861002-095219-1181
Posted: Thu Oct 2 12:52:15 1986
Date-Received: Sat, 4-Oct-86 09:40:57 EDT
References: <5645@decwrl.DEC.COM>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

I picked up Regent Base also and have the same feelings as to the
manual,I've called them quite often and have been able to talk to
Frank,He's been most helful, and all of the time it's been my fault. It
is very powerful and makes very good use of gem. I think it's like a
"Rbase 5000"clone almost.They are working on a tutor program and this
should help alot. As it stands I would Highly recommend this product if
you "RTM" several times, very very carefuly.For customer support you
might call all during the day.I WONDER DOES IT MATTER THAT I LIVE ONLY A
FEW MILES AWAY.

Bill Holland

From -8811343647961497773
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c316e50fdc4a4763
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 11:57:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Atari -> SCSI interface in 1 chip? (Re: hard disk
Message-ID: <444@cci632.UUCP>
Date: Thu, 2-Oct-86 14:57:38 EDT
Article-I.D.: cci632.444
Posted: Thu Oct 2 14:57:38 1986
Date-Received: Sat, 4-Oct-86 08:36:05 EDT
References: <1073@dadla.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 12
Keywords: scsi
Summary: WD33C93, would it work?

In article <1073@dadla.UUCP> bobd@dadla.UUCP (Bob Davies) writes:
>   Does anyone know what type of interface Atari or Supra uses to
>convert the DMA port to a SCSI bus for their hard disk?
>
>   I am particularly interested in what specific ICs are used in the
>interface as I am in the process of connecting a Micropolis drive (fast!)
>to the Atari ST. Any information is helpful and appreciated.
>   Robert Davies

I don't know for sure what they use, but the Western Digital 33C93 chip

looks like an almost perfect match. Does anybody else know how close
the driver, etc are? I also forgot to ask the price.

From 8177788172660228081
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7877cdefdcb0a147,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 12:46:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!well!mmc
From: mmc@well.UUCP (Matthew McClure)
Newsgroups: net.micro.atari16
Subject: keyboard gets disabled when changing mouse form - Megamax C
Message-ID: <1877@well.UUCP>
Date: Thu, 2-Oct-86 15:46:18 EDT
Article-I.D.: well.1877
Posted: Thu Oct 2 15:46:18 1986
Date-Received: Sat, 4-Oct-86 09:43:26 EDT
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 37
Keywords: keyboard, mouse, megamax

Here's a technical question about systems software. When we
change what the mouse looks like (mous_form), the keyboard
doesn't work for a while, until 6 or 7 keystrokes have been
entered. Any ideas why? Any ideas of a workaround?

code fragment:

```
main()
{
int     handle  ;
        appl_init();
        v_opnvwk( work_in, &handle, work_out  ) ;

                graf_mouse(3, OL) ;
                Cconin() ;

                for (;;)
                        {
                        if (Cconis() != 0)
                                {
                                printf("have a key\n") ;
                                Cconin() ;
                                }
                        graf_mouse(255, mous_form) ;
                        }
        v_clsvwk(handle);
        appl_exit();
}
```

Thanks for any ideas...

Matthew McClure {hplabs, hoptoad, lll-crg, ptsfa)!well!mmc
International Technology Development Corporation
1627 Lombard Street
San Francisco, CA 94123
415-673-6370

From 2865127708510538876
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e640a22d07ed112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 13:05:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!bpa!burdvax!sdcrdcf!glenn
From: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Newsgroups: net.micro.atari16
Subject: Re: Regent Base experience
Message-ID: <3053@sdcrdcf.UUCP>
Date: Thu, 2-Oct-86 16:05:08 EDT
Article-I.D.: sdcrdcf.3053
Posted: Thu Oct 2 16:05:08 1986
Date-Received: Sat, 4-Oct-86 11:02:23 EDT
References: <5645@decwrl.DEC.COM>
Reply-To: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Organization: System Development Corporation R&D, Santa Monica
Lines: 155

I too recently purchase a copy of Regent Base with the hopes of using it to maintain mailing list, etc.

I first tried to use some of the example programmes supplied on the disc and quickly ran into problems. I tried for 5 evenings to work around the problems and evenutally wrote a 5 page letter to Regent Software, Attn. Frank Cohen. About two days later I received a phone call from Mr. Cohen thanking me for my letter and he preceeded to answer each of my questions or problems I itemised in the letter.

In short Regent Base has a long way to go before it's very useful. I feel that, for myself, my money would have been better spent on dinner.

For those of you who want detailed information, I've included parts of my letter to him and I've tried to recall each of his answers.

No Sequel Editor Documentation:
I have the documentation for V1.0 and although it does discuss some of the things in the Forms Editor, there is no documentation for the Sequel Editor. In spite of this, I have been able to use it as it is very similar to the Procedure Editor in the Forms Editor.

Note: Sequel is the language in which you write your database programmes. It's like the language BASIC, sans flow control statements except for a sort-of GO TO. Regent Base comes with two types of editors, Sequel and Forms. The Forms editor is used to construct a GEM screen format and the Sequel editor is used to construct your database programmes. All the editors are very primitive.

Apparently the software was release without any documentation for the Sequel Editor and the manual is being rewritten.

Sequel Editor long line bug:
Enter a line of characters almost extending the full width of the screen. Now move to the middle or beginning of that line. Press the INSERT key repeatedly until the previously typed characters move off the right edge of the screen. Now press the DELETE key to erase those inserted blank characters. After a while you will notice that there is an infinite source of characters from the right edge of the screen -- far more than you originally typed in.

There are many bugs in the two Sequel editors and they are being fixed or worked around. I expressed my displeasure of having to learn another editor in order to create my Regent Base programmes and I asked how I could create my progammes using another editor (emacs). He said it was just an ascii text file and I could use any editor to create my programmes. I'm doubt if he has tried this as I found that if you saved a programme using the Sequel editor(s) the files had formatting characters or something in them. It wasn't as straight forward as I hoped.

Sequel Editor can't write to other disc:
Select the "Save Form" option from the drop-down menu. Enter pathname of another disc, for example D:\FOO. The editor will display an alert box with the message "Path not found".

One of the bugs to be repaired.

Forms Editor cancel bug:
You can crash the Forms Editor by entering the Forms Editor from MENU.PRG. Select the Procedure Editor from the drop down menu. Select the "Save Procedure" item from the drop down menu. Select the cancel button on the resulting dialogue Box. Watch 2 bombs appear on your screen.

One of the bugs to be repaired.

Forms Editor can't close window bug:
Start the Forms Editor from the main programme MENU.PRG. The Forms Editor starts-up with an empty window. Select the close box -- the window will not close. Now move the mouse onto the menu bar causing a menu to dropped down, and then deselect the drop-down menu by pressing a mouse button outside of the menu. Now press the close box on the window -- the window closes.

A bug in GEM (?)

Dialogue box bug:

In the dialogue boxes in the Forms Editor used to name files, you can create a file with a colon ':' in it, such as A:FOO. This creates the file 'A:FOO' on the default disc (bug). Other programmes cannot find this file because the ':' is often interpreted as a delimiter and not part of the filename.

> Apparently Regent Software has there own set of dialogue boxes rather than the ones supplied in GEM. He said they would be using the GEM dialogue boxes in the future.

Return Address bug in MAILRPT.FRM:
The line that determines the return address from the MAILLIST.TBL should be changed from NAME^"MYADDRESS" to NAME="MYADDRESS".

> The ^ operator means "like" when matching two strings. The "like" operator will match the null string. I think this is a bug but Mr. Cohen wasn't convinced.

Sorting problem:
I attempted to use the sort programme as described in the documentation and consistently had trouble. I enter data into the MAILLIST.TBL via the entry form and then I return to the mail menu and select the SORT item. The sort programme displays it dialogue box and I enter the file MAILLIST as the database to sort and then I enter fields NAME, SORT1, SORT2 and then I select the option to begin sorting. The programme then displays its activity box and it counts up for a ways then then display and error message:
"That field does not exist" and stops.

> The sort programme doesn't work correctly on a 1040ST. It's also slow. Mr. Cohen said it's being rewritten.

Some MAILRPT.FRM options do not work:
When I use the PHONE BOOK or Federal Express Label printer options from the report form I get a "Can't tab backwards" error.

> I didn't really get a good answer on this. Apparently the message occurs when a previous string is longer than the field it uses.

"OUTPUT TO" cannot use the modem port:
Currently the Regent Base OUTPUT TO directive cannot output to the modem port on the ST. I need to output to the modem port as I don't use a printer connected to the ST but rather another computer. The CONTROL.ACC desk accessory allows the user to indicate that the system printer is either on the printer port or on the modem port.

> This was my biggest complaint. In future versions provision will be made to output to the modem port.

Form Editor labels are unreadable:
When displaying the labels of items in a Form by selecting the Show Labels option from the menu, the labels are draw in such a way that they overlap or they are off of the screen.

Future versions will have the labels display inside of their corresponding fields.

The documentation indicates there is limited space in the Regent Base Sequel Editor or Procedure editor for programme text (I think it was 8 pages or so). Consequently Regent Base programmes are all scrunched up and not very easy to read. Is that limitation (8 pages of programme text) also present in the Regent Base interpretor ?

The limit in the interpretor is 64K of text. The 8 page limit is in the editors only.

The font used in the Sequel and Procedure editors editors is ugly.
How can I change that font to a different font or to the system font ?

The font is a DEGAS font file SYSTEM.FNT. I tried to replace it with another font but it didn't work.

Glenn

Glenn C. Scott
System Development Corporation, 2525 Colorado Ave, Santa Monica, CA. 90406
213-820-4111 X5653 UUCP: glenn@sdcrdcf.UUCP ARPA: Scott@DOCKMASTER.ARPA

From 1817463768721220697
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3891aa16c9fe3567,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 14:35:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: SHAR request.
Message-ID: <2315@gitpyr.UUCP>
Date: Thu, 2-Oct-86 17:35:44 EDT
Article-I.D.: gitpyr.2315
Posted: Thu Oct 2 17:35:44 1986
Date-Received: Mon, 6-Oct-86 18:36:30 EDT
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Distribution: net.micro.atari16 net.lang.mod2 net.wanted net.micro net.micro.amiga
Organization: Georgia Institute of Technology
Lines: 15

I have a program that generates MAKEFILEs for Modula-2 programs and would like to distribute it, but I do not have a way to SHARify my modules. Would someone send me a shell script or c program that generates a SHAR file?

Thanks.

=-=-=-

--

-Landon Dyer, Atari Corp. {sun,lll-lcc,imagen}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From -1698485173567800276
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bde369034207ac43,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 16:02:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!sdcsvax!sdcc6!
ix181
From: ix181@sdcc6.ucsd.EDU (John R Ogawa)
Newsgroups: net.micro.atari16
Subject: mail list
Message-ID: <2937@sdcc6.ucsd.EDU>
Date: Thu, 2-Oct-86 19:02:24 EDT
Article-I.D.: sdcc6.2937
Posted: Thu Oct 2 19:02:24 1986
Date-Received: Sat, 4-Oct-86 11:15:49 EDT
Organization: University of California, San Diego
Lines: 7

EAT IT! -- EAT IT! -- EAT IT! -- EAT IT! -- EAT IT!

Please add me to the mailing list.

          John Ogawa
          ix181@sdcc6@sdcsvax

From -2335335970302672365
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ce48e00358fe105,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 16:05:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!sdcsvax!sdcc6!
ix181
From: ix181@sdcc6.ucsd.EDU (John R Ogawa)
Newsgroups: net.micro.atari16
Subject: I'm new and have questions oh lords . . .
Message-ID: <2938@sdcc6.ucsd.EDU>
Date: Thu, 2-Oct-86 19:05:37 EDT

Article-I.D.: sdcc6.2938
Posted: Thu Oct 2 19:05:37 1986
Date-Received: Sat, 4-Oct-86 11:16:31 EDT
Organization: University of California, San Diego
Lines: 63

*** ccccccccchhhhhhhhhhhhhoooooooooooommmmmmmmmmmpppppppppp ***

Hi. I'm posting this separate from my mail request to try and avoid confusion.

I have paid for, and am waiting for my 1040ST (should be under a week, I'm staying awake at nights!). Congratulations all you out there who have one! I bought mine after 4 months of fairly intense research into the computer market and I think it's the best thing around (high praise from me, a picky SOB). So, I'm about to set up shop, and I have a few questions that maybe someone can help me with. Here goes:

1) I like the keyboard for the IBM AT better than the 1040's. Is there any way I can make a plug that allows an AT keyboard to be connected through a hole in the case, while still retaining the mouse/joystick ports? (I don't even know if the AT keyboard will work in any way w/ the Atari)

2) Can anyone give me any information about the vaguely rumored Microsoft word processor (Write?), like if it's a copy of Word, and when it will come out?

3) I saw earlier an article posted by a man who had rigged a box to change the color display to monochrone (I think this is what it was). How is this done, and is it intensely complicated?

4) Has anyone heard anything about 2, 3, or 4 meg upgrades for the 1040? I'm not sure if it is possible (room on board) but there are 1 meg chips out now.

5) Was the RAMdisk/hard drive problem ever solved?

6) (controversy time) Which is the best C?

7) Is there a mutlitasking, GEM-like (meaning mouse and windows) environment out there? Or will we have to wait for DRI's GEM?

8) If we must wait for the new GEM, how will we use it? Replacing ROMS, using it in memory (yech!), etc?

9) What is the Arpa public domain library and how do I access it?

10) Does anyone have the CP/M emulator out there? How fast
is it? Does it emulate Kaypro (ADM-3a) video? Does it work
for everything? Is it Z80 or 8080?

and finally,

11) What games do people like out there (and why).

To avoid much stuff on the net, please use E-mail to answer the last question.

Thanks for any information you can give. Atari forever!

John Ogawa
UC San Diego
ix181@sdcc6@sdcsvax

From -7659319660651767572
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c6cc804191b9564b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 16:54:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XEROX.COM!BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Memory Upgrade(again)
Message-ID: <861002-165431-1612@Xerox>
Date: Thu, 2-Oct-86 19:54:27 EDT
Article-I.D.: Xerox.861002-165431-1612
Posted: Thu Oct 2 19:54:27 1986
Date-Received: Sat, 4-Oct-86 09:41:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Well I like alot of desk ACC'S so I have to upgrade the memory on my 520ST with Tos in Rom, I know that theres many ways of doing it,Whats the best and easy way using my own chips???,also someone had mentioned something about using 1Meg chips.
Maybe I should do the clock thing while its apart. Thanks for any info

Bill Holland

From 6026497596404621449
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70

X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-02 17:31:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!lll-crg!lll-lcc!qantel!intelca!mipos3!
kds
From: kds@mipos3.UUCP (Ken Shoemaker ~)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <207@mipos3.UUCP>
Date: Thu, 2-Oct-86 20:31:34 EDT
Article-I.D.: mipos3.207
Posted: Thu Oct 2 20:31:34 1986
Date-Received: Sat, 4-Oct-86 10:18:42 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Reply-To: kds@mipos3.UUCP (Ken Shoemaker ~)
Organization: Intel, Santa Clara, CA
Lines: 18
Xref: watmath net.micro.68k:1925 net.micro.amiga:5104 net.micro.atari16:2316
net.micro.mac:8097

In article <1870@well.UUCP> das@well.UUCP (David Shayer) writes:
>
>To say that Compaq has "released" an 80386 based computer is stretching
>things a bit too, don't you think. They announced it, but said it would
>be available after January. This is similar to what Motorola announced.

hardly. They are advertised, and are being sold, at least in this area
by Businessland, Computerland, and Fry's. Talking to salesmen at the
stores, they are going like hotcakes, but they are getting them in, and
selling them to real-live people.
--
The above views are personal.

I've seen the future, I can't afford it...

Ken Shoemaker, Microprocessor Design, Intel Corp., Santa Clara, California
uucp: ...{ hplabs|amdcad|qantel|pur-ee|scgvaxd|oliveb }!intelca!mipos3!kds
csnet/arpanet: kds@mipos3.intel.com

From 374115409937809772
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f110d9358193c87e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 18:58:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!rochester!stuart
From: stuart@rochester.ARPA
Newsgroups: net.micro.atari16
Subject: Detailed Documentation

Message-ID: <21268@rochester.ARPA>
Date: Thu, 2-Oct-86 21:58:21 EDT
Article-I.D.: rocheste.21268
Posted: Thu Oct 2 21:58:21 1986
Date-Received: Sat, 4-Oct-86 12:01:06 EDT
Sender: stuart@rochester.ARPA
Organization: U of Rochester, CS Dept., Rochester, NY
Lines: 25

From: Stuart Friedberg <stuart>

This is a question which can only be answered by "the voice of Atari"
concerning the for-retail-sale documentation that was expected to be
available around the end of the year.

Does this documentation make the documentation of the developer's kit
redundant? I need documentation of everything from the programmer's
interface to GEM and TOS down to the magic hardware addresses and
disk formats. If the "Table of Contents" of these books (I assume
there will be at least 4) could be distributed here, it would help
making decisions about whether to wait another 3 months or not.

If the retail documentation does NOT cover all of this stuff, I'm going
to (have to) pay the $50 to become a registered developer and the $300
for the developer's kit. However, except for the documentation, I
don't especially want or need anything in the developer's kit.

I realize the developer's kit has lots of tools and software. I am
working primarily with Mark William's C and OS-9, so most of those
tools aren't very helpful. Most of the rest, I can write myself. (I
wrote over 60,000 lines of software this year; a little work doesn't
bother me)

Stu Friedberg {seismo, allegra}!rochester!stuart stuart@rochester

From -6931905195602685641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1ff2c72004388350,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 18:59:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: GEM Kermit and XMODEM question
Message-ID: <8610030159.AA17546@ncsc.ARPA>
Date: Thu, 2-Oct-86 21:59:22 EDT
Article-I.D.: ncsc.8610030159.AA17546
Posted: Thu Oct 2 21:59:22 1986
Date-Received: Sat, 4-Oct-86 11:01:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 10

As a recent (proud!) new owner of a 520ST (mono, 2SS drives for $570 from
47th St Photo) I have a couple of questions concerning the PD stuff in
the Subject line. Especially, does an error during a Kermit file transfer
indicate a bad file on the receiving end, or does it just mean that the
program had to retry a couple of times to get the packet, but it did get
it okay finally? Thanks for any comments. BTW, I'm typing this message
onto my host from home via the VT52 acc.

jim

From -2505571841944092411
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 19:13:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!husc6!ut-sally!seismo!rochester!
stuart
From: stuart@rochester.ARPA
Newsgroups: net.micro.atari16
Subject: No Available 1040's
Message-ID: <21269@rochester.ARPA>
Date: Thu, 2-Oct-86 22:13:18 EDT
Article-I.D.: rocheste.21269
Posted: Thu Oct 2 22:13:18 1986
Date-Received: Sat, 4-Oct-86 12:03:20 EDT
Sender: stuart@rochester.ARPA
Organization: U of Rochester, CS Dept., Rochester, NY
Lines: 33

From: Stuart Friedberg <stuart>

I have had a monochrome 1040ST on order through my local dealer since
the end of July. From reading this newsgroup it was clear that 1040's
are scarce all over, so I refrained from flaming Atari or flaming my
dealer. I simply assumed that production could not keep up with
demand.

However, my dealer got fed up with having a machine on order for two
and a half months. In addition to my machine, the store paid for 20
machines and received none of them. 520's are coming in months after
being paid for. 1040's aren't coming in at all. For this reason, the
two store managers and the branch manager had a full day "chat" with
the appropriate Atari representative. They were unhappy and the rep
left, ah, uncomfortable. The statements in this paragraph are facts.

I am now going to relate some statements that I can not confirm
personally. Treat them as rumor, but notice that I have signed this
message. There are no 1040's in the warehouse. There are no 1040's in

production. Atari has been accepting orders, and payment, in order to
build up liquid assets. I have heard two conjectured motivations:
(1) build up capital for production facilities, and (2) buy Commodore.
I choose not to speculate, but these statements are consistent with
the observed facts.

In my opinion, the ST is an extremely competent machine at an
unbeatable price. However, it doesn't make any difference what the
price is, if no machines are available. Whether the statements of the
preceding paragraph are true or false, it remains true that the dealer
has my money, and Atari has the dealer's money, and Atari is not
delivering. This is not responsive and borders on irresponsible.

Stu Friedberg {seismo, allegra}!rochester!stuart stuart@rochester

From -7807159132346507425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 19:16:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!husc4!hadeishi
From: hadeishi@husc4.harvard.edu (mitsuharu hadeishi)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <306@husc6.HARVARD.EDU>
Date: Thu, 2-Oct-86 22:16:37 EDT
Article-I.D.: husc6.306
Posted: Thu Oct 2 22:16:37 1986
Date-Received: Sat, 4-Oct-86 09:46:07 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: hadeishi@husc4.UUCP (mitsuharu hadeishi)
Organization: Harvard Science Center
Lines: 17
Xref: watmath net.micro.68k:1922 net.micro.amiga:5094 net.micro.atari16:2309
net.micro.mac:8090
Summary: Vapor boxes

In article <glub@Well.UUCP> David Shayer writes:
>Until then, these 80386 machines are just big
>fast PC's. Meanwhile, Apple is readying a 68020 based machine for
>release early next year.

     Although the Prodigy 4 and Turbo Amiga boxes are available NOW

(read: faster than a VAX.) And C-Amiga is readying the Ranger, a
68020-based machine for release early next year as well (to also use
a 2-megabyte version of the custom chips, supporting much higher
graphics resolutions, non-interlaced hi-res color, AND a 4K per blit
limit (up from 1K).)

>Isn't vaporware fun!

     Yup.

                         -Mitsu

From -5989248286292274386
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4da825eb5a0d5c70,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-02 22:37:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!MITRE-
BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Adding a second sound chip to an ST
Message-ID: <8610030231.AA01774@mitre-bedford.ARPA>
Date: Fri, 3-Oct-86 01:37:06 EDT
Article-I.D.: mitre-be.8610030231.AA01774
Posted: Fri Oct 3 01:37:06 1986
Date-Received: Sat, 4-Oct-86 10:01:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 9

Has anybody (even at Atari) thought about how hard (or easy) it would be to
add a second Yamaha sound chip to an ST (perhaps externally, via the cartridge
port with a few additional address wires) to give 6 voices and the possibility
of stereo? What little fooling around with music I have done suggests that
three voices is just not enough for serious work and 4 is just barely enough.
But 6 would be very useable.

-John Sangster
jhs@mitre-bedford.arpa

From -1128848739408550457
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,ba44ea2efaebca01,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,7e2723c0358970ce
X-Google-Attributes: gid152df8,public
X-Google-Thread: 122486,ba44ea2efaebca01,start
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,7e2723c0358970ce

X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,7e2723c0358970ce
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-03 00:01:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!husc6!ut-sally!ut-ngp!werner
From: werner@ut-ngp.UUCP (Werner Uhrig)
Newsgroups:
net.micro.amiga,net.micro.atari16,net.micro.mac,net.micro.68k,net.news.group
Subject: Re: ENOUGH ALREADY (was Re: 680x0)
Message-ID: <4057@ut-ngp.UUCP>
Date: Fri, 3-Oct-86 03:01:16 EDT
Article-I.D.: ut-ngp.4057
Posted: Fri Oct 3 03:01:16 1986
Date-Received: Sat, 4-Oct-86 11:18:08 EDT
References: <8610020706.AA07914@cory.Berkeley.EDU>
Organization: UTexas Computation Center, Austin, Texas
Lines: 2
Xref: watmath net.micro.amiga:5116 net.micro.atari16:2324 net.micro.mac:8110
net.micro.68k:1930 net.news.group:6452
Summary: don't want this in net.micro.68k either. how about net.micro.religion?
Follow-Up-To: net.news.group

or a group net.micro.comparison or net.micro.discussion ....

From -6830136950810093265
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cdaffc77002c8e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 04:17:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!zen!
zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: How do I send messages to someone?
Message-ID: <436@zen.BERKELEY.EDU>
Date: Fri, 3-Oct-86 07:17:35 EDT
Article-I.D.: zen.436
Posted: Fri Oct 3 07:17:35 1986
Date-Received: Sat, 4-Oct-86 11:09:51 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 4

Sometimes I want to send messages to a particular individual but I have to
settle to send to the net because I don't know how. Can someone tell me how?

Duy

From -2608218616411299286
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c16b603282ebe0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 04:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!nike!ucbcad!ucbvax!ULKYVX.BITNET!
RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: BAMMI's MAKE and ST <-> CPM
Message-ID: <8610031214.AA21791@ucbvax.Berkeley.EDU>
Date: Fri, 3-Oct-86 07:38:00 EDT
Article-I.D.: ucbvax.8610031214.AA21791
Posted: Fri Oct 3 07:38:00 1986
Date-Received: Sat, 4-Oct-86 11:13:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 96

The following code fragments are from the bammi@case MAKE.PRG.

```
struct name
{
    struct name *        n_next;        /* Next in the list of names */
    char *            n_name;        /* Called */
    struct line *        n_line;        /* Dependencies */
    time_t            n_time;        /* Modify time of this name */
    uchar            n_flag;        /* Info about the name */
};

struct name        namehead = {
                    (struct name *)NULL,
                    (char *)NULL,
                    (struct line *)NULL,
                    (time_t)0,
                    (uchar)0
                    };
```

I have been unable to get the program working. The program exits with a "no memory for macro" error and the touch program "touches" all files back to the date that TOS was born (i.e. midnight sometime in November 1985). So question one is, "has anyone other than those at CASE gotten this program to work?"

My second question has to do with the last cast in the structure initializer. Here's the scenario. My dev pack has been ordered and should arrive next week, so I compiled the code with the CP/M-68K compiler (which is identical to the early ST version right down to the serial numbers). I had a friend compile it on the ST with his DEV pack and he got the same errors. The early Alcyon compiler only supports unsigned ints, so uchar is defined as char in a header file.

But the code parser (c068) balks at the coercion with the error "invalid initializer" which means I tried to init a variable with something other than a constant. Even the cast (char)'\0' got the same error. Now I know the last element of that structure has to be a character constant or the structure will not be filled properly.

The code generated for a structure like this goes ahead and fills the remainder of the space to allign on a word boundary, but the size of the last element determines how that element will actually be stored and accessed. Structure initialization and size has been a known bug in the Alcyon compiler at least since 1983. One problem with this structure is that all of the beginning elements are 32 bits long. Alcyon has trouble, and always had, with structures or function parameter lists that all have the same (long) size.

Another minor beef. If you

```
#define uchar char
```

Sometines the preprocessor has trouble in an expansion that involves a cast. If you

```
#define void
```

casts again can lead to difficult to track errors. Is there a reason to avoid typedef in these situations? Why not use

```
typedef uchar char;
typedef void int;  /* after all Alcyon expects int returns by default */
                   /* even when none are specified.  Check the stack */
                   /* popping code it produces after a jsr */
```

Defines are hard to track down in a preprocessor output file because they all dissapear. But a typedef follows through that output, and you can see what a cast or value is. DRI used to

```
#define FILE struct _iobuf
```

That made a file definition bug a real bear to find. However,

```
typedef FILE struct _iobuf;
```

is more logical and closer to the intentention of using FILE structures in the first place.

While I'm on the DRI soapbox. I compared the AR68 output for gemlib to that for the old clib libraries (is AR68 available for the ST yet?). The modules are practically identical in fact the object code from CP/M-68K ports directly! So much for "the only similarities between these two systems (GEM-DOS and CP/M) are superficial." BTW Concurrent DOS is on the market for the 68010 according to a Concurrent PC-DOS OEM I know and a CP/M-68K OEM I've contacted. He said DRI wanted too much for the port.

I've beat the CPM drum in this newsgroup before and gotten flamed, but
I recommend that anyone who writes software or is trying to port
software for the ST look at as much CPM code as possible. There
really is a world of good programs out there that require very little
effort to move to the ST. It's ridiculous that there's no equivalent
to "real" xmodem i.e 1024 packets, true CRC, batch files, 19200 baud,
scripts, etc. in the ST PD library. 19200 is great for moving files
between the ST and your other computer, whatever that may be.

send flames to rdroya01@ulkyvx.bitnet

From -1411237853454540086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b10ca6dd2292772b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 06:35:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!uwvax!uwmacc!oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16
Subject: Re: Vi (for ST)
Message-ID: <316@uwmacc.UUCP>
Date: Fri, 3-Oct-86 09:35:34 EDT
Article-I.D.: uwmacc.316
Posted: Fri Oct 3 09:35:34 1986
Date-Received: Sat, 4-Oct-86 12:00:08 EDT
References: <350@zen.BERKELEY.EDU> <393@unmvax.UUCP>
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Distribution: na
Organization: UWisconsin-Madison Academic Comp Center
Lines: 27

In article <393@unmvax.UUCP> wampler@unmvax.UUCP (Bruce Wampler) writes:
>
>   I wrote an editor in C called TVX which was released to the NET
>last spring, but we get a new set of people as time goes on. It has
>its own native command set, but also emulates VI and EMACS...

   Is there anybody out there who uses TVX/VI who isn't having problems
with it? Three ST owners at this computing center have a copy (from the
same "original"), and we all have found it to have a fatal flaw. Two of
us encountered errors where the editor would die (losing all changes) while
scrolling up or down. The third person, hearing about this, started doing
periodic writes while editing. Well, when *his* edit session bombed, it
turns out that the previous 'n' writes had put garbage in his file. So
we all went back to using the primitive yet functional Metacomco editor
(which, by the way, has a limit to the size of file it can edit-- I haven't
run into the problem, but another guy has). At any rate, if anyone has
had a similar problem and fixed it, I'd appreciate hearing about it;
conversely, if people have been using it with no problems, I'd like to hear
about that, too. Looking into the problem myself is in my queue, but

it's a ways down there, and days are too short for me to get to everything
I want to do in a finite amount of time (>- sigh! -<).
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: oyster@unix.macc.wisc.edu
   BIX: plutch

From -3089215306578821053
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,56cd287d0a20c510
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 07:09:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: HARDDISKS
Message-ID: <308@husc6.HARVARD.EDU>
Date: Fri, 3-Oct-86 10:09:28 EDT
Article-I.D.: husc6.308
Posted: Fri Oct 3 10:09:28 1986
Date-Received: Sat, 4-Oct-86 11:19:49 EDT
References: <8610021125.AA29449@ucbvax.Berkeley.EDU>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University
Lines: 12

In article <8610021125.AA29449@ucbvax.Berkeley.EDU>,
K538915@CZHRZU1A.BITNET writes:
>I got one of the ATARI hardisks (SH204) yesterday...
>
>   - How do you invoke the 40 subdirectory "feature" realiably?
>
>   Simon Poole
>   K538915@CZHRZU1A.BITNET

According to Neil@Atari, you have to access 40 subdirectories in between boots.

-Eric

From -62942323633825066
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e8bcc046c361d9cd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 07:32:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!lll-crg!seismo!
rochester!kodak!elmgate!jdg

From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Reset survivable RAM disk and Atari HD problem fixed!
Message-ID: <529@elmgate.UUCP>
Date: Fri, 3-Oct-86 10:32:36 EDT
Article-I.D.: elmgate.529
Posted: Fri Oct 3 10:32:36 1986
Date-Received: Sat, 4-Oct-86 12:37:20 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 26
Keywords: RAM DISK patch reset HD RAMdisk Hard Disk SM

Well after a bit of digging and disassembly my brother (a sharp troop) found the correct combination to get the reset surviving RAM disk to play as drive F: in a HD system (Atari 20meg). I don't have the code right now handy but will post it this weekend (the hex file again or uuencoded). In essence the patch was applied to two places. First, as was mentioned before on this news group you need to change the bit set in the 'drivebits' variable down in low memory. The BSET #3,d0 needs to be BSET #5,d0 (for drive F:). The other patch is applied to the compare instruction in the code that is executed when RWABS calls the RAM Disk.   The RAM disk checks the device number and if it's not the right number it passes control through a JMP instruction to the Hard disk vector the RAM disk saved at boot time. As I said I can't remember off the top of my head what the exect CMP instruction is and what it must be changed to, but you should be able to find it. If not, just wait for the posting. The above patches imply that the RAM disk need be executed after the hard disk driver is installed, so it may take over and save the hard disk vectors.

Anyways they are both living happily in the system. 1 360k drive A:, 1 720k drive B:, 1 4meg drive C:, 1 6meg drive D:, 1 10meg drive E:, and 1 500k drive F:. Veerrrry Niiice!

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -5987409472839664814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-03 08:03:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!tektronix!tekcrl!

tekgvs!keithe
From: keithe@tekgvs.UUCP
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1793@tekgvs.UUCP>
Date: Fri, 3-Oct-86 11:03:29 EDT
Article-I.D.: tekgvs.1793
Posted: Fri Oct 3 11:03:29 1986
Date-Received: Mon, 6-Oct-86 18:25:02 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Reply-To: keithe@tekgvs.UUCP (Keith Ericson)
Organization: Tektronix, Inc., Beaverton, OR.
Lines: 13
Xref: mnetor net.micro.68k:1340 net.micro.amiga:5069 net.micro.atari16:2323
net.micro.mac:7416

In article <1870@well.UUCP> das@well.UUCP (David Shayer) writes:
>By the way, IBM is said to be readying an announcment in January for
>their 80386 based machine, which will be available in June. And don't
>forget that a multitasking operating system won't be available until
>around June either. Meanwhile, Apple is readying a 68020 based machine
>for release early next year.
>
>Isn't vaporware fun!
>

Making predictions is difficult, especially about the future.

keith

From 2311932495107334828
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1381e108a3316b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 08:10:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!sri-spam!nike!ucbcad!ucbvax!
trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Executable file format
Message-ID: <8610031510.AA09945@trwrb.UUCP>
Date: Fri, 3-Oct-86 11:10:39 EDT
Article-I.D.: trwrb.8610031510.AA09945
Posted: Fri Oct 3 11:10:39 1986
Date-Received: Sat, 4-Oct-86 12:39:01 EDT
References: <399@unmvax.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 125

The following was posted some time ago by J. R. Bammi via J. M. Turner:

-- cut here --

I extracted the following info. from documents that came with the development system. I have only found the .prg (output of relmod) format, and not the .o format. The input of relmod is the standard cp/m-68K relocatable files, so I guess the .o format is the same as for cp/m-68K. I am not at all familiar with cp/m-68K, and i could not find anyting in the documents I have about the format of .o files. Maybe you are familiar with cp/m-68k or have access to the relevant cp/m-68k documents. Looking forward to your PD diss assmebler.

The format for a .prg file is as Follows (word = 16 bits). Output of relmod - 16 bit relocatable objects are not supported by Gem Dos.

14 Word Header
Text Segment Image
Data Segment Image
Symbol Table (Optional)
Relocation Info (Optional)

Header Format:

Byte	Size(words)	Contents
0	1	Contains 601A H Denoting Contiguous text, data and block storage segments
2	2	Size of Text Segment - Bytes
6	2	Size of Data Segment - Bytes
10	2	Size of Block Storage Segment - Bytes
14	2	Size of Symbol Table - Bytes
18	2	Reserved - Always Zero
22	2	Reserved - Always Zero (This is supposed to contain the Begining of the Text Segment and execution, but execution always begins at the top of the Text segement, hence 0)
26	1	If Zero then Relocation info IS present, No relocation info otherwise. Always Zero for Gem Dos.

Symbol Table Format:

Each entry is 7 words.

Byte	Size(words)	Contents
0	4	Name - zero padded to 8 characters
8	1	Type
10	2	Value

Type	Value
defined	8000 H

```
equated       4000 H
global        2000 H
equated register   1000 H
external reference  800 H
data based reloc.   400 H
text based reloc.   200 H
bss  based reloc.   100 H

where:
  reloc. == relocatable
```

A symbol with multiple characteristics has the bits OR'ed in the type field.

The value field is the value of the symbol (address, register number, value of an expression or some other value). When the value field is non-zero AND the type field contains an External Symbol, the linker interprets the value to be a common region in which the size of the region is the value in the value field. Multiple such entries may be present and the size of the common that the linker ultimately decides on, is the greatest of the values, of the same name.

The nm68 utility provided with the development system can be used to dump the symbol table.

Relocation Information:

If the last word in the header is Zero the relocation info is present in the following format: (following symbol table if present)

Byte	Size (BYTES)	Contents
0	4	Offset from the beginning of the Text Segment of the first longword needing relocation.
4	1	Relocation offset byte
5	1	" " "
.....		
xx	1	A byte containing Zero terminates

Relocation offset byte - Gives the offset to the Next longword in the Text Segment to relocate (offset from the First Offset) and so on. When an offset of Zero is encountered the relocation info is terminated. The bytes of Relocation offset give succeeding offsets. (so the smallest legal value is 4 (size of long word)). If a succeeding offset is greater than 254, then a byte containg One (1) will be encountered, signifying add 254 to the previous total.

I hope that I explained the above clearly. I guess an example is appropriate to say what i mean.

Suppose that the first longword to be relocated is at offset 128 from the begining of the text segment. The next one is at offset 132 from the begining. The next is at offset 390 from the begining

of the text segment (ie. 258 bytes from the second longword to be
relocated), Then the relocation info looks like

```
    byte Size(BYTES)   Contents
    0    4         128
    4    1         4
    5    1         1    (add 254)
    6    1         4    (128 + 4 + 254 + 4 = 390)

    and so on.
```

-- cut here --


```
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom
```



```
From -4025347827262081918
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe5a90529ca34a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-03 08:11:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-
beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: No Available 1040's
Message-ID: <1159@batcomputer.TN.CORNELL.EDU>
Date: Fri, 3-Oct-86 11:11:44 EDT
Article-I.D.: batcompu.1159
Posted: Fri Oct  3 11:11:44 1986
Date-Received: Sat, 4-Oct-86 13:58:14 EDT
References: <21269@rochester.ARPA>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 25
```


[]

Obviously, Atari cannot meet the demand for 1040's. (the machines, not
the forms :-) And it IS trying to raise capital (e.g. the "going public").
But to hold on to peoples' money is not only immoral (illegal?) but also
against Atari's interest. I assume they 1040's sold were sold at a profit.
I also assume the factories involved still exist. So the only thing gained
by the (rumored) witholding of that production capacity is bad PR.

Osborne went belly-up because of the early announcment of the Osborne 2,
prompting consumers to wait and avoid buying the 1. Atari has announced

the 2080 and 4160. Are they trying to discontinue the 1040? Are they
trying to FORCE the consumers to wait for those? I think that would be
a grave mistake: There IS a market for the 1040, obviously! 1 megabyte
is enough for a LOT of uses, and the larger RAM chips are going to be
very expensive for some time to come. 512K is NOT enough for any sort
of development work, as the demand for upgrades proves. And by 'development'
I mean 'programming', not necessarily commercial. The "nobody programs
besides the professionals" myth has been shattered by the sale of
hundreds of thousands of copies of Turbo Pascal.

Please, Atari: let us have 1040's!

- Moshe Braner

From 6054063312817861646
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4d348c20beb0ae63
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 14:03:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!vrdxhq!verdix!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: Magic Sac continued
Message-ID: <395@mntgfx.mntgfx.UUCP>
Date: Mon, 6-Oct-86 17:03:09 EDT
Article-I.D.: mntgfx.395
Posted: Mon Oct 6 17:03:09 1986
Date-Received: Thu, 9-Oct-86 02:30:46 EDT
References: <8610012003.AA11273@ames-nas.ARPA>
Organization: Mentor Graphics, Beaverton OR
Lines: 9
Summary: Mac cartridge success

I know someone who has had no real problems transferring disks from a
a 128K Mac to an ST. The last letter I got mentioned that the transfer
program has had some problems running on a Mac Plus, and that they now
had an update available to people who needed it.

Also, the latest update (version 2) does seem to handle the serial port
correctly; "freeterm" 1.8 seems to run fine.

dgc

From 9211996074549871718
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,56cd287d0a20c510
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 14:08:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!vrdxhq!verdix!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: HARDDISKS
Message-ID: <396@mntgfx.mntgfx.UUCP>
Date: Mon, 6-Oct-86 17:08:12 EDT
Article-I.D.: mntgfx.396
Posted: Mon Oct 6 17:08:12 1986
Date-Received: Thu, 9-Oct-86 02:31:14 EDT
References: <8610021125.AA29449@ucbvax.Berkeley.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 6
Summary: backup programs

There are a few public domain backup programs floating around (I've seen them
in the Compuserve Atari16 group).

On the commercial side, Michtron should be shipping one imminently...

dgc

From 6887914139457572567
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 14:17:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!vrdxhq!verdix!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <397@mntgfx.mntgfx.UUCP>
Date: Mon, 6-Oct-86 17:17:07 EDT
Article-I.D.: mntgfx.397
Posted: Mon Oct 6 17:17:07 1986
Date-Received: Thu, 9-Oct-86 02:32:24 EDT
References: <2939@sdcc6.ucsd.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 13
Keywords: Atari C-source
Summary: C++ commercial support
Xref: mnetor net.lang.c++:361 net.micro.atari16:2409

Oasys Systems has been advertising commercial support for C++ in a variety
of systems; in particular using Lattice C on the IBM PC.

It would be relatively simple bring up C++ under Lattice C for the ST;
Oasys just has to be convinced that it is worth the effort to do so.

None of the other ST C compilers (especially Alcyon C which comes with the

developers kit) would be usable back-ends for C++; the backend compiler
the AT&T released C++ frontend REALLY!!! needs at least 32 significant
characters in names. To my knowledge, Lattice C (using the GST linker)
is the only ST C compiler that can support 32 significant characters in names.

dgc

From 4574962066089011005
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-06 14:20:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!panda!genrad!decvax!tektronix!uw-beaver!ubc-
vision!alberta!calgary!ingoldsby
From: ingoldsby@calgary.UUCP
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <427@vaxb.calgary.UUCP>
Date: Mon, 6-Oct-86 17:20:55 EDT
Article-I.D.: vaxb.427
Posted: Mon Oct 6 17:20:55 1986
Date-Received: Wed, 8-Oct-86 07:58:21 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<306@husc6.HARVARD.EDU>
Organization: U. of Calgary, Calgary, Ab.
Lines: 18
Summary: Two great processors
Xref: mnetor net.micro.68k:1362 net.micro.amiga:5145 net.micro.atari16:2373
net.micro.mac:7468

The continuing debate on the relative merits of the MC68030 / 80386 seems to
be a bit pointless. The computer industry is famous for the speed at which
equipment is designed, introduced, used and falls obsolete. Of course
Motorola's product is superior to the 80386 because there is an almost
1.5 year difference in technology. Doubtless the 80486 (which is probably
under development right now) will be superior to the MC68030. What most
people seem to forget is that processors are chosen for a particular
product for a variety of reasons, only one of which is their programming
characteristics. Interfacing requirements, # of support chips, price,
etc. are all important characteristics for a manufacturer. I'm sure that
for given applications either Motorola or Intel win. Instead of these
pointless `A is > B because B is built by 3 toed sloths' arguments, why
not try to restrict postings to actual specific comparisons between the
two or information which may not yet be generally known.

Terry Ingoldsby

...ihnp4!alberta!calgary!ingoldsby

From 7350329152823635613
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,e4a8c7b8236b0c87,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 159752,e4a8c7b8236b0c87,start
X-Google-Attributes: gid159752,public
X-Google-Thread: 15517a,e4a8c7b8236b0c87,start
X-Google-Attributes: gid15517a,public
X-Google-Thread: 140593,e4a8c7b8236b0c87,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 14:49:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!drz
From: drz@utcsri.UUCP (Jerry Zarycky)
Newsgroups: net.sources,net.micro.pc,net.micro.amiga,net.micro.atari16
Subject: source for "make" program requested
Message-ID: <3453@utcsri.UUCP>
Date: Mon, 6-Oct-86 17:49:51 EDT
Article-I.D.: utcsri.3453
Posted: Mon Oct 6 17:49:51 1986
Date-Received: Fri, 10-Oct-86 03:01:15 EDT
Distribution: net
Organization: CSRI, University of Toronto
Lines: 12

I am looking for a public domain version of the "make" program
which will work on a VAX running VMS.
If no one has such a beast, then I will hack any supplied version
which is written in C.

Thanks for all respones,

Jerry Zarycky

Usenet: {cornell, uw-beaver, linus, ihnp4, allegra, decvax, floyd} !utcsri!drz
CSNET: drz@Toronto
ARPA: drz%Toronto@CSNet-Relay

From 7920077123507261927
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db4f1dee290e3b5e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 15:39:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!NOSC.ARPA!
dobbs%marlin

From: dobbs%marlin@NOSC.ARPA (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: postings and notes
Message-ID: <8610062239.AA02191@marlin.ARPA>
Date: Mon, 6-Oct-86 18:39:20 EDT
Article-I.D.: marlin.8610062239.AA02191
Posted: Mon Oct 6 18:39:20 1986
Date-Received: Wed, 8-Oct-86 00:31:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

FLAME ON
&*&^$####
FLAME OFF

It takes me an ungodly amount of time to download and uudecode programs
posted or mailed. I know it is my problem to deal with, but I believe
we could all benefit from a few lines concerning program limitations.
For instance: The program only works with monchrome monitors; or TOS
MUST be in RAM not rom, or the other way around; Must be the first
program in the AUTO folder; etc.

I was REALLY looking forward to speedy disk access. My TOS is in ROM...

 GGGGG   OOOOO   N   N   A   V   V Y   Y dobbs@marlin.Nosc.ARPA
G   O   O   NN   N   A A   V   V Y   Y dobbs%marlin@Nosc.ARPA
G GGG O   O   N N N   A   A   V   V   Y   Y   noscvax!dobbs%marlin
G   G O   O   N N N   AAAAAAA   V   V   YYY
 GGGGG   OOOOO   N   NN A   A   V V   Y   Still serving and
                   N   N A   A   V   Y   proud of it.

   "An ADVENTURE is the result of bad planning."   Admiral Richard E. Byrd
----

From 5393174368887677963
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d452d22ae780db9,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,6d452d22ae780db9,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-10-06 15:40:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Atari Explorer
Message-ID: <6109@topaz.RUTGERS.EDU>
Date: Mon, 6-Oct-86 18:40:43 EDT

Article-I.D.: topaz.6109
Posted: Mon Oct 6 18:40:43 1986
Date-Received: Wed, 8-Oct-86 00:17:11 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 4
Xref: mnetor net.micro.atari8:480 net.micro.atari16:2356
Cc: appelbau

I remember that a while ago Neil Harris said that Atari Explorer would
be published in July, well it's now October and no Atari Explorer.
What's happening with it? Is it still going to be "Atari's Vioce?"

From -4236655616009182724
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,41dfe6444c94519,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 16:02:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!NOSC.ARPA!
dobbs%marlin
From: dobbs%marlin@NOSC.ARPA (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: oops.. burned myself with my own flame
Message-ID: <8610062302.AA03115@marlin.ARPA>
Date: Mon, 6-Oct-86 19:02:52 EDT
Article-I.D.: marlin.8610062302.AA03115
Posted: Mon Oct 6 19:02:52 1986
Date-Received: Wed, 8-Oct-86 00:31:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

I flamed about lack of hardware limitations for posted programs. I
specifically mentioned the speedy disk I/O program. My mistake.
Somehow, in my excitement, I overlooked the RAM in "RAM TOS boot disk"
included in the readme doc.

I apologize to the author and to the net.


```
 GGGGG   OOOOO     N    N      A    V       V Y     Y  dobbs@marlin.Nosc.ARPA
G       O     O    NN   N     A A   V       V Y     Y  dobbs%marlin@Nosc.ARPA
G  GGG  O     O    N N  N    A   A   V     V   Y   Y   noscvax!dobbs%marlin
G     G O     O    N  N N   AAAAAAA   V   V     YYY
 GGGGG   OOOOO     N   NN  A       A   V V       Y       Still serving and
                   N    N  A       A    V        Y          proud of it.
```


   "An ADVENTURE is the result of bad planning."   Admiral Richard E. Byrd
---

```
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From 3242161777724014928
X-Google-Language: CZECH,CSN_369103
X-Google-Thread: 140593,c5561f0ed0b68fdc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 16:25:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uEmacs 3.7i (part 2 of 4)
Message-ID: <597@imagen.UUCP>
Date: Mon, 6-Oct-86 19:25:30 EDT
Article-I.D.: imagen.597
Posted: Mon Oct  6 19:25:30 1986
Date-Received: Wed, 8-Oct-86 19:32:14 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 512

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
     XM+@`*#&X````(9@``'B!L]N(>*``92(=51PQ'``!N```&/CP``6```#(,1P``
     XM;```&C``1$`_`#\N``A.NO\`6(]@``!J8```$B!L]N(2*``92($P!\'!/@`@
     XM;/;B)F@`"&`````8F:P`$,`=31TI`9P``$B`K``0@;/;>L*@`$&8`_^0@;/;B
     XM(4L`""!L]N(A2P`,(&SVXD)H`!`@;/;B`"@`"``;,#P``6````),WPB`3EY.
     XM=4Y6```@;/;B("@`#"!L]N(A0``2(&SVXC`H`!`@;/;B,4``%DAL"RA.K0-(
     XM6(\P/``!8````DY>3G5.5@``2.<!$"!L]N(,J``````$F8``!1(;`LT3JT#
     XM2%B/,#P``&```%0@;/;B)F@`#"!L]N(^*``0(&SVXB`H`!(@;/;B(4``#"!L
     XM]N(P*``6(&SVXC%``!`@;/;B(4L`$B!L]N(Q1P`6(&SVX@`H``(`&S`\``%@
     XM```"3-\(@$Y>3G5.5O^L2.<#,$AL"VI.K0-(6(]"9TZZ";!4CSX`2&[_K#\'
     XM3KH`Z%R/0>[_K"9(8```$!`;2(`_`"!L\<I.D%2/$!-F`/_N/SP`("!L\<I.
     XMD%2/0>SR&B1(0D9@```4,!*P1V8```H\/``!8```$%R*#*H`````````)F`/_D
     XM,`9F```42&P+>DAN_ZQ.K0!44(]@``!40>S[)BU(__Q(;`N$2&[_K$ZM`%10
     XMCV```"H@;O_\("@`!+"J``)F```6(&[__"\02&[_K$ZM`%10CV```!90KO_\
     XM(&[__`RH``````$9@#_RD'N_ZPF2&```!`0&TB`/P`@;/'*3I!4CQ`39@#_
     XM[DS?#,!.7DYU3E;__"UN``K__#`N``C`?`(`9P``&B!N__Q2KO_\$+P`32!N
     XM__Q2KO_\$+P`+3`N``C`?`0`9P``&B!N__Q2KO_\$+P`7B!N__Q2KO_\$+P`
     XM6#`N``C`?`@`9P``&B!N__Q2KO_\$+P`1B!N__Q2KO_\$+P`3C`N``C`?`$`
     XM9P``#B!N__Q2KO_\$+P`7C`N``C`?`#_/4``"#`N``@@;O_\4J[__!"`(&[_
     XM_$(03EY.=4Y6_P!(YP,P/SP``4)G2&P+DDZM`II0CR1`M?P`````9@``;CP\
     XM``)@```!`,`;E@$'LYUC0P"\02&[_`$ZM`%10CR\LYUQ(;O\`3JT`BE"/2&[_
     XM`$ZM!-18CSX`#$<``&8```9@```,4D8,1@`%;0#_O`Q'``%F```42&P+G$ZM
     XM`TA8CS`\``!@``"23JT$VC\\``%"9TZM!DY8CPQ```!F```*,#P``&```'*U
     XM_`````!F```B0F=(;O\`3JT$AER/#$```&8```HP/```8```3&````HO"DZM
     XM`G!8CR!L]N(@:``$`"@`$``7(&SVXB!H``0`*``!`!8F;/;:8```"@`K`!``
     XM&R93M_P`````9@#_\#`\``%@```"3-\,P$Y>3G5.5@``+PM![/LF)DA@```@
     XM+Q,O+@`(3JT`<E"/#$```&8```H@*P`$8```&E"+#*L``````1F`/_8(#P`
     XM````8````B9?3EY.=4Y6_ZQ(YP,P2&P+MDZM`TA8CTZM!/(F0+?\`````&8`
     XM`!1(;`O&3JT#2%B/,#P``&```<@_/``@(&SQRDZ05(\@;/'.3I`@"T'M`$ZP
     XMB%?`2@!F```.(`M![0#`L(A7P$H`2@!F```.(`M![0#>L(A7P$H`2@!F```.
```

```
XM(`M![0#DL(A7P$H`P'P``3\`3KH&#%2//@!(;O^L/P=.NOU$7(]![O^L)$A@
XM```0$!I(@#\`(&SQRDZ05(\0$F8`_^X@"T'M`$ZPB&<``"8@"T'M`,"PB&<`
XM`!H@"T'M`-ZPB&<```X@"T'M`.2PB&8``'Y![/(:+4C__$)&8```("!N__P@
XM*``"L(MF```.(&[__#\03KH!:%2/7*[__"!N__P,J`````````F8`_]0@"T'M
XM`$ZPB&8```8Y1_<J(`M![0#`L(AF```&.4?W*"`+0>T`WK"(9@``!CE']R8@
XM"T'M`.2PB&8```8Y1_<D0>SR&BU(__Q"1F```!H@;O_\,!"P1V8```H\/``!
XM8```%ERN__P@;O_\#*@`````````)F`/_:,`9G```.(&[__"%+``)@``!"("[_
XM_$'L]LJPB&T``!1(;`O:3JT#2%B/,#P``&```"H@;O_\,(<@;O_\(4L``ERN
XM__P@;O_\0E`@;O_\0J@``C`\``%@```"3-\,P$Y>3G5.5O^P2.<!$$AL"^Y.
XMK0-(6(]"9TZZ!()4CSX`2&[_L#\'3KK[NER/0>[_L"9(8```$!`;2(`_`"!L
XM\<I.D%2/$!-F`/_N/P=.N@`N5(\,0```9@``%$AL"_Q.K0-(6(\P/```8```
XM"C`\``%@```"3-\(@$Y>3G5.5@``2.<!,$'L\AHF2$)'8```%C`3L&X"&8`
XM``H^/``!8```$%R+#*L`````````)F`/_B,`=F```*,#P``&```"XD2V````1<
XMBPRK`````````"9@#_]%V+-),E:P`"``)"4T*K``(P/``!8````DS?#(!.7DYU
XM3E8``$AL#`P_/``!3KH`2ER/3EY.=4Y6_OX_/`#_2&[_`$AL#`Y.K04BWOP`
XM"CU`_OX,;@`!_OYG```*,"[^_F```!);O\`0F=.N@`,7(]@```"3EY.=4Y6
XM_Z)(YP`P/SP``4)G3JT&3EB/#$```&8```HP/```8``"J$)G/SP``4AL#"!.
XMK0*:4(\M0/_X#*X`````__AG```4+R[_^$ZM`FI8CPQ```!F```42&P,+DZM
XM`TA8CS`\``!@``)D2&P,3$ZM`TA8CR!L]MY3*``5$"@`%4B`L'P``&8``$(@
XM;/;B("@`#"!L]MXA0``$(&SVXC`H`!`@;/;>,4``""!L]N(@*``2(&SVWB%`
XM``H@;/;B,"@`%B!L]MXQ0``.*6[_^/;>(&[_^$(H`!<@;O_X4B@`%29L]N(G
XM;O_X``0@;O_X)V@`$``(%WP`"0`;(&[_^"=H``0`#"!N__@W:```(`!!"JP`2
XM0FL`%D'L^R8M2/_\8``!2"!N__PO$$AN_Z).K0!44(](;O^B3JT`>%B//4#_
XM\@QN````"&8``!PO+@`*2&[_HDZZ`8!0CPQ```!F```&8``!`D'L\AHD2&``
XM*`@*@`"(&[__+"H``1F``".8```%#`N__)2;O_R0>[_HM#`$+P`(`QN`!G_
XM\FT`_^9![O^BT.[_\D'0+P@_$DZZ^.Q<CV````92;O_R0>[_HM#N__(0$$B`
XML'P``&8`_^I![O^B+4C_]&```!H@;O_T4J[_]!`02(`_`#\\``%.K06F6(\@
XM;O_T$!!(@+!\``!F`/_:3JT%CD)N__)<B@RJ```````"9@#_6`QN``#_\F\`
XM`$1![O^BT.[_\D(00>[_HBU(__1@```:(&[_]%*N__00$$B`/P`_/``!3JT%
XMIEB/(&[_]!`02("P?```9@#_VDZM!8Y0KO_\(&[__`RH``````$9@#^K"!L
XM]N(@:``$`"@`$``7(&SVW@(H__T`%B!N__@@:``0)U``#$)K`!`F;/;:8```
XM"@`K`!``&R93M_P`````9@#_\$AL#&1.K0-(6(\P/``!8````DS?#`!.7DYU
XM3E;_]"UN``C__&```%XM;@`,__0M;O_\__A@```H(&[_^%*N__@0$"!N__02
XM$$B!2("P06<```I@```48```!E*N__0@;O_T$!!F`/_2(&[_]!`02("P?```
XM9@``"C`\``%@```84J[__"!N__P0$&8`_YPP/```8````DY>3G5.5O\`2.<!
XM$#`L]SQG``#62&[_`$ZM`Y98CT'N_P`F2$)'$!-(@+!\`$UF```>(`M2@"!`
XM$!!(@+!\`"UF```,/CP"`%2+8```3A`32("P?`!&9@``'B`+4H`@0!`02("P
XM?`!.9@``#(Y\"`!4BV```"80$TB`L'P`7F8``!H@"U*`($`0$$B`L'P`6&8`
XM``B.?`0`5(L0$TB`L'P`7E?`P'P``2(+4H$@01(02(&R?```5L'"?``!P$%G
XM```(CGP!`%*+#$<`86T```X,1P!Z;@``!IY\`"``0$TB`CD`P!V```"`P+@`(
XM9P``#$ZM!/@^`&````A.K04*/@`P!V````),WPB`3EY.=4Y6_OQ(YP,`(&X`
XM"!`02("P?```9@``#"ULYUC^_&````@M;@`(_OP\/``"8```0#`&Y8!![.=8
XMT,`O$$AN_P!.K0!44(\O+O[\2&[_`$ZM`(I0CTAN_P!.K0346(\^``Q'```!F
XM```&8```#%)&#$8`!6T`_[P,1P`!9@``"C`\``%@```43JT$VDAN_P!.K0.B
XM6(]@```"3-\`P$Y>3G5.5O_P2.<!$#\\``!!(;O_P2&P,9DZM!2+>_``*/@`,
XM0``!9P``"#`'8```,D)G/SP``4AN__!.N@CB4(\F0`R`````&8```HP/```
XM8```#B\+3KH`7EB/8````DS?"(!.7DYU3E8``"\+(&SVWB908``%K?\````
XM`&8```HF;/;68```!"93M_P`````9P#_Y!`K`!9(@,!\``%F`/_6+PM.N@`.
XM6(]@```")E].7DYU3E8``"\+(&SVWE,H`!40*``52("P?```9@``0B!L]N(@
XM*``,(&SVWB%```0@;/;B,"@`$"!L]MXQ0``((&SVXB`H`!(@;/;>(4``"B!L
XM]N(P*``6(&SVWC%```XI;@`(]MX@;/;>$"@`%$B`L'P``6<``#H_/``!(&SV
XMWD'H`!@O"$ZM!)A<CR!L]MX@:``0(!`@;/;>(4``!"!L]MY":``((&SVWA%\
XM``$`%"!L]N(A;@`(``0@;@`(("@`$"!L]N(A0``((&SVX@`H`!D`&R!N``@0
```

```
XM*``54B@`%4B`L'P``&8``$H@;@`(("@`!"!L]N(A0``,(&X`"#`H``@@;/;B
XM,4``$"!N``@@*``*(&SVXB%``!(@;@`(,"@`#B!L]N(Q0``6,#P``6```&`F
XM;/;:8```1B`+L*SVXF<``#H@*P`$L*X`"&8``"X@;/;B(6L`#``,(&SVXC%K
XM`!``$"!L]N(A:P`2`!(@;/;B,6L`%@`68```#B93M_P`````9@#_M#`\``%@
XM```")E].7DYU3E;_\$CG`1`_/``02&[_\$AL#'1.K04BWOP`"CX`#$```6<`
XM``@P!V```$9"9T)G2&[_\$ZZ!J!0CR9`#(``````9@``"C`\``%@```D$"L`
XM%DB`P'P``6<```HP/``!8```#B\+3KH`$%B/8````DS?"(!.7DYU3E;__$CG
XM`3`F;@`($"L`%4B`L'P``&<``!1(;`R"3JT#2%B/,#P``&```'XO"TZZ![!8
XMCSX`#$```6<```@P!V```&8@*P`0+P!.K0!:6(\D?``````M;/;6__Q@```.
XM)&[__"!N__PM4/_\("[__+"+9@#_["!N__PM4/_\M?P`````9@``#"EN__SV
XMUF````8DKO_\(`LO`$ZM`%I8CS`\``%@```"3-\,@$Y>3G5.5O_P+PL_/``0
XM2&[_\$AL#)Q.K04BWOP`"@Q```%G```*,#P``&```&8F;/;68```*B`+L*SV
XMWF<``!Y!ZP!H+PA(;O_P3JT`<E"/#$```&8```9@`/^P)E.W_`````!F`/_0
XM2&[_\"!L]MY!Z`!H+PA.K0!44(\@;/;B`"@`$``;3JT"LC`\``%@```")E].
XM7DYU3E8``$CG`3!.N@#2/@`,0``!9P``"#`'8```NB!L]M(0*``52("P?```
XM9@``5DZM!E0F0`R``````&8```HP/```8```D"1K``13*@`5$"H`%4B`L'P`
XM`&8``!HE:P`,``0U:P`0``@E:P`2``HU:P`6``XG;/;2``0@;/;24B@`%29L
XM]MI@```Z("L`!+"L]M)F```L(&SVTB!H`!`G4``((&SVTB!H`!`G4``,0FL`
XM$$*K`!)":P`6`"L`&``;)E.W_`````!F`/_`,#P``6````),WPR`3EY.=4Y6
XM_VQ(YP<P(&SVT@(H__T`%B\L]M).N@6H6(\\``Q```%G```(,`9@``)N2&P,
XMM"!L]M)!Z``8+PA.K0!44(](;`RV3KH"^%B/#$```&<``!1(;`S>3KH"YEB/
XM#$```&8```HP/```8``"+BUL]M;__$'N_VPF2!;\`"`6_``@%OP`($)%8```
XM)#`L]T8R/``!ZV''06<```Y![/=6T,46T&````86_``N4D4,10`(;0#_V$AL
XM#08O"TZM`%10CTAN_VQ.N@)X6(\,0```9@``"C`\``!@```'8``!J"!N__P0
XM*``62(#`?``!#$```&<```X@;O_\+5#__&```89![O]L)D@@;O_\$"@`%$B`
XML'P``68```H6_`!`8```!A;\`"`@;O_\$"@`%DB`P'P``@Q```!G```*%OP`
XM*F````86_``@%OP`($)%8```*B!N__P0*``7,CP``>MA2(#`06<```Y![/=6
XMT,46T&````86_``N4D4,10`(;0#_TA;\`"!"KO_T(&[__"!H`!`M4/_X8```
XM&B!N__@P*``*2,!2@-&N__0@;O_X+5#_^"`N__@@;O_\L*@`$&8`_]HO+O_T
XM/SP`!TAN_^Q.N@#2WOP"D'N_^PD2&````8P!Q;`$!I(@#X`#$```&8`__`6
XM_``@(&[__$'H`&@D2&````8P!Q;`$!I(@#X`#$```&8`__`@;O_\0>@`&"1(
XM$!)(@+!\``!G```X8```!A;\`"`@"T'N_XRPB&T`__)@```2(`M![O_KL(AL
XM```&,`<6P!`:2(`^``Q```!F`/_D0A-(;O]L3KH`UEB/#$```&8```HP/```
XM8```'B!N__PM4/_\#*X`````__QF`/Y0,#P``6````),WPS@3EY.=4Y6```@
XM;@`(T.X`#$(08```1B`N``XO`"`\`````"B\`3JT!%%B/(!_0?``P4VX`##(N
XM``P@;@`(T,$0@"`N``XO`"`\`````"B\`3JT!%"`?6(\M0``.#*X`````*``YL
XM`/^R("X`#M!\`#!3;@`,,BX`#"!N``C0P1"`8```%%-N``PP+@`,(&X`"-#`
XM$+P`(`QN```#&8`_^9.7DYU3E8``$CG`Q`O+@`(3JT`>%B//``_!DZM!8A4
XMCR9`#(``````9@``"C`\``!@``!V0D=@```4(&X`"-#'$!!!ZP`,T,<0@%)'
XM,`>P1FT`_^@@;/;2(&@`$"!H``0@BR!L]M(@:``0)V@`!``$(&SVTB!H`!`A
XM2P`$(&SVTB:H`!`@;/;2("@`!"!L]M*PJ``09@``"B!L]M(A2P`$,#P``6``
XM``),WPC`3EY.=4Y6```O"R9L]M9@```P$"L`%DB`P'P``0Q```!F```<$"L`
XM%DB`P'P``@Q```!G```*,#P``6```!8F4[?\`````&8`_\HP/```8````B9?
XM3EY.=4Y6__A(YP`P)FX`""1L]M9@```@0>H`:"\(+PM.K0!R4(\,0```9@``
XM""`*8``!3"12M?P`````9@#_V@QN````#&<``3`_/`#(3JT`KE2/)$`,@```
XM``!F```,(#P`````8``!%D)G3JT%B%2/+4#_^`R`````&8``!8@"B\`3JT`
XM6EB/(#P`````8```[`RL`````/;69P``'"\+(&SVUD'H`&@O"$ZM`')0CPQ`
XM``!O```.)*SVUBE*]M9@``!.+6SVUO_\8```*B\+(&[__"!00>@`:"\(3JT`
XM<E"/#$```&\```9@```8(&[__"U0__P@;O_\#)``````9@#_S"!N__PDD"!N
XM__P@BA5\``$`%"5N__@`!$)J``A"J@`*0FH`#C`N``X50``6,"SW1A5``!="
XM*@`5)6[_^``02&P-'$'J`!@O"$ZM`%10CR\+0>H`:"\(3JT`5%"/0BH`>"!N
XM__@@KO_X(&[_^"%N__@`!"`*8````DS?#`!.7DYU3E8``$CG`3`F;@`($"L`
XM%DB`P'P``0Q```!F```N$"L`%DB`P'P``@Q```!G```<2&P-'DZM!1Q8CSX`
```

```
XM#$```6<```@P!V```#X"*__]`!9@```*+PI.K06@6(\@:P`0(!`D0+"K`!!F
XM`/_J)VL`$``$0FL`"$*K``I":P`.,#P``6````),WPR`3EY.=4Y6```@;/;>
XM`BC__0`6(&SVX@`H`!``&S`\``%@```"3EY.=4Y6_[`_!S\\`$](;O^P2&P-
XM+DZM!2+>_``*/@`,0``!9P``"#`'8```3$)G+SP`````3KH`1ER/2&[_L$ZM
XM`'A8CS\`2&[_L$ZZ`#!<CTAN_[`@;/;>0>@`>"\(3JT`5%"/2&P-0DZM`TA8
XMCS`\``%@```"/A].7DYU3E8``$CG`Q`F;@`(/BX`#"`+9@``%C`'P+P``/__
XM*4#G5#E'YU)@``"F8```F!P32(8,1@`@;0``B`Q&'YN``"``JP?____YU0@
XM+.=4P+P0````9P``"@JL`$"@`>=4("SG5"\`(#P```!?+P!.K0$46(\@'S(&
XMDGP`()!!/P!.N@!45(_0?``@/`!2;.=2,"SG4@Q`47EM```&0FSG4B`LYU30
XMK.=42,;0AA832(-(P]"#-BSG4DC#T(,I0.=4,`86P#`'4T=*0&8`_V),WPC`
XM3EY.=4Y6```_!SXN``A@```&GGPE''Q')1QL`/_V8```!IY\`[8,1P.V;`#_
XM]F````:>?`!?#$<`7VP`__9@```&WGP`7PQ'``!M`/_V,`=@```"/A].7DYU
XM3E8``$CG`1`@;/&V3I`@;/&^3I!"9R!L\>).D%2/,"SQK,'\``0_`$ZM`*Y4
XMCRE`YTX,K`````#G3F8```P_/``!3JT`,%2/,"SQK,'\``0_`$ZM`*Y4CRE`
XMYTH,K`````#G2F8```P_/``!3JT`,%2/0D=@``!V,#P`#-!L\:X_`$ZM`*Y4
XMCR9`M_P`````9@``##\\```%.K0`P5]"4S=\``<`!D)K``@P!^6`(&SG3M#`
XM((LP/``,T&SQKC\`3JT`KE2/)D"W_`````!F```,/SP``4ZM`#!4CT)3,`?E
XM@"!LYTK0P""+4D<P![!L\:QM`/^$3-\(@$Y>3G5.5@``3KH.V$)G/RSQK$ZZ
XM#I)8CR!L\<Y.D"!L\;I.D"!L\<).D$Y>3G5.5@``.6X`"/<T.6X`"O<R3EY.
XM=4Y6```O"S`L]S3E@"!LYT[0P"90,"SW,K!L\:YM```@,"SW,EY`P'S_^#E`
XM]S)!ZP`)T.SQKA"\`"1@``!R#&X"0`(9@``(#\\`"!.NO^R5(\P+/<RP'P`
XM!PQ```!F`/_H8```2@QN`"``"&T```P,;@!_``AF```B/SP`7DZZ_X!4CS`N
XM``@V/`!`MT`_`$ZZ_VY4CV```!8P+@`(,BSW,E)L]S)!ZP`*T,$0@"9?3EY.
XM=4Y6```O"S`L]S3E@"!LYT[0P"90,"SW,K!L\:YM```@,"SW,EY`P'S_^#E`
XM]S)!ZP`)T.SQKA"\`"1@``!^#&X"0`(9@``)#\\`"!.NO^R5(\P+/<RT&SW
XM+,!\``<,0```9@#_Y&```%(,;@`@``AM```,#&X`?P`(9@``(C\\`%Y.NO]\
XM5(\P+@`(-CP`0+=`/P!.NO]J5(]@```>#&P``/<R;0``$#`N``A!ZP`*T.SW
XM,A"`4FSW,B9?3EY.=4Y6```O"S`L]S3E@"!LYT[0P"908```%#`L]S)2;/<R
XM0>L`"M#`$+P`(#`L]S*P;/&N;0#_Y"9?3EY.=4Y6```_/``!3KH`$%2/,#P`
XM`6````).7DYU3E8``"\+#&X````(9@``%$ZM`9)*0&<```HP/``!8```P#E\
XM`&/W`"9L]MI@``!F$"L`&V<``%PO"TZZ`*I8CQ`K`!M(@,!\_^\,0``$9@``
XM#B\+3KH!P%B/8```&!`K`!M(@,!\__UG```*+PM.N@)H6(\0*P`;2(#`?``0
XM9P``"B\+3KH)D%B/0BL`&T(K`!HF4[?\`````&8`_Y1.N@,B3KH#W@QL``#W
XM0&<```9.N@2R/RX`"$ZZ!5A4CS`L]NR0;/<L/P`_+/;N3KH+S%B/(&SQSDZ0
XM,#P``6````(F7TY>3G5.5@``2.<!$"!N``@0*``;2(#`?``!#$```&8``%(@
XM;@`()F@`"$)'8```,B`+(&X`"+"H``QF```*,#P``6```.@@"R!N``@@:``$
XML*@`$&8```9@```8)E-21S`'(&X`"!(H`!E(@;!!;0#_P"!N``@>*``:2(<,
XM1P``;P``)E-',`<@;@`($B@`&4B!L$%M```.(&X`"!XH`!E(AU-'8```-`Q'
XM``!L```<(&X`"!`H`!E(@-Y`#$<``&P```1"1V```!(@;@`('B@`&4B'2,>/
XM_``"(&X`""9H``Q@```(4T<F:P`$#$<``&<``!8@*P`$(&X`""!H``2PJ``0
XM9@#_X"!N``@A2P`((&X`"``H``@`&R!N``@"*/_^`!LP/``!8````DS?"(!.
XM7DYU3E8``$CG`Q`@;@`()F@`""!N``@>*``82(=@```&4D<F4R`+(&X`"+"H
XM``QF`/_P,`?E@"!LYT[0P"!0`%```3``'Y8`@;.=.T,`@4`)0__="9S\'3KK[
XMMEB/0D9@```:0>L`#-#&$!!(@,!\`/\_`$ZZ^ZY4CU)&,`:P:P`*;0#_X"!N
XM``@0*``<,@?E@2!LYT[0P2!02(`Q0``&(&X`"!`H`!TR!^6!(&SG3M#!(%!(
XM@#%```A.NOS<3-\(P$Y>3G5.5O_V2.<#$"!N``@F:``((&X`"!XH`!A(AV``
XM`*(P!^6`(&SG3M#`(%``4``!,`?E@"!LYT[0P"!0`E#_]T)G/P=.NOL&6(\@
XM"R!N``@@:``$L*@`$&<``"Q"1F```!I!ZP`,T,80$$B`P'P`_S\`3KKZ[%2/
XM4D8P!K!K``IM`/_@)E,@;@`($"@`'#('Y8$@;.=.T,$@4$B`,4``!B!N``@0
XM*``=,@?E@2!LYT[0P2!02(`Q0``(3KK\&%)'(&X`"!`H`!@@;@`(2(`6*``9
XM2(/00SU`__8P![!N__9M`/\^3-\(P$Y>3G5.5@``2.<#$"!L]N(F:``((&SV
XMXA`H`!A(@#E`]NY@```(4FSV[B93(`L@;/;BL*@`#&8`_^Y";/;L0D9@```^
XM/@921D'K``S0QQX02(?.?`#_#$<`"68```P`;```]NQ@```6#$<`(&T```H,
```

```
XM1P!_9@``!E)L]NQ2;/;L,`8@;/;BL&@`$&T`_[@P+/;L,BSQKE-!L$%M```<
XM,"SV[N6`(&SG3M#`(%``4``#3KH"&F````9";/<L3-\(P$Y>3G5.5O_V2.<#
XM,"9L]MI@``#")&L`"!XK`!A(AV```)8P!^6`(&SG3M#`(%`P$,!\``)G``!\
XM(`NPK/;B9@``'"`*L*L`#&8``!(P+/;L,BSQKE-!L$%L``!80F<_!TZZ^4)8
XMCT)&8```&D'J``S0QA`02(#`?`#_/P!.NODZ5(]21C`&L&H`"FT`_^!.NOJ<
XM,`?E@"!LYT[0P"!0`E#__3`'Y8`@;.=.T,`@4`!0``$D4E)'$"L`&$B`%BL`
XM&4B#T$,]0/_V,`>P;O_V;0#_4B93M_P`````9@#_.$S?#,!.7DYU3E8``$CG
XM`Q!"1V```'0P!^6`(&SG3M#`(%``4``!,`?E@"!LYT[0P"!0`E#_^S`'Y8`@
XM;.=.T,`@4#%L]T0``C`'Y8`@;.=.T,`@4#%L]T(`!#`'Y8`@;.=*T,`@4$'H
XM``HF2$)&8```#"!+T,80O``@4D8P!K!L\:YM`/_N4D<P![!L\:QM`/^&0F="
XM9TZZ!J98CR!L\=I.D$)L]T!";/<^3KH&SDS?",!.7DYU3E8``$CG`1!"1V``
XM`%(P!^6`(&SG3M#`)E`P$\!\``$,0```9P``-@QN````"&8``!1.K0&22D!G
XM```*,#P``6```"XP!^6`(&SG2M#`+Q`O"S\'3KH`K-[\``I21S`'L&SQK&T`
XM_Z@P/``!8````DS?"(!.7DYU3E8``$CG`Q`^+/;LGFSQKDC'C^SQLDA'WFSQ
XML#`L]NR01U)`.4#W+#`L]RQ$0#\`/RSV[DZZ]V)8CR!L]N(F:``,0D9@```:
XM0>L`#-#&$!!(@,!\`/\_`$ZZ^`94CU)&,`:P:P`*;0#_X$ZZ^+0P+/;NY8`@
XM;.=.T,`@4!%\`"0"DS?",!.7DYU3E;_W$CG`3`@;@`*0>@`"B9((&X`#D'H
XM``HD2"!N``H_*``&(&SQZDZ05(\@;@`*/R@`""!L\>Y.D%2/(&X`"C`0P'P`
XM!`Q```17P,!\``$]0/_R(&X`"C`0P'P`"`Q```A7P,!\``$]0/_P,"[_\K!N
XM__!F```J(&X`"C`H``(@;@`*L&@`!F8``!8@;@`*,"@`!"!N``JP:```(9P``
XMO$)G/RX`"$ZZ!-Y8CS`N__*P;O_P9P``#C\N__`@;/'B3I!4CR!N``I!Z``*
XMT.SQKD'0+4C__&```!80$TB`/P`@;/'*3I!4CU)L]RX4VR`+L*[__&T`_^0P
XM+O_RL&[_\&<```Q"9R!L\>).D%2/(&X`"@)0__XP+O_P9P``#B!N``H`4``$
XM8```"B!N``H"4/_[(&X`"C`H``8@;@`*,4```B!N``HP*``((&X`"C%```0P
XM/``!8``!HF````92BU**(&X`"D'H``K0[/&N0=`@""U`_^8@"["N_^9G```0
XM$!,2$DB!2("P06<`_](@;@`*0>@`"M#L\:Y!T"`(+4#_W"`+L*[_W&8``!(@
XM;@`*`E#__C`\``%@``%`0D<@;@`*0>@`"M#L\:Y!T"U(__P@;@`.0>@`"M#L
XM\:Y!T"U(__A@```>4Z[__%.N__@@;O_\$!!(@+!\`"!G```&/CP``2!N__P0
XM*/__(&[_^!(H__](@4B`L$%G`/_,+6[__/_T#$<``&8``%`,;``!]X)F``!&
XM#&X``?_P9P``/&````93KO_T("[_]+"+9P``%"!N__00*/__2("P?``@9P#_
XMXB`N__R0KO_TL'P``VX```@M;O_\__0@"R!N``I!Z``*D(@_`#\N``A.N@+Z
XM6(\_+O_R(&SQXDZ05(]@```6$!-(@#\`(&SQRDZ05(]2;/<N%-L@"["N__1F
XM`/_D("[_]+"N__QG```8(&SQUDZ08```!!3;(`NPKO_\9@#_]D)G(&SQXDZ0
XM5(\@;@`*`E#__C`\``%@```"3-\,@$Y>3G5.5O[^2.</,"!N``@<*``8(&X`
XM"$B&%B@`&4B#W$,P!N6`(&SG3M#`(%``4``9,`;E@"!LYT[0P"!00F@`!C`&
XMY8`@;.=.T,`@4#%\``<`"$)G/P9.NO.V6(\@+@`(L*SVXF8```HX/``]8```
XM%C`L]X!G```*.#P`(&````8X/``M/P1.NO.:5(\@;@`()&@`!!`J`!9(@,!\
XM``(,0```9P``$#\\`"I.NO-V5(]@```*/P1.NO-J5(\\/``"2&P-1$AN_OY.
XMK0!44(](;`U22&[^_DZM`(I0CTAL#5A(;O[^3JT`BE"//7P``?_^0D5@``!0
XM(&X`""!H``00*``7,CP``>MA2(#`06<``#0,;@`!__YG```02&P-7$AN_OY.
XMK0"*4(]";O_^,`7E@$'L]V#0P"\02&[^_DZM`(I0CU)%#$4`"&T`_ZQ(;`U>
XM2&[^_DZM`(I0CT'N_OXF2&````P_!TZZ\KI4CU)&$!M(@#X`#$```&8`_^H_
XM!$ZZ\J)4CS\$3KKRFE2//SP`($ZZ\I!4CU9&0>H`:"9(8```##\'3KKR?%2/
XM4D80&TB`/@`,0```9@#_ZC\\`"!.NO)B5(\_!$ZZ\EI4CS\$3KKR4E2/5D80
XM*@`82("P?```9P``7C\\`"!.NO(X5(]21D'L#6(F2&````P_!TZZ\B14CU)&
XM$!M(@#X`#$```&8`_^I!Z@`8)DA@```,/P=.NO("5(]21A`;2(`^``Q```!F
XM`/_J/SP`($ZZ\>A4CU)&8```##\$3KKQVE2/4D8P!K!L\:YM`/_N3-\,\$Y>
XM3G5.5@``+PLF;/;:8```"@`K`!``&R93M_P`````9@#_\"9?3EY.=4Y6```P
XM+@`(L&SW,&8```XP+@`*L&SW+F<``!XY;@`(]S`Y;@`*]RX_+@`*/RX""!L
XM\=).D%B/3EY.=4Y6__Y"9S\L\:Q.NO^X6(\_/```'(&SQZDZ05(]"9R!L\>Y.
XMD%2/#&P``?>"9@``#"!L\=9.D&```$1";O_^8```$C\\`"`@;/'*3I!4CU)N
XM__XP+O_^,BSQKE-!L$%M`/_B/SP``3\L\:Q.NO]86(]"9S\L\:Q.NO],6(\@
XM;/'.3I!";/<^3EY.=4Y6``!(YP$0/SP`!R!L\>I.D%2/0F<@;/'N3I!4CPQL
```

```
XM``#W@F8```Q.NO],(&SQSDZ00F<_+/&L3KK_`%B/0>X`#"`()D!@``$@#$<`
XM)6<``!0_!R!L\<I.D%2/4FSW+F```08@;@`(4JX`"!X02(<P!V````*P?`!D
XM9P``!F```!P_/``*(`L@0#\03KH!2%B/5(M@``#28```#K!\`&]G```&8```
XM'#\\``@@"R!`/Q!.N@$B6(]4BV```*Q@```.L'P`>&<```9@```</SP`$"`+
XM($`_$$ZZ`/Q8CU2+8```AF````ZP?`!$9P``!F```!P_/``*(`L@0"\03KH!
XM1%R/6(M@``!@8```#K!\``-G```&8```&"`+($`O$$ZZ`(!8CUB+8```/F``
XM``ZP?`!F9P``!F```"H@"R!`/Q!.N@&"5(]4BV```!Q@```"/P<@;/'*3I!4
XMCU)L]RY@```&8`#_["!N``A2K@`($!!(@#X`#$```&8`_LX,;``!]X)F```(
XM(&SQUDZ0(&SQSDZ0.7P``?<^3-\(@$Y>3G5.5@``/P=@```0/P<@;/'*3I!4
XMCU)L]RX@;@`(4JX`"!`02(`^``Q```!F`/_>/A].7DYU3E8``#\'#&X````(
XM;```&#`N``A$0#U```@_/``M(&SQRDZ05(\^+@`(2,>/[@`*#$<``&<```X_
XM+@`*/P=.NO_`6(\P+@`(2,"![@`*2$!![.<XT,`0$$B`/P`@;/'*3I!4CU)L
XM]RX^'TY>3G5.5@``+P<,K@`````"&P``!@@+@`(1(`M0``(/SP`+2!L\<I.
XMD%2/+BX`""\'/BX`#$C'+P=.K0$4+A]8CPR'`````&<```X_+@`,+P=.NO^P
XM7(\@+@`(+P`P+@`,2,`O`$ZM`118CR`?T'P`,#\`(&SQRDZ05(]2;/<N+A].
XM7DYU3E;__#`N``A(P('\`&0]0/_^,"X`"$C`@?P`9$A`/4#__#\\``H_+O_^
XM3KK^Y%B//SP`+B!L\<I.D%2/,"[__$C`@?P`"M!\`#`_`"!L\<I.D%2/,"[_
XM_$C`@?P`"DA`T'P`,#\`(&SQRDZ05(]6;/<N3EY.=4Y6```O"TAL#6I.K0-(
XM6(].K03R)D"W_`````!F```42&P-;DZM`TA8CS`\``!@```2/RX`"C\N``A.
XMDUB/8````B9?3EY.=4Y6_P`_!S\\`0!(;O\`2&P-@DZM!2+>_``*/@`,0``!
XM9P``"#`'8```$$AN_P!.N@`.6(]@```"/A].7DYU3E;][DCG!Q`P+/=&P'P`
XM!&<``&!(;`V&2&[][DZM`%10CR\N``A(;OWN3JT`BE"/2&P-BDAN_>Y.K0"*
XM4](;OWN3JT#2%B//SP``4ZM`QA4CR!L\<9.D`Q```=F```42&P-CDZM`TA8
XMCS`\``!@``*X2&P-GB\N``A.K0!R4(\,0```9P``)"!N``@0$$B`L'P`)&8`
XM`"0@;@`($"@``4B`L'P`968``!)";/<Z0JSW-C`\``%@``)P0F[_\B!N``@0
XM$$B`L'P`)&8``!H@;@`($"@``4B`L'P`9F8```@]?``!__(P+/<Z9P``X&``
XM`!8@;@`(0>@``2\(+RX`"$ZM`%10CR!N``@0$$B`L'P`(&<`_]X@;@`($!!(
XM@+!\``EG`/_.+RX`"$ZM``A8CSU`__0_+O_T3JT%B%2/+4#_[@R``````&8`
XM`!1(;`VD3JT#2%B/,#P``&```<Q"16```!@@;@`(T,40$"!N_^Y!Z``,T,40
XM@%)%,`6P;O_T;0#_XB!L]S8@:``0(&@`!""N_^X@;/<V(&@`$"`H``0@;O_N
XM(4``!"!L]S8@:``0(6[_[@`$(&SW-B`H`!`@;O_N((`P/``!8``!7D)'/#P`
XM`3EL]NKVZ$)L]NHO+@`(2&SWA$ZM`%10CS`N__)G```,2&[^[DZZ`R!8CTAN
XM_NY.N@,66(\]0/_X#$```6<```HP+O_X8``!$!`N_NY(@+!\`#!M```0$"[^
XM[DB`L'P`.6\``!`0+O[N2("P?``M9@``A#X\``%"1D'N_NXF2#U\``'__A`3
XM2("P?``M9@``"E*+/7S____^8```+A`32("P?``P;0``(!`32("P?``Y;@``
XM%#`&P?P`"A832(/00Y!\`#`\`%*+$!-F`/_0,`;![O_^/`!(;O[N3KH":EB/
XM/4#_^`Q```%G```*,"[_^&```&1(;O[N3JT".EB/+4#_^@R`````&8``!1(
XM;`W&3JT#2%B/,#P`&```#H];/<\__8Y?``!]SP_!C\'(&[_^DZ06(\]0/_X
XM,"[_\F<```@]?``!__@Y;O_V]SPP+O_X8````DS?".!.7DYU3E8``#\'8```
XM!E*N``@@;@`($!!(@+!\`"!G`/_N(&X`"!`02("P?``)9P#_WB!N``@>$$B'
XMOGP`(E?'SGP``3``9P``!E*N``A@``%P(&X`"!`02("P?`!^9@`!"E*N``@@
XM;@`($!!(@+!\``!F```&8``!4B!N``A2K@`($!!(@&````*P?`!R9P``!F``
XM`!8@;@`,4JX`#!"\``U@``#"8```#K!\`&YG```&8```%B!N``Q2K@`,$+P`
XM"F```*)@```.L'P`=&<```9@```6(&X`#%*N``P0O``)8```@F````ZP?`!B
XM9P``!F```!8@;@`,4JX`#!"\``A@``!B8```#K!\`&9G```&8```%B!N``Q2
XMK@`,$+P`#&```$)@```.L'P`0&<```9@```N(&X`#%*N``P0O/_`8```(F``
XM``(@+@`(4X`@0!`0(&X`#%*N``P0@&````9@`/_F8```6#`'9P``&B!N``@0
XM$$B`L'P`(F8```9@``!(8```)B!N``@0$$B`L'P`(&<``!(@;@`($!!(@+!\
XM``EF```&8```("!N``A2K@`($!`@;@`,4JX`#!"`(&X`"!`09@#^BB!N``@0
XM$&<```92K@`((&X`#$(0("X`"&````(^'TY>3G5.5@``2.<#,"\N``A(;/>$
XM3KK^!E"/)D`O"TAL]X1.K0!44(\@;@`($!!(@+!\`$!F```\/BSW/$)L]SP_
XM/`$`(&X`"$'0+P@@;@`(0>@``2\(3JT%(M[\``H\`#E']SP,1@`!9P``"#`&
XM8```J"!N``@0$$B`L'P`P&8```H@;@`($+P`0"!N``@0$$B`L'P`(V8``'A"
```

```
XM9T)G(&X`"$'H``$O"$ZM`II0CR1`M?P`````9@``"C`\``!@``!8("H`$+"J
XM``1F```*,#P``&```$0@:@`$/R@`"B!J``1!Z``,+P@O+@`(3JT!"-[\``H@
XM:@`$,"@`"B!N``C0P$(0(&H`!"50``1":@`(,#P``6````),WPS`3EY.=4Y6
XM__`O"PQN````"&8``!1(;`W:3JT#2%B/,#P``&```*H,;@`!``IM```,#&X`
XM*``*;P``%$AL#>Y.K0-(6(\P/```8```A$AL#@A(;O_P3JT`5%"/,#P`,#(N
XM``I(P8/\``K001U`__<P/``P,BX`"DC!@_P`"DA!T$$=0/_X/SP``3\\``%(
XM;O_P3JT"FE"/)D`,@`````!F```42&P.%$ZM`TA8CS`\``!@```<+PM.K0)J
XM6(\Y?``!]SHI2_<V,#P``6````(F7TY>3G5.5O_P2.<!$#\\`!!(;O_P2&P.
XM*DZM!2+>_``*/@`,0``!9P``"#`'8```8D)G0F=(;O_P3JT"FE"/)D`,@```
XM``!F```42&P./$ZM`TA8CS`\``!@```V8```&B\+3KH`-%B//@`,0``!9P``
XM"#`'8```&C`N``I3;@`*#$```&X`_]HP/``!8````DS?"(!.7DYU3E;^_$CG
XM`S`@;@`()&@`$"928```OCPK``H,1@#_;P``!CP\`/\_!D'K``PO"$AN_OQ.
XMK0$(WOP`"D'N_OS0QD(0$"[^_$B`L'P`.V<``((0+O[\2("P?```9P``=$AN
XM_OQ.NO@$6(\^``Q'``%G``!@+6SVVO_\8```-"!N__P@*``$L*X"&8``!P@
XM;O_\(4L`#"!N__Q":``0(&[__``H``@`&R!N__PM4/_\#*X`````__QF`/_$
XM(&X`""%+``0@;@`(0F@`"#`'8```%"93(`NPBF8`_SXP/``!8````DS?#,!.
XM7DYU3E;\`#\'/SP`_TAN_`!(;`Y,3JT%(M[\``H^``Q```%G```(,`=@```X
XM8```'$AN_`!.N@`R6(\^``Q```%G```(,`=@```:,"X"E-N``H,0```;@#_
XMV#`\``%@```"/A].7DYU3E;_\$CG`3`O+@`(2&[_\$ZM!+Q0CT)G/SP``4AN
XM__!.K0*:4(\F0`R``````&8```HP/```8```:A=\`!``%R1L]MXI2_;>0F<O
XM+@`(3JT$F%R//@`,0``!9P``#"E*]MXP!V```#PI2O;>+PM.NOY`6(\^``Q`
XM``%G```(,`=@```@$"L`%4B`L'P``&8```HO"TZM`EY8CS`\``%@```"3-\,
XM@$Y>3G5.5@``2.<!$#`\`#`R+@`,2,&#_``*T$$90.<S,#P`,#(N``Q(P8/\
XM``I(0=!!&4#G-$)G0F=(;.<L3JT"FE"/)D`,@`````!F```42&P.7DZM`TA8
XMCS`\``!@```V8```&B\+3KK]H%B//@`,0``!9P``"#`'8```&C`N``I3;@`*
XM#$```&X`_]HP/``!8````DS?"(!.7DYU3E8``#\\``$_+@`*/RX`"$ZZ_U1<
XMCTY>3G5.5@``/SP``C\N``H_+@`(3KK_.ER/3EY.=4Y6```_/``#/RX`"C\N
XM``A.NO\@7(].7DYU3E8``#\\``0_+@`*/RX`"$ZZ_P9<CTY>3G5.5@``/SP`
XM!3\N``H_+@`(3KK^[%R/3EY.=4Y6```_/``&/RX`"C\N``A.NO[27(].7DYU
XM3E8``#\\``<_+@`*/RX`"$ZZ_KA<CTY>3G5.5@``/SP`"#\N``H_+@`(3KK^
XMGER/3EY.=4Y6```_/``)/RX`"C\N``A.NOZ$7(].7DYU3E8``#\\``H_+@`*
XM/RX`"$ZZ_FI<CTY>3G5.5@``/SP`"S\N``H_+@`(3KK^4%R/3EY.=4Y6```_
XM/``,/RX`"C\N``A.NOXV7(].7DYU3E8``#\\``T_+@`*/RX`"$ZZ_AQ<CTY>
XM3G5.5@``/SP`#C\N``H_+@`(3KK^`ER/3EY.=4Y6```_/``//RX`"C\N``A.
XMNOWH7(].7DYU3E8``#\\`!`_+@`*/RX`"$ZZ_<Y<CTY>3G5.5@``/SP`$3\N
XM``H_+@`(3KK]M%R/3EY.=4Y6```_/``2/RX`"C\N``A.NOV:7(].7DYU3E8`
XM`#\\`!,_+@`*/RX`"$ZZ_8!<CTY>3G5.5@``/SP`%#\N``H_+@`(3KK]9ER/
XM3EY.=4Y6```_/``5/RX`"C\N``A.NOU,7(].7DYU3E8``#\\`!8_+@`*/RX`
XM"$ZZ_3)<CTY>3G5.5@``/SP`%S\N``H_+@`(3KK]&%R/3EY.=4Y6```_/``8
XM/RX`"C\N``A.NOS^7(].7DYU3E8``#\\`!D_+@`*/RX`"$ZZ_.1<CTY>3G5.
XM5@``/SP`&C\N``H_+@`(3KK\RER/3EY.=4Y6```_/``;/RX`"C\N``A.NORP
XM7(].7DYU3E8``#\\`!P_+@`*/RX`"$ZZ_)9<CTY>3G5.5@``/SP`'3\N``H_
XM+@`(3KK\?%R/3EY.=4Y6```_/``>/RX`"C\N``A.NOQB7(].7DYU3E8``#\\
XM`!\_+@`*/RX`"$ZZ_$A<CTY>3G5.5@``/SP`(#\N``H_+@`(3KK\+ER/3EY.
XM=4Y6```_/``A/RX`"C\N``A.NOP47(].7DYU3E8``#\\`"(_+@`*/RX`"$ZZ
XM^_I<CTY>3G5.5@``/SP`(S\N``H_+@`(3KK[X%R/3EY.=4Y6```_/``D/RX`
XM"C\N``A.NOO&7(].7DYU3E8``#\\`"4_+@`*/RX`"$ZZ^ZQ<CTY>3G5.5@``
XM/SP`)C\N``H_+@`(3KK[DER/3EY.=4Y6```_/``G/RX`"C\N``A.NOMX7(].
XM7DYU3E8``#\\`"@_+@`*/RX`"$ZZ^UY<CTY>3G5.5O^P/P<_/`!02&[_L$AL
XM#G!.K04BWOP`"CX`#$```6<```@P!V```!0_/``!2&[_L$ZZ`ZQ<CV````(^
XM'TY>3G5.5O^P/P<@;/;>$"@`%TB`P'P`$&<```I.K0!^8```-#\\`%!(;O^P
XM2&P.?$ZM!2+>_``*/@`,0``!9P``"#`'8```$$AN_[!.N@F66(]@```"/A].
XM7DYU3E;_L#\'/SP`4$AN_[!(;`Z*3JT%(M[\``H^``Q```%G```(,`=@```4
```

```
XM/SP``4AN_[!.N@%`7(]@```"/A].7DYU3E;_L$CG`1`_/`!02&[_L$AL#I9.
XMK04BWOP`"CX`#$```6<```@P!V```$1"9TAN_[!.N@#^7(\^`#`'9P``*B!L
XM]N(@:``$`"@`$``7)FSVVF````H`*P`0`!LF4[?\`````&8`__`P!V````),
XMWPB`3EY.=4Y6```_!T)L]O`@;/;>$"@`%TB`P'P`@&<``)0@;/;>$"@`>$B`
XML'P``&8``!Q"9T)G3JT"IEB//@`,1P`!9P``"#`'8```<#E\``'V\$)G+SP`
XM````3JT"K%R/(&SVWD'H`'@O"$ZM`'A8CS\`(&SVWD'H`'@O"$ZM`JQ<CT)G
XM+SP`````3JT"K%R/(&SVWD'H`'@O"$ZM`'A8CS\`(&SVWD'H`'@O"$ZM`JQ<
XMCS`\``%@```"/A].7DYU3E;_\$CG`S`F;/;68```E!`K`!9(@,!\``$,0```
XM9@``@"\N``A!ZP`8+PA.K0!R4(\,0```9@``:"\+3JT"<%B/(&SVXB1H``P@
XM;/;B'B@`&4B'2,>/_``"8```!B1J``0P!U-'2D!G```2("H`!"!L]MZPJ``0
XM9@@#_Y"!L]N(A2@`((&SVX@`H`!@`&TAL#J).K0-(6(\P/``!8``!+"93M_P`
XM````9@@#_9B\N``A(;O_P3KH#W%"/8```0#\\`!!(;O_P2&P.L$ZM!2+>_``*
XM/``,1@`"9@``"#`&8```Z@Q&``!F```4+RX`"$AN__!.N@.>4(]@```<0F="
XM9TAN__!.K0*:4(\F0`R``````&8`_ZJW_``````!F```P0F<_/``!2&[_\$ZM
XM`II0CR9`#(``````9@``%$AL#KY.K0-(6(\P/```8```?B!L]MY3*``5$"@`
XM%4B`L'P``&8``$(@;/;B("@`#"!L]MXA0``$(&SVXC`H`!`@;/;>,4``""!L
XM]N(@*``2(&SVWB%```H@;/;B,"@`%B!L]MXQ0``.*4OVWB!L]N(A2P`$(&SV
XMWE(H`!4_+@`,+RX`"$ZZ`!!<CV````),WPS`3EY.=4Y6_NA(YP\P3KK]:#P`
XM#$8``6<```@P!F```IXM;/;>__@O+O_X3JT":EB//``,0``!9P``"#`&8``"
XM?B!N__@"*/_\`!8O+@`(3JT`>%B/#$```6\``(PO+@`(3JT`>%B//4#^Z"`N
XM``@V+O[H2,/0@U6`+4#_]"!N__00$$B`L'P`+F8``%P@+O_T4H`@0!`02("P
XM?`!#9P``/B`N__12@"!`$!!(@+!\`$AG```J("[_]%*`($`0$$B`L'P`8V<`
XM`!8@+O_T4H`@0!`02("P?`!H9@``#"!N__@`*```"`!<O+@`((&[_^$'H`!@O
XM"$ZM`%10CR!L\<).D"\N``A.K0346(\\``Q```-F```&8``!#`Q&``%F```0
XM2&P.U$ZM`TA8CV```/9(;`[@3JT#2%B/0D1";O_R8```@`Q&``1F```(/7P`
XM`?_R2&[^\DZM`'A8CSH`/P5.K06(5(\F0`R``````&8```H\/``#8```:B!L
XM]MX@:``0)&@`!"2+(&SVWB:H`!`G2@`$(&SVWB!H`!`A2P`$0D=@```40>[^
XM\M#'$!!!ZP`,T,<0@%)',`>P16T`_^A21#\\`0!(;O[R3JT$YER//``,0```
XM9P#_;`Q&``1G`/]D3JT$V@Q&``)F```D#$0``68``!!(;`[P3JT#2%B/8```
XM#C\$2&P._DZM`TA<CS`N__)G```./P1(;`\.3JT#2%R/(&SQODZ0+6SVVO_\
XM8```8"!N__P@*``$L*SVWF8``$@@;/;>(&@`$"`0(&[__"%```@@;/;>(&@`
XM$"`0(&[__"%```P@;O_\0F@`$"!N__Q"J``2(&[__$)H`!8@;O_\"@`&``;
XM(&[__"U0__P,K@```#__&8`_Y@,1@`#9P``"@Q&``%F```*,#P``&````HP
XM/``!8````DS?#/!.7DYU3E8``$CG`#`@;@`,0=`F2&````12BQ`32("P?```
XM9@@#_]&````13BR`+(&X`#$'0L(AG```L$"O__TB`L'P`.F<``!X0*___2("P
XM?`!<9P``$!`K__](@+!\`"]F`/_((&X`"$'0)$A@```$%-L@"B!N``A!Z``/
XML(AG```:$!-(@+!\``!G```.$!-(@+!\`#MF`/_80A),WPP`3EY.=4Y6_[!(
XMYP$0/SP`4$AN_[!(;`\T3JT%(M[\``H^``Q```%G```(,`=@``!@2&[_L$ZZ
XM`1Q8CSX`#$```68``$9(;O^P(&SVWD'H`!@O"$ZM`%10CR!L]MX"*/_]`!8F
XM;/;:8```%B`K``2PK/;>9@``"```K`!``&R93M_P`````9@@#_Y#`'8````DS?
XM"(!.7DYU3E8``$CG`1`@;/;>$"@`%TB`P'P`$&<```I.K0!^8```E"!L]MX0
XM*``62(#`?``"#$```&8```HP/``!8```=B!L]MX0*``82("P?```9@``%$AL
XM#T).K0-(6(\P/```8```4B!L]MY!Z``8+PA.N@!,6(\^``Q```%F```R(&SV
XMW@(H__T`%B9L]MI@```6("L`!+"L]MYF```(``L`$``;)E.W_`````!F`/_D
XM,`=@```"3-\(@$Y>3G5.5@``2.<#$$ZZ^+H^``Q'``%G```(,`=@``#2(&SQ
XMPDZ0+RX`"$ZM!,Y8CSX`#$```&<``!`@;/&^3I`P/```8```JDAL#U!.K0-(
XM6(\@;/;>(&@`$"900D9@```D/RL`"D'K``PO"$ZM!.!<CSX`#$```&<```9@
XM```44D8F4R`+(&SVWK"H`!!F`/_2#$<``&8``#9.K03:/@`,1P``9@``)`Q&
XM``%F```02&P/7$ZM`TA8CV````X_!DAL#VQ.K0-(7(]@```&3JT$VB!L\;Y.
XMD`Q'``!G```*,#P``&````HP/``!8````DS?",!.7DYU3E;_L$CG`1`_/`!0
XM2&[_L$AL#WY.K04BWOP`"CX`#$```F8```@P!V```&X,1P``9@``&DAL#X8@
XM;/;>0>@`&"\(3JT`5%"/8```%DAN_[`@;/;>0>@`&"\(3JT`5%"/)FSVVF``
XM`!8@*P`$L*SVWF8```@`*P`0`!LF4[?\`````&8`_^0@;/;>`BC_[P`7,#P`
```

```
XM`6````),WPB`3EY.=4Y6_O9(YP\P+6SVWO_X(&[_^``H``(`%B!N__@"*/_^
XM`!8O+@`(3JT$U%B//``,0``#9@``!F```6H,1@`!9@``%$AL#XA.K0-(6(\P
XM/```8``!Q$AL#YA.K0-(6(].NO;0/``,1@`!9P``"#`&8``!IB!L]N(@:``,
XM("@`!"!L]N(A0``,(&SVXD)H`!`@;/;B("@`#"!L]N(A0``2(&SVXD)H`!9"
XM1$)N__9@``"`#$8`!&8```@]?``!__9(;O[V3JT`>%B/.@`_!4ZM!8A4CR1`
XM#(`````9@``"CP\``-@``!J(&SVXB9H``PM4__\(&[__"%*``0FBB5+``0D
XMKO_\(&SVXB%*``Q"1V```!1![O[VT,<0$$'J``S0QQ"`4D<P![!%;0#_Z%)$
XM/SP!`$AN_O9.K03F7(\``Q```!G`/]L#$8`!&<`_V1.K03:(&SVXB!H`!(@
XM$"!L]N(A0``2#$8``F8``"0,1``!9@``$$AL#ZI.K0-(6(]@```./P1(;`^\
XM3JT#2%R/,"[_]F<```X_!$AL#]!.K0-(7(\@;/;B(&@`#"`0(&SVXB%```P@
XM;/;B`"@`&``;(&SVXB`H``P@;/;>(4``!"!L]N(P*``0(&SVWC%```@@;/;B
XM("@`$B!L]MXA0``*(&SVXC`H`!8@;/;>,4``#@Q&``-F```*,#P``&````HP
XM/``!8````DS?#/!.7DYU3E8``$AL#_HO+@`(3JT`\%"/*4#G*`R`````&8`
XM``HP/``!8```"C`\``!@```"3EY.=4Y6``!(;`_\+RX`"$ZM`/!0CRE`YR@,
XM@`````!F```42&P/_DZM`TA8CS`\``-@```*,#P``&````).7DYU3E8``"\L
XMYRA.K0"H6(\P/```8````DY>3G5.5O_^/P<P+/;P9P``2D)'8```-B!N``C0
XMQQ`02(#`?`#_'4#__S\\``%(;O__3JT"K%R/+RSG*!`N__](@#\`3JT`TER/
XM4D<P![!N``QM`/_$8```+D)'8```'B\LYR@@;@`(T,<0$$B`P'P`_S\`3JT`
XMTER/4D<P![!N``QM`/_<+RSG*#\\``U.K0#27(\O+.<H/SP`"DZM`-)<CR!L
XMYR@P*``*P'P`0&<``!1(;!`<3JT#2%B/,#P``V````HP/```8````CX?3EY.
XM=4Y6``!(YP,`0D9@``!H,`8R+@`,54&P06T``$PP!R!N``C0[@`,$4#__B!N
XM``C0[@`,0BC__TAL$"Q.K0-(6(\P+/;P9P``&"\N``A.K0!X6(\_`"\N``A.
XMK0*L7(\P/``$8```O#`',@921B!N``C0P1"`+RSG*$ZM`1I8CSX`#$#__V<`
XM``H,1P`*9@#_@"!N``C0QA`H__](@+!\``UF```$4T8,1___9@``1B!LYR@P
XM*``*P'P`0&<``!1(;!!`3JT#2%B/,#P``V```%(,1@``9P``%$AL$%!.K0-(
XM6(\P/``#8```.#`\``)@```P(&X"-#&0A`P+/;P9P``&"\N``A.K0!X6(\_
XM`"\N``A.K0*L7(\P/```8````DS?`,!.7DYU3E;_I"\N``A(;O^N3JT`5%"/
XM2&P0;$AN_ZY.K0"*4(](;O^N3JT#2%B/(&SQQDZ0'4#__S\L]R1.N@1\5(\]
XM0/^D$"[__TB`L&[_I&8```HP/``"8```3A`N__](@+!\`'EG```0$"[__TB`
XML'P`668```HP/``!8```*A`N__](@+!\`&YG```0$"[__TB`L'P`3F8```HP
XM/```8```!F``_V).7DYU3E8``#\\``I.N@1$5(\_`#\N`!`O+@`,+RX`"$ZZ
XM``[>_``,8````DY>3G5.5O_T2.</`$)'0D0,K`````#VRF<``%!@```0,`4R
XM!U)'(&X`#-#!$(`@;/;*5*SVRC`0.@`,0```9@#_X"!N``S0QT(0(&X`#!`0
XM2("P?```9@``"C`\``!@``-^,#P``6```W8P+/<\9P``)"\N``Q.K0.66(\]
XM0/_^(&X`#-#N`!!"*/__,"[__F```TPO+@`(3JT#2%B/3KH'HCH`#$4!368`
XM``8Z/`%*,`6P;@`29@``K`Q$``!F``"D,`=21R!N``S0P$(0#*P`````]LYG
XM``!4("SVSC('2,'C@="!0>S['K"(;P``&D)G0F=.K0#D6(\@;/'.3I`P/``"
XM8``"V$)&8```&"!N``S0QA`0(&SVSE2L]LY(@#"`4D8P!K!';0#_Y$)G/RSQ
XMK"!L\=).D%B/0FSW+B!L\<Y.D"!N``P0$$B`L'P``&8```HP/```8``"A#`\
XM``%@``)\/P5.N@)^5(\Z`#\L]R1.N@)R5(\]0/_T,`6P;O_T9@``)@Q$``!F
XM```>0F="9TZM`.18CR!L\<Y.D#`\``)@``(Z8``",@Q%`']G```*#$4`"&8`
XM`.0,1```9@``W`Q'```!G``#0/SP`""!L\<I.D%2//SP`("!L\<I.D%2//SP`
XM""!L\<I.D%2/4VSW+E-',`<@;@`,T,`0$$B`L'P`(&P``"H_/``((&SQRDZ0
XM5(\_/``@(&SQRDZ05(\_/``((&SQRDZ05(]3;/<N(&X`#-#'$!!(@+!\``IF
XM``!2/SP`""!L\<I.D%2//SP`""!L\<I.D%2//SP`("!L\<I.D%2//SP`("!L
XM\<I.D%2//SP`""!L\<I.D%2//SP`""!L\<I.D%2/4VSW+E-L]RX@;/'.3I!@
XM``%`#$4`%68``(8,1```9@``?F```&@_/``((&SQRDZ05(\_/``@(&SQRDZ0
XM5(\_/``((&SQRDZ05(]3;/<N4T<P!R!N``S0P!`02("P?``@;```*C\\``@@
XM;/'*3I!4CS\\`"`@;/'*3I!4CS\\``@@;/'*3I!4CU-L]RX,1P``9@#_E"!L
XM\<Y.D&```+0P!;!L]R)F```2#$0``&8```HX/``!8```FD)$,`<R+@`04T&P
XM06P``(HP!3('4D<@;@`,T,$0@`Q%`"!L```@#$4`"F<``!`@_/`!>(&SQRDZ0
XM5(]2;/<N,#P`0+%%#$4`"F<``!`_!2!L\<I.D%2/8```-C\\`#P@;/'*3I!4
XMCS\\`$X@;/'*3I!4CS\\`$P@;/'*3I!4CS\\`#X@;/'*3I!4CU9L]RY2;/<N
```

```
    XM(&SQSDZ08`#\PDS?`/!.7DYU3E8``#`N``C`?`$`9P``#C`N``C`?/Z_/4``
    XM"#`N``C`?`@`9P``#C`N``C`?`#_/4``"#`N``A@```"3EY.=4Y6```,;@``
    XM``AM```>#&X`'P`(;@``%#`\`0`R+@`(TGP`0(!!/4``"#`N``A@```"3EY.
    XM=4Y6_NY(YP,P0D<,K`````#VRF<``#Y@```0,`8R!U)'0>[^^-#!$(`@;/;*
    XM5*SVRC`0/``,0```9@#_X$'N_OC0QT(02&[^^$ZM`CI8CV```P@P+/<\9P``
    XM+$AN_OA.K0.66(\,0``!9P``##`\``!(P&```N1(;O[X3JT".EB/8``"UF``
    XM`LH@;/'&3I`\``Q&``UF```X0>[^^-#'0A!(;O[X3KH"NEB/#$```F8```P@
    XM/`````!@``*>2&[^^$ZM`CI8CV```I!@``*$/RSW)$ZZ_K94CSU`_NXP!K!N
    XM_NYF```@0F="9TZM`.18CR!L\<Y.D"`\`````&```EI@``).#$8`?V<```H,
    XM1@`(9@``/@Q'``!G```R/SP`""!L\<I.D%2//SP`("!L\<I.D%2//SP`""!L
    XM\<I.D%2/4VSW+E-'(&SQSDZ08``"`@Q&`!5F``!"8```+#\\``@@;/'*3I!4
    XMCS\\`"`@;/'*3I!4CS\\``@@;/'*3I!4CU-'4VSW+@Q'``!F`/_0(&SQSDZ0
    XM8``!N@Q&`"!F``&`0>[^^-#'0A!![/LF)$A@``%22&[^^$ZM`'A8CS\`+Q)(
    XM;O[X3JT!(-[\``H,0```9@`!+B`*4(`@0`RH``````$9P``*DAN_OA.K0!X
    XM6(\_`"`*4(`@0"\02&[^^$ZM`2#>_``*#$```&<``#0@$DC'T(<F0&```!`0
    XM&TB`/P`@;/'*3I!4CQ`39@#_[B!L\<Y.D"`J``1@``$>8```PB`*4(`M0/_X
    XM8```-$AN_OA.K0!X6(\_`"`N__A0@"!`+Q!(;O[X3JT!(-[\``H,0```9P``
    XM!F```!I0KO_X("[_^%"`($`,J`````!&8`_[Q@``!D(%+0QQ`00>[^^-#'
    XM$(`@"E"`+4#__&```"8@;O_\(%#0QQ`00>[^^-#'$A!(@4B`L$%G```&8```
    XM1E"N__P@+O_\L*[_^&\`_](P!U)'0>[^^-#`$!!(@#\`(&SQRDZ05(\P/``!
    XM9@#_F%"*#*H``````1F`/ZF(&SQWDZ0(&SQSDZ08```-`Q``/]L```B#$8`
    XM(&\``!HP!C('4D=![O[XT,$0@#\&(&SQRDZ05(]2;/<N(&SQSDZ0,#P``68`
    XM_3),WPS`3EY.=4Y6__8,K`````#VSF<``&PO+@`(3JT`>%B/2,#C@"U`__8@
    XM+/;.T*[_]D'L^QRPB&\``!I"9T)G3JT`Y%B/(&SQSDZ0,#P``F```#A@```8
    XM(&X`"%*N``@0$"!L]LY4K/;.2(`P@"!N``@0$&8`_^(@;/;.5*SVSD)0,#P`
    XM`6````).7DYU3E;_^"!L\<9.D#U`__XP+O_^9@``2D)N__Q@```N,"[__.6`
    XM0>SFK-#`,!"P;.=L9@``%#`N__SE@$'LYJ[0P#`08```2%)N__PP+O_\Y8!!
    XM[.:LT,`,4```9@#_P@QN``#__FT``!X,;@`?__YN```4,#P!`#(N__[2?`!`
    XM@$$]0/_^,"[__F````).7DYU3E;__DZZ_VH]0/_^,"[__K!L]RIF``!63KK_
    XM5CU`__X,;@!A__YM```2#&X`>O_^;@`""`1N`"#__@QN``#__FT``!X,;@`?
    XM__YN```4,#P!`#(N__[2?`!`@$$]0/_^,#P"`(!N__Y@``!J,"[__K!L]RAF
    XM``!63KK^]CU`__X,;@!A__YM```2#&X`>O_^;@``"`1N`"#__@QN``#__FT`
    XM`!X,;@`?__YN```4,#P!`#(N__[2?`!`@$$]0/_^,#P$`(!N__Y@```*,"[_
    XM_F````).7DYU3E;_^D)N__X]?``!__Q@``!0$"[_^TB`L'P`+68```XP+O_\
    XMP?S__SU`__P0+O_[2("P?``P;0``*!`N__M(@+!\`#EN```:,"[__L'\``H6
    XM+O_[2(/00Y!\`#`]0/_^(&X`"%*N``@=4/_[9@#_I#`N__[![O_\8````DY>
    XM3G5.5O_Z(&SVXBUH``S__"!L]N(]:``0__H_/``!/SP``4ZM`?)8CS`N``I$
    XM0#\`/RX`"$ZZ`*Y8CTI`9@``-B!L]N(A;O_\``P@;/;B,6[_^@`0(&SVX@`H
    XM``(`&T)G3JT#&%2/2&P0=DZM`TA8CV````9.K0*R3EY.=4Y6__H@;/;B+6@`
    XM#/_\(&SVXCUH`!#_^C\N``H_+@`(3KH`1EB/2D!F```V(&SVXB%N__P`#"!L
    XM]N(Q;O_Z`!`@;/;B`"@``@`;0F=.K0,85(](;!"&3JT#2%B/8```!DZM`K).
    XM7DYU3E;_I$CG!P`Y?/__Y*)";.2D0FSDIC\\`%!(;/C42&[_K$ZM`0C>_``*
    XM(&SVXBUH``S_J"!L]N(]:``0_Z8];@`*_Z1(;!"63KH%/%B//4#__$)'/7P`
    XM`?_^3KH&ZCH`/P!.K0405(\\``Q&`!-G```2#$8`$F<```H,1@`89@``@D)'
    XM8```'C\N__Q![/C4T,<0$$B`/P!.N@5B6(\]0/_\4D=![/C4T,<0$$B`L'P`
    XM`&8`_]0,1@`29@``&CU\__\"C\\``$_/``!3JT!\EB/8```"#U\``$`"C\N
    XM__X_+@`*2&SXU$ZZ`R)0CSU`__Y.N@92.@`_`$ZM!1!4CSP`,`6P;/<J9@``
--
----
         It aint life that gets me down, it's gravity

Name:    James M. Turner
Mail:    Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
```

        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -4181570564523584587
X-Google-Language: CZECH,CSN_369103
X-Google-Thread: 140593,6492f9e76d422790,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 16:28:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uEmacs 3.7i (part 3 of 4)
Message-ID: <598@imagen.UUCP>
Date: Mon, 6-Oct-86 19:28:47 EDT
Article-I.D.: imagen.598
Posted: Mon Oct 6 19:28:47 1986
Date-Received: Wed, 8-Oct-86 19:32:51 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 513

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

```
     XM"C`\``%@``(N,`9@```"L'P`!V<```9@```.,#P``&```A1@```FL'P`$F<`
     XM`!Y@```"L'P`$V<``!)@```"L'P`&&<```9@``!(#$8`$F8```P]?/__``I@
     XM```(/7P``0`*/SP``3\N``I(;/C43KH"D%"//4#__DZZ!<`Z`#\`3JT%$%2/
     XM/`!@``&F8```#K!\``UG```&8```#CP\``I@``#L8```&K!\`!%G```28```
     XM`K!\`!9G```&8```%DZZ!7@Z`#\`3JT%$%2//`!@```:L'P`"6<``!)@```"
     XML'P`"F<```9@```*8```H&```!JP?``(9P``$F````*P?`!_9P``!F```(`,
     XM;``!Y*1N```*,#P``6```1A3;.2D4VSDI#`LY*3C@$'LY*;0P$)0(&SVXB%N
     XM_Z@`#"!L]N(Q;O^F`!`];O^D``H_/`!02&[_K$AL^-1.K0$(WOP`"D)LY*)@
     XM`/W08````@Q&`"!L```2/P9.N@5V5(\P/``!8```L&````9@`/_B,`8R!U)'
     XM0>SXU-#!$(`,1P!0;0``%$AL$*!.K0-(6(\P/``!8```@$'L^-30QT(0/R[_
     XM_#\&3KH#*EB//4#__#`N__YF```8/SP`!R!L\<I.D%2/(&SQSDZ08```-C\N
     XM__X_+@`*2&SXU#\&3KH`0-[\``H]0/_^9@``&#\\``$_+@`*2&SXU$ZZ`.A0
     XMCSU`__Y.N@08.@`_`$ZM!1!4CSP`8`#]Q$S?`.!.7DYU3E;__DCG`Q`P+@`0
     XM9@``"C`\``!@``"F(&SVXB9H``P@;/;B/B@`$`QN````#F\``'XP![!K``IF
     XM```D)E,@"R!L]MZPJ``09@``"C`\``!@``!J0D<\/``*8```%#P'4D=!ZP`,
     XMT,8<$$B&S'P`_Q`N``E(@#\`/P9.K07B6(\]0/_^9P``'"!L]N(A2P`,(&SV
     XMXC%''!`@;/;B`"@``@`;,"[__F```!1@```0+RX`"DZZ`.)8CV````),WPC`
     XM3EY.=4Y6```P+@`.9P``,`QN````#&P``!0O+@`(3KH`1%B//4``#F```!0_
     XM/``"+RX`"$ZM!=9<CSU```XP+@`.9@``%#\\``<@;/'*3I!4CR!L\<Y.D#`N
     XM``Y@```"3EY.=4Y6__H@;/;B+6@`#/_\(&SVXCUH`!#_^F```!HO+@`(3KH`
     XM4%B/2D!G```*,#P``6```#P_/``!/SP``4ZM`?)8CTI`9@#_UB!L]N(A;O_\
     XM``P@;/;B,6[_^@`0(&SVX@`H``(`&S`\``!@```"3EY.=4Y6__9(YP<0(&SV
     XMXB9H``P@;/;B.B@`$$)'8```9#`%L&L`"F8``"0F4T)%(`L@;/;>L*@`$&8`
     XM``HP/```8```8#P\``I@```4/`5214'K``S0QAP02(;,?`#_(&X`"-#'$!!(
     XM@#\`/P9.K07B6(]*0&8```HP/```8```)%)'+RX`"$ZM`'A8CSU`__8P![!N
```

```
XM__9M`/^(,#P``6````),WPC@3EY.=4Y6_YPO+@`(2&[_G$ZM`%10CTAL$+I(
XM;O^<3JT`BE"//SP`*$AN_YQ.K0!X6(]![O^<T,!!T"\(2&SXU$ZM!=#>_``*
XM2&P0ODAN_YQ.K0"*4(\P+/<\9@``#$AN_YQ.K0-(6(](;O^<3JT`>%B/8```
XM`DY>3G5.5@``/RX"C\L\:Q.K0,P6(\,;@`@``AM```,#&X`?P`(9@`!!#`N
XM``A@```"L'P`"F<```9@```^/SP`/"!L\<I.D%2//SP`3B!L\<I.D%2//SP`
XM3"!L\<I.D%2//SP`/B!L\<I.D%2/5FX`"F```+1@```.L'P`"6<```9@``!*
XM/SP`/"!L\<I.D%2//SP`5"!L\<I.D%2//SP`02!L\<I.D%2//SP`0B!L\<I.
XMD%2//SP`/B!L\<I.D%2/6&X`"F```&!@```.L'P`?V<```9@``!,/SP`7B!L
XM\<I.D%2//SP`/R!L\<I.D%2/4FX`"F```#!@````"/SP`7B!L\<I.D%2/,"X`
XM"-!\`$`_`"!L\<I.D%2/4FX`"F````9@`/_88```#C\N``@@;/'*3I!4CR!L
XM\<Y.D%)N``HP+@`*8````DY>3G5.5O_^#&P``.2B;0``*#`LY*)2;.2BXX!!
XM[.2FT,`P$#U`__X,0```9P``"C`N__Y@``!>.7S__^2B0F=.K0,85(\,;`#_
XMY*1M```42&P0R$ZM`TA8CS`L]RI@```T3JT$^#U`__XP+.2D4FSDI..`0>SD
XMIM#`,*[__C`LY*3C@$'LY*;0P$)0,"[__F````).7DYU3E;__BELYJCQQCUL
XMYJ;__CE\___FIC`N__Y@```"3EY.=4Y6```,;/__YJ9G```,(#P`````8```
XM%CEN``CFIBEL\<;FJ$'Z_[@I2/'&3EY.=4Y6``!(YP,0/BX`"#P'W'P`$%-&
XMS'S_\`Q&``!F```&/#P`$#`\``[01C\`3JT`KE2/)D`,@`````!F```8/P9(
XM;!#<3JT#2%R/(#P`````8```$#=&``@W1P`*(`M@```"3-\(P$Y>3G5.5O_\
XM2.<`,"9N``@M;/;:__Q@``!<(&[__"`H``BPBV8```H@;O_\(5,`""!N__P@
XM*``,L(MF```2(&[__"%3``P@;O_\0F@`$"!N__P@*``2L(MF```2(&[__"%3
XM`!(@;O_\0F@`%B!N__PM4/_\#*X`````__QF`/^<)&SVUF```#80*@`52("P
XM?```9@``)B`J``2PBV8```HE4P`$0FH`""`J``JPBV8```HE4P`*0FH`#B12
XMM?P`````9@#_Q"!K``0@DR!3(6L`!``$(`LO`$ZM`%I8CTS?#`!.7DYU3E8`
XM`$CG`1`^+@`((&SVWA`H`!5(@+!\``%G```&/CP`""!L]MX0*``62(#`?```"
XM#$```&8``!".?``0(&SVW@`H``(`%B9L]MI@```6("L`!+"L]MYF```(,`>!
XM*P`;)E.W_`````!F`/_D3-\(@$Y>3G5.5@``/SP`(#\N``I.N@`66(\_+@`*
XM/RX`"$ZM`?)8CTY>3G5.5O_22.<#,"!L]MX0*``72(#`?``09P``"DZM`'Y@
XM``,$/SP`!$ZZ_T!4CR!L]N(M:``,__P@+O_\(&SVWK"H`!!F``"N(&SVX@QH
XM````$&<``!1(;!#V3JT#2%B/,#P``&```L`_+@`(3KK]L%2/+4#_^`R``````
XM`&8```HP/```8``"H"!N__PM:``$__0@;O_T(*[_^"!N__@@KO_\(&[__"%N
XM__@`!"!N__@A;O_T``1"1F```!0P+@`*(&[_^$'H``S0QA"`4D8P!K!N``AM
XM`/_F(&SVXB%N__@`#"!L]N(Q;@`(`!`P/``!8``"-"!L]N(^*``0(&[__#`H
XM``K0;@`((&[__+!H``AO``#8(&[__#`H``K0;@`(/P!.NOSZ5(\M0/_X#(``
XM````9@``"C`\``!@```J(&[__$'H``PF2"!N__A!Z``,)$A@```$%-L@;O_\
XM0>@`#-#'0=`@""U`_^8@"["N_^9F`/_D,"X`"$C`U<!@```$%-L@;O_\,"@`
XM"B!N__Q!Z``,T,!!T"`(+4#_W"`+L*[_W&8`_]P@;O_\(&@`!""N__@@;O_\
XM(!`@;O_X((`@;O_\(%`A;O_X``0@;O_\("@`!"!N__@A0``$("[__"\`3JT`
XM6EB/8```7"UN__S_^"!N__@P*``*T&X`"#%```H@;O_\,"@`"B!N__Q!Z``,
XMT,!!T"1((`HV+@`(2,.0@R9`8```!!4C(&[__$'H``S0QT'0(`@M0/_2(`NP
XMKO_29@#_Y$)&8```&#`N``HR!])&(&[_^$'H``S0P1"`4D8P!K!N``AM`/_B
XM+6SVVO_P8```H"!N__`@*``(L*[__&8```P@;O_P(6[_^``((&[_\"`H``RP
XMKO_\9@``-B!N__`A;O_X``P@+O_PL*SVXF<``!`@;O_P,"@`$+!';P``$B!N
XM__`P*``0T&X`"#%```!`@;O_P("@`$K"N__QF```J(&[_\"%N__@`$B!N__`P
XM*``6L$=O```2(&[_\#`H`!;0;@`(,4``%B!N__`M4/_P#*X`````__!F`/]8
XM,#P``6````),WPS`3EY.=4Y6_^!(YP$P(&SVWA`H`!=(@,!\`!!G```*3JT`
XM?F```98_/``(3KK\%%2/(&SVXBUH``S__"!L]N(^*``0/P=.NOJN5(\M0/_X
XM#(``````9@``"C`\``!@``%<(&[__$'H``PF2"!N__A!Z``,)$A@```$%-L@
XM;O_\0>@`#-#'0=`@""U`_^H@"["N_^IF`/_D(&[__$'H``PD2&````04VR!N
XM__PP*``*(&[__$'H``S0P$'0(`@M0/_@(`NPKO_@9@#_W"!N__PP*``*D$<Q
XM0``*(&[__"`H``0@;O_X(4``!"!N__PA;O_X``0@;O_X(&@`!""N__@@;O_X
XM(*[__"UL]MK_]&```)@@;O_T("@`"+"N__QF```,(&[_]"%N__@`""!N__0@
XM*``,L*[__&8``"P@;O_T,"@`$+!';```$"!N__0A;O_X``Q@```0(&[_]#`H
XM`!"01S%``!`@;O_T("@`$K"N__QF```L(&[_]#`H`!:P1VP``!`@;O_T(6[_
```

```
XM^``28```$"!N__0P*``6D$<Q0``6(&[_]"U0__0,K@````#_]&8`_V`P/``!
XM8````DS?#(!.7DYU3E;_[DCG`S`@;/;>$"@`%TB`P'P`$&<```I.K0!^8``!
XM[&```=0@;/;B+6@`#/_\(&SVXCXH`!`@+O_\(&SVWK"H`!!F```*,#P``&``
XM`;X@;O_\/"@`"IQ',`9(P+"N``AO```&+"X"``Q&``!F``!$/SP`"$ZZ^@94
XMCTZZ`98,0```9P``'@QN````#&<``!P_/``*3KH%7E2/#$```&8```HP/```
XM8``!8E.N``A@``%&/SP`!$ZZ^<14CR!N__Q!Z``,T,=!T"9((`M(QM"&)$`,
XM;@````QG```Z8```(!`32(`_`$ZZ!0Q4CPQ```!F```*,#P``&```1!2BR`+
XML(IF`/_<(&[__$'H``S0QT'0)DA@```$%MH@;O_\,"@`"B!N__Q!Z``,T,!!
XMT"`(+4#_[B`*L*[_[F8`_]P@;O_\,"@`"I!&,4``"BUL]MK_^&```(X@;O_X
XM("@`#+"N__QF```T(&[_^#`H`!"P1VT``"8@;O_X,"@`$)!&,4``$"!N__@P
XM*``0L$=L```*(&[_^##%''!`@;O_X("@`$K"N__QF```T(&[_^#`H`!:P1VT`
XM`"8@;O_X,"@`%I!&,4``%B!N__@P*``6L$=L```*(&[_^##%''!8@;O_X+5#_
XM^`RN`````/_X9@#_:C`&2,"1K@`(#*X`````AF`/XD,#P``6````),WPS`
XM3EY.=4Y6_\A(YP`P(&SVWA`H`!=(@,!\`!!G```*3JT`?F```V0@;/;B+6@`
XM#/_\(&[__"U0__@@+O_X(&SVWK"H`!!F```B(&[__`QH````"F8```PO+O_\
XM3KKW,%B/,#P``6```R(@;O_\,"@`""!N__R0:``*/4#_YB!N__@P*``*L&[_
XMYFX``28@;O_\,"@`"B!N__Q!Z``,T,!!T"9((&[_^$'H``PD2&````06VB!N
XM__@P*``*(&[_^$'H``S0P$'0(`@M0/_<(`JPKO_<9@#_W"UL]MK_\&```(0@
XM;O_P("@`"+"N__AF```,(&[_\"%N__P`""!N__`@*``,L*[_^&8``"(@;O_P
XM(6[__``,(&[__#(H``H@;O_P,"@`$-!!,4``$"!N__`@*``2L*[_^&8``"(@
XM;O_P(6[__``2(&[__#(H``H@;O_P,"@`%M!!,4``%B!N__`M4/_P#*X``````
XM__!F`/]T(&[_^#(H``H@;O_\,"@`"M!!,4``"B!N__@@$"!N__P@@"!N__@@
XM4"%N__P`!"`N__@O`$ZM`%I8CS`\``%@```':(&[__#`H``H@;O_XT&@`"C\`
XM3KKU7E2/+4#_]`R`````&8```HP/```8``!K"!N__Q!Z``,)D@@;O_T0>@`
XM#"1(8```!!3;(&[__#`H``H@;O_\0>@`#-#`0=`@""U`_](@"["N_])F`/_<
XM(&[_^$'H``PF2&````04VR!N__@P*``*(&[_^$'H``S0P$'0(`@M0/_((`NP
XMKO_(9@#_W"!N__P@:``$(*[_]"!N__@@$"!N__0@@"!N__@@4"%N__0`!"!N
XM__P@*``$(&[_]"%```0M;/;:__!@``#0(&[_\"`H``BPKO_\9P``$B!N__`@
XM*``(L*[_^&8```P@;O_P(6[_]```((&[_\"`H``RPKO_\9@``$"!N__`A;O_T
XM``Q@```R(&[_\"`H``RPKO_X9@``(B!N__`A;O_T``P@;O_\,B@`"B!N__`P
XM*``0T$$Q0``0(&[_\"`H`!*PKO_\9@``$"!N__`A;O_T`!)@```R(&[_\"`H
XM`!*PKO_X9@``(B!N__`A;O_T`!(@;O_\,B@`"B!N__`P*``6T$$Q0``6(&[_
XM\"U0__`,K@````#_\&8`_R@@+O_\+P!.K0!:6(\@+O_X+P!.K0!:6(\P/``!
XM8````DS?#`!.7DYU3E;__`RL`````/;X9P``1"EL]OCV_&```!H@;/;\+5#_
XM_"\L]OQ.K0!:6(\I;O_\]OP,K`````#V_&8`_]X@/``````I0/;\*4#V^#E\
XM`/KV]DY>3G5.5O_\#&P`^O;V;0``6#\\`/Y.K0"N5(\M0/_\#(``````9@``
XM"C`\```!@``!8#*P`````]OAF```(*6[__/;X#*P`````]OQG```*(&SV_""N
XM__PI;O_\]OP@;/;\0I!";/;V,"X`"#(L]O92;/;V(&SV_$'H``30P1"`,#P`
XM`6````).7DYU3E;__$CG`Q`@;/;>$"@`%TB`P'P`$&<```I.K0!^8```W`QN
XM`````"FP```HP/```8```R@RL`````/;X9@``"C`\``%@``"V8```G"UL]OC_
XM_&```(8@;O_\#)``````9@``"CPL]O9@```&/#P`^B!N__Q!Z``$)DA@``!,
XM$!M(@#X`#$``"F8``"(_/``!0F=.NO<P6(\,0```9@``"C`\``!@``!68```
XM'C\'/SP``4ZZ\^18CPQ```!F```*,#P``&```#8P!E-&2D!F`/^N(&[__"U0
XM__P,K@````#__&8`_W(P+@`*4VX`"DI`9@#_6C`\``%@```"3-\(P$Y>3G5.
XM5O_V/P<@;/;>$"@`%TB`P'P`$&<```I.K0!^8```7$AN__9.N@)\6(\^``Q`
XM``%G```(,`=@``!","SVZ,!\``(,0```9@``!DZM!78`;``"]NH@;/;B(6[_
XM]@`,(&SVXC%N__H`$#\\``$O+O_\3JT%<%R/8````CX?3EY.=4Y6__9(YP,0
XM2&[_]DZZ`A18CSP`#$```6<```@P!F```)(P+/;HP'P``@Q```!F```&3JT%
XM=@!L``+VZB9N__8^+O_Z8```5C`'L&L`"F8``"0_/``*3JT%K%2//``,0``!
XM9P``"#`&8```2"930D=@```J0>L`#-#'$!!(@,!\`/\_`$ZM!:Q4CSP`#$``
XM`6<```@P!F```!I21R`N__Q3KO_\2H!F`/^@,#P``6````),WPC`3EY.=4Y6
XM__9(YP<0(&SVWA`H`!=(@,!\`!!G```*3JT`?F```(Q(;O_V3KH!0%B/.@`,
XM0``!9P``"#`%8```<C\\``A.K05\5(\F;O_V/B[_^F```$8P![!K``IF```*
```

```
XM)E-"1V```#1!ZP`,T,<<$$B&S'P`_PQ&`$%M```<#$8`6FX``!0P!M!\`&&0
XM?`!!0>L`#-#'$(!21R`N__Q3KO_\2H!F`/^P,#P``6````),WPC@3EY.=4Y6
XM__9(YP<0(&SVWA`H`!=(@,!\`!!G```*3JT`?F```(Q(;O_V3KH`C%B/.@`,
XM0``!9P``"#`%8```<C\\``A.K05\5(\F;O_V/B[_^F```$8P![!K``IF```*
XM)E-"1V```#1!ZP`,T,<<$$B&S'P`_PQ&`&%M```<#$8`>FX``!0P!I!\`&'0
XM?`!!0>L`#-#'$(!21R`N__Q3KO_\2H!F`/^P,#P``6````),WPC@3EY.=4Y6
XM__1(YP`P)FX`""!L]N(,J`````$F8``!1(;!$$3JT#2%B/,#P``&```:H@
XM;/;B("@`#"!L]N*PJ``29@``:B!L]N(FJ``,(&SVXC`H`!`@;/;BL&@`%FP`
XM`"8@;/;B-V@`$``$(&SVXC`H`!8@;/;BD&@`$$C`)T``!F```"(@;/;B-V@`
XM%@`$(&SVXC`H`!`@;/;BD&@`%DC`)T``!C`\``%@``$N(&SVXBUH``S__"!L
XM]N(P*``02,`M0/_T(&SVXB1H``PP*@`*(&SVXI!H`!!20$C`+4#_^&```,(@
XM"B!L]MZPJ``09P``3"12(`H@;/;BL*@`$F8``#`@;/;B)J@`#"!L]N(W:``0
XM``0@+O_X(&SVXC8H`!9(P]"#)T``!C`\``%@``"J,"H`"E)`2,#1KO_X(&[_
XM_"`H``0@;/;>L*@`$&<``%8@;O_\+6@`!/_\(&[__#`H``I20$C`T:[_]"`N
XM__P@;/;BL*@`$F8``"PFKO_\(&SVXC=H`!8`!"`N__0@;/;B-B@`%DC#D(,G
XM0``&,#P``6```#8@"B!L]MZPJ``09@#_-"!N__P@*``$(&SVWK"H`!!F`/\@
XM2&P1($ZM`TA8CS`\``!@```"3-\,`$Y>3G5.5@``/P<,;@````IF```(/7P`
XM`0`*#&X``0`*;```&#`N``I$0#\`/RX`"$ZZ`118CV```&1(;!$P3KH#Q%B/
XM/@`,0``!9P``"#`'8```2F```!X_/``"2&SXU$ZZ"49<CSX`#$```&8```9@
XM```2,"X`"E-N``H,0```;@#_U@Q```!F```,2&P1.$ZM`TA8CS`'8````CX?
XM3EY.=4Y6```_!PQN````"F8```@]?``!``H,;@`!``IL```8,"X`"D1`/P`_
XM+@`(3KH`XEB/8```:A`L^-1(@+!\``!F```42&P10DZM`TA8CS`\``!@``!*
XM8```'C\\``)(;/C43KH(HER//@`,0```9@``!F```!(P+@`*4VX`"@Q```!N
XM`/_6#$<``&8```Q(;!%23JT#2%B/,`=@```"/A].7DYU3E8``#\'#&X````*
XM9@``"#U\``$`"@QN``$`"FP``!@P+@`*1$`_`#\N``A.NOZ06(]@```R2&P1
XM7$ZZ`H)8CSX`#$```6<```@P!V```!@_+@`*/RX`"$ZZ`(!8CS\``%@```"
XM/A].7DYU3E8```QN````"F8```@]?``!``H,;@`!``IL```8,"X`"D1`/P`_
XM+@`(3KK^Q%B/8```.!`L^-1(@+!\``!F```42&P1;$ZM`TA8CS`\``!@```8
XM/RX`"C\N``A.N@`06(\P/``!8```DY>3G5.5O_X2.<',$'L^-0M2/_\8```
XM!E*N__P@;O_\$"@``4B`L'P``&8`_^P@;/;B)F@`#"!L]N(^*``08``!%@Q'
XM``!F```L)FL`!"`+(&SVWK"H`!!F```42&P1?$ZM`TA8CS`\``!@``$"/BL`
XM"E)'4T<P![!K``IF```*.CP`"F```!!!ZP`,T,<:$$B%RGP`_R!N__P0$$B`
XM/P`_!4ZZ`-)8CPQ```!G``"D)$L\!RUN__S_^&```&H,1@``9@``'B1J``0@
XM"B!L]MZPJ``09@``!F```'@\*@`*4D931C`&L&H`"F8```HZ/``*8```$$'J
XM``S0QAH02(7*?`#_4Z[_^"!N__@0$$B`/P`_!4ZZ`&!8CPQ```!F```&8```
XM+B`N__A![/C4L(AF`/^,(&SVXB%*``P@;/;B,48`$"!L]N(`*``"`!M@```&
XM8`#^[C`N``I3;@`*#$```&X`_MXP/``!8````DS?#.!.7DYU3E8``"!L]N(@
XM:``$$"@`%TB`P'P"`Q```!F```V#&X`80`(;0``$@QN`'H`"&X```@$;@`@
XM``@,;@!A``IM```2#&X`>@`*;@``"`1N`"``"C`N``BP;@`*9@``"C`\``%@
XM```*,#P``&````).7DYU3E;_G#\'+RX`"$AN_YQ.K0!44(];!&&2&[_G$ZM
XM`(I0CS\\`"A(;O^<3JT`>%B/0>[_G-#`0=`O"$AL^-1.N@:BWOP`"DAL$8I(
XM;O^<3JT`BE"//RSW*C\\`%!(;O^<2&[_G$ZM!03>_``,/@`,1P`!9@``%$AN
XM_YQ(;/C43JT`5%"/8```'Q```!F```4$"SXU$B`L'P``&<```8^/``!,`=@
XM```"/A].7DYU3E8``#\N``H_+@`(0F=.N@`J7(]@```"3EY.=4Y6```_+@`*
XM/RX`"#\\``%.N@`,7(]@```"3EY.=4Y6_YI(YP\`(&SVWA`H`!=(@,!\`!!G
XM```*3JT`?F``!)0P+@`*9P``%`QN````#&P```HP/```8``$>@QN````"&8`
XM``Q![!&4(`A@```(0>P1G"`(+P!.NOZ^6(\\``Q```%G```(,`9@``1(2&SX
XMU$AN_Z9.K0!44(];/B$2&SXU$ZM`%10CTAL$:I.NOZ(6(\\``Q```%G```(
XM,`9@``022&SXU$AL^(1.K0!44(];O^F2&SXU$ZM`%10CTAL^-1.K0!X6(\Z
XM`$AL^(1.K0!X6(\X`$'L^-/0Q1`02("P?``*5\#`?``!/4#_^D)N__@P+@`(
XM9P``?$AL$;!(;O^F3JT`5%"//SP`&DAN_Z9.K0!X6(]![O^FT,!!T"\(2&SX
XMU$ZZ!-+>_``*2&P1NDAN_Z9.K0"*4(\_/``:2&[_IDZM`'A8CT'N_Z;0P$'0
XM+PA(;/B$3KH$H-[\``I(;!'$2&[_IDZM`(I0CT*N_YQ";O^:(&SVXBUH``S_
```

```
XMHB!L]N(]:``0_Z!";O_^0F[__&```N`_/``!2&SXU$ZZ`QQ<CPQ```%G```&
XM8``"\%)N__P@;/;B(&@`#"`0(&SVXB!H``2PJ``05\#`?``!/4#_^#`N``AG
XM``'T2&SXA$AL^-1(;O^F3JT#2-[\``Q"9TZM`QA4CR!L\<9.D!U`__9(;!'(
XM3JT#2%B/$"[_]DB`8````K!\''EG```28````K!\'"!G```&8```"F```9Y@
XM```.L'P`;F<```9@```6/SP``4)G3JT!X%B/8``")&````ZP?``A9P``!F``
XM``Y";@`(8``!9F````ZP?`!U9P``!F```-H,K@````#_G&8``P@;/'>3I!@
XM`/]B(&SVXB%N_YP`#"!L]N(Q;O^:`!!"KO^<0F[_FC\$0F=.K0'R6("9S`$
XM2,`O`$ZM!7!<CPQ```%G```42&P1RDZM`TA8CS`\``!@``80D=@``!20>SX
XMU-#''5#_]Q`N__=(@+!\``IF```*3JT%CF```!00+O_W2(`_`#\\``%.K06F
XM6(\\``Q&``%G```42&P1X$ZM`TA8CS`\``!@``&$4D<P![!%;0#_JE-N__X_
XM!4)G3JT!\EB/8`#^D&````ZP?``N9P``!F```"0@;/;B(6[_H@`,(&SVXC%N
XM_Z``$"!L]N(`*``"`!M@```.L'P`!V<```9@```B2&P1_DZM`TA8CS`\``!@
XM``$88````B!L\=Y.D&````ZP?``_9P``!F```!1(;!((3JT#2%B/8`#^+&``
XM``9@`/_60F<P!4C`+P!.K05P7(\,0``!9P``%$AL$E).K0-(6(\P/```8```
XMP$)'8```4D'L^(30QQU0__<0+O_W2("P?``*9@``"DZM!8Y@```4$"[_]TB`
XM/P`_/``!3JT%IEB//``,1@`!9P``%$AL$FA.K0-(6(\P/```8```;%)',`>P
XM1&T`_ZHP+@`(9P``%B!L]N(M:``,_YP@;/;B/6@`$/^:4F[__@QN````"F<`
XM``XP+@`,L&[__&\``!8,;@``__IG`/T$#&X``/_X9P#\^C\N__Y(;!*&3JT#
XM2%R/,#P``6````),WP#P3EY.=4Y6__A(YP\P(&SVXB9H``P@;/;B/B@`$&``
XM`08D2SP',`>P:P`*9@``#B930D<Z/``*8```%#H'4D=!ZP`,T,4:$$B%RGP`
XM_R!N``@0$$B`/P`_!4ZZ^918CPQ```!G``#`+4O__#@'(&X`"$'0+4C_^&``
XM`%8P!"!N__RP:``*9@``%"!N__PM4/_\0D0Z/``*8```&#H$4D0@;O_\0>@`
XM#-#%%&A!(A<I\`/\_!2!N__@0$$B`/P!.NODP6(\,0```9@``!F```%A2KO_X
XM(&[_^!`02("P?```9@#_F@QN``(`#&8``!@@;/;B(6[__``,(&SVXC%$`!!@
XM```2(&SVXB%*``P@;/;B,48`$"!L]N(`*``"`!LP/``!8```&"`+(&SVWK"H
XM`!!F`/[P,#P``&````),WPSP3EY.=4Y6__Y@``#P$"[__TB`L'P`"F8``#H@
XM;@`,4JX`#!"\`#P@;@`,4JX`#!"\`$X@;@`,4JX`#!"\`$P@;@`,4JX`#!"\
XM`#Y9;@`08```AA`N__](@+!\`"!M```0$"[__TB`L'P`?V8``"P@;@`,4JX`
XM#!"\`%X0+O__2(`V/`!`MT`@;@`,4JX`#!"`56X`$&```$`0+O__2("P?``E
XM9@``(B!N``Q2K@`,$+P`)2!N``Q2K@`,$+P`)55N`!!@```2(&X`#%*N``P0
XMKO__4VX`$`QN``0`$&P``!P@;@`,4JX`#!"\`"0@;@`,0A`P/```8```*"!N
XM``A2K@`($!`=0/__2("P?```9@#^_"!N``Q"$#`\``%@```"3EY.=4Y6``!(
XM;!*83JT#2%B/3EY.=4Y6_O(_!S\\`0!(;O\`2&P2I$ZM!2+>_``*/@`,0``!
XM9P``"#`'8``"D$)G,"SQK%-`/P!.K0,P6(\@;/&Z3I!"K.26/SP`($AN_P!.
XMK0#V7(\M0/[R#(``````9@``,$AN_P!.K0!X6(]20#\`3JT`KE2/*4#DGDAN
XM_P`O+.2>3JT`5%"/0JSDFF```.1(;O\`3JT`>%B/4D`_`$ZM`*Y4CRE`Y)XP
XM/```/4#^_D'N_P`@""U`_O9@```B(&[^]A`0(&SDGM#N_OX0@"`N_O92KO[V
XM,"[^_E)N_OX@+O[VL*[^\F8`_]8@;.2>T.[^_D(08```!E*N_O(@;O[R$!!(
XM@+!\`"!G`/_N(&[^\A`02("P?``)9P#_WB!N_O(0$$B`L'P``&8```I"K.2:
XM8```0"\N_O).K0!X6(]40#\`3JT`KE2/*4#DFB\N_O).K0!X6(\@;.2:$(`@
XM;.2:0B@``2\N_O(O+.2:3JT`BE"//SP`+B\LY)Y.K0#V7(\M0/[R#(``````
XM9@``OB\LY)Y.K0!X6(]80#\`3JT`KE2/*4#DDB\LY)XO+.223JT`5%"/2&P2
XMIB\LY)).K0"*4(\_/``N+RSDDDZM`/9<CRU`_O(O+.22/SP``3\\`$Y.K0"B
XM4(\,@`````!G``!<2&P2K"\N_O).K0!44(\O+.22/SP``3\\`$Y.K0"B4(\,
XM@`````!G```R2&P2LB\N_O).K0!44(\O+.22/SP``3\\`$Y.K0"B4(\,@```
XM``!G```((&SDDD(0(&SDDA`02(!(P+"\`````&<``"`O+.26+RSDFB\LY))"
XM9S\\`$M.K0"BWOP`$&```!PO+.26+RSDFB\LY)Y"9S\\`$M.K0"BWOP`$"!L
XM\;9.D$AL$KA.K0+*6(\@;/'&3I`Y?``!]T`P/``!8````CX?3EY.=4Y6_P!(
XMYP$P/SP!`$AN_P!(;!+"3JT%(M[\``H^``Q```%G```(,`=@``#B0F="9TAL
XMY(I.K0*:4(\D0`R`````&<``$@F;/;:8```'B`K``2PBF8``!(_/``!0F=.
XMK09F6(]@```.)E.W_`````!F`/_<+PI.K0)>6(\,0``!9P``"C`\``!@``""
XM#$<``6<```@P!V```'0_/``!0F=.K09.6(\,0```9@``"C`\``!@``!80F=(
XM;.2"3JT$AER/#$```&8```HP/```8```/"!L]N(@:``$`"@`$``7)FSVVF``
```

```
XM``H`*P`0`!LF4[?\`````&8`__!(;.2"3JT`D%B/,#P``6````),WPR`3EY.
XM=4Y6_K!(YP$0/SP!`$AN_P!(;!+$3JT%(M[\``H^``Q```%G```(,`=@``#<
XM)FSVWD'K`!@O"$AN_K!.K0!44(](;.1Z0>L`&"\(3JT`5%"/2&SD<DZM!))8
XMCPQ```%G```D2&P2QDZM`TA8CTAN_K!!ZP`8+PA.K0!44(\P/```8```A`Q'
XM``%F```60F=(;.1J3JT$F%R/#$```&8``#9(;!+B3JT#2%B/2&[^L$'K`!@O
XM"$ZM`%10CTALY').K0"06](;.1J3JT`D%B/,`=@```T2&[^L$'K`!@O"$ZM
XM`%10CP`K``(`%DALY').K0"06](;.1J3JT`D%B/,#P``6````),WPB`3EY.
XM=4Y6```,;@````AF```&0FX`"C`N``H@;/;B$4``&B!L]N(`*``!`!LP/``!
XM8````DY>3G5.5@``#&X`````(9@``##E\```W0&```!0@;/;B0B@`&B!L]N(`
XM*``!`!LP/``!8````DY>3G5.5@``2.<!$#`N``AG``!R)FSVVCX\``%@```&
XM4D<F4PR3`````&8`__0,;@````IL```.,`?0;@`*4D`]0``*#&X````*;P``
XM(C`N``JP1VX``!@F;/;:8```!"934VX`"F8`__A@```42&P2]DZM`TA8CS`\
XM``!@```R8``&"!L]N(@$"9`#(``````9@``!B9L]MHI2_;B*6L`!/;>3JT#
XM$C`\``%@```"3-\(@$Y>3G5.5@``2.<!,#`N``AG```8,"X`"D1`/P`_+@`(
XM3KK_+EB/8```/"9L]MHD;/;B(`NPBF8```@D?`````!@```$)E,@$["*9@#_
XM^"E+]N(I:P`$]MY.K0,2,#P``6````),WPR`3EY.=4Y6```P+@`*1$`_`#\N
XM``A.N@`,6(]@```"3EY.=4Y6``!(YP$0(&SVXB9H``@,;@````IL```H8```
XM!"93,"X`"E)N``I*0&<``!`@"R!L]MZPJ``09@#_Y&```"A@```&)FL`!#`N
XM``I3;@`*2D!G```2("L`!"!L]MZPJ``09@#_X"!L]N(A2P`((&SVX@`H``@`
XM&T)'8```+B`+(&SVXK"H``QF```*,#P``6```'@@"R!L]MZPJ``09@``!F``
XM`!@F4U)',`<@;/;B$B@`&4B!L$%M`/_$(&SVXB9H``@@;/;B'B@`&4B'2,>/
XM_```"8```!"93,`=31TI`9P``$"`+(&SVWK"H`!!F`/_H(&SVXB%+``P@;/;B
XM0F@`$#`\``%@```"3-\(@$Y>3G5.5@``2.<!,&```%(F;/;:*5/VVB!K``13
XM*``5$"@`%4B`L'P``&8``"H@:P`$(6L`#``$(&L`!#%K`!```"!K``0A:P`2
XM``H@:P`$,6L`%@`.(`LO`$ZM`%I8CR`L]MJPK/;B9@#_IF```%8@;/;B)E`@
XM;/;B(),@:P`$4R@`%1`H`!5(@+!\``!F```J(&L`!"%K``P`!"!K``0Q:P`0
XM``@@:P`$(6L`$@`*(&L`!#%K`!8`#B`++P!.K0!:6(\@;/;B#)``````9@#_
XMH"!L]N(D:```((&SVXAXH`!A(AV````A31R1J``0,1P``9P``$B`J``0@;/;>
XML*@`$&8`_^0@;/;B0B@`&#`L\:Q30"!L]N(10``9(&SVXB%*``@@;/;B`"@`
XM&``;,#P``6````),WPR`3EY.=4Y6``!(YP$P(&SVV@R0`````&8``!1(;!,2
XM3JT#2%B/,#P``&```98F;/;:)'P`````8```%"`+L*SVXF8```9@```0)$LF
XM4[?\`````&8`_^8F;/;:(&SVXA`H`!A(@+!\``!F``!.(&SVXAXH`!E(AU)'
XM8```%!`K`!A(@+!'9@``!F````XF4[?\`````&8`_^:W_`````!F```*,#P`
XM`&```1A"*P`8,`?1*P`98```7"!L]N(>*``82(=31V```!P0*P`82(`6*P`9
XM2(/00[!'9@``!F````XF4[?\`````&8`_]ZW_`````!F```*,#P``&```,0P
XM/``!(&SVXA8H`!E(@]!#T2L`&2!L]N(@:``$4R@`%1`H`!5(@+!\``!F``!2
XM(&SVXB`H``P@;/;B(&@`!"%```0@;/;B,"@`$"!L]N(@:``$,4``"!L]N(@
XM*``2(&SVXB!H``0A0``*(&SVXC`H`!8@;/;B(&@`!#%```ZU_`````!F```.
XM(&SVXBE0]MI@```((&SVXB20("SVXB\`3JT`6EB/*4OVX@`K``@`&REK``3V
XMWDZM`Q(P/``!8````DS?#(!.7DYU3E;_^$CG!S`@;/;B$"@`&4B`L'P``VP`
XM`"`@;/;B$"@`&4B`/P!(;!,N3JT#2%R/,#P``&```<@_/``>3JT`KE2/)D`,
XM@`````!F```42&P33$ZM`TA8CS`\``!@``&@(&SVWE(H`!4G;/;>``0@;/;B
XM)V@`#``,(&SVXC=H`!``$"!L]N(G:``2`!(@;/;B-V@`%@`60BL`&T(K`!HP
XM+/=$%T``'#`L]T(70``=(&SVXAXH`!E(AU-'2,>/_```"(&SVXAPH`!E(AE-&
XMG$<@;/;B)&@`"$)%8```!E)%)%(@"B!L]N*PJ``,9@#_\"!L]N(D:```(#&X`
XM```(9@``"C`%L$=O```6#&X``0`(9@``2`QN``$`"F8`#XP!;!'9@``!"12
XM,`<@;/;B$4``&2!L]N(FD"!L]N(@BR!L]N(0*``82(#01U)`%T``&#`&%T``
XM&6```(1"KO_\+6SVVO_X8```$"UN__C__"!N__@M4/_X("[_^+"L]N)F`/_H
XM#*X`````__QF```**4OVVF````@@;O_\((LFK/;B(&SVXA=H`!@`&#`'%T``
XM&5)'(&SVXA`H`!A(@-!'$4``&#`&(&SVXA%``!E@```$)%(P!U-'2D!F`/_V
XM(&SVXB%*``@G2@`((&SVX@`H`!@`&P`K`!@`&S`\``%@```"3-\,X$Y>3G5.
XM5@``2.<!,`QN````"FP``!@P+@`*1$`_`#\N``A.N@$R6(]@``$D(&SVV@R0
XM`````&8``!1(;!-J3JT#2%B/,#P``&```00@;/;B(!`F0`R``````&8``!8F
```

```
XM;/;:8```!"93(!.PK/;B9@#_]A`K`!E(@+!N``IN```42&P3>DZM`TA8CS`\
XM``!@``"^(&SVXB`0L(MF```X)&L`"$)'8```!B124D<P![!N``IL```0(`H@
XM:P`$L*@`$&8`_^8G2@`(,"X`"M$K`!A@``!*(&SVXB1H``A"1V````@D:@`$
XM4D<P![!N``IL```2("H`!"!L]MZPJ``09@#_XB!L]N(A2@`((&SVXA`H`!A(
XM@)!N``H10``8(&SVXA`H`!E(@-!N``H10``9,"X`"I$K`!D@;/;B`"@`&``;
XM`"L`&``;,#P``6````),WPR`3EY.=4Y6``!(YP$P#&X````*;```&#`N``I$
XM0#\`/RX`"$ZZ_HY8CV```2@@;/;:#)``````9@``%$AL$XQ.K0-(6(\P/```
XM8``!""!L]N(@$"9`#(``````9@``%B9L]MI@```$)E,@$["L]N)F`/_V(&SV
XMXA`H`!E(@+!N``IN```42&P3G$ZM`TA8CS`\``!@``"^(&SVXB`0L(MF```\
XM)&L`"$)'8```""1J``121S``L&X`"FP``!(@*@`$(&L`!+"H`!!F`/_B)TH`
XM"#`N``J1*P`88```1B!L]N(D:``(0D=@```&)%)21S``L&X`"FP``!`@"B!L
XM]MZPJ``09@#_YB!L]N(A2@`((&SVXA`H`!A(@-!N``H10``8(&SVXA`H`!E(
XM@)!N``H10``9,"X`"M$K`!D@;/;B`"@`&``;`"L`&``;,#P``6````),WPR`
XM3EY.=4Y6__X,;@````AF```*,#P``6```#P@;/;B$"@`&4B`/4#__C`N__ZP
XM;@`*9@``"C`\``%@```:,"X`"I!N__X_`#\\``%.NOT06(]@```"3EY.=4Y6
XM```O"R!L]MH,D`````!F```>0F="9TZZ^N18CPQ```!F```,(#P`````8```
XM)B9L]MI@```$)E.W_`````!G```,(`NPK/;B9P#_["`+8````B9?3EY.=4Y6
XM```_/``!0F=.NO5.6(\_+@`*/RX`"$ZM`?A8CS\\``%"9TZZ]>A8CTY>3G5.
XM5@``/SP``4)G3KKU(%B//RX`"C\N``A.K0'F6(\_/``!0F=.NO6Z6(].7DYU
XM3E8``"EL]N+V\C`\``%@```"3EY.=4Y6```O"R9L]MI@```D(`NPK/;R9@``
XM&"E+]N(I:P`$]MY.K0,2,#P``6```"`F4[?\`````&8`_]9(;!.N3JT#2%B/
XM,#P``&````(F7TY>3G5.5@``2.<#`#\\``%"9TZM`?)8CTI`9@``"C`\``!@
XM``#D0D=@``!&4D<_/``!0F=.K0'R6(]*0&8```HP/```8```PB!L]N(,:```
XM`!!F```<0F="9TZM`:I8CS\\``%"9TZM!NI8CV```)H@;/;B,"@`$"!L]N(@
XM:``,0>@`#-#`$!!(@,!\`/\\``Q``"!G```*#$8`"68`_XX_/``!0F=.K0;D
XM6(]*0&8```HP/```8```4#\\``%"9TZM!NI8CTI`9@``"C`\``!@```V8```
XM'C\\``%"9TZM`>!8CPQ```!F```*,#P``&```!8P!U-'#$```&X`_]HP/``!
XM8````DS?`,!.7DYU3E8```QN````"FP``!@P+@`*1$`_`#\N``A.N@"B6(]@
XM``"8/SP``4)G3JT!\EB/#$```&8```HP/```8```?&``%I@```>/SP``4)G
XM3JT!\EB/#$```&8```HP/```8```6$ZZ!LP,0```9P#_VF```!X_/``!0F=.
XMK0'R6(\,0```9@``"C`\``!@```L3KH&H`Q```!F`/_:,"X`"E-N``I*0&8`
XM_YP_/``!0F=.K0'@6(]@```"3EY.=4Y6```,;@````IL```8,"X`"D1`/P`_
XM+@`(3KK_)EB/8```=&```%I@```>/SP``4)G3JT!X%B/#$```&8```HP/```
XM8```4$ZZ!BH,0```9@#_VF```!X_/``!0F=.K0'@6(\,0```9@``"C`\``!@
XM```D3KH%_@Q```!G`/_:,"X`"E-N``I*0&8`_YPP/``!8````DY>3G5.5@``
XM/P<@;/;>$"@`%TB`P'P`$&<```I.K0!^8```W`QN````"FP```HP/```8```
XMRF```+!@```>/SP``4)G3JT!X%B/#$```&8```HP/```8```IDZZ!8(,0```
XM9P#_VF```'0@;/;B/B@`$"!L]N(@:``,0>@`#-#''A!(A\Y\`/\,1P!A;0``
XM,@Q``'IN```JGGP`(#`'(&SVXC(H`!`@;/;B(&@`#$'H``S0P1"`/SP`"$ZM
XM!7Q4CS\\``%"9TZM`>!8CPQ```!F```*,#P``&```"1.N@4`#$```&8`_X0P
XM+@`*4VX`"DI`9@#_1C`\``%@```"/A].7DYU3E8``#\'(&SVWA`H`!=(@,!\
XM`!!G```*3JT`?F```-P,;@````IL```*,#P``&```,I@``"P8```'C\\``%"
XM9TZM`>!8CPQ```!F```*,#P``&```*9.N@2"#$```&<`_]I@``!T(&SVXCXH
XM`!`@;/;B(&@`#$'H``S0QQX02(?.?`#_#$<`06T``#(,1P!:;@``*MY\`"`P
XM!R!L]N(R*``0(&SVXB!H``Q!Z``,T,$0@#\\``A.K05\5(\_/``!0F=.K0'@
XM6(\,0```9@``"C`\``!@```D3KH$``Q```!F`/^$,"X`"E-N``I*0&8`_T8P
XM/``!8````CX?3EY.=4Y6```_!R!L]MX0*``72(#`?``09P``"DZM`'Y@``%:
XM#&X````*;````"C`\``!@``%(8``!+F```!X_/``!0F=.K0'@6(\,0```9@``
XM"C`\``!@``$D3KH#@@Q```!G`/_:3KH#=@Q```!G``#V(&SVXCXH`!`@;/;B
XM(&@`#$'H``S0QQX02(?.?`#_#$<`86T``#(,1P!Z;@``*IY\`"`P!R!L]N(R
XM*``0(&SVXB!H``Q!Z``,T,$0@#\\``A.K05\5(\_/``!0F=.K0'@6(\,0```
XM9@``"C`\``!@``":8```="!L]N(^*``0(&SVXB!H``Q!Z``,T,<>$$B'SGP`
XM_PQ``$%M```R#$<`6FX``"K>?``@,`<@;/;B,B@`$"!L]N(@:``,0>@`#-#!
```

```
XM$(`_/``(3JT%?%2//SP``4)G3JT!X%B/#$```&8```HP/```8```)$ZZ`H(,
XM0```9@#_A#`N``I3;@`*2D!F`/[(,#P``6````(^'TY>3G5.5O_\2.<!$"!L
XM]MX0*``72(#`?``09P``"DZM`'Y@``$F#&X````*;```"C`\``!@``$4,"SV
XMZ,!\``(,0```9@``!DZM!78`;``"]NH@;/;B)F@`#"!L]N(^*``00J[__&``
XM`+(@;/;B,"@`$"!L]N(@:``,L&@`"F8``"(_/``!0F=.K0'@6(\,0```9@``
XM"C`\``!@``"N4J[__&```"(_/``!0F=.K0'@6(\,0```9@``"C`\``!@``"*
XM4J[__$ZZ`9@,0```9@#_UF```"(_/``!0F=.K0'@6(\,0```9@``"C`\``!@
XM``!:4J[__$ZZ`6@,0```9@``&B!L]N(P*``0(&SVXB!H``RP:``*9@#_OC`N
XM``I3;@`*2D!F`/]$(&SVXB%+``P@;/;B,4<`$#\\``$O+O_\3JT%<%R/8```
XM`DS?"(!.7DYU3E;__"!L]MX0*``72(#`?``09P``"DZM`'Y@``#N#&X````*
XM;```"C`\``!@``#<,"SVZ,!\``(,0```9@``!DZM!78`;``"]NH_/``!0F=.
XMK0'R6(\,0```9@``"C`\``!@``"F0J[__&```&)@```B/SP``4)G3JT!\EB/
XM#$```&8```HP/```8```?E*N__Q.N@!Z#$```&<`_]9@```B/SP``4)G3JT!
XM\EB/#$```&8```HP/```8```3E*N__Q.N@!*#$```&8`_]8P+@`*4VX`"DI`
XM9@#_E#\\``%"9TZM`>!8CPQ```!F```*,#P``&```!0_/``!+R[__$ZM!7!<
XMCV````).7DYU3E8``#\'(&SVXC`H`!`@;/;B(&@`#+!H``IF```*,#P``&``
XM`(@@;/;B/B@`$"!L]N(@:``,0>@`#-#''A!(A\Y\`/\,1P!A;0``$@Q'''IN
XM```*,#P``6```%(,1P!!;0``$@Q''%IN```*,#P``6```#H,1P`P;0``$@Q'
XM`#EN```*,#P``6```"(,1P`D9P``"@Q''%]F```*,#P``6````HP/```8```
XM`CX?3EY.=4Y6_OA(YP\0(&SVWA`H`!=(@,!\`!!G```*3JT`?F```:X,;```
XM^R1F```42&P3QDZM`TA8CS`\``!@``&2/SP``4)G3JT!GEB/(&SVXB!H``PF
XM4#\\``%"9TZM`:18CR!L]N(Z*``0,`5G```<(&SVXB!H``P0*``,2("P?``)
XM9@``!CH\``A"1D)N__@]?``!__I";O_\8``!("!L]N(P*``0(&SVXB!H``RP
XM:``*9@``(#X\`"`@;/;B(&@`#"`0L(MF```(/7P``?_\8```("!L]N(^*``0
XM(&SVXB!H``Q!Z``,T,<>$$B'SGP`_T)G+SP````!3JT%<%R/#$<`(&<``#(,
XM1P`)9P``*@Q'`"Y7P,!\``$]0/_X#$8`_VP``!`P!S(&4D9![O[XT,$0@&``
XM`(8P!F<``(`P!5)`T$8]0/_^,"[__K!L^R1N```B,"[_^F8``!(_/``@/SP`
XM`4ZM!:98CU)%0F[_^F````A.K06.0D5"1&```!Q![O[XT,00$$B`/P`_/``!
XM3JT%IEB/4D521#`$L$9M`/_@,"[_^&<``!(_/``@/SP``4ZM!:98CU)%0D8P
XM+O_\9P#^W$ZM!8XP/``!8````DS?"/!.7DYU3E8``#\'8```;C\\``%"9TZM
XM`9Y8CR!L]N(@*``,(&SVXB%``!(@;/;B,"@`$"!L]N(Q0``6/SP``4)G3JT!
XMI%B/(&SVXD)H`!`_/``!0F=.K07*6(\^``Q```%G```(,`=@```H/SP``2\\
XM`````DZM!7!<CS`N``I3;@`*2D!F`/^(,#P``6````(^'TY>3G5.5O_D2.</
XM$$AN_^1.K06R6(\]0/_N#$```6<```HP+O_N8``!1"9N_^0^+O_H+6[_ZO_\
XM0D1"KO_T0J[_^$)N__)@``"R,`>P:P`*9@``$CP\``HF4T)'4F[_\F```!)!
XMZP`,T,<<$$B&S'P`_U)'#$8`85S%2@5G```*#$8`>E_%2@5*!68``!@,1@!!
XM7,5*!6<```H,1@!:7\5*!4H%2@5F```8#$8`,%S%2@5G```*#$8`.5_%2@5*
XM!4H%9@``&`Q&`"17Q4H%9@``"@Q&`%]7Q4H%2@7*?``!#$4``68```X,1```
XM9@``!E*N__@X!5*N__0@+O_\4Z[__$J`9@#_1`RN`````/_X;P``+B`\````
XM9"\`("[_]"\`3JT`ZB`?+P`@+O_X+P!.K0$4(!]8CSU`__!@```&0F[_\#\N
XM__`P+O_R4D`_`"\N__0O+O_X2&P3VDZM`TC>_```0,#P``6````),WPCP3EY.
XM=4Y6```Y;@`*^R0_+@`*2&P4"$ZM`TA<CS`\``%@```"3EY.=4Y6__9(YP\0
XM(&SVWB!H`!`F4$*'0D9@``!B(`L@;/;BL*@`#&8``$8X!BH'(&SVXC8H`!!(
XMP]J#(&SVXC`H`!"P:P`*9@``##U\``K__F```!P@;/;B,"@`$$'K``S0P!`0
XM2(#`?`#_/4#__E)&,"L`"E)`2,#>@"93(`L@;/;>L*@`$&8`_Y0@;/;B("@`
XM#"!L]MZPJ``09@``!C@&*@="9TZZ`*I4CSU`__H@;/;B/6@`$/_X(&SVXB!H
XM``PP*``*(&SVXC%``!!"9TZZ`(!4CSU`__8@;/;B,6[_^``00F[__`R'````
XM`&<``"8@/````&0O`"`%+P!.K0#J(!\O`"`'+P!.K0$4(!]8CSU`__P_+O_^
XM/R[__"\'+P4_+O_V/R[_^C`&4D`_`#`$4D`_`$AL%!Q.K0-(WOP`&#`\``%@
XM```"3-\(\$Y>3G5.5@``2.<''$)%0D9@``!:(&SVXB!H``Q!Z``,T,8>$$B'
XMSGP`_PQ''"!G```6#$<`"6<```XP+@`(9P``!F```#8,1P`)9@``"HI\``=@
XM```4#$<`(&T```H,1P!_9@``!%)%4D521C`&(&SVXK!H`!!M`/^<,`5@````"
XM3-\`X$Y>3G5.5@``2.<'$"!L]MX0*``72(#`?``09P``"DZM`'Y@``"&(&SV
```

```
XMXB9H``P@;/;B/B@`$#`'L&L`"F8``!931S`'#$```&P```HP/```8```6$'K
XM``S0QQH02(7*?`#_4T<P!PQ```!L```*,#P``&```#9!ZP`,T,<<$$B&S'P`
XM_S`%0>L`#-#'$(`P!D'K``W0QQ"`/SP`!$ZM!7Q4CS`\``%@```"3-\(X$Y>
XM3G5.5@``2.<#`"!L]MX0*``72(#`?``09P``"DZM`'Y@``!F(&SQQDZ0/``,
XM;@````IL```*,#P``&```$P,;@````IF```*,#P``6```#H,1@`*9@``(DZM
XM!8X^``Q'``%F```.4VX`"C`N``IF`/_H,`=@```2/P8_+@`*3JT%IEB/8```
XM`DS?`,!.7DYU3E8```QN````"FP```HP/```8```9@QN````"F<```P,;@`!
XM``IO```0.6X`"N1H,#P``6```$0P+.1H9@`%#\\``D_/``!3JT%IEB/8```
XM*C\\`"!"9TZZ_>94CR(`2,&#[.1H2$$P+.1HD$$_`$ZM!:98CV````).7DYU
XM3E8``$CG`P`@;/;>$"@`%TB`P'P`$&<```I.K0!^8```7@QN````"FP```HP
XM/```8```3`QN````"F8```HP/``!8```.CXN``I.K06./``,1@`!9@``"E-'
XM,`=F`/_L#$8``68``!(_+@`*/RX`"$ZM`?)8CSP`,`9@```"3-\`P$Y>3G5.
XM5@``/P<@;/;>$"@`%TB`P'P`$&<```I.K0!^8```>@QN````"FP```HP/```
XM8```:`QN``$`"F8``#`@;/;>$"@`%TB`P'P``F<``!X@;/;B("@`#"!L]MZP
XMJ``09P``"DZZ`#I@```P8```%DZM!8X^``Q```%G```(,`=@```8,"X`"E-N
XM``I*0&8`_^`P/``!8````CX?3EY.=4Y6_P!(YP<0(&SVXB!H``Q!Z``,)D@@
XM;/;B/B@`$%-'($O0QQP02(:\?`![5\;,?``!0D5@```2($O0Q1`00>[_`-#%
XM$(!213`%L$=L```J($O0Q1`02("P?``@9P``$B!+T,40$$B`L'P`"68```H,
XM10#_;0#_PD'N_P#0Q4(03JT%C@Q```!F```*,#P``&```$A"16```!PP!5)%
XM0>[_`-#`$!!(@#\`/SP``4ZM!:98CT'N_P#0Q1`09@#_W#`&9P``#C\\``%"
XM9TZZ_9!8CS`\``%@```"3-\(X$Y>3G5.5@``2.<'`"!L]N(,:````!!F```4
XM/RX`"C\N``A.K06F6(]@``"N(&SVXCPH`!!31F```#P@;/;B(&@`#$'H``S0
XMQAX02(?.?`#_#$<`(&<``!P,1P`)9P``%#\N``H_+@`(3JT%IEB/8```:%-&
XM#$8``&P`_\!"9TZZ^T!4CSH`4T4P!0QL``#D:&8```HR/``(8```!C(LY&A(
XMP('!2$":0&````X_/``!0F=.N@,66]"9TZZ^P14C[!%;@#_Z#\N``H_+@`(
XM3JT%IEB/8````DS?`.!.7DYU3E8``$CG`P`@;/;B#&@````09@``%#\\`",_
XM/``!3JT%IEB/8```A"!L]N(\*``04T9@```\(&SVXB!H``Q!Z``,T,8>$$B'
XMSGP`_PQ'`"!G```<#$<`"6<``!0_/``C/SP``4ZM!:98CV```#Y31@Q&``!L
XM`/_`8```#C\\``%"9TZZ`F98CT)G3KKZ5%2/#$```6P`_^8_/``C/SP``4ZM
XM!:98CV````),WP#`3EY.=4Y6__Q(YP`P(&SVWA`H`!=(@,!\`!!G```*3JT`
XM?F```(@@;/;B)F@`#&````0F2@QK````"F8``!0@*P`$)$`@;/;>L*@`$&8`
XM_^0D2T*N__Q@```&4J[__"`2)$`@;/;>L*@`$&<```P,:@````IG`/_D#*X`
XM````__QF```*,#P``6```"(@;/;B(5,`#"!L]N)":``00F<O+O_\3JT%<%R/
XM8````DS?#!.7DYU3E8``$CG!P`@;/;>$"@`%TB`P'P`$&<```I.K0!^8```
XMY`QN````"FP```HP/```8```TF```+A"1T)%8```/"!L]N(@:``,0>@`#-#%
XM'!!(ALQ\`/\,1@`@9P``#@Q&``EG```&8```)`Q&``EF```&CGP`!U)'4D4P
XM!2!L]N(@:``,L&@`"FT`_[9.K06.#$```&<``%`P!TC`@?P`"#H`#$```&<`
XM`!8_/``)/P5.K06F6(\,0```9P``*C`'2,"!_``(2$`Z``Q```!G```>/SP`
XM(#\%3JT%IEB/#$```&8```HP/```8```&#`N``I3;@`*2D!F`/\^,#P``6``
XM``),WP#@3EY.=4Y6```@;/;>$"@`%TB`P'P`$&<```I.K0!^8```7`QN````
XM"FP``!@P+@`*1$`_`#\N``A.N@!&6(]@```\#&X````(9P``'#`L]NC`?``"
XM#$```&8```9.K05V`&P``O;J/RX`"#`N``I(P"\`3JT%<%R/8````DY>3G5.
XM5@``/P<@;/;>$"@`%TB`P'P`$&<```I.K0!^8```>`QN````"FP``!@P+@`*
XM1$`_`#\N``A.NO],6(]@``!8#&X````(9P``'#`L]NC`?``"#$```&8```9.
XMK05V`&P``O;J/RX`"C\N``A.K0'R6(\^``Q```%F```6/RX`"#`N``I(P"\`
XM3JT%<%R//@`P!V````(^'TY>3G5.5O_\+PL@;/;>$"@`%TB`P'P`$&<```I.
XMK0!^8``!!#`L]NC`?``"#$```&8```9.K05V`&P``O;J#&X````(9@``-"!L
XM]N(@:``,,"@`"B!L]N*0:``02,`M0/_\#*X`````__QF```*+7P````!__Q@
XM``"<#&X````*9@``'"!L]N(P*``02,`M0/_\(&SVXD)H`!!@``!X#&X````*
XM;P``7"!L]N(@:``,,"@`"B!L]N*0:``04D!(P"U`__P@;/;B(&@`#"908```
XM)B`+(&SVWK"H`!!F```*,#P``&```$`P*P`*4D!(P-&N__PF4U-N``IF`/_6
XM8```%$AL%%!.K0-(6(\P/```8```%#\\``$O+O_\3JT%<%R/8````B9?3EY.
XM=4Y6``!"9S\\``%.N@!$6(].7DYU3E8``$)G0F=.N@`R6(].7DYU3E8``#\\
```

```
    XM``$_/``!3KH`'%B/3EY.=4Y6```_/``!0F=.N@`(6(].7DYU3E;_?DCG`Q`P
    XM+@`*9P``%$AL%%I(;O_.3JT`5%"/8```$$AL%&I(;O_.3JT`5%"/#&X``0`(
    XM9@``%$AL%'1(;O_.3JT`BE"/8```$$AL%'I(;O_.3JT`BE"//SP`3TAN_WY(
    XM;O_.3JT%(M[\``I![O]^)D@<$TB&O'P`05S&2@9G```.'!-(AKQ\`%I?QDH&
    XMS'P``6```"80$TB`L'P`86T``!@0$TB`L'P`>FX```P0$TB`D'P`(!:`4HL0
    XM$TB`L'P``&8`_])"1V```#@P!^6`0>SW2M#`+Q!(;O]^3JT`<E"/#$```&8`
    XM`!@_!R!L\>9.D%2/3JT"LC`\``%@``%L4D<,1P`#;0#_Q$)'8```B#`'Y8!!
    XM[/<"T,`O$$AN_WY.K0!R4(\,0```9@``:#`'L&SQ]&T```HP/``!8``!+#`&
    XM9P``(#`N``IG```*.4?W1&`````PP!R!L]N(10``<8```'#`N``IG```*.4?W
    XM0F`````PP!R!L]N(10``=(&SVX@`H`"``&TZM`K(P/``!8```V%)'#$<`"&T`
    XM_W1"1V```*XP!^6`0>SW8-#`+Q!(;O]^3JT`<E"/#$```&8``(X,;@`!``AF
    XM```V,"X`"F<``!`P/``![V"!;/=&8```'#(\``'O82!L]N(@:``$$"@`%TB`
    XM@$$10``78```-C`N``IG```2,#P``>]@1D#!;/=&8```'C(\``'O849!(&SV
    XMXB!H``00*``72(#`01%``!<,;@````IF```&3JT#$DZM`K(P/``!8```'E)'
    XM#$<`"&T`_TY(;!2$3JT#2%B/,#P``&````),WPC`3EY.=4Y6``!(;!223JT#
    XM2%B/,#P``6````).7DYU3E;_$$CG`3`_/`!/2&[_L$AL%)1.K04BWOP`"CX`
    XM#$```6<```@P!V```#Y![O^P)DA![O\0)$A@```4%-,0&TB`L'P`)68```84
    XM_``E$!-F`/_J0A)(;O\03JT#2%B/,#P``6````),WPR`3EY.=4Y6__Y(YP\P
    XM0F=.K0,85(\@;/;B)F@`#"!L]N(^*``0$"X`"4B`L'P`*68```H:/``H8```
    XM!AH\``L@;/;B(&@`""1H``0\/``!/SP``D)G3JT!\EB/8```>B!L]N(X*``0
    XM(&SVXB!H``Q!Z``,T,08$$B$R'P`_Q`$$BX`"4B!2("P068```121A`$$@5(
    XM@4B`L$%F```$4T8_/``!0F=.K0'R6(\@;/;B("@`#"!L]N(@:``$(&@`$+"0
    XM9@``%"!L]N(,:````!!F```&8```&`Q&``!O```0(&SVXB`H``RPBF8`_W0,
    XM1@``9@``+C\\``%"9TZM`>!8CT)N__Y@```.0F=.K0,85(]2;O_^,"[__K!L
    XM\;1M`/_J(&SVXB%+``P@;/;B,4<`$#`\``%@```"3-\,\$Y>3G5.5O^N2.<!
    XM$#\L]RH_/`!02&[_KDAL%*A.K04$WOP`##X`#$<``6<```@P!V```%)![O^N
    XM)DA@```Z$!-(@+!\``IF```,3JT%CCX`8```%!`32(`_`#\\``%.K06F6(\^
    XM`%*+#$<``6<```@P!V```!`0$V8`_\0P/``!8````DS?"(!.7DYU86)O<G0M
    XM8V]M;6%N9`!A9&0M;6]D90``861D+6=L;V)A;"UM;V1E`&%P<F]P;W,`8F%C
    XM:W=A<F0M8VAA<F%C=&5R``!B96=I;BUM86-R;P!B96=I;FYI;F<M;V8M9FEL
    XM90!B96=I;FYI;F<M;V8M;&EN90!B:6YD+71O+6ME>0!B=69F97(M<&]S:71I
    XM;VX`8V%S92UR96=I;VXM;&]W97(`8V%S92UR96=I;VXM=7!P97(`8V%S92UW
    XM;W)D+6-A<&ET86QI>F4``&-A<V4M=V]R9"UL;W=E<@!C87-E+7=O<F0M=7!P
    XM97(`8VAA;F=E+69I;&4M;F%M90``8VQE87(M86YD+7)E9')A=P``8VQE87(M
    XM;65S<V%G92UL:6YE``!C;W!Y+7)E9VEO;@!C;W5N="UW;W)D<P!C=&QX+7!R
    XM969I>`!D96QE=&4M8FQA;FLM;&EN97,``&1E;&5T92UB=69F97(`9&5L971E
    XM+6UO9&4`9&5L971E+6=L;V)A;"UM;V1E``!D96QE=&4M;F5X="UC:&%R86-T
    XM97(`9&5L971E+6YE>'0M=V]R9```9&5L971E+6]T:&5R+7=I;F1O=W,``&1E
    XM;&5T92UP<F5V:6]U<RUC:&%R86-T97(`9&5L971E+7!R979I;W5S+7=O<F0`
    XM`&1E;&5T92UW:6YD;W<`9&5S8W)I8F4M8FEN9&EN9W,`9&5S8W)I8F4M:V5Y
    XM``!E;F0M;6%C<F\`96YD+6]F+69I;&4`96YD+6]F+6QI;F4`97AC:&%N9V4M
    XM<&]I;G0M86YD+6UA<FL`97AE8W5T92UB=69F97(``&5X96-U=&4M8V]M;6%N
    XM9"UL:6YE``!E>&5C=71E+69I;&4``&5X96-U=&4M;6%C<F\`97AE8W5T92UM
    XM86-R;RTQ`&5X96-U=&4M;6%C<F\M,@!E>&5C=71E+6UA8W)O+3,`97AE8W5T
    XM92UM86-R;RTT`&5X96-U=&4M;6%C<F\M-0!E>&5C=71E+6UA8W)O+38`97AE
    XM8W5T92UM86-R;RTW`&5X96-U=&4M;6%C<F\M.`!E>&5C=71E+6UA8W)O+3D`
    XM97AE8W5T92UM86-R;RTQ,```97AE8W5T92UM86-R;RTQ,0``97AE8W5T92UM
    XM86-R;RTQ,@``97AE8W5T92UM86-R;RTQ,P``97AE8W5T92UM86-R;RTQ-```
    XM97AE8W5T92UM86-R;RTQ-0``97AE8W5T92UM86-R;RTQ-@``97AE8W5T92UM
    XM86-R;RTQ-P``97AE8W5T92UM86-R;RTQ.```97AE8W5T92UM86-R;RTQ.0``
    XM97AE8W5T92UM86-R;RTR,```97AE8W5T92UM86-R;RTR,0``97AE8W5T92UM
--
----
```

These are days for the locust to eat
- Winston Churchill

Name: James M. Turner
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Santa Clara, CA 95052-8101
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From -7836277347265166305
X-Google-Language: GERMAN,ASCII-7-bit
X-Google-Thread: 140593,ccdd53a12c282a4b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 16:32:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!sun!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uEmacs 3.7i (part 4 of 4)
Message-ID: <599@imagen.UUCP>
Date: Mon, 6-Oct-86 19:32:13 EDT
Article-I.D.: imagen.599
Posted: Mon Oct 6 19:32:13 1986
Date-Received: Wed, 8-Oct-86 19:33:55 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 127

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

```
     XM86-R;RTR,@``97AE8W5T92UM86-R;RTR,P``97AE8W5T92UM86-R;RTR-```
     XM97AE8W5T92UM86-R;RTR-0``97AE8W5T92UM86-R;RTR-@``97AE8W5T92UM
     XM86-R;RTR-P``97AE8W5T92UM86-R;RTR.```97AE8W5T92UM86-R;RTR.0``
     XM97AE8W5T92UM86-R;RTS,```97AE8W5T92UM86-R;RTS,0``97AE8W5T92UM
     XM86-R;RTS,@``97AE8W5T92UM86-R;RTS,P``97AE8W5T92UM86-R;RTS-```
     XM97AE8W5T92UM86-R;RTS-0``97AE8W5T92UM86-R;RTS-@``97AE8W5T92UM
     XM86-R;RTS-P``97AE8W5T92UM86-R;RTS.```97AE8W5T92UM86-R;RTS.0``
     XM97AE8W5T92UM86-R;RTT,```97AE8W5T92UN86UE9"UC;VUM86YD`&5X:70M
     XM96UA8W,``&9I;&PM<&%R86=R87!H``!F:6QT97(M8G5F9F5R`&9I;F0M9FEL
     XM90!F;W)W87)D+6-H87)A8W1E<@!G;W1O+6QI;F4`9W)O=RUW:6YD;W<`:&%N
     XM9&QE+71A8@``:'5N="UF;W)W87)D``!H=6YT+6)A8VMW87)D`&AE;'```&DM
     XM<VAE;&P`:6YC<F5M96YT86PM<V5A<F-H``!I;G-E<G0M9FEL90!I;G-E<G0M
     XM<W!A8V4``&EN<V5R="US=')I;F<`:VEL;"UP87)A9W)A<&@``&MI;&PM<F5G
     XM:6]N`&MI;&PM=&\M96YD+6]F+6QI;F4`;&ES="UB=69F97)S``!M971A+7!R
     XM969I>`!M;W9E+7=I;F1O=RUD;W=N``!M;W9E+7=I;F1O=RUU<```;F%M92UB
     XM=69F97(`;F5W;&EN90!N97=L:6YE+6%N9"UI;F1E;G0``&YE>'0M8G5F9F5R
     XM`&YE>'0M;&EN90!N97AT+7!A9V4`;F5X="UP87)A9W)A<&@``&YE>'0M=VEN
     XM9&]W`&YE>'0M=V]R9`!O<&5N+6QI;F4`<&EP92UC;VUM86YD``!P<F5V:6]U
     XM<RUL:6YE`'!R979I;W5S+7!A9V4`<')E=FEO=7,M<&%R86=R87!H``!P<F5V
     XM:6]U<RUW:6YD;W<`<')E=FEO=7,M=V]R9`!Q=65R>2UR97!L86-E+7-T<FEN
```

```
XM9P``<75I8VLM97AI=```<75O=&4M8VAA<F%C=&5R`')E860M9FEL90!R961R
XM87<M9&ES<&QA>0``<F5S:7IE+7=I;F1O=P!R97-T;W)E+7=I;F1O=P``<F5P
XM;&%C92US=')I;F<``')E=F5R<V4M:6YC<F5M96YT86PM<V5A<F-H``!S879E
XM+69I;&4`<V%V92UW:6YD;W<`<V-R;VQL+6YE>'0M=7```'-C<F]L;"UN97AT
XM+61O=VX``'-E87)C:"UF;W)W87)D``!S96%R8V@M<F5V97)S90``<V5L96-T
XM+6)U9F9E<@!S970M96YC<GEP=&EO;BUK97D``'-E="UF:6QL+6-O;'5M;@!S
XM970M;6%R:P``<VAE;&PM8V]M;6%N9`!S:')I;FLM=VEN9&]W`'-P;&ET+6-U
XM<G)E;G0M=VEN9&]W``!S=&]R92UM86-R;P!T<F%N<W!O<V4M8VAA<F%C=&5R
XM<P``=6YB:6YD+6ME>0``=6YI=F5R<V%L+6%R9W5M96YT``!U;FUA<FLM8G5F
XM9F5R`'5P9&%T92US8W)E96X`=FEE=RUF:6QE`'=R:71E+69I;&4``'=R:71E
XM+6UE<W-A9V4`>6%N:P````!74D%0``!#34]$10!34$5,3`!%6$%#5`!62457
XM``!/5D52``!-04=)0P!#4EE05`!,3U)%6@!-141215H``$A)4D5:`$),04-+
XM`%)%1`!'4D5%3@!914Q,3U<``$),544``$U!1T5.5$$`0UE!3@``5TA)5$4`
XM;6%I;@````!M86EN`````````6T-A;B!N;W0@<V5A<F-H(&%N9"!G;W1O(&%T
XM('1H92!S86UE('1I;64A70!;0F]G=7,@9V]T;R!A<F=U;65N=%T`3F]T(&9O
XM=6YD+@``07)G.@``07)G.B`E9`!!<F<Z(#0``$%R9SH@)60`6TQI<W1=``!;
XM2V5Y(&YO="!B;W5N9%T`6U-A=FEN9R`E<UT`36]D:69I960@8G5F9F5R<R!E
XM>&ES="X@3&5A=F4@86YY=V%Y`````$YO="!N;W<`6U-T87)T(&UA8W)O70!.
XM;W0@;F]W`%M%;F0@;6%C<F]=`$YO="!N;W<`6T%B;W)T961=`%M+97D@:6QL
XM96=A;"!I;B!62457(&UO9&5=``!);G9A;&ED(')E<V]L=71I;VX``"5);G9A
XM;&ED(')E<V]L=71I;VX`6TUA<FL@<V5T70``3F\@;6%R:R!I;B!T:&ES('=I
XM;F1O=P``96UA8W,N<F,``&5M86-S+FAL<````#IC+P`Z="\`.B!D97-C<FEB
XM92UK97D@`$YO="!";W5N9`!;0F%D(&)I;F1I;F=`&5M86-S+FAL<`!;2&5L
XM<"!F:6QE(&ES(&YO="!O;FQI;F5=`#H@8FEN9"UT;RUK97D@``!;3F\@<W5C
XM:"!F=6YC=&EO;ET``$)I;F1I;F<@=&%B;&4@1E5,3"$`.B!U;F)I;F0M:V5Y
XM(`!;2V5Y(&YO="!B;W5N9%T```!!<')O<&]S('-T<FEN9SH@``!":6YD:6YG
XM(&QI<W0``$-A;B!N;W0@9&ES<&QA>2!B:6YD:6YG(&QI<W0``%M"=6EL9&EN
XM9R!B:6YD:6YG(&QI<W1=````57-E(&)U9F9E<CH@``!+:6QL(&)U9F9E<CH@
XM`$)U9F9E<B!I<R!B96EN9R!D:7-P;&%Y960`0VAA;F=E(&)U9F9E<B!N86UE
XM('1O.B````!!0R!-3T1%4R`@("`@("!3:7IE($)U9F9E<B`@("`@("`@1FEL
XM90``+2T@+2TM+2T@("`@("`@+2TM+2`M+2TM+2T@("`@("`@("TM+2T``"`@
XM("`@("`@($=L;V)A;"!-;V1E<P```$1I<V-A<F0@8VAA;F=E<P!%;F-R>7!T
XM:6]N(%-T<FEN9SH@`"```($UI8W)O14U!0U,@```S+C=I```@*```(``I(```
XM1FEL93H@```Z(```6TYO('-U8V@@9G5N8W1I;VY=```Z(```/#P\`#X^/@!;
XM36%C<F\@86)O<G1E9%T`6V5N9%T`3W5T(&]F(&UE;6]R>2!W:&EL92!S=&]R
XM:6YG(&UA8W)O`%M.;R!S=6-H($9U;F-T:6]N70``3F\@;6%C<F\@<W!E8VEF
XM:65D``!-86-R;R!N=6UB97(@;W5T(&]F(')A;F=E`%M-86-R;R!X>%T``$-A
XM;B!N;W0@8W)E871E(&UA8W)O``!%>&5C=71E(&)U9F9E<CH@``!.;R!S=6-H
XM(&)U9F9E<@``1FEL92!T;R!E>&5C=71E.B``36%C<F\@;F]T(&1E9FEN960`
XM4F5A9"!F:6QE.B``26YS97)T(&9I;&4Z(`!&:6YD(&9I;&4Z(`!6:65W(&9I
XM;&4Z(`!;3VQD(&)U9F9E<ET``$)U9F9E<B!N86UE.B``0V%N;F]T(&-R96%T
XM92!B=69F97(``%M.97<@9FEL95T``%M296%D:6YG(&9I;&5=``!;4F5A9"`Q
XM(&QI;F5=`%M296%D("5D(&QI;F5S70!;4F5A9"`E9"!L:6YE*',I+"!,;VYG
XM(&QI;F5S('=R87!P961=`%=R:71E(&9I;&4Z(```3F\@9FEL92!N86UE``!;
XM5W)I=&EN9RXN70!;5W)O=&4@,2!L:6YE70``6U=R;W1E("5D(&QI;F5S70``
XM3F%M93H@`````%M.;R!S=6-H(&9I;&5=``!;26YS97)T:6YG(&9I;&5=``!;
XM26YS97)T960@,2!L:6YE70!;26YS97)T960@)60@;&EN97-=`%M);G-E<G1E
XM9"`E9"!L:6YE*',I+"!,;VYG(&QI;F5S('=R87!P961=`'(`=P!#86YN;W0@
XM;W!E;B!F:6QE(&9O<B!W<FET:6YG``!7<FET92!)+T\@97)R;W(`1FEL92!H
XM87,@;&]N9R!L:6YE``!&:6QE(')E860@97)R;W(`1FEL92!H87,@9G5N;GD@
XM;&EN92!A="!%3T8``"!;>2]N73\@``!;<V5A<F-H(&9A:6QE9%T`6W-E87)C
XM:"!F86EL961=`$E396%R8V@Z(``_(%-E87)C:"!S=')I;F<@=&]O(&QO;F<`
XM`"!;``!=/$U%5$$^.B``/R!C;VUM86YD('1O;R!L;VYG``!#86YN;W0@86QL
```

```
     XM;V-A=&4@)60@8GET97,``&)U9SH@;&EN<V5R=```3F\@;6%R:R!S970@:6X@
     XM=&AI<R!W:6YD;W<``$)U9SH@;&]S="!M87)K``!396%R8V@``$YO="!F;W5N
     XM9`!.;R!P871T97)N('-E=```3F]T(&9O=6YD`%)E=F5R<V4@<V5A<F-H``!.
     XM;R!P871T97)N('-E=```3F]T(&9O=6YD`"!;``!=/$U%5$$^.B``4F5P;&%C
     XM90!1=65R>2!R97!L86-E`'=I=&@``%)E<&QA8V4@)P`G('=I=&@@)P``)S\@
     XM````15)23U(@=VAI;&4@9&5L971I;F<``$]U="!O9B!M96UO<GD@=VAI;&4@
     XM:6YS97)T:6YG`$%B;W)T960A```H62EE<RP@*$XI;RP@*"$I1&\@<F5S="P@
     XM*%4I;F1O(&QA<W0L("A>1RE!8F]R="P@*"XI06)O<G0@8F%C:RP@*#\I2&5L
     XM<#H@`$524D]2('=H:6QE(&1E;&5T96EN9P!/=70@;V8@;65M;W)Y('=H:6QE
     XM(&EN<V5R=&EN9P`E9"!S=6)S=&ET=71I;VYS``!.;W0@:6X@5$]3```A`"YP
     XM<F<``"YT;W,``"YT='````T*"EM%;F1=``!```,`6T-A;FYO="!W<FET92!F
     XM:6QT97(@9FEL95T``%M%>&5C=71I;VX@9F%I;&5D70``5VEN9&]W(&YU;6)E
     XM<B!O=70@;V8@<F%N9V4``$-A;B!N;W0@9&5L971E('1H:7,@=VEN9&]W``!#
     XM86YN;W0@<W!L:70@82`E9"!L:6YE('=I;F1O=P!#86YN;W0@86QL;V-A=&4@
     XM5TE.1$]7(&)L;V-K``!/;FQY(&]N92!W:6YD;W<`26UP;W-S:6)L92!C:&%N
     XM9V4`3VYL>2!O;F4@=VEN9&]W`$EM<&]S<VEB;&4@8VAA;F=E`%M.;R!S=6-H
     XM('=I;F1O=R!E>&ES='-=`$YO(&9I;&P@8V]L=6UN('-E=```5V]R9',@)40@
     XM0VAA<G,@)40@3&EN97,@)60@079G(&-H87)S+W=O<F0@)68``%M&:6QL(&-O
     XM;'5M;B!I<R`E9%T`3&EN92`E9"\E9"!#;VP@)60O)60@0VAA<B`E1"\E1"`H
     XM)60E)2D@8VAA<B`](#!X)7@``&YE9R!K:6QL``!';&]B86P@;6]D92!T;R``
     XM36]D92!T;R```&%D9#H@`&1E;&5T93H@``!.;R!S=6-H(&UO9&4A````365S
     XM<V%G92!T;R!W<FET93H@``!3=')I;F<@=&\@:6YS97)T/$U%5$$^.B```$-/
     XM3CH``$%56#H``%!25#H``'(`80!W`$-/3CH``$%56#H`%!25#H```T*````
     XM```"!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     XM!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&!@8&
     X&!@8&!@8`
     X`
     Xend
SHAR_EOF
if test 95640 -ne "`wc -c < 'emacs.uue'`"
then
     echo shar: "error transmitting 'emacs.uue'" '(should have been 95640
characters)'
fi
fi
exit 0
#    End of shell archive
--
----
         These are days for the locust to eat
                       - Winston Churchill

Name:     James M. Turner
Mail:     Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T:     (408) 986-9400
UUCP:     ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
```

GEnie   : D-ARCANGEL

From 2033679621209287358
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c25e532cc0503b8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 17:58:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Missing Gem Functions?
Message-ID: <1592@cwruecmp.UUCP>
Date: Mon, 6-Oct-86 20:58:05 EDT
Article-I.D.: cwruecmp.1592
Posted: Mon Oct 6 20:58:05 1986
Date-Received: Tue, 7-Oct-86 23:58:39 EDT
References: <861006-042116-3507@Xerox>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 28

In article <861006-042116-3507@Xerox> Ulrich.wbst@XEROX.COM writes:
-Balma and Fitler's book contains references to three Gem Functions that
-are available on the IBM version of Gem. These functions are not listed
-in the Abacus book. They are:
-
-appl_find
-appl_tplay
-appl_trecord
-
-Are they missing from the Atari implementation?
-
-Denny
     They are present in the Atari implementation. There are bugs in
appl_find (see the gem bug list that a posted a few days ago), where
appl_find will find an application even if the application goes away, until
another application is loaded. If you caught Mark Skapnniker's (sp?) article
in the new STarT, he comments that appl_t* functions are very inefficient.
Did you notice that the Balma and fitler book are missing all the vdi input
and vext_* functions. I wonder why? Anyway, when in doubt never trust those
brain damaged Abacus books!!

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 1576244323679241196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d04d1a1ce9663f11,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-06 18:08:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: request for CC of verify off/on
Message-ID: <8610070108.AA15827@ncsc.ARPA>
Date: Mon, 6-Oct-86 21:08:11 EDT
Article-I.D.: ncsc.8610070108.AA15827
Posted: Mon Oct 6 21:08:11 1986
Date-Received: Wed, 8-Oct-86 00:33:26 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Pardon the redundancy but I fouled up my copy of the recent verify posting:
could someone PLEASE send me a copy (it was delivered Sunday)? I would be
eternally grateful (or at least until next Thursday). Thanks, and excuse the
extra posting.

Jim Moore
NCSC

From 4562878168531981942
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3468074b15f58858,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 00:44:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!RITVAXC.BITNET!PLJ3740
From: PLJ3740@RITVAXC.BITNET
Newsgroups: net.micro.atari16
Subject: Keyboard problems
Message-ID: <8610070744.AA03351@ucbvax>
Date: Tue, 7-Oct-86 03:44:54 EDT
Article-I.D.: ucbvax.8610070744.AA03351
Posted: Tue Oct 7 03:44:54 1986
Date-Received: Tue, 7-Oct-86 23:50:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Hello,
  My name is Paul Jeran, I purchased an Atari 520ST is August of this year
right now I am having trouble with the keyboard. Sometimes the keys won't
respond unless a VERY firm tap is used. It only occurs in certian keys,

'T','Q','E' and CTRL. I use the computer every day as a terminal and word processor. If anyone can offer sugestions I would be thankful. Is there any way Atari could send me a replacement keyboard and I will send the on I have back (It is still under the 90 days).

Thank You,
Paul Jeran
BITNET%"plj3740@ritvaxa"

From -7979847590586326185
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b211e6d7c3222872,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 05:13:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Text/Graphics packages.
Message-ID: <8610061843.AA25039@mitre-bedford.ARPA>
Date: Tue, 7-Oct-86 08:13:14 EDT
Article-I.D.: mitre-be.8610061843.AA25039
Posted: Tue Oct 7 08:13:14 1986
Date-Received: Wed, 8-Oct-86 06:38:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 23

I would appreciate the Net's opinion on the following:

If I want to do serious word processing and be able to embed graphics (e.g. illustrations) and equations (with few limitations), do multi-column layouts (e.g. for persnickety journals) and move all of the above around freely to re-arrange the page, what software would be the best choice to do all of the above on an ST?

In particular, does anybody know if the MacIntosh software that does such things is among the packages that one can run on an ST with Magic Sac?

How much memory would be necessary to make it all practical?

Does anyone know if there is an ST package that produces PostScript (page description language) output that can run real typesetters as well as some laser printers?

In short, should I buy a Mac or an ST?

Thanks for any help that is forthcoming!!!

-John Sangster
jhs@mitre-bedford.arpa

From 3049449625559055514
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c6c2f1b814fc551,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 05:14:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!NADC.ARPA!
kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: THUNDER V1.3
Message-ID: <8610071232.AA03147@ucbvax.Berkeley.EDU>
Date: Tue, 7-Oct-86 08:14:06 EDT
Article-I.D.: ucbvax.8610071232.AA03147
Posted: Tue Oct 7 08:14:06 1986
Date-Received: Wed, 8-Oct-86 06:39:04 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

I just received BI's THUNDER version 1.3 Spelling checker and I am impressed!
It is both an online checker, meaning it checks words as you type, or it will
check an entire document. It also can do statistics on the piece and tell you
what grade level your writing is on.

Version 1.3 corrects some problems with the older versions. It also includes
an Anagram function which can incredibly solve anagrams at lightning speed.

I bought THUNDER through Software Discounters of America (1-800-225-7638).
They get my four star **** recomendation. They have a toll free number,
accept credit cards, have low prices, and super fast UPS delivery.

The views expressed are my own and do not reflect those of my company....

Ron Kushnier
kushnier@nadc.arpa

From 2391303014777239905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4224ca31df400abc
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 08:27:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: frmtplus etc.
Message-ID: <1334@trwrb.UUCP>

Date: Tue, 7-Oct-86 11:27:33 EDT
Article-I.D.: trwrb.1334
Posted: Tue Oct 7 11:27:33 1986
Date-Received: Wed, 8-Oct-86 08:00:55 EDT
References: <8610051911.AA01102@ohio-state.ARPA>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 27

To Bill Pase and all interested:

>For your floppy format program. You suggest running it from an auto
>folder. Should this be when booting with an RAM TOS? And if so is it
>then like the Analog one wherein you then reboot after formating as many
>disks as you wish? /bill

First of all, as much as I would like to, I cannot take credit for frmtplus:
I got this from the Atari BBS (there is some nice stuff out there). Now,
you are correct about placing the program in the AUTO folder of your RAM TOS
boot disk (i.e., you _must_ boot with TOS in RAM for the program to work).
Once the desktop appears, you may then format as many disks as you wish (I
recommend you format all of your disks this way - even those of you using the
10 sector, 410k/820k formats - since the gain in speed is so nice). Once
you have formatted all the disks you are going to, you may (but don't have
to) boot your machine from ROM.

-Rich

--

 __________ ______ ____ _____ ___
/_________//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ___________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 6406064897256904871
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df790197304b002a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 08:30:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!ucbvax!
Cs.Ucl.AC.UK!jrm%computer-science.strathclyde.ac.uk
From: jrm%computer-science.strathclyde.ac.uk@Cs.Ucl.AC.UK
Newsgroups: net.micro.atari16
Subject: MW Compiler
Message-ID: <8610060755.AA02950@stracs.cs.strath.ac.uk>
Date: Tue, 7-Oct-86 11:30:32 EDT
Article-I.D.: stracs.8610060755.AA02950

Posted: Tue Oct 7 11:30:32 1986
Date-Received: Wed, 8-Oct-86 07:36:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Can U write desktop applications with the MW compiler (ie does it come
with the correct start-up library). The Lattice C I have is fine (if a
bit slow and bulky) for applications but I cant get it to build a desktop
accessory.
s/applications/accessories/ on first line !!
Jon R Malone

From 4359498440299160254
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,14707fb7878861f0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 08:56:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: TVX/VI emulator bug, note
Message-ID: <401@unmvax.UUCP>
Date: Tue, 7-Oct-86 11:56:45 EDT
Article-I.D.: unmvax.401
Posted: Tue Oct 7 11:56:45 1986
Date-Received: Wed, 8-Oct-86 08:28:58 EDT
Organization: Univ. of New Mexico, Albuquerque
Lines: 32
Keywords: If you want it...

    I have discovered the problem people have been having with my
public domain editor TVX. (The problem is with all versions:
TVX, the Vi emulator, and the Emacs emulator.) I would really call
it a bug in GEMDOS, but it shows up in the editor. It only happens
if you have your key repeat rate set too high and hold the up/down
keys down too long. GEMDOS loses track of input/output and dies.
For those of you with source, the solution is to add code to check
for un-read keystrokes in the command interpreter loop in tvx_edit.c.
Just throw away the extra keystrokes inside the loop. This will
make sure that TVX is finished executing one command before the
keyboard overflows. It will also force the screen to match your
keystrokes. It is a bit of a kludge, but works. I will include
the change on any sources I send out from now on (send me 720K
worth of pre-formatted disks and return postage, and I will return
full sources, compiled code, and documentation).

    If there is enough interest (by e-mail reply), I will post
the uuencoded executable of the Vi emulator to this group (plus
a short document). Otherwise, I'll continue my policy

of returning disks with the sources.

    P.S. - I was unable to duplicate the problem of not writing the backup file - I suspect the user just didn't find the right work file.
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From 2834161358497297848
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29bdbd2d36cc8f84,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 09:56:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Another Magic Sac installment
Message-ID: <8610071656.AA24154@ames-nas.ARPA>
Date: Tue, 7-Oct-86 12:56:41 EDT
Article-I.D.: ames-nas.8610071656.AA24154
Posted: Tue Oct 7 12:56:41 1986
Date-Received: Wed, 8-Oct-86 08:23:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

     Friday afternoon I received V2.0 of the Magic Sac software which had been posted by Federal Express next day service on Thursday. I took it home and tried it out briefly over the weekend.

     There is now a copyaa program which allows people with only one disk drive to make backup copies of their Magic disks.

     The single disk drive copy bug has been fixed.

     FreeTerm now works.

     Also, the problem I was having with the transmit program appears to be fixed, although I didn't have a Mac to check it out with.

     Version 2 comes with a readme which gives a brief list of programs that run under Magic Sac and a more detailed explanation of the problems that might come up when running a program under Magic Sac.

It ain't perfect yet, but I am sure impressed with the service. Four bugs fixed in two weeks, and Federal Express shipping.

Magic Sac is now in a state where I would certainly recommend it as an add on for ST users. You won't be getting a full MacIntosh, but it runs enough Mac software (faster than a Mac) to be worth the price.

Marty

From 3663114477908691273
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a436a40c2c720ca,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 10:01:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Bug in GEMDOS (was TVX bug)
Message-ID: <402@unmvax.UUCP>
Date: Tue, 7-Oct-86 13:01:56 EDT
Article-I.D.: unmvax.402
Posted: Tue Oct 7 13:01:56 1986
Date-Received: Wed, 8-Oct-86 08:29:13 EDT
Organization: Univ. of New Mexico, Albuquerque
Lines: 38
Keywords: The real story

My previous posting was correct about the cause of the TVX bug, but wrong in the fix. Since this seems to be a general bug/feature of GEMDOS, my solution might be of general interest.

There is some incorrect interaction between GEMDOS function 7 (unechoed keyboard input, probably the others too) and GEMDOS function 9 (print a line, probably the other character at a time, too.).

You can write characters faster to GEMDOS 9 than it can display them on the screen. If you are doing this while the user has the key clamped down at a very fast repeat rate, soon everything will die. The bug seems to be that GEMDOS 9 doesn't bother to check the conout status to see that it can take more characters.

My solution was to go to the bios directly (trap 13), passing up the GEMDOS functions. Character output should be done like this:

```
 char_out(output_char) char output_char;
  {
    while (!bios(8,2))      /* check output status */
     if (bios(1,2))         /* check if input waiting */
         save_input_char(bios(2,2)); /* do SOMETHING with input chr */
    bios(3,2,output_char);  /* now safe to write char */
```

```
  }
```

Apparently, GEMDOS 9 doesn't do the output status check. Maybe
the other GEMDOS character output routines do, but I didn't check
them. (For anyone interested, the REAL fix to TVX is to change
ttwtln to use ttwt, and put the above fix into dispch, and throw
away the extra input characters.)
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From -3044441697255558361
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-10-07 10:34:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!panda!genrad!decvax!tektronix!uw-
beaver!tikal!transys!baron
From: baron@transys.UUCP
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <276@transys.UUCP>
Date: Tue, 7-Oct-86 13:34:53 EDT
Article-I.D.: transys.276
Posted: Tue Oct 7 13:34:53 1986
Date-Received: Wed, 8-Oct-86 08:25:57 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU> <877@Shasta.STANFORD.ED
<1870@well.UUCP>
Reply-To: baron@transys.UUCP (Joe Portman)
Organization: TransSystems Inc. Bellevue, WA
Lines: 40
Summary: Microsoft has 80386's
Xref: mnetor net.micro.68k:1363 net.micro.amiga:5151 net.micro.atari16:2384
net.micro.mac:7472

In article <1870@well.UUCP> das@well.UUCP (David Shayer) writes:
>>>In article <262@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
>writes:
>>>Now that Motorola
>>>has released this chip, they have in *every category of chip* a far
>>>superior chip than does Intel.

>
[some lines deleted]

>To say that Compaq has "released" an 80386 based computer is stretching
>things a bit too, don't you think. They announced it, but said it would
>be available after January. This is similar to what Motorola announced.

Hmmm. According to my brother (a tech at microsoft), Microsoft just installed over 40 of the Compaq 386 machines. His comments:

1. Makes an AT look sick.

2. Extremely fast MS-DOS.

>By the way, IBM is said to be readying an announcment in January for
>their 80386 based machine, which will be available in June. And don't
>forget that a multitasking operating system won't be available until
>around June either. Until then, these 80386 machines are just big
>fast PC's. Meanwhile, Apple is readying a 68020 based machine for
>release early next year.

I have heard (from SCO) that SCO will be releasing Xenix 386 soon. They may already have it running internally. When last I spoke to them they mentioned that Xenix 286 research was being held back in favor of the 386 based machine. An example, they informed me they would never release a large model kernel for the 286.

>Isn't vaporware fun!

Yes, but in this case a multi-tasking OS will probably come available sooner than most people think. Porting anything written for the 286 is a piece of cake.
>-----------------------
>David Shayer @ the Well

From -4246437387684203466
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee62a74a14646bb1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:42:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: finally, i've figured uudecode ...
Message-ID: <8610072120.AA09863@ucbvax.Berkeley.EDU>
Date: Tue, 7-Oct-86 15:42:05 EDT
Article-I.D.: ucbvax.8610072120.AA09863
Posted: Tue Oct 7 15:42:05 1986
Date-Received: Wed, 8-Oct-86 08:22:23 EDT
Sender: broome@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 34

After many, many problems with BITNET, IBM machines and uudecode, I have found the true answer to having all of my files uudecode. Every single file which has bombed in the past, now decodes perfectly.

The normal sequence that I do is to send the file over from the IBM machine (actually we have an AS/9000N) to the AT&T 3B20 and uudecode on the 3B20. Previously, the only two files which worked were UNITERM and uEmacs.

Now, however, I have found the solution, but I am uncertain as to the exact cause. Here is what I do. First, while in Xedit, I set the logical record length to 61, then I set the record format to fixed. The following commands do this:

set lrecl 61
set recfm f

now, when I send the file to the 3B20, I enter the command:

sf file uue to acs19 at uhnix1

to receive on the 3B20, I enter the command:

receive $job/pnch6 >file.uue

(since the 3B20 is hooked up as a punch machine (yuck). What you do may be different, but I know setting the logical record length and the record format have made all of my files work.)
When I get to the 3B20, I do have to fix the file a little bit. I go to the last line and delete the blanks to end of line, after 'end'. Then I go up one line and make sure that there is only 1 (one) blank on the second to the last line. Then I save the file and uudecode it. All the files I have tried thus far have worked, and most of these have always bombed.

Mike

From 4868692901410295610
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e24188ce48af1c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:43:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Inquire on music player
Message-ID: <1335@trwrb.UUCP>
Date: Tue, 7-Oct-86 15:43:55 EDT
Article-I.D.: trwrb.1335
Posted: Tue Oct 7 15:43:55 1986

Date-Received: Wed, 8-Oct-86 08:09:22 EDT
References: <8610061825.AA20912@ucbvax>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 25

In article <8610061825.AA20912@ucbvax> STO9719@RITVAXC.BITNET writes:
>Hello, I was wondering if there is any music studio song players
>available similar to the Sid player for the C64. I just want to
>download ".sng" files from the local BBS and play them with out
>needing the music studio package.

Last xmas a midi/graphics demo was posted on Compuserve which sounds like
it might fit your needs. I'm not sure what the name was, but I think it was
alite.prg. There were also 6 or 7 xmas songs and pictures posted to go with
the demo (available as 1alite.sng/1alite.pic, 2alite.sng/2alite.pic, etc.).
You should be able to rename any .sng file nalite.sng (where "n" is a number
from 1 to 9) along with a corresponding nalite.pic and have alite.prg play
it back for you through your synth. Does this make sense?   Anyway, if
you like, I'll post my copy along with a couple of .sng/.pic files to
get you started.

-Rich

--

 _________ ______ ____ _____ ___
/_________//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ___________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From -2786169011970975473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522de78713dda03c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:54:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Proff repost (1 of 4)
Message-ID: <1336@trwrb.UUCP>
Date: Tue, 7-Oct-86 15:54:31 EDT
Article-I.D.: trwrb.1336
Posted: Tue Oct 7 15:54:31 1986
Date-Received: Wed, 8-Oct-86 08:09:46 EDT
References: <8610061437.AA18001@ucbvax>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA

Lines: 2118

In article <8610061437.AA18001@ucbvax> FONETIEK@HNYKUN52.BITNET writes:
>A few weeks ago I got UNITERM, but it is almost impossible to read the
>documentation without Proff, so if anyone could send me the Proff
>sources I would be very grateful..

There have been several requests for Proff lately, so what the heck.

-Rich

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    debug.h
#    decl.h
#    defs.h
#    dostuff2.c
#    eval.c
#    lextab.d
#    lextab.h
#    lnk
#    look.c
#    lookup.c
#    lookup.h
#    ltb.c
#    make.sh
#    makefile
#    map.c
# This archive created: Fri Mar 21 22:45:00 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'debug.h'" '(123 characters)'
if test -f 'debug.h'
then
     echo shar: over-writing existing file "'debug.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'debug.h'
X/*
X#define DEBUG
X#define PROFILE
X*/
X
X#ifdef PROFILE
X#define dprintf(str)  printf((str));
X#else
X#define dprintf(str)
X#endif
X
SHAR_EOF
```

```
if test 123 -ne "`wc -c 'debug.h'`"
then
     echo shar: error transmitting "'debug.h'" '(should have been 123 characters)'
fi
echo shar: extracting "'decl.h'" '(3858 characters)'
if test -f 'decl.h'
then
     echo shar: over-writing existing file "'decl.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'decl.h'
X/*
X * Decl.h
X *  Declarations for commonly used C functions.
X *  The way we use it is in stdio.h we put in
X *  the following lines:
X *
X *  #ifdef DECL
X *  #include <decl.h>
X *  #endif
X *
X *  and when we compile, we declare DECL, so that it
X *  decl.h gets included and we have all the functions
X *  that return types other than int, appropriately declared.
X */
X
X
X/*
Xchar *getcwd(char *, int);
X*/
X
X/*
Xchar *calloc(unsigned int, unsigned int);
X*/
Xextern  char *calloc();
X
X/*
Xchar *malloc(unsigned int);
X*/
Xextern  char *malloc();
X
X/*
Xchar *realloc(char *, unsigned int);
X*/
Xextern  char *realloc();
X
X/*
Xchar *sbrk(int);
X*/
Xextern  char *sbrk();
X
X
X#ifndef HUGE
X    /* HUGE is defined if math.h has been included */
```

```
X/*
Xdouble acos(double);
X*/
Xextern  double acos();
X
X/*
Xdouble asin(double);
X*/
Xextern  double asin();
X
X/*
Xdouble atan(double);
X*/
Xextern  double atan();
X
X/*
Xdouble atan2(double, double);
X*/
X/*
Xextern  double atan2();
X*/
X
X/*
Xdouble atof(char *);
X*/
Xextern  double atof();
X
X/*
Xdouble ceil(double);
X*/
Xextern  double ceil();
X
X/*
Xdouble cos(double);
X*/
Xextern  double cos();
X
X/*
Xdouble cosh(double);
X*/
Xextern  double cosh();
X
X/*
Xdouble exp(double);
X*/
Xextern  double exp();
X
X/*
Xdouble fabs(double);
X*/
Xextern  double fabs();
X
X/*
```

```
Xdouble floor(double);
X*/
Xextern  double floor();
X
X/*
Xdouble fmod(double, double);
X*/
Xextern  double fmod();
X
X/*
Xdouble frexp(double, int *);
X*/
X/*
Xextern  double frexp();
X*/
X
X/*
Xdouble hypot(double, double);
X*/
X/*
Xextern  double hypot();
X*/
X
X/*
Xdouble j0(double);
X*/
X/*
Xextern  double j0();
X*/
X
X/*
Xdouble j1(double);
X*/
X/*
Xextern  double j1();
X*/
X
X/*
Xdouble jn(int, double);
X*/
X/*
Xextern  double jn();
X*/
X
X/*
Xdouble ldexp(double, double);
X*/
X/*
Xextern  double ldexp();
X*/
X
X/*
Xdouble log(double);
```

```
X*/
Xextern  double log();
X
X/*
Xdouble log10(double);
X*/
Xextern  double log10();
X
X/*
Xdouble modf(double, double *);
X*/
Xextern  double modf();
X
X/*
Xdouble pow(double, double);
X*/
Xextern  double pow();
X
X/*
Xdouble sin(double);
X*/
Xextern  double sin();
X
X/*
Xdouble sinh(double);
X*/
X/*
Xextern  double sinh();
X*/
X
X/*
Xdouble sqrt(double);
X*/
Xextern  double sqrt();
X
X/*
Xdouble tan(double);
X*/
X/*
Xextern  double tan();
X*/
X
X/*
Xdouble tanh(double);
X*/
X/*
Xextern  double tanh();
X*/
X
X/*
Xdouble y0(double);
X*/
X/*
```

```
Xextern  double y0();
X*/
X
X/*
Xdouble y1(double);
X*/
X/*
Xextern  double y1();
X*/
X
X/*
Xdouble yn(int, double);
X*/
X/*
Xextern  double yn();
X*/
X
X#endif  /* HUGE */
X
X
X/*
Xint (*signal(int, int (*)()))();
X*/
Xextern  int (*signal())();
X
X/*
XFILE *fdopen(int, char *);
X*/
Xextern  FILE *fdopen();
X
X/*
Xchar *fgets(char *, int, FILE *);
X*/
Xextern  char *fgets();
X
X/*
XFILE *fopen(char *, char *);
X*/
Xextern  FILE *fopen();
X
X/*
XFILE *freopen(char *, char *, FILE *);
X*/
Xextern  FILE *freopen();
X
X/*
Xlong ftell(FILE *);
X*/
Xextern  long ftell();
X
X/*
Xchar *gets(char *);
X*/
```

```
Xextern  char *gets();
X
X/*
Xlong lseek(int, long, int);
X*/
Xextern  long lseek();
X
X/*
Xchar *mktemp(char *);
X*/
Xextern  char *mktemp();
X
X/*
Xlong tell(int);
X*/
Xextern  long tell();
X
X
X/*
Xlong atol(char *);
X*/
Xextern  long atol();
X
X/*
Xchar *ecvt(double, int, int *, int *);
X*/
Xextern  char *ecvt();
X
X/*
Xchar *fcvt(double, int, int *, int *);
X*/
Xextern  char *fcvt();
X
X/*
Xchar *gcvt(double, int, char *);
X*/
Xextern  char *gcvt();
X
X/*
Xchar *getenv(char *);
X*/
Xextern  char *getenv();
X
X/*
Xchar *itoa(int, char *, int);
X*/
Xextern  char *itoa();
X
X/*
Xlong labs(long);
X*/
Xextern  long labs();
X
```

```
X/*
Xchar *ltoa();
X*/
Xextern  char *ltoa();
X
X/*
Xchar *ultoa(unsigned long, char *, int);
X*/
Xextern  char *ultoa();
X
X
X/*
Xchar *strcat(char *, char *);
X*/
Xextern  char *strcat();
X
X/*
Xchar *strcpy(char *, char *);
X*/
Xextern  char *strcpy();
X
X/*
Xunsigned int strlen(char *);
X*/
Xextern  unsigned int strlen();
X
X/*
Xchar *strncat(char *, char *, unsigned int);
X*/
Xextern  char *strncat();
X
X/*
Xchar *strncpy(char *, char *, unsigned int);
X*/
Xextern  char *strncpy();
X
X/*
Xchar    *index(char *, char);
X*/
Xextern  char *index();
X
X/*
Xchar    *rindex(char *, char);
X*/
Xextern  char *rindex();
SHAR_EOF
if test 3858 -ne "`wc -c 'decl.h'`"
then
     echo shar: error transmitting "'decl.h'" '(should have been 3858 characters)'
fi
echo shar: extracting "'defs.h'" '(1855 characters)'
if test -f 'defs.h'
then
```

```
     echo shar: over-writing existing file "'defs.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'defs.h'
X/*
X * defs.h
X *
X * #define rainbow    - rainbow CP/M-86 version
X * #define vms        - vms version (predefined by VAX11C compiler)
X * #define unix       - unix version
X * #define ATARIST    - Atari St series
X */
X
X/*
X *  Synonyms for ASCII control characters
X *
X */
X
X#define  BACKSPACE 8
X#define  BEL       7
X#define  BELL      7
X#define  BLANK          32
X#define  CARRIAGE_RETURN    13
X#define  NEWLINE        10
X#define  RUBOUT         127
X#define  TAB       9
X
X/*
X * misc. definitions
X *
X */
X
X#define  EOS       0
X#define  HUGE      30000
X#define  NO        0
X#define  OK        0
X#define  YES       1
X#define FALSE          0
X#define TRUE      1
X#define  FILENAMESIZE  50
X#define  MAXCHARS  20
X#define MAXLINE        256
X#define MAXTOK         80
X#define ARB       MAXLINE
X
X#define  MAXCARD       MAXLINE-1
X#define  MAXNAME       FILENAMESIZE
X
X#define  NCHARS        33
X#define MAXOFILES 12
X
X#define  ARGFLAG   '$'
X#define  INSIZE    MAXLINE
X#define  MAXOUT    2*MAXLINE
```

```
X#define  MAXDEF    200
X#define  NFILES    MAXOFILES-4
X#define  PAGENUM       '#'
X#define  CURRENTDATE   '%'
X#define ESCAPE         '@'
X#define VESCAPE        '$'
X#define  PAGEJECT 12          /* 12 is ASCII formfeed (control-L) */
X#define  PAGEWIDTH 65
X#define  PAGELEN       62
X#define  BUFSIZE       512           /* push back buffer */
X/*
X * lexical analyser values
X *
X * include lexical analyser return constants
X * generated by ltb.
X *
X */
X#include "lextab.d"        /* expended format & roff & runoff */
X
X#define  UNKNOWN  999
X#define MACRO     0
X#define NEGATED -1
X#define  LEFT 1
X#define  CENTER   2
X#define  RIGHT    3
X
X/*
X * structure definition for contents linked list
X *
X */
X
Xstruct clist {         /* list struct for contents  */
X    char level;
X    char *str;
X    int  page;
X    struct clist *nextc;
X};
X
X#ifdef putchar
X#undef putchar
X#ifdef ATARIST
X#define putchar(c) st_putc((c),poutput);
X#else
X#define putchar(c) putc((c),poutput);
X#endif
X#endif
X
X/*
X * The following definitions are required
X * till they fix gemlib
X */
X
X#ifdef ATARIST
```

```
X#define printf st_printf
X#define fprintf st_fprintf
X#endif
SHAR_EOF
if test 1855 -ne "`wc -c 'defs.h'`"
then
     echo shar: error transmitting "'defs.h'" '(should have been 1855 characters)'
fi
echo shar: extracting "'dostuff2.c'" '(2935 characters)'
if test -f 'dostuff2.c'
then
     echo shar: over-writing existing file "'dostuff2.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'dostuff2.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X/*
X * dodef - define a command macro (".de xx" is in buf.)
X *
X */
Xdodef(buf,fd)
Xchar buf[];
XFILE *fd;
X{
X    char name[MAXNAME],defn[MAXDEF];
X    int i,junk;
X
X#ifdef DEBUG
X    printf("dodef++: Fd %ld\n",fd);
X#endif
X
X    dprintf("dodef  ");
X    i = 0;
X    junk = getwrd(buf, &i, name);
X    i = getwrd(buf, &i, name);  /* get the name */
X    if (i == 0)
X         error("missing name in command def.");
X    i = 0;
X    while (ngetln(buf,fd) != EOF) {
X         if (buf[0] == cchar && buf[1] == 'e' &&
X             buf[2] == 'n' && !isalnum(buf[3]))
X              break;
X         junk = addstr(buf, defn, &i, MAXDEF);
X    }
X    if (addset(EOS, defn, &i, MAXDEF) == NO)
X         error("definition too long.\n");
X    if (install(name, defn, macrotab) == NULL)
X         fprintf(stderr,"no room for new definition.\n");
X#ifdef DEBUG
X    printf("dodef: %s (name) %s (defn)\n",name,defn);
```

```
X#endif
X}
X
X/*
X * doesc - expand escapes in buf
X *
X */
Xdoesc(buf, tbuf, size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i,j;
X
X    dprintf("doesc  ");
X    j = 0;
X    for (i = 0; buf[i] != EOS && j < size-1; i++)
X         /*
X          * clean up generic escapes along the way.
X          */
X         if (buf[i] == genesc)
X              tbuf[j++] = buf[++i];
X
X         else if (buf[i] != ESCAPE) {
X              tbuf[j] = buf[i];
X              j++;
X         }
X         else if (buf[i+1] == 'n' &&
X             (buf[i+2] >= 'a' && buf[i+2] <= 'z')) {
X              j += itoc(nr[buf[i+2] - 'a'],
X              &tbuf[j], size - j - 1);
X              i += 2;
X         }
X         else {
X              tbuf[j] = buf[i];
X              j++;
X         }
X    tbuf[j] = EOS;
X    strcpy(buf, tbuf);
X}
X
X/*
X * dovar - expand variables in buf
X *
X */
Xdovar(tbuf, buf)
Xchar *buf;
Xchar *tbuf;
X{
X    register char *c, *p, t;
X    struct hashlist *xp;
X
X    while (*buf != '\0') {
```

```
X         if (*buf == genesc) {
X              *tbuf++ = *buf++;
X              *tbuf++ = *buf;
X         }
X         else if (*buf != VESCAPE)
X              *tbuf++ = *buf;
X         else {
X              buf++;     /* skip the ESCAPE */
X              if (*buf == '{')
X                   buf++;
X              p = buf; /* save the beginning address of variable */
X              while (isalnum(*buf))
X                   buf++;
X              t = *buf;/* save the character*/
X              *buf = '\0';  /* hack a null there */
X              if ((xp = lookup(p,gentab)) != NULL) {
X                   c = xp->def;  /* point to def */
X                   while (*c != '\0')
X                        *tbuf++ = *c++;
X              }
X              if (*(p-1) != '{')
X                   *tbuf++ = t;
X              else if (t != '}')
X                   fprintf(stderr, "missing \"}\" in %s\n",p);
X         }
X         buf++;
X    }
X    *tbuf = '\0';
X}
X
X
X/*
X * dotabs - expand tabs in buf
X *
X */
Xdotabs(buf,tbuf,size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i,j;
X    dprintf("dotabs  ");
X
X    j = 0;
X    for (i = 0; buf[i] != EOS && j < size - 1; i++)
X         if (buf[i] == '\t')
X              while (j < size - 1) {
X                   tbuf[j] = ' ';
X                   j++;
X                   if (tabs[j] == YES || j > INSIZE)
X                        break;
X              }
X         else {
```

```
X             tbuf[j] = buf[i];
X             j++;
X         }
X    tbuf[j] = EOS;
X    strcpy(buf, tbuf);
X}
X
X/*
X * docline - produce a "contents" line.
X *
X */
Xdocline(str,width,cline,page)
Xchar *str;
Xint width;
Xchar *cline;
Xint page;
X{
X    int i;
X
X    for (i = 0; i < width - 6 && cline[i] != '\0'; i++)
X         str[i] = cline[i];
X    while (i < width - 6)
X         str[i++] = '.';
X    sprintf(str+i,"%5d\n",page);
X}
X
SHAR_EOF
if test 2935 -ne "`wc -c 'dostuff2.c'`"
then
     echo shar: error transmitting "'dostuff2.c'" '(should have been 2935
characters)'
fi
echo shar: extracting "'eval.c'" '(1296 characters)'
if test -f 'eval.c'
then
     echo shar: over-writing existing file "'eval.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'eval.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X
X/*
X * eval - evaluate defined command (push back definition)
X *
X */
Xeval(buf,defn)
Xchar buf[];
Xchar defn[];
X{
X    register int j,k;
```

```
X    int i;
X    int argptr[10];
X
X    for (i = 0; i < 10 ; i++)
X         argptr[i] = 0;
X
X    buf[0] = '\0';          /* buf[0] is cchar */
X    dprintf(defn);
X    dprintf("eval  ");
X    i = 1;
X    argptr[0] = 1;          /* first parm is macro name */
X    while (buf[i] != ' ' && buf[i] != '\t' &&
X        buf[i] != '\n' && buf[i] != '\0')
X         i++;
X    buf[i++] = '\0';        /* EOS terminate */
X    /*
X     * start scanning remaining macro parameters.
X     * delimiters are blanks or commas. Any string
X     * enclosed with double quotes are accepted as
X     * parameters as well
X     *
X     */
X    for (j = 1; j < 10; j++) {
X         skipbl(buf, &i);
X         if (buf[i] == '\n' || buf[i] == '\0')
X              break;
X         argptr[j] = i;
X         while (buf[i] != ' ' && buf[i] != '\t' &&
X             buf[i] != ',' && buf[i] != '\n' && buf[i] != '\0')
X              i++;
X         buf[i] = '\0';
X         i++;
X    }
X    for (k = strlen(defn) - 1; k >= 0; k--)
X         if (defn[k-1] != ARGFLAG)
X              putbak(defn[k]);
X         else {
X              if (defn[k] < '0' || defn[k] > '9')
X                   putbak(defn[k]);
X              else {
X                   i = defn[k] - '0';
X                   i = argptr[i];
X                   pbstr(&buf[i]);
X                   k--;      /* skip over $ */
X              }
X         }
X    if (k = 0)    /* do the last character */
X         putbak(defn[k]);
X}
X
SHAR_EOF
if test 1296 -ne "`wc -c 'eval.c'`"
then
```

```
     echo shar: error transmitting "'eval.c'" '(should have been 1296 characters)'
fi
echo shar: extracting "'lextab.d'" '(856 characters)'
if test -f 'lextab.d'
then
     echo shar: over-writing existing file "'lextab.d'"
fi
sed 's/^X//' << \SHAR_EOF > 'lextab.d'
X#define  DBO 5
X#define  EBO 7
X#define  NAP 101
X#define  NPA 13
X#define  GET 95
X#define  PGI 11
X#define  M1  45
X#define  M2  47
X#define  M3  49
X#define  ELT 109
X#define  M4  51
X#define  LEX 89
X#define  SAV 85
X#define  CC  19
X#define  BD  3
X#define  SET 93
X#define  EC  27
X#define  CE  21
X#define  DE  25
X#define  EF  29
X#define  HE  37
X#define  EH  31
X#define  LTR 107
X#define  CL  103
X#define  FI  33
X#define  IG  91
X#define  AP  99
X#define  BP  9
X#define  PC  105
X#define  NE  53
X#define  OE  63
X#define  NF  55
X#define  BR  15
X#define  RST 87
X#define  OF  65
X#define  FO  35
X#define  BS  17
X#define  OH  67
X#define  IN  39
X#define  NJ  57
X#define  CU  23
X#define  PL  69
X#define  TI  81
X#define  PN  97
X#define  RM  73
```

```
X#define  PO  71
X#define  LS  43
X#define  JU  41
X#define  NR  59
X#define  UL  83
X#define  SO  75
X#define  SP  77
X#define  OU  61
X#define  ST  79
X#define  WR  111
X#define  RESET    1
SHAR_EOF
if test 856 -ne "`wc -c 'lextab.d'`"
then
     echo shar: error transmitting "'lextab.d'" '(should have been 856
characters)'
fi
echo shar: extracting "'lextab.h'" '(9281 characters)'
if test -f 'lextab.h'
then
     echo shar: over-writing existing file "'lextab.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'lextab.h'
X#ifndef STRUC_DEFINED
X
X/*  lextab.h  */
X
Xstruct _lex_h {   char     *__s;
X             int   __v;
X             int       __f;
X         struct  _lex_h  *__l;
X};
X
X#define STRUC_DEFINED
X#endif
Xstruct
X_lex_h __ce = {  "ce",
X                  21,     0,NULL };
Xstruct
X_lex_h __ec = {  "ec",
X                  27,     0,&__ce };
Xstruct
X_lex_h __de = {  "de",
X                  25,     0,NULL };
Xstruct
X_lex_h __f = {  "f",
X                  33,     1,NULL };
Xstruct
X_lex_h __ef = {  "ef",
X                  29,     0,NULL };
Xstruct
X_lex_h __nojustify = {  "nojustify",
X                  57,     0,&__ef };
```

```
Xstruct
X_lex_h __eh = {  "eh",
X                  31,     0,NULL };
Xstruct
X_lex_h __he = {  "he",
X                  37,     0,&__eh };
Xstruct
X_lex_h __j = {  "j",
X                  41,     1,NULL };
Xstruct
X_lex_h __fi = {  "fi",
X                  33,     0,NULL };
Xstruct
X_lex_h __na = {  "na",
X                  99,     0,&__fi };
Xstruct
X_lex_h __cl = {  "cl",
X                 103,     0,&__na };
Xstruct
X_lex_h __ig = {  "ig",
X                  91,     0,NULL };
Xstruct
X_lex_h __dbo = {  "dbo",
X                   5,     1,NULL };
Xstruct
X_lex_h __pa = {  "pa",
X                  11,     1,&__dbo };
Xstruct
X_lex_h __ap = {  "ap",
X                  99,     1,&__pa };
Xstruct
X_lex_h __el = {  "el",
X                 109,     1,&__ap };
Xstruct
X_lex_h __ebo = {  "ebo",
X                   7,     1,NULL };
Xstruct
X_lex_h __bp = {  "bp",
X                   9,     0,&__ebo };
Xstruct
X_lex_h __ne = {  "ne",
X                  53,     0,NULL };
Xstruct
X_lex_h __pc = {  "pc",
X                 105,     0,&__ne };
Xstruct
X_lex_h __br = {  "br",
X                  15,     1,NULL };
Xstruct
X_lex_h __need = {  "need",
X                  53,     0,&__br };
Xstruct
X_lex_h __nf = {  "nf",
```

```
X                  55,     1,&__need };
Xstruct
X_lex_h __oe = {  "oe",
X                  63,     0,&__nf };
Xstruct
X_lex_h __noautoparagraph = {  "noautoparagraph",
X                 101,     1,&__oe };
Xstruct
X_lex_h __page = {  "page",
X                   9,     1,NULL };
Xstruct
X_lex_h __bs = {  "bs",
X                  17,     0,&__page };
Xstruct
X_lex_h __cchar = {  "cchar",
X                  19,     0,&__bs };
Xstruct
X_lex_h __fo = {  "fo",
X                  35,     0,&__cchar };
Xstruct
X_lex_h __of = {  "of",
X                  65,     0,&__fo };
Xstruct
X_lex_h __pg = {  "pg",
X                   9,     1,NULL };
Xstruct
X_lex_h __echar = {  "echar",
X                  27,     0,&__pg };
Xstruct
X_lex_h __in = {  "in",
X                  39,     0,&__echar };
Xstruct
X_lex_h __oh = {  "oh",
X                  67,     0,&__in };
Xstruct
X_lex_h __s = {  "s",
X                  77,     1,&__oh };
Xstruct
X_lex_h __cu = {  "cu",
X                  23,     0,NULL };
Xstruct
X_lex_h __nj = {  "nj",
X                  57,     1,&__cu };
Xstruct
X_lex_h __bold = {  "bold",
X                   3,     0,NULL };
Xstruct
X_lex_h __break = {  "break",
X                  15,     1,&__bold };
Xstruct
X_lex_h __header = {  "header",
X                  37,     0,&__break };
Xstruct
```

```
X_lex_h __lm = {  "lm",
X                  39,     1,&__header };
Xstruct
X_lex_h __define = {  "define",
X                  25,     0,NULL };
Xstruct
X_lex_h __nap = {  "nap",
X                 101,     1,&__define };
Xstruct
X_lex_h __pl = {  "pl",
X                  69,     0,NULL };
Xstruct
X_lex_h __get = {  "get",
X                  95,     0,&__pl };
Xstruct
X_lex_h __ti = {  "ti",
X                  81,     0,NULL };
Xstruct
X_lex_h __vg = {  "vg",
X                  95,     0,&__ti };
Xstruct
X_lex_h __np = {  "np",
X                  13,     0,NULL };
Xstruct
X_lex_h __pn = {  "pn",
X                  97,     0,&__np };
Xstruct
X_lex_h __fill = {  "fill",
X                  33,     1,NULL };
Xstruct
X_lex_h __ju = {  "ju",
X                  41,     0,&__fill };
Xstruct
X_lex_h __ls = {  "ls",
X                  43,     0,&__ju };
Xstruct
X_lex_h __po = {  "po",
X                  71,     0,&__ls };
Xstruct
X_lex_h __rm = {  "rm",
X                  73,     1,&__po };
Xstruct
X_lex_h __nr = {  "nr",
X                  59,     0,NULL };
Xstruct
X_lex_h __lt = {  "lt",
X                 107,     1,&__nr };
Xstruct
X_lex_h __ul = {  "ul",
X                  83,     0,NULL };
Xstruct
X_lex_h __spc = {  "spc",
X                  43,     1,NULL };
```

```
Xstruct
X_lex_h __so = {  "so",
X                  75,     0,&__spc };
Xstruct
X_lex_h __ps = {  "ps",
X                  69,     1,NULL };
Xstruct
X_lex_h __sp = {  "sp",
X                  77,     0,&__ps };
Xstruct
X_lex_h __left = {  "left",
X                  81,     1,&__sp };
Xstruct
X_lex_h __tp = {  "tp",
X                  53,     1,NULL };
Xstruct
X_lex_h __ou = {  "ou",
X                  61,     0,&__tp };
Xstruct
X_lex_h __req = {  "req",
X                  75,     1,&__ou };
Xstruct
X_lex_h __lx = {  "lx",
X                  89,     0,&__req };
Xstruct
X_lex_h __rs = {  "rs",
X                  87,     0,NULL };
Xstruct
X_lex_h __lex = {  "lex",
X                  89,     0,&__rs };
Xstruct
X_lex_h __paging = {  "paging",
X                  11,     1,NULL };
Xstruct
X_lex_h __st = {  "st",
X                  79,     0,NULL };
Xstruct
X_lex_h __save = {  "save",
X                  85,     0,&__st };
Xstruct
X_lex_h __set = {  "set",
X                  93,     0,NULL };
Xstruct
X_lex_h __sv = {  "sv",
X                  85,     0,NULL };
Xstruct
X_lex_h __vs = {  "vs",
X                  93,     0,&__sv };
Xstruct
X_lex_h __wr = {  "wr",
X                 111,     0,&__vs };
Xstruct
X_lex_h __skip = {  "skip",
```

```
X                  77,     1,NULL };
Xstruct
X_lex_h __include = {  "include",
X                  75,     0,NULL };
Xstruct
X_lex_h __center = {  "center",
X                  21,     0,NULL };
Xstruct
X_lex_h __spacing = {  "spacing",
X                  43,     1,&__center };
Xstruct
X_lex_h __nofill = {  "nofill",
X                  55,     0,NULL };
Xstruct
X_lex_h __ignore = {  "ignore",
X                  91,     0,&__nofill };
Xstruct
X_lex_h __reset = {  "reset",
X                   1,     0,NULL };
Xstruct
X_lex_h __offset = {  "offset",
X                  71,     0,&__reset };
Xstruct
X_lex_h __literal = {  "literal",
X                 107,     1,NULL };
Xstruct
X_lex_h __enablebolding = {  "enablebolding",
X                   7,     1,NULL };
Xstruct
X_lex_h __nopaging = {  "nopaging",
X                  13,     1,NULL };
Xstruct
X_lex_h __footer = {  "footer",
X                  35,     0,NULL };
Xstruct
X_lex_h __outend = {  "outend",
X                  63,     0,&__footer };
Xstruct
X_lex_h __write = {  "write",
X                 111,     0,&__outend };
Xstruct
X_lex_h __pagesize = {  "pagesize",
X                  69,     1,NULL };
Xstruct
X_lex_h __source = {  "source",
X                  75,     0,NULL };
Xstruct
X_lex_h __m1 = {  "m1",
X                  45,     0,NULL };
Xstruct
X_lex_h __disablebolding = {  "disablebolding",
X                   5,     1,NULL };
Xstruct
```

```
X_lex_h __m2 = {  "m2",
X                  47,     0,&__disablebolding };
Xstruct
X_lex_h __m3 = {  "m3",
X                  49,     0,NULL };
Xstruct
X_lex_h __contline = {  "contline",
X                 103,     0,&__m3 };
Xstruct
X_lex_h __endliteral = {  "endliteral",
X                 109,     1,&__contline };
Xstruct
X_lex_h __m4 = {  "m4",
X                  51,     0,NULL };
Xstruct
X_lex_h __testpage = {  "testpage",
X                  53,     1,&__m4 };
Xstruct
X_lex_h __pagenumber = {  "pagenumber",
X                  97,     0,NULL };
Xstruct
X_lex_h __leftmargin = {  "leftmargin",
X                  39,     1,NULL };
Xstruct
X_lex_h __require = {  "require",
X                  75,     1,&__leftmargin };
Xstruct
X_lex_h __skipto = {  "skipto",
X                  79,     0,NULL };
Xstruct
X_lex_h __underline = {  "underline",
X                  83,     0,&__skipto };
Xstruct
X_lex_h __restore = {  "restore",
X                  87,     0,NULL };
Xstruct
X_lex_h __rightmargin = {  "rightmargin",
X                  73,     1,NULL };
Xstruct
X_lex_h __justify = {  "justify",
X                  41,     1,NULL };
Xstruct
X_lex_h __output = {  "output",
X                  61,     0,NULL };
Xstruct
X_lex_h __autoparagraph = {  "autoparagraph",
X                  99,     1,NULL };
Xstruct
X_lex_h __printcont = {  "printcont",
X                 105,     0,NULL };
Xstruct
X_lex_h __bd = {  "bd",
X                   3,     0,NULL };
```

```
Xstruct
X_lex_h __db = {  "db",
X                   5,     0,&__bd };
Xstruct
X_lex_h __cc = {  "cc",
X                  19,     0,&__db };
Xstruct
X_lex_h __eb = {  "eb",
X                   7,     0,NULL };
X
X
X/*  Hash Table */
X
Xstruct _lex_h *lextab[100] = {
X    &__ec,
X    &__de,   &__f,    &__nojustify, NULL,
X    &__he,   &__j,    &__cl,   &__ig,
X    &__el,   &__bp,   &__pc,   &__noautoparagraph,
X    &__of,   NULL,    &__s,    &__nj,
X    &__lm,   NULL,    &__nap,  &__get,
X    &__vg,   &__pn,   &__rm,   &__lt,
X    &__ul,   &__so,   &__left, &__lx,
X    &__lex,  &__paging,    &__save, &__set,
X    &__wr,   NULL,    NULL,    NULL,
X    NULL,    NULL,    &__skip, &__include,
X    &__spacing,   NULL,    NULL,    &__ignore,
X    NULL,    NULL,    &__offset,    NULL,
X    &__literal,   &__enablebolding,  &__nopaging,  NULL,

X    NULL,    NULL,    &__write,&__pagesize,
X    &__source,    &__m1,   &__m2,   &__endliteral,
X    &__testpage,  &__pagenumber,    NULL,    NULL,
X    &__require,   &__underline, NULL,    NULL,
X    NULL,    NULL,    NULL,    &__restore,
X    NULL,    NULL,    NULL,    NULL,
X    NULL,    NULL,    NULL,    &__rightmargin,
X    NULL,    &__justify,   NULL,    NULL,
X    NULL,    NULL,    NULL,    NULL,
X    &__output,    NULL,    &__autoparagraph,  NULL,
X    &__printcont, NULL,    NULL,    NULL,
X    NULL,    &__cc,   &__eb   };
SHAR_EOF
if test 9281 -ne "`wc -c 'lextab.h'`"
then
     echo shar: error transmitting "'lextab.h'" '(should have been 9281
characters)'
fi
echo shar: extracting "'lnk'" '(110 characters)'
if test -f 'lnk'
then
     echo shar: over-writing existing file "'lnk'"
fi
sed 's/^X//' << \SHAR_EOF > 'lnk'
```

```
Xproff.68k=gems,proff,proff01,proff02,lookup,pinit,putwrd,pxlex,\
Xpxxparse,dostuff2,eval,stack,map,gemlib,libf
SHAR_EOF
if test 110 -ne "`wc -c 'lnk'`"
then
     echo shar: error transmitting "'lnk'" '(should have been 110 characters)'
fi
echo shar: extracting "'look.c'" '(3051 characters)'
if test -f 'look.c'
then
     echo shar: over-writing existing file "'look.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'look.c'
X/*
X * from K&R "The C Prograamming language"
X * Table lookup routines
X *
X */
X#define INLOOK 1
X
X#include <stdio.h>
X#include "lookup.h"
X
Xextern struct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
X/*
X * hash - for a hash value for string s
X *
X */
Xint hash(s)
Xchar *s;
X{
X    int  hashval;
X
X    for (hashval = 0; *s != '\0';)
X         hashval += *s++;
X    return (hashval % HASHMAX);
X}
X
X/*
X * lookup - lookup for a string s in the hash table
X *
X */
Xstruct hashlist
X*lookup(s, hashtab)
Xchar *s;
Xstruct hashlist *hashtab[];
X{
X    struct hashlist *np;
X
X    for (np = hashtab[hash(s)]; np != NULL; np = np->next)
X         if (strcmp(s, np->name) == 0)
```

```
X             return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * install - install a string name in hashtable and its value def
X * at a given hashtable.
X */
Xstruct hashlist
X*install(name,def,hashtab)
Xchar *name;
Xchar *def;
Xstruct hashlist *hashtab[];
X{
X    int hashval;
X    struct hashlist *np, *lookup();
X    char *strsave(), *malloc();
X
X    if ((np = lookup(name, hashtab)) == NULL) {    /* not found.. */
X         np = (struct hashlist *) malloc(sizeof(*np));
X                   if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->next = hashtab[hashval];
X         hashtab[hashval] = np;
X    } else                        /* found..     */
X         free(np->def);               /* free prev.  */
X    if ((np->def = strsave(def)) == NULL)
X         return(NULL);
X    return(np);
X}
X
X/*
X * strsave - save string s somewhere
X *
X */
Xchar
X*strsave(s)
Xchar *s;
X{
X    char *p, *malloc();
X    register int n;
X
X    n = strlen(s) + 1;
X    if ((p = malloc(n)) != NULL)
X              strcpy(p, s);
X    return(p);
X}
X
X/*
X * lexinstal - instal a string name in hashtable and its value
```

```
X *         used by lexical analyser to quickly match a token
X *         and return its lexical value.
X *
X */
Xstruct lexlist
X*lexinstal(name,val,flag,lextable)
Xchar *name;
Xint val;
Xint flag;
Xstruct lexlist *lextable[];
X{
X    int hashval;
X    struct lexlist *np,*lexlook();
X    char *strsave(), *malloc();
X
X    if ((np = lexlook(name,lextable)) == NULL) {   /* not found.. */
X         np = (struct lexlist *) malloc(sizeof(*np));
X         if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->link = lextable[hashval];
X         lextable[hashval] = np;
X    }
X    np->val = val;                   /* replace prev */
X    np->flag = flag;
X    return(np);
X}
X
X/*
X * lexlook - lookup for a string s in the hash table
X *       used by lexinstal only.
X *
X */
Xstruct lexlist
X*lexlook(s,table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np;
X
X    for (np = table[hash(s)]; np != NULL; np = np->link)
X         if (strcmp(s, np->name) == 0)
X              return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * remove an item from the hash table forever
X *
X */
Xstruct lexlist
```

```
X*remove(s, table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np, *xp;
X
X    np = table[hash(s)];
X    xp = np;
X    while (np != NULL) {
X         if (strcmp(s, np->name) == 0) {
X              xp->link = np->link;    /* remoe the link */
X              return(np);        /* return the lost */
X         }
X         xp = np;
X         np = np->link;
X    }
X    return(NULL);
X}
X
SHAR_EOF
if test 3051 -ne "`wc -c 'look.c'`"
then
     echo shar: error transmitting "'look.c'" '(should have been 3051 characters)'
fi
echo shar: extracting "'lookup.c'" '(3122 characters)'
if test -f 'lookup.c'
then
     echo shar: over-writing existing file "'lookup.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'lookup.c'
X/*
X * from K&R "The C Programming language"
X * Table lookup routines
X *
X */
X#define INLOOK 1
X
X#include <stdio.h>
X#include "proff.h"
X
Xstruct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
X/*
X * hash - for a hash valuue for string s
X *
X */
Xint hash(s)
Xchar *s;
X{
X    int  hashval;
X
X    for (hashval = 0; *s != '\0';)
```

```
X        hashval += *s++;
X    return (hashval % HASHMAX);
X}
X
X/*
X * lookup - lookup for a string s in the hash table
X *
X */
Xstruct hashlist
X*lookup(s, hashtab)
Xchar *s;
Xstruct hashlist *hashtab[];
X{
X    struct hashlist *np;
X
X    for (np = hashtab[hash(s)]; np != NULL; np = np->next)
X        if (strcmp(s, np->name) == 0)
X            return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * install - install a string name in hashtable and its value def
X * at a given hashtable.
X */
Xstruct hashlist
X*install(name,def,hashtab)
Xchar *name;
Xchar *def;
Xstruct hashlist *hashtab[];
X{
X    int hashval;
X    struct hashlist *np, *lookup();
X    char *strsave(), *malloc();
X
X    if ((np = lookup(name, hashtab)) == NULL) {    /* not found.. */
X        np = (struct hashlist *) malloc(sizeof(*np));
X        p_memoryus += sizeof(*np);
X        if (np == NULL)
X            return(NULL);
X        if ((np->name = strsave(name)) == NULL)
X            return(NULL);
X        hashval = hash(np->name);
X        np->next = hashtab[hashval];
X        hashtab[hashval] = np;
X    } else                      /* found..     */
X        free(np->def);              /* free prev.  */
X    if ((np->def = strsave(def)) == NULL)
X        return(NULL);
X    return(np);
X}
X
X/*
```

```
X * strsave - save string s somewhere
X *
X */
Xchar
X*strsave(s)
Xchar *s;
X{
X    char *p, *malloc();
X    register int n;
X
X    n = strlen(s) + 1;
X    if ((p = malloc(n)) != NULL) {
X         p_memoryus += n;
X         strcpy(p, s);
X    }
X    return(p);
X}
X
X/*
X * lexinstal - instal a string name in hashtable and its value
X *         used by lexical analyser to quickly match a token
X *         and return its lexical value.
X *
X */
Xstruct lexlist
X*lexinstal(name,val,flag,lextable)
Xchar *name;
Xint val;
Xint flag;
Xstruct lexlist *lextable[];
X{
X    int hashval;
X    struct lexlist *np,*lexlook();
X    char *strsave(), *malloc();
X
X    if ((np = lexlook(name,lextable)) == NULL) {   /* not found.. */
X         np = (struct lexlist *) malloc(sizeof(*np));
X         p_memoryus += sizeof(*np);
X         if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->link = lextable[hashval];
X         lextable[hashval] = np;
X    }
X    np->val = val;                   /* replace prev */
X    np->flag = flag;
X    return(np);
X}
X
X/*
X * lexlook - lookup for a string s in the hash table
```

```
X *       used by lexinstal only.
X *
X */
Xstruct lexlist
X*lexlook(s,table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np;
X
X    for (np = table[hash(s)]; np != NULL; np = np->link)
X         if (strcmp(s, np->name) == 0)
X         return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * remove an item from the hash table forever
X *
X */
Xstruct lexlist
X*remove(s, table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np, *xp;
X
X    np = table[hash(s)];
X    xp = np;
X    while (np != NULL) {
X         if (strcmp(s, np->name) == 0) {
X              xp->link = np->link;    /* remove the link */
X              return(np);        /* return the lost */
X         }
X         xp = np;
X         np = np->link;
X    }
X    return(NULL);
X}
X
SHAR_EOF
if test 3122 -ne "`wc -c 'lookup.c'`"
then
     echo shar: error transmitting "'lookup.c'" '(should have been 3122
characters)'
fi
echo shar: extracting "'lookup.h'" '(463 characters)'
if test -f 'lookup.h'
then
     echo shar: over-writing existing file "'lookup.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'lookup.h'
X/*
```

```
X * from K&R "The C Programming language"
X * Table lookup routines
X * structure and definitions
X *
X */
X
X                       /* basic table entry */
Xstruct hashlist {
X    char *name;
X    char *def;
X    struct   hashlist *next;        /* next in chain     */
X};
X                       /* basic table entry */
Xstruct lexlist {
X    char *name;
X    int  val;          /* lexical value     */
X    int  flag;              /* optional flag val */
X    struct   lexlist  *link;        /* next in chain     */
X};
X
X
X#define HASHMAX   100           /* size of hashtable */
SHAR_EOF
if test 463 -ne "`wc -c 'lookup.h'`"
then
     echo shar: error transmitting "'lookup.h'" '(should have been 463
characters)'
fi
echo shar: extracting "'ltb.c'" '(6581 characters)'
if test -f 'ltb.c'
then
     echo shar: over-writing existing file "'ltb.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'ltb.c'
X/*
X * ltb.c - Lexical Table Builder
X *
X * Functional description:
X *
X *  This program builds a file containing the data
X *  structures of a compile-time-initialised hash table.
X *  This hash table may later be used for lexical analysis,
X *  where number of symbols to look up is sufficiently large
X *  to avoid a run-time table initialization.
X *  In order to guarantee the success of this setup, the
X *  hash routine, the lookup and install routines should be
X *  the same between ltb and the lexical analysis.
X *
X * synopsis:
X *
X *  ltb <input file> [table name]
X *
X * input file format:
```

```
X *
X *  <token>  <value identifier> [flag value]
X *
X *  token:        string of alphanumeric characters to be
X *                matched by the lexical analyser (no blanks).
X *           these token strings are "installed" to a hash
X *           table by ltb to avoid run-time overhead.
X *  value
X *  identifier:   A constant name to be used internally by the
X *           lexical analyser in place of the actual
X *           token value. a "#define <indentifier> <value>"
X *           is generated for each value identifier, where
X *           value is an odd and unique integer constant. If
X *           the value identifier is a `*' (star), then the
X *           previous value is repeated. Thus:
X *
X *                 token   ident.   flag
X *
X *                sp   SP   1
X *                space    *        { inherits SP  }
X *                blank    *        { inherits SP  }
X *                .    .    .
X *                .    .    .
X *
X *  flag value:   An additional integer field to pass flags etc. to
X *           the lexical analyser. If not specified, set to
X *           0. token value field must be present for this field
X *           to be obtained.
X *
X * outputs:
X *
X *  ltb generates two C include files:
X *
X *      [tablename].d:  compile time lexical constants (defines)
X *      [tablename].h:     initialised hash table.
X *
X *  where [tablename] is the name of the hash table as specified
X *  in the command line of ltb. If not specified, "lextab" is used
X *  as a default.
X *
X * routines used by LTB:
X *
X *  hash, lookup and a modified version of install routines,
X *  as defined in K&R, pp. 134 - 136.
X *
X * Application areas:
X *
X *  Lexical analysers for compilers, interpreters, spelling
X *  checkers.
X *
X * Author:
X *  Ozan S. Yigit
X *  Dept. of Computer Science
```

```
X *  York University
X *
X */
X
X#define MAXLINE       80
X#define MAXSYM        80
X
X#include <stdio.h>
X#include <ctype.h>
X#include "lookup.h"
X
Xstruct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
Xstatic struct lexlist *hashtab[HASHMAX];
Xstatic struct lexlist *defitab[HASHMAX];
X
Xchar *tabnam;         /* table name */
X
Xextern int hash();
Xextern struct hashlist *lookup();
Xextern struct hashlist *install();
Xextern char *strsave();
Xextern struct lexlist *lexinstal();
Xextern struct lexlist *lexlook();
Xextern struct lexlist *remove();
Xextern FILE *fopen(), *fclose();
X
Xmain(argc,argv)
Xint argc;
Xchar *argv[];
X{
X    FILE *fp;
X    char line[MAXLINE];
X    char sym[MAXSYM],def[MAXSYM];
X    register int val;
X    register int prev, *p;
X    register char *ptr;
X    int flag;
X    struct lexlist *np, *lexlook();
X
X    if (argc <= 2) {
X         fprintf(stderr,"%s [-<base>] <symbol file> [tablename]\r\n",
X         argv[0]);
X         exit(1);
X    }
X
X    if (*argv[1] == '-') {
X         val = atoi(argv[1]+1); /* skip "-" and convert */
X         val = (val & 1) ? val : val+1;
X         p = (int *)argv[2];
X    }
X    else {
```

```
X        val = 1;
X        p = (int *)argv[1];
X    }
X
X    if (argc < 3)
X        tabnam = "lextab";
X    else
X        tabnam = argv[argc-1];
X
X    if ((fp = fopen(p,"r")) == NULL) {
X        fprintf(stderr,"%s:cannot open.\r\n",argv[1]);
X        exit(1);
X    }
X    else {
X        prev = val;
X        while (fgets(line,MAXLINE,fp) != NULL) {
X            if (*line != '!') {
X                flag = 0;
X                def[0] = '\0';
X                ptr = line;
X                while (isspace(*ptr))
X                    ptr++;
X                if (*ptr == '\0')
X                    continue;
X                sscanf(line,"%s %s %d",sym,def,&flag);
X                if (!(def[0] == '*' && def[1] == '\0')) {
X                    if ((np = lexlook(def,defitab)) == NULL) {
X                        /* value define  */
X                        lexinstal(def,val,0,defitab);
X                        prev = val;
X                        val += 2;
X                    }
X                    else
X                        prev = np->val;
X                }
X                 /* lexical token */
X                lexinstal(sym,prev,flag,hashtab);
X            }
X        }
X        defgen();
X        lexgen();
X    }
X}
X/*
X * lexgen - print out the hash table in static form
X *
X */
Xlexgen()
X{
X    register int i;
X    register struct lexlist *np;
X    char filebuf[12];
X    char *file;
```

```
X    FILE *op;
X
X    file = filebuf;
X
X    strncpy(file,tabnam,8);
X    strcat(file,".h");
X
X    if ((op = fopen(file,"w")) == NULL) {
X         fprintf(stderr,"%s: cannot create.\r\n",file);
X         exit(1);
X    }
X
X    fprintf(op,"#ifndef STRUC_DEFINED\n\n");
X    fprintf(op,"\/\*\t%s\t\*\/\n\n%s\n%s\n%s\n%s\n%s\n",file,
X    "struct _lex_h {   char     *__s;",
X    "             int   __v;",
X    "             int       __f;",
X    "         struct  _lex_h  *__l;",
X    "};");
X    fprintf(op,"\n#define STRUC_DEFINED\n#endif\n");
X
X    /*
X              * generate the hash table entries.
X              * each entry is followed by the next entry in its
X              * chain.
X              * In the operating systems with memory paging, this
X              * should have the extra advantage of localized
X              * memory referances.
X              *
X     */
X
X    for (i=0; i < HASHMAX; i++)
X         if ((np = hashtab[i]) != NULL)
X              prnode(np,op);
X    /*
X              * At last, we generate the pointer array (hashtable).
X              * this table should be assigned to lextable global
X              * variable before using with lexlook() or lexinstal().
X              * lextable is defined in lookup.h
X              *
X     */
X
X    fprintf(op,"\n\n\/\*  Hash Table \*\/\n\n");
X    fprintf(op,"struct _lex_h *%s[%d] = {\n\t",tabnam,HASHMAX);
X    for (i=0; i < HASHMAX - 1; i++) {
X         np = hashtab[i];
X         if(np == NULL)
X              fprintf(op,"NULL,\t");
X         else
X              fprintf(op,"\&__%s,\t", np->name);
X         if (i % 4 == 0)
X              fprintf(op,"\n\t");
X    }
```

```
X    np = hashtab[i];
X    if (np == NULL)
X         fprintf(op,"NULL  };\n");
X    else
X         fprintf(op,"\&__%s   };\n", np->name);
X
X    fclose(op);
X}
X
X/*
X * prnode - print the current node. This routine is
X *      recursive such that printing starts from
X *      the end of the given list
X *
X */
Xprnode(np,op)
Xregister struct
Xlexlist *np;
XFILE *op;
X{
X    if (np->link != NULL)
X         prnode(np->link,op);
X    fprintf(op,"struct\n_lex_h __%s = {  ",
X    np->name);
X    fprintf(op,"\"%s\",\n              %6d,%6d,",
X    np->name,
X    np->val,
X    np->flag);
X    if (np->link != NULL)
X         fprintf(op,"\&__%s };\n",
X         (np->link)->name);
X    else
X         fprintf(op,"NULL };\n");
X}
X
X/*
X * defgen - generate a file containing the lexical
X *      constants to be equated to lexical symbols
X */
Xdefgen()
X{
X    register int i;
X    register struct lexlist *np;
X    char *file;
X    char filebuf[12];
X    FILE *op;
X
X    file = filebuf;
X    strncpy(file,tabnam,8);
X    strcat(file,".d");
X
X    if ((op = fopen(file,"w")) == NULL) {
X         fprintf(stderr,"%s: cannot create.\r\n",file);
```

```
X         exit(1);
X    }
X    for (i=0; i < HASHMAX; i++) {
X         for (np = defitab[i]; np != NULL; np = np->link)
X              fprintf(op,"\#define  %s\t%d\n",
X              np->name,
X              np->val);
X    }
X    fclose(op);
X}
X
SHAR_EOF
if test 6581 -ne "`wc -c 'ltb.c'`"
then
     echo shar: error transmitting "'ltb.c'" '(should have been 6581 characters)'
fi
echo shar: extracting "'make.sh'" '(426 characters)'
if test -f 'make.sh'
then
     echo shar: over-writing existing file "'make.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'make.sh'
Xcc -c -DDECL ltb.c
Xcc -c -DDECL look.c
Xlink68 ltb.68k=gems,ltb.o,look.o,gemlib,libf
Xrelmod ltb
Xltb proffsym.new lextab
Xcc -c -DDECL proff.c
Xcc -c -DDECL proff01.c
Xcc -c -DDECL proff02.c
Xcc -c -DDECL lookup.c
Xcc -c -DDECL pinit.c
Xcc -c -DDECL putwrd.c
Xcc -c -DDECL pxlex.c
Xcc -c -DDECL pxxparse.c
Xcc -c -DDECL dostuff2.c
Xcc -c -DDECL eval.c
Xcc -c -DDECL map.c
Xcc -c -DDECL stack.c
Xlink68 [u,com[lnk]]
Xrelmod proff
Xrm proff.68k
SHAR_EOF
if test 426 -ne "`wc -c 'make.sh'`"
then
     echo shar: error transmitting "'make.sh'" '(should have been 426 characters)'
fi
echo shar: extracting "'makefile'" '(376 characters)'
if test -f 'makefile'
then
     echo shar: over-writing existing file "'makefile'"
fi
sed 's/^X//' << \SHAR_EOF > 'makefile'
```

```
XCFLAGS=-O
XOBJS=   proff.o proff01.o proff02.o lookup.o pinit.o putwrd.o\
X    pxlex.o pxxparse.o dostuff2.o eval.o stack.o map.o
Xproff: $(OBJS)
X    cc -s -o proff $(OBJS)
X
X$(OBJS): lextab.h lextab.d
X
Xlextab.h lextab.d: proffsym.new ltb
X    ltb proffsym.new lextab
X
Xltb: ltb.o look.o
X    cc -s -o ltb ltb.o look.o
Xclean:
X    rm proff *.o
Xarch:
X    ./archc Makefile *.c *.h proffsym.new >proff.arc
SHAR_EOF
if test 376 -ne "`wc -c 'makefile'`"
then
     echo shar: error transmitting "'makefile'" '(should have been 376
characters)'
fi
echo shar: extracting "'map.c'" '(1222 characters)'
if test -f 'map.c'
then
     echo shar: over-writing existing file "'map.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'map.c'
X#include <stdio.h>
X/*
X * map map every character of s1 that is specified in s2
X * into s3 and replace in s. (source s1 remains untouched)
X */
X
Xmap(s,s1,s2,s3)
Xregister char *s;
Xregister char *s1;
Xregister char *s2;
Xregister char *s3;
X{
X    char *t, *t1;
X    if (*s1 != '\0') {
X         t = s;
X         t1 = s1;
X         strcpy(t,t1);
X
X         while (*s2 != '\0' && *s3 != '\0') {
X              while (*t1 != '\0') {
X                   if (*t1 == *s2)
X                        *t = *s3;
X                   t++;
X                   t1++;
```

```
X             }
X             t = s;
X             t1 = s1;
X             s2++;
X             s3++;
X         }
X    }
X    else
X         *s = '\0';
X}
X
X/*
X * roman - convert a numeric string into roman numerals
X *
X * icon version:
X *procedure roman(n)
X * local arabic, result
X * static equiv
X * initial equiv := ["","I","II","III","IV","V","VI","VII","VIII","IX"]
X * integer(n) > 0 | fail
X * result := ""
X * every arabic := !n do
X *    result := map(result,"IVXLCDM","XLCDM**") || equiv[arabic+1]
X * if find("*",result) then fail else return result
X * end
X *
X */
Xint
Xcvtroman(num,rom)
Xchar *num;
Xchar *rom;
X{
X    char tmp[20];
X
Xstatic char *equiv_U[] = { "","I","II","III","IV","V","VI","VII","VIII","IX" };
X
X    *rom = NULL;
X    while (*num != '\0') {
X         map(tmp,rom,"IVXLCDM","XLCDM**");
X         strcpy(rom,tmp);
X         strcat(rom,equiv_U[*num - '0']);
X         num++;
X    }
X    return(strlen(rom));
X}
X
SHAR_EOF
if test 1222 -ne "`wc -c 'map.c'`"
then
     echo shar: error transmitting "'map.c'" '(should have been 1222 characters)'
fi
#    End of shell archive
exit 0
```

--

 _________ ______ ____ _____ ___
/_________//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ____________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 2731826058462863108
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522de78713dda03c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:55:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Proff repost (2 of 4)
Message-ID: <1337@trwrb.UUCP>
Date: Tue, 7-Oct-86 15:55:34 EDT
Article-I.D.: trwrb.1337
Posted: Tue Oct 7 15:55:34 1986
Date-Received: Wed, 8-Oct-86 08:10:37 EDT
References: <8610061437.AA18001@ucbvax>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 3509


```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    pinit.c
#    proff.c
#    proff.h
#    proff01.c
#    proff02.c
#    proffman.prf
#    proffsym.new
# This archive created: Fri Mar 21 22:45:05 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'pinit.c'" '(1231 characters)'
if test -f 'pinit.c'
then
     echo shar: over-writing existing file "'pinit.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pinit.c'
X#include <stdio.h>
```

```
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X/*
X * finit - initialise parameters, set default values
X *     used by .reset command
X *
X */
Xfinit()
X{
X    int i;
X
X    inval = 0;
X    rmval = PAGEWIDTH;
X    tival = 0;
X    lsval = 1;
X    fill = YES;
X    ceval = 0;
X    ulval = 0;
X    boval = 0;
X    cchar = '.';
X    genesc = '_';
X    tjust[0] = LEFT;
X    tjust[1] = CENTER;
X    tjust[2] = RIGHT;
X    bsval = 0;
X    rjust = YES;
X    ulblnk = BLANK;
X
X    for (i = 0; i < INSIZE; i++)
X        if (i % 8 == 0)
X            tabs[i] = YES;
X        else
X            tabs[i] = NO;
X
X    lineno = 0;
X    curpag = 0;
X    newpag = 1;
X    plval = PAGELEN;
X    m1val = 3;
X    m2val = 2;
X    m3val = 2;
X    m4val = 3;
X    bottom = plval - m3val - m4val;
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
```

```
X    ehlim[0] = inval;
X    ehlim[1] = rmval;
X    ohlim[0] = inval;
X    ohlim[1] = rmval;
X    eflim[0] = inval;
X    eflim[1] = rmval;
X    oflim[0] = inval;
X    oflim[1] = rmval;
X    verbose = NO;
X    stopx = 0;
X    frstpg = 0;
X    lastpg = HUGE;
X    print = YES;
X    offset = 0;
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X    bp = -1;
X    for (i = 0; i < 26; i++)
X         nr[i] = 0;
X
X    CEon = FALSE;
X    ULon = FALSE;
X    BDon = FALSE;
X
X    onlyrunoff = FALSE;
X    roman = FALSE;
X    bolding = YES;
X    autopar = NO;
X}
SHAR_EOF
if test 1231 -ne "`wc -c 'pinit.c'`"
then
     echo shar: error transmitting "'pinit.c'" '(should have been 1231
characters)'
fi
echo shar: extracting "'proff.c'" '(9415 characters)'
if test -f 'proff.c'
then
     echo shar: over-writing existing file "'proff.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.c'
Xchar *version = "v.1.1";
X
X#define GLOBALS 1
X
X#include <stdio.h>
X#include <ctype.h>
X#include "debug.h"
X#include "defs.h"
X#include "lookup.h"
X
X#define brk brrk
```

```
X
X/*
X * G L O B A L S
X *
X */
X#ifndef vms
X#define globaldef
X#endif
X
X    /* next available char; init = 0 */
Xglobaldef int bp = -1;
X    /* pushed-back characters */
Xglobaldef char buf[BUFSIZE];
X    /* stack of file descriptors */
Xglobaldef FILE *infile[NFILES];
X    /* current file is infile[level] */
Xglobaldef int level;
X    /* stack of output file descriptors */
Xglobaldef FILE *outfile[NFILES];
X    /* current output is outfile[olevel]; */
Xglobaldef int olevel;
X    /* current output file pointer */
Xglobaldef FILE *poutput;
X    /* number registers a..z */
Xglobaldef int nr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* system registers a..z */
Xglobaldef int sr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* last char position in outbuf; init = 0 */
Xglobaldef int outp = 0;
X    /* width of text currently in outbuf; init = 0 */
Xglobaldef int outw = 0;
X    /* number of words in outbuf; init = 0 */
Xglobaldef int outwds = 0;
X    /* lines to be filled collect here */
Xglobaldef char outbuf[MAXOUT];
X                       /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xglobaldef int curpag = 0;
X    /* next output page number; init = 1 */
Xglobaldef int newpag = 1;
X    /* next line to be printed; init = 0 */
Xglobaldef int lineno = 0;
X    /* page length in lines; init = PAGELEN = 66 */
Xglobaldef int plval = PAGELEN;
X    /* page length save area */
Xglobaldef int savpl = PAGELEN;
X    /* margin before and including header */
Xglobaldef int m1val = 3;
X    /* margin after header */
Xglobaldef int m2val = 2;
X    /* margin after last text line */
```

```
Xglobaldef int m3val = 2;
X    /* bottom margin, including footer */
Xglobaldef int m4val = 3;
X    /* last live line on page, = plval-m3val-m4val */
Xglobaldef int bottom = PAGELEN - 5;
X    /* top of page title for even pages;init=NEWLINE */
Xglobaldef char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xglobaldef char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xglobaldef int ehlim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  header;init=inval,rmval */
Xglobaldef int ohlim[2] = { 0, PAGEWIDTH };
X    /* bot of page title for even pages;init=NEWLINE */
Xglobaldef char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xglobaldef char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xglobaldef int eflim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  footer;init=inval,rmval */
Xglobaldef int oflim[2] = { 0, PAGEWIDTH };
X    /* flag for pausing between pages */
Xglobaldef int stopx = 0;
X    /* first page to begin printing with */
Xglobaldef int frstpg = 0;
X    /* last page to be printed */
Xglobaldef int lastpg = HUGE;
X    /* flag to indicate whether page should be printed */
Xglobaldef int print = YES;
X    /* number of blanks to offset page by; init = 0 */
Xglobaldef int  offset = 0;
X    /* verbose option; init = NO */
Xglobaldef int verbose = NO;
X    /* bolding option; init = YES; */
Xglobaldef char bolding = YES;
X    /* fill if YES; init = YES */
Xglobaldef int fill = YES;
X    /* current line spacing; init = 1 */
Xglobaldef int lsval = 1;
X    /* current indent; >= 0; init = 0 */
Xglobaldef int inval = 0;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xglobaldef int rmval = PAGEWIDTH;
X    /* current temporary indent; init = 0 */
Xglobaldef int tival = 0;
X    /* number of lines to center; init = 0 */
Xglobaldef int ceval = 0;
X    /* flag for continuous center */
Xglobaldef char CEon = FALSE;
X    /* number of lines to underline; init = 0 */
Xglobaldef int ulval = 0;
X    /* flag for continuous underline */
Xglobaldef char ULon = FALSE;
```

```
X    /* number of lines to boldface; init = 0 */
Xglobaldef int boval = 0;
X    /* flag for continuous bolding */
Xglobaldef char BDon = FALSE;
X    /* justification types for heads and foots; */
X    /* init = LEFT, CENTER, RIGHT */
Xglobaldef int tjust[3] = { LEFT, CENTER, RIGHT };
X    /* number of lines to blank suppress; init=0 */
Xglobaldef int bsval = 0;
X    /* right justify filled lines if YES; init=YES */
Xglobaldef int rjust = YES;
X    /* tab stops; init every 8 spaces */
Xglobaldef int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xglobaldef char cchar = '.';
X    /* universal escape - init = UNDERBAR */
Xglobaldef char genesc = '_';
X    /* character used to underline a BLANK; init = BLANK */
Xglobaldef char ulblnk = ' ';
X    /* scratch arrays for use by various routines */
Xglobaldef char tbuf1[MAXLINE];
Xglobaldef char tbuf2[MAXLINE];
Xglobaldef char tbuf3[MAXLINE];
Xglobaldef char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xglobaldef char onlyrunoff = NO;
X    /* Flag to turn paging off */
Xglobaldef char paging = YES;
X    /* page number in roman numerals. Init = NO */
Xglobaldef char roman = NO;
X    /* autopar flag. Init = NO */
Xglobaldef char autopar = NO;
X    /* temporary indent value for autopar */
Xglobaldef int autoprv = 5;
X    /* hash tables for macros and variables */
Xglobaldef struct hashlist *macrotab[HASHMAX];
Xglobaldef struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xglobaldef struct clist *chead = NULL;
Xglobaldef struct clist *clast = NULL;
X    /* keep track of what is done - VERBOSE */
Xglobaldef int p_txtlines = 0;
Xglobaldef int p_outlines = 0;
Xglobaldef int p_outpages = 0;
Xglobaldef int p_memoryus = 0;
X
X
X
X/*
X * M A I N L I N E   OF   P R O F F
X *
X */
X
```

```
Xmain(argc,argv)
Xint argc;
Xchar *argv[];
X{
X        int i,j,val,type;
X        char *p,c;
X        FILE *fp, *fopen();
X
X        for (i = 1; i < argc; i++) {
X                p = argv[i];
X                if (*p == '-') {
X                        ++p;
X                        if (isalpha(*p)) {
X                                c = *p++;
X                                switch(c) {
X
X/* verbose stats */        case 'v':
X                 case 'V':
X                      verbose = TRUE;
X                      break;
X/* runoff only   */        case 'r':
X                 case 'R':
X                      onlyrunoff = TRUE;
X                      break;
X/* stop for page */             case 's':
X                                case 'S':
X                                        stopx = 1;
X                                        break;
X/* page offset   */             case 'p':
X                                case 'P':
X                                        if (*p == 'o' || *p == 'O') {
X                                                p++;
X                                                j = 0;
X                                                val = getval(p, &j, &type);
X                                                set(&offset, val, type, 0, 0,
X                                                    rmval - 1);
X                                        }
X                                        else
X                                                usage();
X                                        break;
X/* include file  */        case 'i':
X                 case 'I': /* simulate .so <filename> */
X                      pbstr("\n");
X                      pbstr(p);
X                      pbstr(".so ");
X                      break;
X
X/* disable some  */        case 'd':
X                 case 'D':
X                      switch (*p) {
X
X                      case 'b':
X                      case 'B':
```

```
X                           bolding = NO;
X                           break;
X                       case 'p':
X                       case 'P':
X                           paging = NO;
X                           break;
X                       default:
X                           break;
X                       }
X                       break;
X
X/* garbage       */             default:
X                                       usage();
X                                   }
X                           }
X                           else
X                         lastpg = atoi(p);
X                 }
X                 else if (*p == '+') {
X                         p++;
X                         if ((frstpg = atoi(p)) == 0)
X                                 usage();
X                 }
X                 else
X                         break;
X         }
X         if (i == argc)
X                 usage();
X         if ((fp = fopen(argv[i], "r")) == NULL) {
X                 fprintf(stderr, "%s: cannot open.\n",argv[i]);
X                 exit(1);
X         }
X
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Input Fp = %ld\n",argv[i],fp);
X#endif
X         if (p = argv[++i]) {
X                 if ((outfile[0] = fopen(p, "w")) == NULL) {
X                         fprintf(stderr,"%s: cannot create.\n\n", p);
X                         exit(1);
X                 }
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Output\n",p);
X#endif
X
X    }
X    else
X    {
X         outfile[0] = stdout;
X#ifdef DEBUG
X    fprintf(stderr,"USing stdout for output\n");
X#endif
X    }
```

```
X
X            /* set output file level */
X    olevel = 0;
X    poutput = outfile[0];
X    /*
X     * some minor initialisation
X     */
X
X    for (i = 0; i < INSIZE; i++)
X        if (i % 8 == 0)
X            tabs[i] = YES;
X        else
X            tabs[i] = NO;
X
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
X
X            /* initialise contents linked list */
X
X    chead = (struct clist *) malloc(sizeof(struct clist));
X    clast = chead;
X    p_memoryus += sizeof(struct clist);
X
X        doroff(fp);
X        brk();
X        if (plval <= 100 && (lineno > 0 | outp > 0))
X                space(HUGE);
X        putchar('\n');
X
X    if(verbose) {
X        fprintf(stderr,"proff read in %6d textlines to produce\n",
X            p_txtlines);
X        fprintf(stderr,"             %6d lines\n",
X            p_outlines);
X        fprintf(stderr,"             %6d pages of formatted text.\n",
X            p_outpages);
X        fprintf(stderr,"\n%d bytes of memory was required\n",
X            p_memoryus);
X        fprintf(stderr,"for internal tables and lists.\n");
X    }
X#ifdef vms
X        exit(1);
X#else
X        exit(0);
X#endif
X}
SHAR_EOF
```

```
if test 9415 -ne "`wc -c 'proff.c'`"
then
     echo shar: error transmitting "'proff.c'" '(should have been 9415
characters)'
fi
echo shar: extracting "'proff.h'" '(4948 characters)'
if test -f 'proff.h'
then
     echo shar: over-writing existing file "'proff.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.h'
X
X
X#include "defs.h"
X#include "lookup.h"
X
X#ifndef GLOBALS
X#ifdef vms
X#define extern globalref
X#endif
X    /* next available char; init = 0 */
Xextern int bp;
X    /* pushed-back characters */
Xextern char buf[BUFSIZE];
X    /* stack of file descriptors */
Xextern FILE *infile[NFILES];
X    /* current file is infile[level] */
Xextern int level;
X    /* stack of output file descriptors */
Xextern FILE *outfile[NFILES];
X    /* current output file is outfile[olevel] */
Xextern int olevel;
X    /* current output file pointer */
Xextern FILE *poutput;
X    /* system registers a..z */
Xextern int nr[26];
X    /* last char position in outbuf; init = 0 */
Xextern int outp;
X    /* width of text currently in outbuf; init = 0 */
Xextern int outw;
X    /* number of words in outbuf; init = 0 */
Xextern int outwds;
X    /* lines to be filled collect here */
Xextern char outbuf[MAXOUT];
X                        /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xextern int curpag;
X    /* next output page number; init = 1 */
Xextern int newpag;
X    /* next line to be printed; init = 0 */
Xextern int lineno;
X    /* page length in lines; init = PAGELEN = 66 */
Xextern int plval;
```

```
X    /* page length save area */
Xextern int savpl;
X    /* margin before and including header */
Xextern int m1val;
X    /* margin after header */
Xextern int m2val;
X    /* margin after last text line */
Xextern int m3val;
X    /* bottom margin, including footer */
Xextern int m4val;
X    /* last live line on page, = plval-m3val-m4val */
Xextern int bottom;
X    /* top of page title for even pages;init=NEWLINE */
Xextern char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xextern char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xextern int ehlim[2];
X    /* left,right margins for odd  header;init=inval,rmval */
Xextern int ohlim[2];
X    /* bot of page title for even pages;init=NEWLINE */
Xextern char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xextern char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xextern int eflim[2];
X    /* left,right margins for odd  footer;init=inval,rmval */
Xextern int oflim[2];
X    /* flag for pausing between pages */
Xextern int stopx;
X    /* first page to begin printing with */
Xextern int frstpg;
X    /* last page to be printed */
Xextern int lastpg;
X    /* flag to indicate whether page should be printed */
Xextern int print;
X    /* number of blanks to offset page by; init = 0 */
Xextern int  offset;
X    /* verbose option; init = FALSE */
Xextern int verbose;
X    /* bolding option; init = YES; */
Xextern char bolding;
X    /* fill if YES; init = YES */
Xextern int fill;
X    /* current line spacing; init = 1 */
Xextern int lsval;
X    /* current indent; >= 0; init = 0 */
Xextern int inval;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xextern int rmval;
X    /* current temporary indent; init = 0 */
Xextern int tival;
X    /* number of lines to center; init = 0 */
```

```
Xextern int ceval;
X    /* flag for continuous center */
Xextern char CEon;
X    /* number of lines to underline; init = 0 */
Xextern int ulval;
X    /* flag for continuous underline */
Xextern char ULon;
X    /* number of lines to boldface; init = 0 */
Xextern int boval;
X    /* flag for continuous bolding */
Xextern char BDon;
X    /* justification types for heads and foots; */
Xextern int tjust[3];          /* init = LEFT, CENTER, RIGHT */
X    /* number of lines to blank suppress; init=0 */
Xextern int bsval;
X    /* right justify filled lines if YES; init=YES */
Xextern int rjust;
X    /* tab stops; init every 8 spaces */
Xextern int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xextern char cchar;
X    /* universal escape - init = UNDERBAR */
Xextern char genesc;
X    /* character used to underline a BLANK; init = BLANK */
Xextern char ulblnk;
X    /* scratch arrays for use by various routines */
Xextern char tbuf1[MAXLINE];
Xextern char tbuf2[MAXLINE];
Xextern char tbuf3[MAXLINE];
Xextern char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xextern char onlyrunoff;
X    /* flag to turn paging off */
Xextern char paging;
X    /* page number in roman numerals. Init = NO */
Xextern char roman;
X    /* autopar flag. Init = NO */
Xextern char autopar;
X    /* temporary indent value for autopar */
Xextern int autoprv;
X    /* hash tables for macros and variables */
Xextern struct hashlist *macrotab[HASHMAX];
Xextern struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xextern struct clist *chead;
Xextern struct clist *clast;
X    /* keep track of the work - VERBOSE opt.*/
X
Xextern int p_txtlines;
Xextern int p_outlines;
Xextern int p_outpages;
Xextern int p_memoryus;
X
```

```
X#ifdef vms
X#undef extern
X#endif
X
X#endif
X
X    /* Why the hell can't people decare the routines they use */
X
X#ifndef INLOOK
Xextern int hash();
Xextern struct hashlist *lookup();
Xextern struct hashlist *install();
Xextern char *strsave();
Xextern struct lexlist *lexinstal();
Xextern struct lexlist *lexlook();
Xextern struct lexlist *remove();
X#endif
X
Xextern char *strcpy(), *strcat(), *malloc();
Xextern unsigned int strlen();
Xextern FILE *fopen(), *fclose();
SHAR_EOF
if test 4948 -ne "`wc -c 'proff.h'`"
then
     echo shar: error transmitting "'proff.h'" '(should have been 4948
characters)'
fi
echo shar: extracting "'proff01.c'" '(11642 characters)'
if test -f 'proff01.c'
then
     echo shar: over-writing existing file "'proff01.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff01.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X#define brk brrk
X
X/*
X * bold - bold face or overstrike a line
X *
X */
Xbold(buf,tbuf,size)
Xchar buf[];
Xchar tbuf[];
Xint  size;
X{
X    int  i,j;
X    dprintf("bold  ");
X
X    j = 0;
```

```
X    for (i = 0; buf[i] != '\n' && j < size - 2; i++) {
X         tbuf[j] = buf[i];
X         j++;
X         if (buf[i] != ' ' && buf[i] != '\t' &&
X             buf[i] != BACKSPACE ) {
X              tbuf[j] = BACKSPACE;
X              tbuf[j+1] = tbuf[j-1];
X              j += 2;
X         }
X    }
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf,tbuf);
X}
X
X/*
X * brk - end current filled line
X *
X */
Xbrk()
X{
X    dprintf("brk  ");
X    if (outp > 0) {
X         outbuf[outp] = '\n';
X         outbuf[outp+1] = EOS;
X         put(outbuf);
X    }
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X}
X
X/*
X * center - center a line by setting tival
X *
X */
Xcenter(buf)
Xchar buf[];
X{
X    int  i;
X
X    dprintf("center  ");
X
X    i = (rmval + tival - width(buf)) / 2;
X    tival = (i > 0) ? i : 0;
X}
X
X/*
X * doroff - format text in file fp
X *
X */
Xdoroff(fp)
XFILE *fp;
```

```
X{
X    char inbuf[INSIZE];
X
X    infile[0] = fp;
X    for (level = 0; level > -1; level--) {
X
X#ifdef DEBUG
Xprintf("doroff: level %d FileP %ld\n",level, infile[level]);
X#endif
X
X         while (ngetln(inbuf, infile[level]) != EOF) {
X              if (inbuf[0] == cchar) /* a command */
X                   command(inbuf);
X              else {
X#ifdef rainbow
X                   if (biosb(2))
X                        exit(0);
X#endif
X                   text(inbuf);
X                   p_txtlines++;
X              }
X         }
X#ifdef DEBUG
Xprintf("doroff: Got EOF level %d FileP %ld\n",level, infile[level]);
X#endif
X
X         if (level > 0 && infile[level] > 0) {
X              fclose(infile[level]);
X              if (verbose)
X                   fprintf(stderr,"       done.\n");
X         }
X    }
X}
X
X/*
X * gettl - copy title from buf to ttl
X *
X * modifies lim
X */
Xgettl(buf,ttl,lim)
Xchar *buf;
Xchar *ttl;
Xint lim[];
X{
X    while (!isspace(*buf))
X         buf++;
X    while (isspace(*buf))
X         buf++;
X    strcpy(ttl,buf);
X    lim[0] = inval;
X    lim[1] = rmval;
X}
X
```

```
X/*
X * getwrb - get a word INCLUDING the trailing blanks
X *
X */
Xint
Xgetwrb(in,i,out)
Xchar in[];
Xchar out[];
Xint *i;
X{
X    int j,k;
X    dprintf("getval  ");
X    k = *i;
X    j = 0;
X    while (in[k] != EOS && in[k] != ' ' &&
X        in[k] != '\t' && in[k] != '\n') {
X         out[j] = in[k];
X         k++;
X         j++;
X    }
X    while (in[k] == ' ') {
X         out[j] = ' ';
X         k++;
X         j++;
X    }
X    *i = k;
X    out[j] = EOS;
X    return(j);
X}
X
X
X/*
X * gfield - get next tab or title field
X *
X */
Xint
Xgfield(buf, i, n, temp, delim)
Xchar buf[];
Xint *i;
Xint n;
Xchar temp[];
Xchar delim;
X{
X    int j,k;
X
X    dprintf("gfield  ");
X    j = 0;
X    k = *i;
X    if (n > 0) {
X         if (buf[k] == delim)
X              k++;
X         while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n' &&
X             j <= n) {
```

```
X             temp[j] = buf[k];
X             j++;
X             k++;
X        }
X    }
X    temp[j] = EOS;
X    while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n')
X         k++;
X    *i = k;
X    return(j);
X}
X
X/*
X * jcopy - scopy without copying EOS
X *
X */
Xjcopy(from, i, to, j)
Xchar from[];
Xchar to[];
Xint i;
Xint j;
X{
X    int k1, k2;
X    dprintf("jcopy  ");
X
X    k1 = i;
X    k2 = j;
X    while (from[k1] != EOS) {
X         to[k2] = from[k1];
X         k1++;
X         k2++;
X    }
X}
X
X/*
X * justfy - justifies string in its tab column
X * */
Xjustfy(in, left, right, type, out)
Xchar in[];
Xchar out[];
Xint left;
Xint right;
Xint type;
X{
X    int j,k, n;
X
X    dprintf("justfy  ");
X    n = width(in);
X    if (type == RIGHT)
X         jcopy(in, 0, out, right-n);
X    else if (type == CENTER) {
X         k = (right+left-n) / 2;
X         j = (k > left) ? k : left;
```

```
X         jcopy(in, 0, out, j);
X    }
X    else
X        jcopy(in, 0, out, left);
X}
X
X/*
X * leadbl - delete leading blanks, set tival
X *
X */
Xleadbl(buf)
Xchar buf[];
X{
X    int i, j;
X
X    dprintf("leadbl  ");
X    brk();
X    for (i = 0; buf[i] == ' '; i++)     /* find 1st non-blank */
X         ;
X    if (buf[i] != '\n')
X         if (autopar) {
X              put("\n");    /* blank line */
X              tival = inval + autoprv;
X         }
X         else
X              tival = inval + i;     /* ??????????? */
X    for (j = 0; buf[i] != EOS; j++) {   /* move line to left */
X         buf[j] = buf[i];
X         i++;
X    }
X    buf[j] = EOS;
X}
X
X/*
X * ngetln - get next line from f into line
X *
X */
Xint
Xngetln(line, f)
Xchar line[];
XFILE *f;
X{
X    int c, i;
X
X#ifdef DEBUG
X    printf("ngetln+++: bp %d\n",bp);
X#endif
X
X    for (i = 0; (c = (bp >= 0) ? buf[bp--] : getc(f)) != EOF; ) {
X         if (i < MAXLINE - 1) {
X              line[i++] = (char) c;
X#ifdef DEBUG
X    printf("ngetln++: i %d c %c %d\n",i,c,c);
```

```
X#endif
X        }
X        if (c == '\n' || c == '\r')
X             break;
X    }
X    line[i] = EOS;
X    if (i == 0 && c == EOF)
X        i = EOF;
X#ifdef DEBUG
X    printf("ngetln: %s (%d, %d) (line)\n",line,strlen(line),i);
X#endif
X    return(i);
X}
X
X/*
X * pbstr - push string back onto input
X *
X */
Xpbstr(in)
Xchar in[];
X{
X
X    int i;
X
X    dprintf("pbstr  ");
X    for (i = strlen(in) - 1; i >= 0; i--)
X        putbak(in[i]);
X}
X
X/*
X * pfoot - put out page footer
X *
X */
Xpfoot()
X{
X
X    dprintf("pfoot  ");
X    skipl(m3val);
X    if (m4val > 0) {
X        if (curpag % 2 == 1)
X             puttl(efoot, eflim, curpag);
X        else
X             puttl(ofoot, oflim, curpag);
X    }
X    if (print == YES)      /* flush the page */
X    {
X        putchar(PAGEJECT); /* ...          */
X        p_outpages++;
X        if (stopx > 0)         /* -s, so flush ^L*/
X             putchar('\n');
X    }
X}
X
```

```
X/*
X * phead - put out page header
X *
X */
Xphead()
X{
X    dprintf("phead  ");
X
X    curpag = newpag;
X    if (curpag >= frstpg && curpag <= lastpg)
X         print = YES;
X    else
X        print = NO;
X    if(stopx > 0 && print == YES)
X         prmpt(&stopx);
X    newpag++;
X    if (m1val > 0) {
X         skipl(m1val-1);
X         if (curpag % 2 == 0)
X              puttl(ehead, ehlim, curpag);
X         else
X              puttl(ohead, ohlim, curpag);
X    }
X    skipl(m2val);
X    lineno = m1val + m2val + 1;
X}
X
X/*
X * prmpt - pause for paper insertion
X * prompt if i == 1; increment i
X *
X */
Xprmpt(i)
Xint *i;
X{
X    int junk,j;
X    static char bellst[2] = { BEL, EOS};
X
X    dprintf("prmpt  ");
X    j = *i;
X    if (j == 1)
X#ifdef rainbow
X         printf("%s\033[7minsert paper and type return\033[0m ",bellst);
X#else
X         printf("%sinsert paper and type return ",bellst);
X#endif
X    else
X         printf(bellst);
X    junk = getchar();
X    *i = ++j;
X}
X
X/*
```

```
X * Put - put out line with proper spacing and indenting
X *
X */
Xput(buf)
Xchar buf[];
X{
X    register int i;
X    dprintf("put  ");
X    if (lineno == 0 || lineno > bottom)
X         phead();
X
X    if ( print == YES ) {
X         if (buf[0] == '\n') {   /* empty line.. */
X              putchar('\n');
X              p_outlines++;
X         }
X         else {
X              for ( i = 1 ; i <= offset ; i++ ) /* page offset */
X                   putchar(' ');
X              for ( i = 1 ; i <= tival ; i++ )  /* indenting   */
X                   putchar(' ');
X
X              while (*buf != '\0') {
X                   putchar(*buf);
X                   buf++;
X              }
X              p_outlines++;
X         }
X    }
X
X    tival = inval;
X    skipl(((lsval-1 < bottom-lineno) ? lsval-1 : bottom-lineno));
X    lineno += lsval;
X
X    if (lineno > bottom)
X         pfoot();
X
X}
X
X/*
X * putbak - push character back onto input
X *
X */
Xputbak(c)
Xchar c;
X{
X    dprintf("putbak  ");
X
X    bp++;
X    if (bp > BUFSIZE)
X         error("too many characters pushed back.\n");
X    buf[bp] = c;
X}
```

```
X
X
X/*
X * puttl - put out title line with optional page number & date
X *
X */
Xputtl(buf, lim, pageno)
Xchar buf[];
Xint lim[];
Xint pageno;
X{
X    char chars[9],cdate[27];
X    char rmstr[MAXTOK];
X    char delim;
X    char *tp;
X    int j;
X    int nc, n, i, left, right, ncd;
X
X    dprintf("puttl  ");
X    if (print == NO)
X         return;
X    left = lim[0];     /* no more +1 here */
X    right = lim[1]; /* no more +1 here */
X    nc = itoc(pageno, chars, MAXCHARS);
X    if (roman) {
X         nc = cvtroman(chars,rmstr);
X         strcpy(chars,rmstr);
X    }
X    getnow(cdate);
X    ncd = strlen(cdate);
X    i = 0;
X    delim = buf[i];
X    for (j = 0; j < right; j++)
X         ttl[j] = ' ';
X    n = 0;
X    do {
X         if (gfield(buf, &i, right-left, tbuf1, delim) > 0) {
X              subst(tbuf1, PAGENUM, tbuf2, chars, nc);
X              subst(tbuf2, CURRENTDATE, tbuf1, cdate, ncd);
X              justfy(tbuf1, left, right, tjust[n], ttl);
X         }
X         n++;      /* update title counter */
X    }
X    while (buf[i] != EOS && buf[i] != '\n' && n != 3);
X
X    for( ; right >= 1 ; right--)
X         if( ttl[right-1] != ' ' )
X              break;
X    ttl[right] = '\n';
X    ttl[right+1] = EOS;
X    for (i = 1; i <= offset; i++)
X         putchar(' ');               /* offset */
X    tp = ttl;
```

```
X    while (*tp != '\0') {
X         putchar(*tp);
X         tp++;
X    }
X    p_outlines++;
X}
X
X/*
X * set - set parameter and check range
X *
X */
Xset(param, val, argtyp, defval, minval, maxval)
Xint *param;
Xint val;
Xint argtyp;
Xint defval;
Xint minval;
Xint maxval;
X{
X    int i;
X    dprintf("set  ");
X    i = *param;
X    if (argtyp == '\n')              /* defaulted */
X         i = defval;
X    else if (argtyp == '+')               /* relative +*/
X         i += val;
X    else if (argtyp == '-')          /* relative -*/
X         i -= val;
X    else                             /* absolute  */
X    i = val;
X    i = (i < maxval) ? i : maxval;        /* min        */
X    i = (i > minval) ? i : minval;        /* max        */
X    *param = i;
X}
X
X/*
X* skipl - output  n  blank lines
X*
X*/
Xskipl(n)
Xregister int n;
X{
X    register int i;
X
X    dprintf("skip  ");
X    if (print == YES)
X         for (i = 1; i <= n; i++) {
X              putchar('\n');
X              p_outlines++;
X         }
X}
X
X/*
```

```
X * space - space  n  lines or to bottom of page
X *
X */
Xspace(n)
Xint n;
X{
X
X    dprintf("space  ");
X    brk();
X    if (lineno > bottom)
X         return;
X    if (lineno == 0)
X         phead();
X    skipl(((n < bottom+1-lineno) ? n : bottom+1-lineno));
X    lineno += n;
X    if (lineno > bottom)
X         pfoot();
X}
X
X/*
X * spread - spread words to justify right margin
X *
X */
Xspread(buf, outp, nextra, outwds)
Xchar buf[];
Xint outp;
Xint nextra;
Xint outwds;
X{
X    int dir = 0;
X
X    register int i, j;
X    int nb, ne, nholes;
X
X    dprintf("spread  ");
X    if (nextra <= 0 || outwds <= 1)
X         return;
X    dir = 1 - dir;   /* reverse previous direction */
X    ne = nextra;
X    nholes = outwds - 1;
X    if (tival != inval && nholes > 1)
X         nholes--;
X    i = outp - 1;
X    j = (MAXOUT-2 < i+ne) ? MAXOUT-2 : i+ne; /* leave room for '\n', EOS */
X    while (i < j) {
X         buf[j] = buf[i];
X         if (buf[i] == ' ' && buf[i-1] != ' ') {
X              if (dir == 0)
X                   nb = (ne-1) / nholes + 1;
X              else
X                   nb = ne / nholes;
X              ne -= nb;
X              nholes--;
```

```
X             for ( ; nb > 0; nb--) {
X                  j--;
X                  buf[j] = ' ';
X             }
X        }
X        i--;
X        j--;
X    }
X}
X
X/*
X * subst - substitutes a string for a specified character
X *
X */
Xsubst(in, chr, out, subara, n)
Xchar in[];
Xchar chr;
Xchar out[];
Xchar subara[];
Xint n;
X{
X    register int i, j, k;
X
X    dprintf("subst  ");
X    j = 0;
X    for (i = 0; in[i] != EOS; i++)
X         if (in[i] == chr)
X              for (k = 0; k < n; k++) {
X                   out[j] = subara[k];
X                   j++;
X              }
X         else {
X              out[j] = in[i];
X              j++;
X         }
X    out[j] = EOS;
X}
X
X/*
X * Text  process text lines
X *
X */
X
Xtext(inbuf)
Xchar inbuf[];
X{
X    int  i;
X    register int j;
X    char wrdbuf[INSIZE];
X
X    dovar(wrdbuf,inbuf);        /*  expand variables */
X    strcpy(inbuf,wrdbuf);
X    doesc(inbuf, wrdbuf, INSIZE);    /*  expand escapes   */
```

```
X    dotabs(inbuf, wrdbuf, INSIZE);  /*  expand tabs      */
X
X    if(inbuf[0] == ' ' || inbuf[0] == '\n')
X         leadbl(inbuf);          /* move left, set tival */
X    if(ulval > 0 || ULon)       /* word underlining */
X    {
X         underl(inbuf, wrdbuf, INSIZE);
X         ulval--;
X    }
X    if(boval > 0 || BDon)       /* boldfacing */
X    {
X         bold( inbuf, wrdbuf, INSIZE);
X         boval--;
X    }
X    if(ceval > 0 || CEon)       /* centering */
X    {
X         center(inbuf);
X         put(inbuf);
X         ceval--;
X    }
X    else if( inbuf[0] == '\n' )      /* all blank line */
X         put(inbuf);
X    else if( fill == NO )       /* unfilled text */
X         put(inbuf);
X    else                     /* filled text */
X    {
X         i = strlen(inbuf) - 1;
X         inbuf[i] = ' ';
X         if( inbuf[i-1] == '.' )
X         {
X              i++;
X              inbuf[i] = ' ';
X         }
X         inbuf[i+1] = EOS;
X         for( i = 0 ; getwrb(inbuf, &i, wrdbuf) > 0 ; )
X              putwrd(wrdbuf);
X    }
X}
X
X/*
X * Underl    underline words in a line
X *
X */
Xunderl(buf, tbuf, size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i, j;
X
X    j = 0;
X    for(i = 0 ; buf[i] != '\n' && j < size - 2; i++) {
X         if( buf[i] != ' ' && buf[i] != BACKSPACE && buf[i] != '_' ) {
```

```
X             tbuf[j++] = '_';
X             tbuf[j++] = BACKSPACE;
X         }
X         if( buf[i] == BLANK )
X             tbuf[j++] = ulblnk;
X         else
X             tbuf[j++] = buf[i];
X    }
X
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf, tbuf);
X}
X
X/*
X * width - compute width of character string
X *
X */
Xint
Xwidth(buf)
Xchar buf[];
X{
X    int k,i;
X
X    dprintf("width  ");
X    k = 0;
X    for (i = 0; buf[i] != EOS; i++)
X         if (buf[i] == BACKSPACE)
X             k--;
X         else if (buf[i] >= ' ' && buf[i] <= '~')
X             k++;
X    return(k);
X}
X/*
X * getnow - get the date from command line if present.
X *          if not specified, prompt user for it.
X *
X * (stub)
X */
Xgetnow(date)
Xchar date[];
X{
X    dprintf("getnow  ");
X    strcpy(date,"00-xxx-1900 00:00:00");
X}
SHAR_EOF
if test 11642 -ne "`wc -c 'proff01.c'`"
then
     echo shar: error transmitting "'proff01.c'" '(should have been 11642
characters)'
fi
echo shar: extracting "'proff02.c'" '(2680 characters)'
if test -f 'proff02.c'
```

```
then
     echo shar: over-writing existing file "'proff02.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff02.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "defs.h"
X#include "debug.h"
X
X/*
X * addset - put c in array[i], if it fits, increment i
X *
X */
Xint
Xaddset(c,array,i,maxsize)
Xchar c;
Xchar array[];
Xint *i;
Xint maxsize;
X{
X    int n,status = NO;
X    dprintf("addset  ");
X    n = *i;
X    if (n <= maxsize - 1) {
X         array[n++] = c;
X         status = YES;
X    }
X    *i = n;
X    return(status);
X}
X
X/*
X * addstr - add string s to str[i] if it fits, increment i
X *
X */
Xint
Xaddstr(s,str,i,maxsize)
Xchar s[];
Xchar str[];
Xint *i;
Xint maxsize;
X{
X    int k,j,status = NO;
X
X    dprintf("addstr  ");
X    j = *i;
X    if (j + strlen(s) <= maxsize - 1) {
X         for (k = 0; s[k] != EOS; k++)
X              str[j++] = s[k];
X         status = YES;
X    }
X    *i = j;
X    return(status);
```

```
X}
X
X/*
X * ctoi - convert string at in[i] to integer, increment i
X *
X */
Xint
Xctoi(in,i)
Xchar in[];
Xint *i;
X{
X    int j,n,sign;
X
X    dprintf("ctoi  ");
X    n = 0;
X    for (j = *i; in[j] == ' ' || in[j] == '\t'; j++)
X         ;         /* skip leading garbage */
X    sign = 1;
X    if (in[j] == '+' || in[j] == '-') /* sign */
X         sign = (in[j++] == '+') ? 1 : -1;
X    for (n = 0; in[j] >= '0' && in[j] <= '9'; j++)
X         n = 10 * n + in[j] - '0';
X    *i = j;
X    return(sign * n);
X}
X
X/*
X * error - print message and terminate
X *
X */
Xerror(s)
Xchar s[];
X{
X    fprintf(stderr,"%s\n",s);
X    exit(1);
X}
X
X/*
X * getwrd - get non-blank word from in[i] into out, increment i
X *
X */
Xint
Xgetwrd(in,i,out)
Xchar in[];
Xint *i;
Xchar out[];
X{
X    int j,size = 0;
X
X    for (j = *i; in[j] == '\t' || in[j] == ' '; j++)
X         ;         /* skip leading garbage */
X    while (in[j] != ' ' && in[j] != '\t' &&
X        in[j] != EOS && in[j] != '\n')
```

```
X        out[size++] = in[j++];
X    out[size++] = EOS;
X    *i = j;
X#ifdef DEBUG
X    printf("getwrd: %s\n",out);
X#endif
X    return(size);
X}
X/*
X * skipbl - skip blanks, tabs at str[i], increment i
X *
X */
Xskipbl(str,i)
Xchar str[];
Xint *i;
X{
X    int n;
X    dprintf("skipbl  ");
X    n = *i;
X    while (str[n] == ' ' || str[n] == '\t')
X        n++;
X    *i = n;
X}
X
X/*
X * itoc - special version of itoa
X *
X */
Xint
Xitoc(n,str,size)
Xint n;
Xchar str[];
Xint size;
X{
X
X    int i,j,k,sign;
X    char c;
X
X    dprintf("itoc  ");
X    if ((sign = n) < 0)
X        n = -n;
X    i = 0;
X    do {
X        str[i++] = n % 10 + '0';
X    }
X    while ((n /= 10) > 0 && i < size-2);
X    if (sign < 0 && i < size-1)
X        str[i++] = '-';
X    str[i] = EOS;
X    /*
X         * reverse the string and plug it back in
X         *
X */
```

```
X    for (j = 0, k = strlen(str) - 1; j < k; j++, k--) {
X         c = str[j];
X         str[j] = str[k];
X         str[k] = c;
X    }
X    return(i);
X}
X
X/*
X * usage - obvious..
X *
X */
Xusage()
X{
X#ifdef rainbow
X    fprintf(stderr,"%s %s",
X    "usage: proff \033[7m[+n] [-n] [-v] [-ifile] [-s] [-pon]\033[0m",
X    "\033[1minfile\033[0m \033[7m[outfile]\033[0m\n");
X#else
X    fprintf(stderr,
X    "usage: proff [+n] [-n] [-v] [-ifile] [-s] [-pon] infile [outfile]\n");
X#endif
X    exit(0);
X}
SHAR_EOF
if test 2680 -ne "`wc -c 'proff02.c'`"
then
     echo shar: error transmitting "'proff02.c'" '(should have been 2680
characters)'
fi
echo shar: extracting "'proffman.prf'" '(46207 characters)'
if test -f 'proffman.prf'
then
     echo shar: over-writing existing file "'proffman.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'proffman.prf'
X
X.! Proff user's manual
X.! Feb. 1984 by Ozan S. Yigit
X.!
X.! Edited by Steven Tress and Terry Lim
X.! vers. 1.0
X.!
X.! ----------- macros ----------
X.! sect - produce a bold section header and
X.! enter a contents line. First parameter
X.! is indent level for contents line.
X.define sect
X.sp
X.cl $1 $2 $3 $4 $5 $6 $7
X.bd
X$2 $3 $4 $5 $6 $7
X.en
```

```
X.! ----------------------------
X.define note
X.sp
X.ce
XNOTE
X.sp
X.fi
X.in +5
X.rm -5
X.en
X.define endnote
X.sp
X.nf
X.in -5
X.rm +5
X.en
X.! ----------------------------
X.! Macros to create a point-form lists.
X.! Note the use of number registers within
X.! the macros. See section 5.
X.!
X.define list
X.nr a $1
X.in +$1
X.en
X
X.define item
X.sp
X.ti -@na
X$1
X.en
X
X.define nolist
X.in -@na
X.sp
X.en
X.! ----------------------------
X.ce 100
X.st 8
XPROFF User's Guide
X.sp
XVersion 1.0
X.ce 0
X.nf
X.in +25
X.sp 15
X***  *******
X***  *********
X     **      **
X     **      **
X     *********
X     *******
X     **
```

```
X     **
X     **
X******
X****
X.in -25
X.fi
X.ce 100
X.st -8
XOzan S. Yigit & Steven Tress
XMarch 1984
X.ce 0
X.bp 1
X.he /1.0/Proff User's Guide/#/
X.ap
X.fi
X.ju
X.sect 0 1.0 Introduction
X This manual describes PROFF, a formatter based on the FORMAT utility
Xpresented in
X.ul
XSoftware Tools.
X PROFF was produced to provide a powerful formatter that can be used under
Xa variety of microcomputers, thus providing a consistent formatting tool
Xacross environments. PROFF can be used to format memos, reports, form letters
Xand
Xdocuments such as this manual. It can also be configured to mimic
Xother formatting
Xsystems of similar nature.
X This document itself was produced with PROFF, using most of its advanced
features.
XPROFF took care of such things as auto-paragraphing and the production of
Xthe Table of Contents as the manual was being formatted.
X PROFF was developed under a Digital Equipment Corporation Rainbow 100,
Xusing Mark Williams C Compiler for portability reasons. PROFF is
Xavailable under VAX/VMS operating system. PROFF implementations for
XIBM PC and APPLE ][ microcomputers are also underway.
X.st -14
XRainbow, VAX/VMS are trademarks of Digital Equipment Corporation.
X.br
XMark Williams C Compiler is a trademark of Mark Williams Company.
X.br
XIBM is a registered trademark of International Business Machines Inc.
X.br
XAPPLE is a trademark of Apple Computer Inc.
X.br
XUNIX is a trademark of Bell Laboratories.
X.bp
X.cl
X.sect 0 2.0 General Description
X.cl
X.sect 1 2.1 The Input
X The text that is to be formatted by PROFF is typed into an input file
Xusing any text editor. This file contains the text to be formatted
```

```
Xas well as PROFF commands.
X Each line in the input file is either a command line or a text line. A
Xcommand line is a line that begins with a period (".").  All other lines are
Xtext lines. The command lines are not printed - they tell PROFF how you want
Xit to format the text that follows. Appendix A summarizes all of the PROFF
Xcommands for a quick reference.
X.sect 2 2.1.1 Text
X Text can be entered into the input file in any format. PROFF removes all extra
Xblanks and tabs between words when operating in fill mode. This means you do
Xnot have to worry about how many words you put on a line, and you can break
Xlines wherever it is convenient to your typing. Note however, that you cannot
Xbreak a word between two lines.
X Blanks and tabs at the beginning of a line are not removed. This is useful
Xfor producing special tables and performing special types of indentation.
XThus, normal text lines should not have any leading tabs or blanks.
X.sect 2 2.1.2 Commands
X A command is a line that starts with a period. Immediately following the
Xperiod is a command name. Some commands accept a numeric quantity or a
Xcharacter string parameter, which must be separated from the command name
Xby a space or a comma. For example, an indent command might appear as follows:
X.save
X.in +5
X.nf
X.nj
X.sp
X|
X|It is to do nothing that the elect exists.
X|.in 5
X|- Oscar Wilde
X|
X.restore
X Assuming that the left margin was at column 1, PROFF would produce the
Xfollowing:
X.save
X.in +5
X.nf
X.nj
X.sp
X.need 4
X|
X|It is to do nothing that the elect exists.
X|     - Oscar Wilde
X|
X.restore
X.sp
X(In the examples above, as in those following, the vertical line indicates
Xthe left edge of input or the left edge of the printed page).
X The number following the command may be preceeded by a "+" or "-" sign.
XThis plus or minus sign indicates an addition or subtraction of the number
Xto or from the current value for the command. for example, the text:
X.sp
X.save
X.in +5
```

```
X.nf
X.nj
X.need 11
X|
X|Nothing to do but work,
X|.in +3
X|Nothing to eat but food,
X|.in -3
X|Nothing to wear but clothes
X|.in +3
X|To keep one from going nude.
X|.in +7
X|-Benjamin King
X|
X.in -5
X.sp
Xwill produce as output:
X.sp
X.in +5
X.need 6
X|
X|Nothing to do but work,
X|   Nothing to eat but food,
X|Nothing to wear but clothes
X|   To keep one from going nude.
X|          -Benjamin King
X|
X.restore
X If a number is not supplied with a command that requires a number, PROFF
Xwill use a default value. The defaults for each command are summarized in
XAppendix A.
X.cl
X.sect 1 2.2 The Output
X The main functions performed by PROFF are
X.ul
Xfilling
Xand
X.ul
Xjustifying.
XA line is
Xfilled by packing as many words onto it as will fit. The line is justified
Xby spacing words evenly between the left and right margins. When PROFF starts,
Xit assumes that the text is to be filled and justified. Of course, when fill
Xand justify are not needed (as in the case of a letter or a table), there are
Xcommands to turn these features off, and back on again, as necessary.
X When PROFF is in fill mode, it normally strips out extra spaces and tabs
Xbetween words.
X Many PROFF commands cause a
X.ul
Xbreak
Xto occur in the output. This means that the line currently being filled is
Ximmediately output. Any following text goes into a new output line.
X.cl
```

```
X.sect 1 2.3 Executing PROFF
X Once a text file is ready for formatting, PROFF is started by typing
Xthe program name, various options, name of the input file and the name
Xof the output file. For example the command
X.sp
X.in +5
XA> proff  -po5 proffman.prf proff.man
X.sp
X.in -5
Xwould produce this document as proff.man, from an input file proffman.prf,
Xshifted right by 5 spaces.
X(The symbol "A>" is CP/M system prompt).
X.cl
X.sect 1 2.4 Bibliographic Notes
X  PROFF wa produced by re-writing the Software Tools Formatter FORMAT.
XSome of the ideas are from Freshwater Institute RUNOFF, NROFF,
XUniversity of Waterloo SCRIPT
Xand other formatters of similar nature. The underlying ideas of the
Xmentioned above formatters may be found in
X.ul
XSoftware Tools
Xby B.W. Kernighan and P.J. Plauger. 1976. (Addison-Wesley, Reading, Mass.).
X.cl
X.sect 1 2.5 References and Readings
X.nf
X.nap
X.sp
XBrian W. Kernighan and P. J. Plauger,
X.ul
XSoftware Tools
XAddison-Wesley (1976)
X.sp
XR. Furuta, J. Scofield and A. Shaw,
X.ul
XDocument Formatting Systems:
X.ul
XSurvey, Concepts, and issues
XACM Computing Surveys, Sept. 1982, Pp. 417
X.sp
XMark Stuart Brader,
X.ul
XAn Incremental Text Formatter
XDepartment of Computer Science
XUniversity of Waterloo, CS-81-12
X.bp
X.fi
X.ap
X.cl
X.sect 0 3.0 Command Descriptions
X This section describes PROFF commands. Commands specify how the program is
Xto process the text lines in the input file. Lines in the input file that
Xbegin with a period (or the control character selected by the user)
Ximmediately followed by a command name are commands. Any line that begins
```

```
Xwith a period and followed by a _# or _! is a comment line and is ignored
Xby PROFF - this allows you to put information in the file that will be neither
Xprocessed nor output by PROFF.
X As described earlier, some of the commands can be followed by "parameters".
XParameters are used in executing a command; for example, in the command
X".sp 3", the parameter "3" tells the formatter to insert 3 blank lines into
Xthe document. The following conventions are used in describing the parameters:
X.sp
X.in +5
X.ti -2
Xo Parameters surrounded by square brackets are optional. If not supplied, PROFF
Xassumes a default value.
X.br
X(e.g. .sp [n])
X.sp
X.ti -2
Xo Parameters surrounded by angle brackets are mandatory. PROFF will display
Xa fatal error message if the parameter is absent. (e.g. .set <variable name>)
X.sp
X.ti -2
Xo Parameters surrounded by squiggly brackets are to be typed exactly as
Xindicated. (e.g. .pn {roman})
X.sp
X.ti -2
Xo A bar character seperating the parameters within brackets indicate an
Xalternative. (e.g. .st [+|-][n] means both .st [+n] and .st [-n])
X.in -5
X In describing the commands, the command is typed exacty as accepted by PROFF
Xwith the associated control character default ("."). If more than one form of
Xthe command is accepted by PROFF, the command names are separated with a
Xbar indicating an alternative.
X.bp
X.cl
X.sect 1 3.1 Filling and Justifying
X.nap
X.in +5
X.!
X.! define a simple macro for generating the headers.
X.! note that the second "$" within macro is for
X.! variable expansion. Initially, the variable name
X.! is passed into the macro WITHOUT any expension.
X.! we also use the new control character within macro.
X.!
X.define comm
X\sp
X\cl 2 $$1
X\ti -5
X$$1
X\sp
X.en
X.! change the control character from period (".") to a backslash ("\")
X.! to avoid the interpretation of the command headers
X.!
```

```
X.cchar \
X\!
X\! Variable creation
X\! We use variables to avoid re-typing of multiple options over
X\! and over again. These variable names will be reused in the
X\! appendix to produce a quick referance
X\!
X\set FILL ".fi | .f | .fill"
X\comm FILL
XThe fill command causes a line to be filled with as many words as the right
Xmargin allows. For this purpose, all extra blanks and tabs are removed between
Xwords. Each word is separated with a single blank. PROFF automatically assumes
Xfill mode during the startup.
X\set NOFILL ".nf | .nofill"
X\comm NOFILL
XNo fill discontinues the filling of the text. PROFF simply copies the text
Xto the output. This command may be used to pass tables and other text
Xunaltered through the formatter.
X\set JUST ".ju | .j | .justify"
X\comm JUST
XJustify causes the words on a line to be evenly spaced between the left and
Xthe right margins. Note that lines can be justified only if lines are also
Xbeing filled. PROFF automatically assumes justify mode during the startup.
X\set NOJUST ".nj | .nojustify"
X\comm NOJUST
XNo justify discontinues the text justification.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.2 Text Formatting
X.in +5
X.cchar \
X\set BREAK ".br | .break"
X\comm BREAK
XBreak causes a break: the current line is printed without justification,
Xand the next word is placed at the beginning of a new line. Note that many
XPROFF commands cause an implicit break.
X\set INDENT ".in | .lm | .leftmargin [+|-][n]"
X\comm INDENT
XIndent causes a break and indents the following lines [n] spaces to the
Xright of the left margin. [n] can be negative to allow beginning a line
Xto the left of the left margin, however, a line cannot begin to the left of
Xcolumn 0. If a plus or minus sign is used with n, then [n] is added or
Xsubtracted to or from the current value.
X\set TINDENT ".ti | .i | .left [+|-][n]"
X\comm TINDENT
XTemporary indent is identical to the indent command except that it
Xapplies only to the next line of printed text. Thus, the command
X".ti +5" would cause the next line to be printed 5 spaces to the right
Xof those that follow.
X\set SPACETO ".st | .spaceto [-][n]"
X\comm SPACETO
```

```
XSpaceto allows spacing to line [n] from the top of the current page.
XIf a negative [n] is specified, than spacing is performed to line [n]
Xfrom the bottom of the page (excluding the footer lines). Thus, footnotes
Xcan be set at a fixed distance from the bottom of the page by a command such
Xas ".st -5".
X\set SPACE ".sp | .s | .skip [n]"
X\comm SPACE
XSpace causes a break and skips [n] lines, except at the top of
Xa page. The space command
Xis dependent on the setting of line spacing.
X\set CENTER ".ce | .center [n | on | off]"
X\comm CENTER
XCenter causes the next [n] lines of text to be centered between the left
Xand right margins. Centering may be started with "on" and terminated with
X"off", in which case all input lines between these commands will be centered.
X\set UNDLINE ".ul | .underline [n | on | off]"
X\comm UNDLINE
XUnderline command causes the text on the next [n] input lines to be underlined
Xwhen printed. If [n] is omitted, only the next line is underlined. This command
Xdoes not cause a break, so words in filled text may be underlined by:
X\sp
X\save
X\cchar .
X.in +5
X.nf
X.need 11
X.sp
X|
X|The "Pay-off" Theory: Only
X|.ul
X|losers
X|believe in luck, horses, horoscopes
X|and
X|.ul
X|lotteries.
X|
X.in -5
X.sp
Xto get
X.in +5
X.sp
X.fi
X|
X.br
X|The "Pay-off" Theory: Only
X.ul
Xlosers
Xbelieve in
X.br
X|luck, horses, horoscopes and
X.ul
Xlotteries.
X.br
```

```
X|
X.sp
X.restore
XUnderlining may be started with "on" and terminated with "off", similar to
Xthe centering command.
X\set CUNDLINE ".ul | .underline [all | words]"
X\comm CUNDLINE
XThis version of the underline command is used to set the mode of
Xunderlining:
X\sp
X\nap
X\in +5
X\nf
Xall   - underline across all characters,
X        including spaces.
X\br
Xwords - underline words only
X\fi
X\sp
X\in -5
X\ap
X\set BOLD ".bd | .bold [n | on | off]"
X\comm BOLD
XThe bold command causes the text on the next [n] input lines to be highlighted
Xby overstriking. If [n] is omitted, only the next line is highlighted.
XBolding may be started with "on" and terminated with "off" as in the
Xcase of the center and underline commands.
X\set DBO ".db | .dbo | .disablebolding"
X\comm DBO
XTurns the bolding off, all bolding commands are ignored. This feature is
Xuseful for rough drafts.
X\set EBO ".eb | .ebo | .enablebolding"
X\comm EBO
XTurns the bolding feature back on. Bolding is turned on during the PROFF
Xstartup.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.3 Page Formatting
X.in +5
X.cchar \
X\set LS ".ls | .spc | .spacing [n]"
X\comm LS
XLine spacing is the command to set line spacing. Set n to 1 for single spacing,
X2 for double spacing etc.
X\set BP ".bp | .pg | .page [n]"
X\comm BP
XThe begin page command causes a break, ends the current page, outputs
Xfooters if required and begins a new page. If [n] is present, the page number
Xis set to [n]. The default action is to number the pages incrementally.
X\set PN ".pn | .pagenumber {roman} | {arabic}"
X\comm PN
```

```
XPage number command defines the format of the page number. Uppercase roman
Xnumerals may be obtained with "roman" keyword. To convert the page numbers
Xback to normal, "arabic" is specified. PROFF uses arabic numerals as
Xa default.
X\set NPA ".np | .nopaging"
X\comm NPA
XNo paging disables the pagination. When PROFF is in no paging mode,
X"begin page" (.bp) and "page length" (.pl) commands are ignored. This mode
Xof operation is especially useful for using the proff output with the
Xmulti-column formatter (MC).
X\set PA ".pa | .paging"
X\comm PA
XPaging enables normal page generation. This command starts a
Xnew page and restores the page length to the
Xvalue previous to the ".np" command.
X\set NE ".ne | .need | .tp | .testpage [n]"
X\comm NE
XTest page checks to see whether at least [n] lines remain in the
Xcurrent page. If less than this number of lines remain, printing will resume
Xat the top of a new page. If [n] is missing, it is assumed to be zero.
X\set HE ".he | .header <text>"
X\comm HE
XHeader sets the text to be printed on top of each page. <text> is
Xdivided into sections which are to be left justified, centered and right
Xjustified. To divide <text> into these three parts, the first character is
Xassumed to be a separator. (e.g. /left/center/right/) But any non-alphanumeric
Xcharacter may also be used. The characters "#" and "%" are replaced with the
Xcurrent page number and day/time in the header.
X\set FO ".fo | .footer <text>"
X\comm FO
XFooter is identical to header except that it sets the text to be printed
Xat the bottom of each page.
X\set OHE ".oh <text>"
X\comm OHE
XThe odd header command sets the header for odd pages only.
X\set EHE ".eh <text>"
X\comm EHE
XThe even header command sets the header for even pages only.
X\set OFO ".of <text>"
X\comm OFO
XThe odd footer command sets the footer for odd pages only.
X\set EFO ".ef <text>"
X\comm EFO
XThe even footer command sets the footer for even pages only.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.4 Page Layout
X.ap
X These commands are used to specify where on the page you want the formatted
Xtext to be placed. The general layout of a page is as follows:
X.nap
```

```
X.need 30
X.nf
X
X    page offset (.po)                |
X    |                           |
X    V                           |
X    +----+-------------------------------------+----+ -+
X    |    |   top margin (m1) includes header     | |  |
X    +----+-------------------------------------+----+  |
X    |    |        top margin 2 (m2)     | |  |
X    +----+-------------------------------------+----+  |
X    |    |             .           | |  P
X    |    |<-- indent (.in) .           |    |  A
X    |    |             .           |    |  G
X    |    |                T        | |  E
X    |    |                  E           | |
X    |    |                  X               | |  L
X    |    |                  T           | |  E
X    |    |             .           | |  N
X    |    |             right margin (.rm) -->|     |  G
X    |    |             .           |    |  T
X    |    |             .           | |  H
X    |    |             .           |    |  |
X    +----+-------------------------------------+----+  |
X    |    |           bottom margin 3 (m3)       | |  |
X    +----+-------------------------------------+----+  |
X    |    |   bottom margin (m4) includes footer | |  |
X    +----+-------------------------------------+----+ -+
X    |                           |
X    |                           |
X.fi
X.in +5
X.cchar \
X\set PO ".po | .offset [+|-][n]"
X\comm PO
XThe page offset command moves the entire page to the right or left depending on
the
Xspecified value. All indentation is according to the page offset. PROFF
Xassumes a page offset of 0 during the startup. If [n] is specified with a
Xplus or minus, it will be added or subtracted from the current value.
X\set RM ".rm | .rightmargin [+|-][n]"
X\comm RM
XRight Margin sets the position of the last printable character from the
Xleft edge of the page to [n]. Default value for right margin is 65.
XA plus or minus value will be added or subtracted from the current value.
XIf [n] is not specified, right margin is set to the default value.
X\set PL ".pl | .ps | .pagesize [n]"
X\comm PL
XPage length is used to set the number of lines that are to be printed
Xon a page including the header and footer lines. After [n] lines are printed,
Xthe paper will advance to the top of next page. The default page length is
X66 lines (11 inches for 6 lines/inch). This command is disabled if nopaging
Xis set.
```

```
X\set M1 ".m1 [n]"
X\comm M1
XMargin 1 sets the number of lines (including the header) which will be left at
Xthe top of the page to [n]. The default setting is 3. If [n] is omitted, is
Xset to the default.
X\set M2 ".m2 [n]"
X\comm M2
XMargin 2 sets the number of blank lines between the header and the first
Xline of text. The default setting is 2.
X\set M3 ".m3 [n]"
X\comm M3
XMargin 3 sets the number of blank lines between the footer and the last line
Xof text. The default setting is 2.
X\set M4 ".m4 [n]"
X\comm M4
XMargin 4 sets the number of lines (including the footer) which will be left at
Xthe bottom of the page to [n]. The default setting is 3.
X\in -5
X\cchar .
X.bp
X.cl
X.ap
X.sect 1 3.5 Table of Contents
X This section describes the the commands that are used to generate a table of
Xcontents. Basically, a contents line command is used in every place in
Xthe document where an entry is needed in the table of contents. PROFF
Xstores the text and the page number when it encounters this command.
XAfter the the body of the document is processed, a print contents command
Xdumps the contents table. The contents should be dumped in a new page, with
Xnofill. Page numbering should be disabled if the table of contents is to be
Xused in front of the document.
X.sp
X.in +5
X.ap
X.cchar \
X\set CL ".cl | .contline [<n> <text>]"
X\comm CL
XContents line specifies a line of <text> to be entered into the table of
Xcontents. <n> specifies the level at which the item is to be printed
Xin the table. When the table is printed, each level of entry will be
Xindented by specific number of spaces.
X<text> appears in the output exactly as it appears
Xin the contents line command, except that leading blanks are removed.
XIf no options specified in the contents line, a blank is inserted during
Xthe table output.
X\set PC ".pc | .printcont [n]"
X\comm PC
XPrint Contents causes the currently accumulated table of contents to be
Xprinted. If [n] is specified, it is used as the indent value for each
Xlevel.  If [n] is not specified, it is defaulted to 3.
X A contents line at level 0 is as wide as rightmargin-indent. The
Xoutlook of the table of contents may be changed by altering the right
Xmargin and indent values. A typical table of contents may be produced as
```

```
Xfollows:
X\in +5
X\nf
X\sp
X|.page
X|.he ////
X|.fo ////
X|.nofill
X|.sp
X|.center
X|Table of Contents
X|.sp
X|.printcont
X\in -5
X\fi
X\sp
XThe following example illustrates the generation of a table of contents. Note
Xthat only one table of contents is active for a PROFF session.
X\need 40
X\sp
X\in +5
X\nf
X\nap
X.cl
X.cl 0 A. Introduction
XIntroduction
X    text
X    .
X.cl
X.cl 0 B. Methods
XMethods
X    text
X    .
X.cl 1 a) Sampling Procedures
XSampling
X    text
X    .
X.cl 1 b) Laboratory Procedures
XLaboratory
X    text
X    .
X.cl
X.cl 0 C. Results
XResults
X    text
X    .
X    .
X.pg
X.nf
X.he ////
X.fo ////
X.ce
XTable of Contents
```

```
X.sp
X.pc
X\sp
X\in -5
XThese commands will produce the following table:
X\sp
X\in +5
X        Table of Contents
X
XA. Introduction.............................   1
X
XB. Methods..................................   3
X   a) Sampling Procedures.....................   3
X   b) Laboratory Procedures...................   4
X
XC. Results..................................   5
X\sp
X\in -5
X\fi
XMacros may be defined as described in the following sections to help the
generation
Xof the table of contents.
X\cchar .
X.in -5
X.bp
X.cl
X.ap
X.sect 1 3.6 Miscellaneous
X This section describes miscellaneous commands that radically increase the
Xformatting powers of PROFF. With the assistance of variables, PROFF can
Xgenerate form letters and documents with dynamic parts. The ability to save
Xand restore formatter context eliminates the need to remember the exact
Xsettings of the formatter across the document.
X.in +5
X.cchar \
X\set VSET ".vs | .set <variable> [definition]"
X\comm VSET
XSet variable  defines a variable to be later used in the document.
XIf the definition part is left out, PROFF uses the variable name as a prompt
Xand allows the user to define the variable interactively. Variable names cannot
Xstart with a numeric character, and may only contain alphanumeric
Xcharacters. The definition of a variable may not contain any blanks, unless
Xthey are surrounded by double-quotes. To get a double quote within a a quoted
Xdefinition, two double-quotes are used.
X Once the variable is
Xdefined, it can be used anywhere in the document, including the command
Xline itself. A variable substitution is invoked by a dollar sign (_$). (A
Xliteral _$ is inserted into text using ___$).
XA variable name must be delimited by a non-alphanumeric character within the
Xtext. If the contents of the variable is to be appended to other
Xalphanumeric characters, it must be surrounded by wiggly braces
X("{" and "}"). The following is an example of variable usage:
X\need 12
```

```
X\sp
X\nf
X|.nf
X|.vs v1 Murphy
X|_${v1}'s first law:
X|   Nothing is as easy as it looks.
X|_${v1}'s second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by _$v1.
X|
X\sp
XProduces the following:
X\sp
X\need 8
X|
X|Murphy's first law:
X|   Nothing is as easy as it looks.
X|Murphy's second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by Murphy.
X|
X\sp
X\fi
X\set VGET ".vg | .get <variable> <prompt>"
X\comm VGET
XGet variable is the interactive version of variable definition. In this
Xvariant, a prompt string is used to obtain the value of the variable,
Xwhich is typed at the user's terminal. If the prompt string is to
Xcontain blanks, tabs etc., it must be enclosed in double quotes. No quotes
Xare necessary for input text.
X\set VRG ".nr <a-z> [+|-][n]"
X\comm VRG
XNumber register is used to define registers that contain numeric values.
XThere are 26 number registers, named a-z. The command ".nr x n" sets the
Xnumber register "x" to value n; ".nr x +n" increments the number register
Xby n; ".nr x -n" decrements the number register by n. The value of the
Xnumber register x is placed in the text by the appearance of _@nx. A literal
X_@ may be inserted using ___@.
XNumber registers may be used on command lines and anywhere in the text.
X\set CCHAR ".cc | .cchar [char]"
X\comm CCHAR
XControl Character  sets the character that distinguishes PROFF
Xcommands from text to be formatted. As a default, control character is set to
X(".") period.
XThis character may be changed to something other than a period, either
Xto mimic other formatters or to disallow interpretation of lines beginning
Xwith a period. (This document makes heavy use of the .cc command).
X\set ECHAR ".ec | .echar [char]"
X\comm ECHAR
XEscape Character  sets the character that disallows the
Xinterpretation of spacial characters such as _@ and _$. PROFF uses an
```

```
Xunderline ("__") character as a default.
X\set SOU ".so | .source | .include | .require [filename]"
X\comm SOU
XThe source (include) command allows external files to be inserted into the
Xinput file
Xduring the formatting. Using this feature, tables, graphs and other
Xdocuments generated outside PROFF may be included into the document
Xbeing formatted. This feature is also very useful in including a common set
Xof macros during formatting. Include files may be nested inside other
Xinclude files. Currently, PROFF only allows a nested include
Xfiles level of 8. Filename may be enclosed in quotes.
X\set SAVE ".sv | .save"
X\comm SAVE
XThe save command allows the saving of the current formatter context on a
Xpushdown stack. The saved context of the formatter segment (FSECT) includes
Xthe following values and flags:
X\need 14
X\sp
X\nf
X\nap
Xvalues            flags         on   |  off
X------           -----
Xindent       (.in)    fill     (.fi | .nf)
Xright margin (.rm)    justify  (.ju | .nj)
Xoffset       (.po)    paging   (.pa | .np)
Xline spacing (.ls)    number type        (.pn)
Xpage length  (.pl)    bolding       (.eb | .db)
Xmargin values     (.m1)    autoparagraph (.ap | .na)
X         (.m2)
X         (.m3)
X         (.m4)
Xcontrol char (.cc)
Xescape char  (.ec)
X\sp
X\ap
X\fi
X\set RST ".rs | .restore"
X\comm RST
XThe restore command pops the context stack and restores the values and flags
Xas defined above.
X\set LEX ".lx | .lex <command> [equate]"
X\comm LEX
XThe lexical modification command is essentially a permanent replacement of a
Xgiven command. This command is used for changing the command names without
Xresorting to the macro facility. Lex permanently removes the old
Xcommand name from command tables and replaces it with the new definition.
XIf the equate is not specified, the command  becomes undefined and is
Xno longer recognised by PROFF. The command equate should not contain
Xnon-alphanumeric characters.
X\set APR ".ap | .autoparagraph"
X\comm APR
XThe autoparagraph command turns on the automatic paragraphing feature. If
Xauto-paragraphing is on, every line that starts with a
```

```
X\ul
Xblank
Xor a
X\ul
Xtab
Xcharacter starts a new paragraph. A new line is generated (.sp) and
Xthe beginning of the paragraph is indented by five spaces.
XAutoparagraphing is the equivalent of the following commands:
X\in +5
X\nf
X|
X|textextextextext
X|.sp
X|.ti +5
X|textextextextext
X|
X\in -5
X\fi
X\set NAP ".na | nap | .noautoparagraph"
X\comm NAP
XNo Autoparagraph command disables auto-paragraphing.
X\set WRT ".wr | .write <string>"
X\comm WRT
XWrite is a special output command, only to be used to configure printers
Xand other output devices with escape sequences. This command outputs the
Xassociated string as it is encountered, without going through the normal
Xoutput routines of the formatter. Currently, the output string may contain
Xcontrol characters specified as "^<char>", decimal numbers within the range
Xof 1-255, and other characters. Blanks within the string are skipped. Any
Xportion of the string enclosed with double quotes is output as is. To output
Xa double quote, two double quotes must be used within the quoted string.
XFollowing is a typical string to set a Digital La-100 printer to letter
Xquality print mode:
X\sp
X\nf
X\in +5
X|
X|.wr ^["[2z"
X|
X\sp
X\fi
X\in -5
XIn the control string, "^[" is the ASCII equivalent of the Escape (esc)
character.
XFollowing mapping table is used to convert characters starting with a caret
Xto their binary equivalents: ("|" indicates an alternative)
X\nf
X\nap
X\sp
X\in +5
XControl chr  Dec. Oct. Hex.
X-----------  ---- ---- ----
X^a | ^A (soh)    1    01      01
```

```
X^b | ^B (stx)     2    02   02
X^c | ^C (etx)     3    03   03
X^d | ^D (eot)     4    04   04
X^e | ^E (enq)     5    05   05
X^f | ^F (ack)     6    06   06
X^g | ^G (bel)     7    07   07
X^h | ^H (bs) 8    10   08
X^i | ^I (ht) 9    11   09
X^j | ^J (nl) 10   12   0A
X^k | ^K (vt) 11   13   0B
X^l | ^L (np) 12   14   0C
X^m | ^M (cr) 13   15   0D
X^n | ^N (so) 14   16   0E
X^o | ^O (si) 15   17   0F
X^p | ^P (dle)     16   20   10
X^q | ^Q (dc1)     17   21   11
X^r | ^R (dc2)     18   22   12
X^s | ^S (dc3)     19   23   13
X^t | ^T (dc4)     20   24   14
X^u | ^U (nak)     21   25   15
X^v | ^V (syn)     22   26   16
X^w | ^W (etb)     23   27   17
X^x | ^X (can)     24   30   18
X^y | ^Y (em) 25   31   19
X^z | ^Z (sub)     26   32   1A
X^[  (esc)     27   33   1B
X^\  (fs) 28   34   1C
X^]  (gs) 29   35   1D
X^^  (rs) 30   36   1E
X^__ (us) 31   37   1F
X\sp
X\in -5
X\ap
X\fi
X\cchar .
X.in -5
X.bp
X.cl
X.sect 1 3.7 Defining New Commands (Macros)
X In document formatting, it is common to repeat a series of commands at
Xseveral places in the document. PROFF allows you to define a new command
Xthat will replace these repeated commands. This not only saves typing but
Xensures that
X.ul
Xexactly
Xthe same sequence of commands are applied throughout the document. A new
Xcommand that you define is formally called a
X.ul
Xmacro.
XTo define a macro, you must use the define macro (.de | .define) and
Xend macro (.en) commands.
X.in +5
X.cchar \
```

```
X\set DEF ".de | .define <macro name>"
X\comm DEF
XDefine is used to define a <macro name> to which a series of commands to
Xbe assigned. This definition line is followed by any number of PROFF
Xcommands and/or text which define the action that the macro
Xwill subsequently produce. Macros may refer to other macros.
X\set ENM ".en"
X\comm ENM
XEnd macro is the last line in the command definition. You must put in this
Xcommand to finish a currently defined macro. ".en" command should not be
Xre-defined as a macro.
X\in -5
X\sp
XThe example below defines macros ".note" and ".endnote", similar to the
XRUNOFF commands of the same name.
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|NOTE
X|.sp
X|.fi
X|.in +5
X|.rm -5
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -5
X|.rm +5
X|.en
X|
X\in -5
X\ap
X\fi
X A macro is used like any other PROFF command, control character followed
Ximmediately  by the name of the macro. For example, the above macros
Xmay be used as follows:
X\in +5
X\nap
X\need 9
X\nf
X\sp
X|
X|.note
X|textextextextextextextextextext
X|              .
```

```
X|          .
X|          .
X|.endnote
X|
X\in -5
X\sp
X\fi
XThe following note is generated by the same macros described previously.
X\cc .
X.nap
X.note
XFlap's Law: Any inanimate object, regardless of its position or configuration,
Xmay be expected to perform at any time in a totally unexpected manner for
Xreasons that are either entirely obscure or else completely mysterious.
X.endnote
X.fi
X.cc \
X\ap
XSpecial symbols may be used within a macro definition. These symbols represent
Xthe parameters passed to a macro, delimited by blanks or commas.
XThese symbols are _$0 for macro name, _$1 for the first parameter, _$2 for
Xthe second parameter and so on, up to _$9 for the ninth parameter. Currently,
Xmacro parameters may only contain alphanumerics, no string parameters are
Xpossible. The previous macro "note" may now be defined as follows:
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|_$2 _$3 _$4 _$5 _$6 _$7 _$8 _$9
X|.nr m _$1
X|.sp
X|.fi
X|.in +_$1
X|.rm -_$1
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -_@nm
X|.rm +_@nm
X|.en
X|
X\in -5
X\ap
X\fi
X In this version of the "note" and "endnote" macros, the first parameter (_$1)
Xis used to pass the value for indentation and right margin adjustment.
```

```
XAll the rest of the macro parameters (_$2 - _$9) are used as the title of
Xthe note. The indent value passed as the first parameter is also saved in the
Xnumber register "m" to communicate it to the "endnote" macro, such that
Xwhen the endnote macro is called, both indent and right margin values are
Xadjusted back to normal. It is possible and may be more useful to use
X".save" and ".restore" commands to accomplish the same task, especially if
Xthe macro alters the current formatting context drastically. The ".note"
Xand ".endnote" macros may be called as follows:
X\in +5
X\nap
X\need 9
X\nf
X\sp
X|
X|.note 5 Asimov's Law of Robotics
X|textextextextextextextextextext
X|              .
X|          .
X|          .
X|.endnote
X|
X\in -5
X\fi
X\ap
X In this usage, the indent value will be adjusted by +5, right margin will
Xbe adjusted by -5, and the title "Asimov's Law of Robotics" will appear
Xcentered above the note.
X\cchar .
X.bp
X.cl
X.sect 0 4.0 Executing PROFF
X The PROFF program  may be invoked with a series of optional parameters and
Xfilenames on the command line. The command synopsis is:
X
XPROFF [+n] [-n] [-v] [-s] [-pon] [-ifile] input [output]
X
XThe square brackets indicate an optional parameter. Interpretation of the
Xparameters is as follows:
X.nap
X.in +10
X.define opt
X.need 5
X.sp
X.ti -5
X.bd
X$1
X.br
X.en
X.opt +n
XStart the printing of the document at the first page with
Xnumber n.
X.opt -n
XStop printing at the first page numbered higher than n.
```

```
X.opt -v
XVerbose mode. PROFF indicates the source files being included into
Xdocument, and produces a summary of the number of textlines read in, the number
Xof lines and actual pages generated. A memory usage summary of internal
Xstorage for macros, stacks and tables is also displayed.
X.opt -s
XStop before each page, including the first one to allow paper
Xadjustment. A prompt is given just before the first page. For each
Xpage thereafter, the terminal bell is rung to indicate that another sheet
Xof paper is needed.
X.opt -pon
XSets the page offset to n. This is equivalent to ".po" command within
Xthe document. It is recommended that -pon option be used instead of
Xembedding the offset value within the document.
X.opt -ifile
XIncludes the given file to the formatted document. This is equivalent to
Xa ".include file" command within the document. This option may be
Xrepeated more than once, -ifile1 -ifile2 etc.
X.opt input
XSpecifies the input file to be formatted. PROFF does not impose any
Xfile extension. The recommended extension is ".PRF".
X.opt output
XSpecifies the output file for the formatted document. If this is omitted,
Xoutput is directed to the user's terminal.
X.in -10
X
XFollowing are some examples of PROFF command lines:
X
X.ti +5
XA>PROFF -v proffman.prf
X
XFormat this document (proffman.prf) in verbose mode, and output the
Xformatted document to the
Xterminal.
X
X.ti +5
XA>PROFF +5 -imacros.pma proffman.prf
X
XFormat this document, include the external file MACROS.PMA, skip the first
Xfour pages and output the formatted document to the terminal.
X
X.ti +5
XA>PROFF -po10 proffman.prf proff.man
X
XFormat this document, shift the entire document by 10 spaces to right and
Xoutput to a file called proff.man.
X.bp
X.cl
X.sect 0 5.0 Tips on using PROFF
X.ap
X.sect 1 5.1 Care and Feeding of Memory
X PROFF uses a dynamic memory allocation scheme for some of its operations.
XThese are macro definitions, contents lines, variables and save context
```

```
Xoperation.
XRunning PROFF under microcomputers with limited memory resources (64k or less)
Xrequire some care in using these commands:
X.list 3
X.item a)
XDo not declare macros that are not needed within the document.
X.item b)
XDo not use comments within macros. Due to delayed evaluation, comments
Xwill also be stored as a part of the macro definition.
X.item c)
XWhere possible, avoid using too much text within macros. It is just as
Xeasy to pass the information during the macro call.
X.item d)
XUse only the shortest form of commands within macros.
X.item e)
XBe brief in contents line text.
X.item f)
XUse short variable names as long as it is not so cryptic as to be confusing.
X.item g)
XAvoid unnecessary blanks within the variable definitions.
X.item h)
XAvoid too many context saves without a corresponding restore. The restore
Xoperation reclaims the memory used for a save.
X.nolist
X Even if the formatter is used with a system of large memory resources,
Xsome of the precautions above are applicable. (Utz's 4th law of Computer
XProgramming: Any given program will eventually expand to fill all the
Xavailable memory.) Using the -v option under memory-restricted systems
Xmay be useful in determining the memory usage.
X
X.sect 1 5.2 Formatting without fuss
X PROFF, using its default settings, may provide reasonably formatted output
Xin many situations.
XAs an example, examine the document PROFF.TUT. This document does not use
XANY formatting commands. All formatting is done with the default settings.
X
X.sect 1 5.3 Variables within macros
X Variable expansions may be performed within the macros. Typically, one
Xof the parameters of the macro is assumed to be a variable, which is expanded
Xonly after the macro is used. Thus:
X.in +5
X.nf
X
X|
X|.define xx
X|.ce
X|_$_$1
X|.cl _$_$1
X|.en
X|
X
X.in -5
X.fi
```

```
XThe macro xx assumes the first parameter to be a variable, which is
Xcentered on the page, and also entered in the table of contents.
XNote the usage of "_$_$1". The lines within a macro are scanned from
Xright to left for parameter expansion. Thus, "_$1" is expanded first,
Xresulting in "_$<first parameter>". This is later expanded as a variable.
X
X.bp
X.cl
X.sect 0 6.0 Example macros
X
X.nf
X.in +5
X.cc \
X.!
X.! macros to create a point-form lists.
X.! note the use of number registers within
X.! the macros.
X.!------------
X.define list
X.nr a _$1
X.in _$1
X.en
X.!------------
X.define item
X.sp
X.ti -_@na
X_$1
X.en
X.!------------
X.define nolist
X.in -_@na
X.sp
X.en
X.!------------
X
X\in -5
X\fi
XThe "list" macro is used to generate point-form lists. The first parameter
Xis an indent value, size of point-str + 1. A typical usage may be as
Xfollows:
X\need 16
X\in +5
X
X\nf
X|
X|Project work involves:
X|.sp
X|.list 3     { size-of-point-str + 1 }
X|.item a)         { "a)" is the point-str }
X|choosing a topic
X|.item b)
X|defining the topic
X|.item c)
```

```
X|research
X|.item d)
X|organizing the notes
X|{etc.}
X|.nolist     { readjusts the indent  }
X|
X\in -5
X
XThe above usage will produce the following:
X\need 12
X\in +5
X
X|
X|Project work involves:
X|
X|a) choosing a topic
X|
X|b) defining the topic
X|
X|c) research
X|
X|d) organizing the notes
X|
X
X\in -5
X\fi
XThe point-form recommendations under section 5.1 (Care and Feeding of
XMemory) were generated with the same set of macros described above.
X\cc .
X.bp
X.cl
X.sect 0 7.0 Acknowledgements
X This document was edited by Terry Lim and Steven Tress.
XThe format of the document is largely based on The Freshwater Institute
XRUNOFF User's Guide. The Quotes for the various formatting examples are
Xfrom THE QUOTABLE NOTHING BOOK and from 1001 LOGICAL LAWS, ACCURATE
XAXIOMS, PROFOUND PRINCIPLES, TRUSTY TRUISMS, HOMEY HOMILIES, COLORFUL
XCOROLLARIES, QUOTABLE QUOTES, AND RAMBUNCTIOUS RUMINATIONS FOR ALL
XWALKS OF LIFE, by Peers, Bennet and Booth, Fawcett Columbine Books,
XNew York.
X.bp
X.cl
X.sect 0 Appendix A
X.he /1.0/Appendix A/#/
X.cc \
X\nf
X\nap
X\ce
XSummary of Commands
X
X-----------------------------------------------------------
X$FILL
X        default:  initial: yes  break: yes
```

```
X        begin filling output lines
X-------------------------------------------------------
X$NOFILL
X        default: initial: no   break: yes
X        stop filling
X-------------------------------------------------------
X$JUST
X        default: initial: yes  break: yes
X        begin justifying filled lines
X-------------------------------------------------------
X$NOJUST
X        default: initial: no   break: yes
X        stop justifying
X-------------------------------------------------------
X$BREAK
X        default: initial: break: yes
X        cause a break and output current line
X-------------------------------------------------------
X$INDENT
X        default: 0    inital: 0break: yes
X        set left margin to column n+1
X-------------------------------------------------------
X$TINDENT
X        default: 0    initial: break: yes
X        temporarily indent next output n spaces
X-------------------------------------------------------
X$SPACETO
X        default: 0    initial: break: yes
X        space to line +n from top
X        space to line -n from bottom
X-------------------------------------------------------
X$SPACE
X        default: 1    initial: break: yes
X        space n lines except at top of page
X-------------------------------------------------------
X$CENTER
X        default: 1    initial       break: yes
X        center next n lines
X        center until turned off
X-------------------------------------------------------
X$UNDLINE
X        default: 1    initial       break: no
X        underline next n lines
X        underline until turned off
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$CUNDLINE
X        default: words     initial: words     break: no
X        set mode for underline - words or all
X-------------------------------------------------------
X$BOLD
X        default: 1    initial: break: no
```

```
X        boldface (overstrike) next n lines
X        boldface until turned off
X-------------------------------------------------------
X$DBO
X        default: initial: no   break: no
X        disable bolding
X-------------------------------------------------------
X$EBO
X        default: initial: yes  break: no
X        enable bolding
X-------------------------------------------------------
X$LS
X        default: 1    initial: 1    break: no
X        set line spacing to n
X-------------------------------------------------------
X$BP
X        default: +1   initial: 1    break: yes
X        begin a new page and number it n
X-------------------------------------------------------
X$PN
X        default: initial: arabic    break: no
X        set page numbering to arabic or roman
X-------------------------------------------------------
X$NPA
X        default: initial: no   break: yes
X        disable paging
X-------------------------------------------------------
X$PA
X        default: initial: yes  break: yes
X        enable paging
X-------------------------------------------------------
X$NE
X        default: 0    initial: break: yes/no
X        need n lines. Break and generate a new page
X        if not available
X-------------------------------------------------------
X$HE
X        default: null initial: null break: no
X        set header to text (/left/center/right/)
X-------------------------------------------------------
X$FO
X        default: null initial: null break: no
X        set footer to text (/lef/center/right/)
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$OHE
X        default: null initial: null break: no
X        set header on odd pages to text
X-------------------------------------------------------
X$EHE
X        default: null initial: null break: no
X        set header on even pages to text
```

```
X-----------------------------------------------------------
X$OFO
X        default: null initial: null break: no
X        set footer on odd pages to text
X-----------------------------------------------------------
X$EFO
X        default: null initial: null break: no
X        set footer on odd pages to text
X-----------------------------------------------------------
X$PO
X        default: 0    initial: 0    break: yes
X        set page offset to n spaces
X-----------------------------------------------------------
X$RM
X        default: 65   initial: 65   break: no
X        set right margin to column n
X-----------------------------------------------------------
X$PL
X        default: 66   initial: 66   break: no
X        set page length to n lines
X-----------------------------------------------------------
X$M1
X        default: 3    initial: 3    break: no
X        lines between top of page and header
X-----------------------------------------------------------
X$M2
X        default: 2    initial: 2    break: no
X        lines between header and text
X-----------------------------------------------------------
X$M3
X        default: 2    initial: 2    break: no
X        lines between text and footer
X-----------------------------------------------------------
X$M4
X        default: 3    initial: 3    break: no
X        lines between footer and bottom
X-----------------------------------------------------------
X$CL
X        default: initial: break: yes
X        enter text into table of contents at level
X        n
X-----------------------------------------------------------
X\bp
X-----------------------------------------------------------
X$PC
X        default: 3    initial: 3    break: yes
X        print table of contents, indent each level
X        n spaces
X-----------------------------------------------------------
X$VSET
X        default: initial: break: no
X        set variable to text
X-----------------------------------------------------------
```

```
X$VGET
X        default: initial: break: no
X        set variable interactively, using text
X        as prompt
X-------------------------------------------------------
X$VRG
X        default: 0    initial: 0    break: no
X        set number register (a-z) to n
X-------------------------------------------------------
X$CCHAR
X        default: "."  initial: "."  break: no
X        set command control character to char
X-------------------------------------------------------
X$ECHAR
X        default: "__" initial: "__" break: no
X        set universal escape character to char
X-------------------------------------------------------
X$SOU
X        default: initial: input    break: no
X        switch input to file
X-------------------------------------------------------
X$SAVE
X        default: initial: break: yes
X        save the current formatter context on
X        context stack
X-------------------------------------------------------
X$RST
X        default: initial: break: yes
X        restore the formatter context from context
X        stack
X-------------------------------------------------------
X$LEX
X        default: initial: break: no
X        rename a command
X-------------------------------------------------------
X$APR
X        default: initial: no   break: no
X        enable auto-paragraphing
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$NAP
X        default: initial: yes  break: no
X        disable auto-paragraphing
X-------------------------------------------------------
X$WRT
X        default: initial: break: no
X        write a special string to output. line
X        counter does not change
X-------------------------------------------------------
X$DEF
X        default: initial: break: no
X        define a macro command - ends at ".en"
```

```
X-----------------------------------------------------------
X$ENM
X        default: initial: break: no
X        end the macro definition
X-----------------------------------------------------------
X\cc .
X.bp 1
X.pn roman
X.he ////
X.fo //- # -//
X.ce on
XTable Of Contents
X
XPROFF 1.0
X.ce off
X.pc
SHAR_EOF
if test 46207 -ne "`wc -c 'proffman.prf'`"
then
     echo shar: error transmitting "'proffman.prf'" '(should have been 46207
characters)'
fi
echo shar: extracting "'proffsym.new'" '(3451 characters)'
if test -f 'proffsym.new'
then
     echo shar: over-writing existing file "'proffsym.new'"
fi
sed 's/^X//' << \SHAR_EOF > 'proffsym.new'
X
X! proff symbols
X! flag value of 1 indicate
X! a runoff-supported symbol
X! feb. 1984
X!
X! reset the formatter
X!
Xreset        RESET
X!
X! bolding
X!
Xbd       BD
Xbold         *
X!disable_bolding       DBO      1
Xdisablebolding         DBO      1
Xdbo          *        1
Xdb           *
X!enable_bolding        EBO      1
Xenablebolding          EBO      1
Xebo          *        1
Xeb           *
X!
X! new page & paging modes
X!
```

```
Xbp      BP
Xpage         *        1
Xpg      *        1
Xpaging           PGI      1
Xpa           *        1
Xnopaging     NPA      1
Xnp           *
X!
X! break
X!
Xbr      BR       1
Xbreak        *        1
X!
Xbs      BS
X!
X! setup control character
X!
Xcc      CC
Xcchar        *
X!
X! centering
X!
Xce      CE
Xcenter       *
X!
Xcu      CU
X!
X! macro definitions
X!
Xde      DE
Xdefine       *
X!
X! setup generic escape character
X!
Xec      EC
Xechar        *
X!
X! even footers and headers
X!
Xef      EF
Xeh      EH
X!
X! end macro definition
X!
X!en     EN
X!
X! fill the lines
X!
Xfi      FI
Xf       *        1
Xfill         *        1
X!
X! general footers and headers
```

```
X!
Xfo      FO
Xfooter      *
Xhe      HE
Xheader      *
X!
X! indentation (permanent)
X!
Xin      IN
Xlm      *        1
X!left_margin *        1
Xleftmargin   *        1
X!
X! justification
X!
Xju      JU
Xj       *        1
Xjustify      *        1
X!
X! line spacing
X!
Xls      LS
Xspacing      *        1
Xspc     *        1
X!
X! margin spacing
X!
Xm1      M1
Xm2      M2
Xm3      M3
Xm4      M4
X!
X! test for page
X!
Xne      NE
Xneed         *
X!test_page   *        1
Xtestpage*        1
Xtp      *        1
X!
X! disable fill
X!
Xnf      NF       1
Xnofill       *
X!no_fill     *        1
X!
X! disable justification
X!
Xnj      NJ       1
Xnojustify    *
X!no_justify  *        1
X!
X! number registers
```

```
X!
Xnr      NR
X!
X! external output
X!
Xou      OU
Xoutput       *
Xoe      OE
Xoutend       *
X!
X! odd footers and headers
X!
Xof      OF
Xoh      OH
X!
X! page length
X!
Xpl      PL
Xps      *        1
X!page_size   *        1
Xpagesize*        1
X!
X! page offset
X!
Xpo      PO
Xoffset       *
X!
X! right margin
X!
Xrm      RM       1
X!right_margin    *        1
Xrightmargin  *        1
X!
X! external input (include)
X!
Xso      SO
Xsource       *
Xinclude      *
Xrequire      *        1
Xreq     *        1
X!
X! skip line (blank lines) according to spacing
X! sp is not the same as runoff sp
X!
Xsp      SP
Xskip         *        1
Xs       *        1
X!
X! blank line
X!
X!blank       BL       1
X!b      *        1
X!
```

```
X! space from top (or bottom)
X!
Xst      ST
Xskipto       *
X!
X! temporary indent
X!
Xti      TI
Xleft         *        1
X!
X! underline
X!
Xul      UL
Xunderline    *
X!
X! substitute (using requlars expresions)
X!
X!su     SU
X!subs        *
X!substitute  *
X!esu         ESU
X!enable_subs *
X!dsu         DSU
X!disable_subs    *
X!
X! save and restore of FSECT
X!
Xsv      SAV
Xsave         *
Xrs      RST
Xrestore      *
X!
X! looping formatting for each variable
X!
X!for         FOR
X!foreach     *
X!enf         ENF
X!endfor      *
X!
X! permanent symbol replacement
X!
Xlx      LEX
Xlex     LEX
X!
X! ignore character
X!
Xig      IG
Xignore       IG
X!
X! variable definition
X!
Xvs      SET
Xset     *
```

```
Xvg       GET
Xget      *
X!
X! page numbering (roman or arabic)
X!
Xpn       PN
Xpagenumber   *
X!
X! paragraphing
X!
Xap           AP        1
Xautoparagraph          *         1
Xna           *
Xnap          NAP             1
X!no_autoparagraph *                1
Xnoautoparagraph        *         1
X!paragraph         PAR       1
X!p           *         1
X!set_paragraph         SPR       1
X!setparagraph          *         1
X!spr             *         1
X!
X!
X!comment          COM       1
X!
X! same as pagenumber
X!
X!display_number         DNM       1
X!dnm              *         1
X!
X! entry into an index listing
X!
X!entry            ENT       1
X!y           *         1
X!
X! entry into contents table
X!
Xcl           CL
Xcontline     *
Xpc           PC
Xprintcont         *
X!
X! conditional formatting
X!
X!if          CIF       1
X!else             CELSE         1
X!endif            CENDIF        1
X!ifnot            CIFNOT        1
X!
X! list generation
X!
X!list             LST       1
X!end_list         ELS       1
```

```
X!endlist          ELS      1
X!els              *        1
X!list_element          LEM      1
X!listelement      LEM      1
X!le          *        1
X!
X! literal mode (nf-nj-lm0-rm150)
X!
Xliteral           LTR      1
Xlt           *        1
X!end_literal      ELT      1
Xendliteral        ELT      1
Xel           *        1
X!
X! overstrike control
X!
X!enable_overstriking  EOV      1
X!eov              *        1
X!disable_overstriking DOV      1
X!dov              *        1
X!
X! repeat a string
X!
X!repeat           REP      1
X!rpt              *        1
X!
X! flush right margin
X!
X!right            RIG      1
X!r           *        1
X!
X! write out a special string
X!
Xwr           WR
Xwrite              *
X!
X! end of definitions
SHAR_EOF
if test 3451 -ne "`wc -c 'proffsym.new'`"
then
     echo shar: error transmitting "'proffsym.new'" '(should have been 3451
characters)'
fi
#    End of shell archive
exit 0
--
```


```
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
```

From 1553217102232842752
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522de78713dda03c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:56:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Proff repost (3 of 4)
Message-ID: <1338@trwrb.UUCP>
Date: Tue, 7-Oct-86 15:56:26 EDT
Article-I.D.: trwrb.1338
Posted: Tue Oct 7 15:56:26 1986
Date-Received: Wed, 8-Oct-86 08:15:58 EDT
References: <8610061437.AA18001@ucbvax>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 1067

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    putwrd.c
#    pxlex.c
#    pxxparse.c
#    read.me
#    see.me
#    stack.c
# This archive created: Fri Mar 21 22:45:09 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'putwrd.c'" '(993 characters)'
if test -f 'putwrd.c'
then
     echo shar: over-writing existing file "'putwrd.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'putwrd.c'
X#include <stdio.h>
X#include "proff.h"
X#include "debug.h"
X
X#define brk brrk
X
X/*
X * putwrd - put a word in outbuf; includes margin justification
X *
X */
```

```
Xputwrd(wrdbuf)
Xchar wrdbuf[];
X{
X    int last, llval, extra, w;
X
Xdprintf("putwrd  ");
X    w = width(wrdbuf);
X    last = strlen(wrdbuf) + outp;         /* new end of outbuf */
X#ifdef DEBUG
Xprintf("strlen(wrdbuf) = %d\n",strlen(wrdbuf));
X#endif
X    llval = rmval - tival;
X    if (outw + w > llval || last >= MAXOUT) {    /* too big */
X         last -= outp;
X         extra = llval - outw;
X#ifdef DEBUG
Xprintf("extra = %d\n",extra);
X#endif
X         for ( ; outp > 0; outp--)
X              if (outbuf[outp-1] == ' ')
X                   extra++;
X              else
X                   break;
X         if (rjust == YES) {
X              spread(outbuf, outp, extra, outwds);
X              if (extra > 0 && outwds > 1)
X                   outp += extra;
X         }
X         brk();        /* flush previous line */
X    }
X#ifdef DEBUG
Xprintf("putwrd: last=%d w=%d outp=%d llval=%d outw=%d extra=%d\n",
X         last,w,outp,llval,outw,extra);
X#endif
X    strcpy(&outbuf[outp],wrdbuf);
X    outp = last;
X    outw += w;
X    outwds++;
X}
SHAR_EOF
if test 993 -ne "`wc -c 'putwrd.c'`"
then
     echo shar: error transmitting "'putwrd.c'" '(should have been 993
characters)'
fi
echo shar: extracting "'pxlex.c'" '(3355 characters)'
if test -f 'pxlex.c'
then
     echo shar: over-writing existing file "'pxlex.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pxlex.c'
X#include <stdio.h>
X#include <math.h>
```

```
X#include <ctype.h>
X
X/* translation table for control chars */
X
Xchar c_ctrl[] = {
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  1,  2,  3,  4,  5,  6,  7,  8,  9,
X        10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23,
X        23, 25, 26, 27, 28, 29, 30, 31, 0,  1,  2,  3,  4,  5,
X        6,  7,  8,  9,  10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
X        20, 21, 22, 23, 24, 25, 26, 0,  0,  0,  0,  0
X        };
X
X/*
X * getval - evaluate optional numeric argument
X *
X * increments i
X */
Xint
Xgetval(buf,i,argtyp)
Xchar buf[];
Xint *i;
Xint *argtyp;
X{
X    int j,k;
X
X    j = *i;
X    k = *argtyp;
X
X    skipbl(buf, &j);
X    k = buf[j];
X    if (k == '+' || k == '-')
X        j++;
X    *i = j;
X    *argtyp = k;
X    return(ctoi(buf,i));
X}
X
X/*
X * getarg - get the next argument from the buffer
X *
X * return values:      -1 - no argument
X *           n - number of chars in argument
X *
X * also handles quoted ("..") strings. If a quote is wanted
X * in the string, use "" or \". quotes are stripped.
X *
X * argument delimiters: blank, tab or comma (,).
X *
```

```
X * increments i
X *
X */
Xint
Xgetarg(buf,i,arg)
Xchar buf[];
Xint *i;
Xchar arg[];
X{
X    int j,k;
X    register char ch;
X
X    j = *i;
X
X    k = -1;
X    skipbl(buf,&j);
X    if (buf[j] != '\0') {
X         k = 0;
X         if (buf[j] == '\"') {
X              j++;
X              while (buf[j] != '\0') {
X                   if (buf[j] == '\"') {
X                        if (buf[j+1] == '\"') {
X                             arg[k++] = '\"';
X                             j += 2;
X                        }
X                        else
X                             break;
X                   }
X                   arg[k++] = buf[j++];
X              }
X              arg[k] = '\0';
X              j++;          /* skip the quote */
X              /* peek next char */
X              if (isalnum(buf[j]))
X                   error("improper argument list.");
X              j++;          /* skip the delimeter */
X         }
X         else {
X              ch = buf[j];
X              while (ch != ' '&&
X                  ch != '\t'    &&
X                  ch != ','     &&
X                  ch != '\r'    &&
X                  ch != '\n'    &&
X                  ch != '\0') {
X                   arg[k++] = buf[j++];
X                   ch = buf[j];
X              }
X              arg[k] = '\0';
X              if (ch != '\0')    /* if non-null delimiter, skip */
X                   j++;
X         }
```

```
X         *i = j;
X    }
X    return(k);
X}
X
X/*
X * getpstr - get a special string to print out
X *
X */
Xgetpstr(buf,out)
Xregister char *buf;
Xregister char *out;
X{
X    register int i;
X    register char c, cc;
X    register char *num;
X    char numbuf[9];
X
X    while(*buf != '\n' && *buf != '\0') {
X         c = *buf;
X         switch(c) {
X         case ' ':
X         case '\t':
X              while (*buf == ' ' || *buf == '\t')
X                   buf++;    /* skip blanks */
X              break;
X         case '\\':
X              if (*(buf+1) != '\0') {
X                   *out++ = *(buf+1);
X                   buf += 2;
X              }
X              else
X                   buf++;
X              break;
X         case '^':
X              if ((cc = c_ctrl[*(buf+1)]) != 0)
X                   *out++ = cc;
X              buf += 2;
X              break;
X         case '\"':
X              buf++;    /* skip the quote */
X              while (*buf != '\0') {
X                   if (*buf != '\"')
X                        *out++ = *buf++;
X                   else if (*(buf+1) == '\"') {
X                             *out++ = '\"';
X                             buf += 2;
X                   }
X                   else
X                        break;
X              }
X              buf++;    /* skip the quote */
X              break;
```

```
X        case '0':
X        case '1':
X        case '2':
X        case '3':
X        case '4':
X        case '5':
X        case '6':
X        case '7':
X        case '8':
X        case '9':
X             num = numbuf;
X             while (isdigit(*buf))
X                  *num++ = *buf++;
X             *num = '\0';
X             if ((i = atoi(numbuf)) > 256)
X                  error("non-ascii char value in write string.");
X             else if (i > 0)        /* do not output null */
X                  *out++ = (char) i;
X             break;
X        default:
X             *out++ = *buf++;
X        }
X    }
X    *out = '\0';
X}
SHAR_EOF
if test 3355 -ne "`wc -c 'pxlex.c'`"
then
     echo shar: error transmitting "'pxlex.c'" '(should have been 3355
characters)'
fi
echo shar: extracting "'pxxparse.c'" '(9665 characters)'
if test -f 'pxxparse.c'
then
     echo shar: over-writing existing file "'pxxparse.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pxxparse.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X#include "lextab.h"
X
X#define brk brrk
X
X#define RUNOFF    1        /* recognise RUNOFF commands */
X
Xchar literal = NO;         /* literal flag              */
X
X/*
X * command - perform formatting command
X *
X */
```

```
Xcommand(buf)
Xchar buf[];
X{
X    char token[MAXTOK], xtoken[MAXTOK], variable[MAXTOK], *defn;
X    char special[MAXTOK];
X    int argtyp, ct, at, spval, i, flags;
X    register int val, n, rest;
X    char onflag = FALSE;
X    char offflag = FALSE;
X    struct lexlist *xp;
X
X    dovar(tbuf1,buf);  /* use scratch buffer to expand variables */
X    strcpy(buf,tbuf1);
X
X    i = 1;
X    n = getwrd(buf, &i, token); /* get the command token */
X    rest = i;          /* remaining string */
X    ct = comtype(token, n, &defn, &flags);
X    if (ct == UNKNOWN)
X         return;
X    if (literal && ct != ELT) { /* ignore while literal  */
X         put(buf);
X         return;
X    }
X
X#ifdef DOUBLEWORD
X    if (flags == 2) {  /* check for 2-word command */
X         n = getwrd(buf, &i, xtoken);
X         if (n == 0) {
X              fprintf(stderr,"%c%s what ?\n", cchar, token);
X              return;
X         }
X         if ((at = comtype(xtoken, n, &defn, &flags)) == UNKNOWN) {
X              fprintf(stderr,"%c%s %s unknown.\n", cchar,
X              token,
X              xtoken);
X              return;
X         }
X         else
X              ct += at;
X    }
X#endif
X
X    doesc(buf, variable, MAXLINE);   /* expand escapes */
X    n = getarg(buf, &i, xtoken);     /* first parameter*/
X    argtyp = '\n';     /* defaulted ** cludge ** */
X    val = 0;
X    if (n > 0) {
X         if (*xtoken == '+' || *xtoken == '-') {
X              argtyp = *xtoken;
X              val = atoi(xtoken+1);
X         }
X         else if (isdigit(*xtoken)) {
```

```
X             argtyp = 0;
X             val = atoi(xtoken);
X         }
X         else {
X             /* check some common flags */
X             if (strcmp("on",xtoken) == 0)
X                  onflag = TRUE;
X             else if (strcmp("off",xtoken) == 0)
X                  offflag = TRUE;
X         }
X    }
X
X    switch(ct) {
X
X    case MACRO:
X         eval(buf, defn);
X         break;
X    case FI:
X         brk();
X         fill = YES;
X         break;
X    case NF:
X         brk();
X         fill = NO;
X         break;
X    case BR:
X         brk();
X         break;
X    case LS:
X         set(&lsval, val, argtyp, 1, 1, HUGE);
X         break;
X    case CE:
X         brk();
X         if (onflag)
X             CEon = TRUE;
X         else if (offlag) {
X             CEon = FALSE;
X             ceval = 0;         /* reset */
X         }
X         else
X             set(&ceval, val, argtyp, 1, 0, HUGE);
X         break;
X    case UL:
X         if (onflag) {
X             ULon = TRUE;
X             break;
X         }
X         else if (offlag) {
X             ULon = FALSE;
X             ulval = 0;         /* reset */
X             break;
X         }
X         else
```

```
X            set(&ulval, val, argtyp, 0, 1, HUGE);
X
X        if (!isdigit(*xtoken)) {
X            if (strcmp("all",xtoken) == 0) {
X                    ulblnk = '_';
X                    ulval = 0;
X            }
X            else if (strcmp("words",xtoken) == 0) {
X                ulblnk = ' ';
X                ulval = 0;
X            }
X        }
X        break;
X    case BD:
X        if (bolding == YES) {
X            if (onflag)
X                BDon = TRUE;
X            else if (offlag) {
X                BDon = FALSE;
X                boval = 0;    /* reset */
X            }
X            else
X                set(&boval, val, argtyp, 0, 1, HUGE);
X        }
X        break;
X    case HE:
X        gettl(buf, ehead, ehlim);
X        gettl(buf, ohead, ohlim);
X        break;
X    case FO:
X        gettl(buf, efoot, eflim);
X        gettl(buf, ofoot, oflim);
X        break;
X    case BP:
X        if (paging == NO)
X            break;
X        brk();
X        if (lineno > 0)
X            space(HUGE);
X        set(&curpag, val, argtyp, curpag+1, -HUGE, HUGE);
X        newpag = curpag;
X        break;
X    case SP:
X        set(&spval, val, argtyp, 1, 0, HUGE);
X        space(spval);
X        break;
X    case IN:
X        brk();
X        set(&inval, val, argtyp, 0, 0, rmval-1);
X        tival = inval;
X        break;
X    case RM:
X        set(&rmval, val, argtyp, PAGEWIDTH, tival+1, HUGE);
```

```
X         break;
X    case TI:
X         brk();
X         set(&tival, val, argtyp, 0, 0, rmval);
X         break;
X    case LEX: /****/
X         if ((xp = remove(xtoken,lextab)) != NULL) {
X              if (getwrd(buf, &i, variable) != 0)
X                   lexinstal(variable,xp->val,xp->flag,lextab);
X         }
X         else
X             fprintf(stderr,"%s undefined.\n",xtoken);
X         break;
X    case PN:  /****/
X         if (strcmp(xtoken,"roman") == 0)
X              roman = TRUE;
X         else if (strcmp(xtoken,"arabic") == 0)
X              roman = FALSE;
X         else
X              fprintf(stderr,"%c%s does not have %s option.\n",
X              cchar,token,xtoken);
X         break;
X    case IG:  /****/
X         break;
X    case SET: /****/
X         if (n > 0) {
X              if (isdigit(*xtoken)) {
X                   fprintf(stderr,"illegal variable name %s\n",
X                   xtoken);
X                   break;
X              }
X              *variable = '\0';
X              n = getarg(buf, &i, variable);
X              if (n <= 0) {
X                   fprintf(stderr,"%s: ", xtoken);
X                   gets(variable);
X
X              }
X              if (*variable != '\0')
X                   install(xtoken, variable, gentab);
X         }
X         else
X              fprintf(stderr,"%c%s needs a variable name.\n",
X              cchar, token);
X         break;
X    case GET: /****/
X         if (n > 0) {
X              if (isdigit(*xtoken)) {
X                   fprintf(stderr,"illegal variable name %s\n",
X                   xtoken);
X                   break;
X              }
X              *variable = '\0';
```

```
X             n = getarg(buf, &i, tbuf3); /* using temp buf3 */
X             if (n > 0) {
X                  fprintf(stderr,"%s", tbuf3);
X                  gets(variable);
X
X             }
X             if (*variable != '\0')
X                  install(xtoken,variable, gentab);
X        }
X        else
X             fprintf(stderr,"%c%s needs a variable name.\n",
X             cchar, token);
X        break;
X    case CL: /****/
X        if (argtyp == '\n') {
X             clast->level = 0;
X             clast->str = NULL;
X        }
X        else {
X             skipbl(buf,&i);
X             if (*(buf+i) == '\0')
X                  break;        /* no contents line here ! */
X             clast->level = val * 3; /* level * indent
       */
X             n = i;
X             while(*(buf+n) != '\n')
X                  n++;
X             *(buf+n) = '\0';   /* destroy CR with a null  */
X             clast->str = strsave(buf+i);
X             clast->page = curpag;
X        }
X        clast->nextc = (struct clist *) malloc(sizeof(struct clist));
X        p_memoryus += sizeof(struct clist);
X        clast = clast->nextc;
X        clast->nextc = NULL;
X        break;
X    case PC: /****/
X        brk();
X        clast = chead;
X        while(clast->nextc != NULL) {
X             if (clast->str == NULL)
X                  put("\n");
X             else {
X                  tival = (int) clast->level + inval;
X                  i = rmval - tival;
X                  docline(variable, i, clast->str, clast->page);
X                  put(variable);
X             }
X             clast = clast->nextc;
X        }
X        break;
X    case DBO: /****/
X        bolding = NO;
```

```
X         break;
X    case EBO: /****/
X         bolding = YES;
X         break;
X    case AP:  /****/
X         autopar = YES;
X         break;
X    case NAP: /****/
X         autopar = NO;
X         break;
X    case SAV: /****/
X         brk();
X         save();
X         break;
X    case RST: /****/
X         brk();
X         restore();
X         break;
X    case NPA: /****/
X         paging = NO;
X         savpl = plval;
X         plval = HUGE;
X         bottom = plval - m3val - m4val;
X         break;
X    case PGI: /****/
X         bottom = lineno - 1;    /* force end-of-page */
X         brk();
X         plval = savpl;
X         break;
X    case LTR: /****/
X         brk();
X         if (save()) {
X              inval = 0;
X              rmval = 132;
X              autopar = NO;
X              lsval = 0;
X              fill = NO;
X              literal = YES;
X         }
X         break;
X    case ELT: /****/
X         restore();
X         literal = NO;
X         break;
X    case WR:  /****/
X         brk();
X         getpstr(buf+rest,special);
X         defn = special;
X         while(*defn)
X              putchar(*defn++);
X         break;
X    case PL:
X         if (paging == NO)
```

```
X            break;
X        set(&plval, val, argtyp, PAGELEN,
X        m1val + m2val + m3val + m4val + 1, HUGE);
X        bottom = plval - m3val - m4val;
X        break;
X    case PO:
X        set(&offset, val, argtyp, 0, 0, rmval - 1);
X        break;
X    case M1:
X        set(&m1val, val, argtyp, 3, 0,
X        plval - m2val - m3val - m4val - 1);
X        break;
X    case M2:
X        set(&m2val, val, argtyp, 2, 0,
X        plval - m1val - m3val - m4val - 1);
X        break;
X    case M3:
X        set(&m3val, val, argtyp, 2, 0,
X        plval - m1val - m2val - m4val - 1);
X        bottom = plval - m3val - m4val;
X        break;
X    case M4:
X        set(&m4val, val, argtyp, 3, 0,
X        plval - m1val - m2val - m3val - 1);
X        bottom = plval - m3val - m4val;
X        break;
X    case EH:
X        gettl(buf, ehead, ehlim);
X        break;
X    case OH:
X        gettl(buf, ohead, ohlim);
X        break;
X    case EF:
X        gettl(buf, efoot, eflim);
X        break;
X    case OF:
X        gettl(buf, ofoot, oflim);
X        break;
X    case CC:
X        cchar = *xtoken;
X        if (cchar == '\0' || cchar == '\n')
X            cchar = '.';
X        if ((lineno + val) > bottom && lineno <= bottom) {
X            space(val);
X            lineno = 0;
X        }
X        break;
X    case EC:
X        genesc = *xtoken;
X        if (genesc == '\0' || genesc == '\n')
X            genesc = '_';
X        break;
X    case NE:
```

```
X         if ((lineno + val) > bottom && lineno <= bottom) {
X              space(val);
X              lineno = 0;
X         }
X         break;
X    case BS:
X         set(&bsval, val, argtyp, 1, 0, HUGE);
X         break;
X    case JU:
X         rjust = YES;
X         break;
X    case NJ:
X         rjust = NO;
X         break;
X    case SO:
X         if (n <= 0)
X              return;
X         if (level + 1 == NFILES)
X              error("? SO commands nested too deeply.");
X         if ((infile[level + 1] = fopen(xtoken, "r")) != NULL) {
X              level++;
X              if (verbose == YES)
X#ifdef rainbow
X                   fprintf(stderr,"source \033[7m%s\033[0m\n",
X                        xtoken);
X#else
X                   fprintf(stderr,"source %s\n",xtoken);
X#endif
X         }
X         else
X              fprintf(stderr,"%s: cannot open.\n",xtoken);
X         break;
X    case OU: /*****/
X         /* skip for now. */
X         break;
X
X    case OE: /*****/
X         /* skip for now. */
X         break;
X
X    case CU:
X         ulblnk = '_';
X         set(&ulval, val, argtyp, 0, 1, HUGE);
X         break;
X    case DE:
X
X#ifdef DEBUG
Xprintf("Command++: calling dodef Fp %ld\n",infile[level]);
X#endif
X         dodef(buf, infile[level]);
X         break;
X    case NR:
X         if (n <= 0)
```

```
X            return;
X        if (*xtoken < 'a' || *xtoken > 'z')
X            error("invalid number register [%c].",*xtoken);
X
X        val = getval(buf, &i, &argtyp);
X        set(&nr[xtoken[0] - 'a'], val, argtyp, 0, -HUGE, HUGE);
X        break;
X    case ST:
X        if (argtyp == '-')
X            spval = plval;
X        else
X            spval = 0;
X        set(&spval, val, argtyp, 0, 1, bottom);
X        if (spval > lineno && lineno == 0)
X            phead();
X        if (spval > lineno)
X            space(spval - lineno);
X        break;
X    case RESET:   /****/
X        finit();
X        break;
X    default:
X        error("? Botch in command.");
X        break;
X    }
X}
X
X/*
X * comtype - decode the command type
X *
X */
Xint
Xcomtype(buf, siz, defn, flags)
Xchar buf[];
Xint siz;
Xchar **defn;
Xint *flags;
X{
X
X    struct hashlist *np;
X    struct lexlist *xp;
X    extern   struct lexlist *lexlook();
X    int i,comtyp;
X    char c1,c2;
X
X
X#ifdef DEBUG
X    printf("comtype:  (token)\n");
X#endif
X
X    if ((np = lookup(buf, macrotab)) != NULL) {
X        *defn=np->def;
X        return(MACRO);
```

```
X    }
X    comtyp = UNKNOWN;
X
X    if (*buf == '#' || *buf == '!')
X         return(comtyp);
X
X    if ((xp = lexlook(buf,lextab)) != NULL)
X         if (onlyrunoff && (xp->flag != RUNOFF)) {
X              fprintf(stderr,"%c%s is not a runoff command.\n",
X              cchar,buf);
X              return(UNKNOWN);
X         }
X         else {
X              comtyp = xp->val;
X              *flags = xp->flag;
X         }
X
X    if (comtyp == UNKNOWN)
X         fprintf(stderr,"unknown command %c%s\n",cchar,buf);
X    return(comtyp);
X}
SHAR_EOF
if test 9665 -ne "`wc -c 'pxxparse.c'`"
then
     echo shar: error transmitting "'pxxparse.c'" '(should have been 9665
characters)'
fi
echo shar: extracting "'read.me'" '(1426 characters)'
if test -f 'read.me'
then
     echo shar: over-writing existing file "'read.me'"
fi
sed 's/^X//' << \SHAR_EOF > 'read.me'
XProff - A portable formatter
X
XThis is the first distribution of PROFF, a formatter based
Xon software tools ROFF. It is mainly a C re-write of ROFF,
X(now known as FORMAT), with some expansions. It is mainly
Xintended for non-UN*X systems, CP/M, MS-DOS and the like.
X
XProff was originally written for The Faculty of Administrative
XStudies, York University, tto supplement their microcomputer
Xenvironment. As of this release, the formatter is in the
Xcontrol of The Faculty of Administrative Studies.
X
XThere is no man page for proff, for it was never intended
Xfor UN*X systems. There is, however two comprehensive
Xdocuments to answer all questions.
X
XThe C code for PROFF is quite warped, and should be approached
Xcarefully. [Ok..Ok.. it is all my fault.. too much midnight
Xoil..]  It is reasonably customazible, by changing proffsym.new.
XThis file is processed by ltb, a static hash table generator.
```

```
XThis approach is most useful to change the operator keywords,
Xcreate aliases, and it also bypassess the initialization
Xoverhead. [see the makefile for the right output file names
Xfor ltb]
X
XPROFF is not copyrighted, at least for this release. Future
Xreleases may contain York University copyright.
X
XPlease send me all updates, bugfixes and other tidbits,
Xso that future releases may be coordinated smoothly.
X
Xenjoy.
X        oz
X        bitnet: oz@yuyetti
X             oz@yusol
X        useet: {ihnp4|decvax|allegra|linus}!utzoo!yetti!oz
X        phonet: (416) 667 3976
X
SHAR_EOF
if test 1426 -ne "`wc -c 'read.me'`"
then
     echo shar: error transmitting "'read.me'" '(should have been 1426
characters)'
fi
echo shar: extracting "'see.me'" '(2491 characters)'
if test -f 'see.me'
then
     echo shar: over-writing existing file "'see.me'"
fi
sed 's/^X//' << \SHAR_EOF > 'see.me'
X    After capturing and unshar'ing all the parts of this proff
Xposting you should end up with the following files:
X
Xproff.uud             lookup.h  proff.c       putwrd.c
Xdebug.h      lextab.d  ltb.c         proff.h       pxlex.c
Xdecl.h       lextab.h  make.sh       proff01.c pxxparse.c
Xdefs.h       lnk       makefile  proff02.c read.me
Xdostuff2.c   look.c        map.c         proffman.prf  see.me
Xeval.c       lookup.c  pinit.c       proffsym.new  stack.c
X
XThis file is see.me
X
XHow to make proff on the ST:
X
X    1) You will have to edit stdio.h supplied with the dev. system
Xto include the following lines at the bottom of stdio.h.
X
X    #ifdef DECL
X    #include <decl.h>
X    #endif
X
X    We do this so that when the pre-processor symbol DECL is
Xdefined the file decl.h gets included, and if it isn't then stdio.h
```

Xlooks exactly like it did before we added the lines. In decl.h we
Xdeclare all the commonly used function in C that do not returns the
Xtype int. This a important as in the Alcyon C compiler
X sizeof(int) != sizeof(int *). You may if you like include decl.h
Xelsewhere, but you will have to ensure that each of the modules
X(source files) has decl.h included. We found it convenient to put it
Xin stdio.h as above.
X
X   2) For those of you who have Micro C Shell and CC that i had
Xposted earlier to this newgroup, you can simply hit
X
X   make
X
Xat the Micro C Shell prompt.
X
X   3) For those who don't have Micro C Shell, but have CC, see
Xthe file make.sh, and enter those commands.
X
X   4) For those who don't have either, you will have to see
Xmake.sh and compile each C file such that DECL is defined, so you may
Xhave to change your normal batch file somewhat to have the
Xpreprocessor switch in there to define the symbol DECL.
X
XPlease note that make.sh was set up to have all the sources, objects
Xetc in the current directory. If you are compiling on floppies you may
Xhave to change that.
X
XThe file lnk contains the list of files to be linked, and is used with
Xlink68 as follows
X
X   link68 [com[lnk]]
X   relmod proff
X
XThe above process should yield proff.prg. If you want to use it from
Xthe desktop, rename it to proff.ttp.
X
X
XMaking Proff on the Vax
X   Simply hit
X   make
X
XMaking the users guide
X   On either the St or Vax hitting
X
X   proff -po8 proffman.prf proff.man
X
X   Will result in proff.man. (You may want to play with -po<n> to
Xget the correct left margin spacing for your printer).
X
X   If you have any problems/suggestions i may be reached at the
Xfollowing addresses:
X
X   Usenet: .....!decvax!cwruecmp!bammi

```
X       CSnet:  bammi@case
X       Arpa:  bammi%case@csnet-relay
X       CompuServe:  71515,155
SHAR_EOF
if test 2491 -ne "`wc -c 'see.me'`"
then
     echo shar: error transmitting "'see.me'" '(should have been 2491 characters)'
fi
echo shar: extracting "'stack.c'" '(1909 characters)'
if test -f 'stack.c'
then
     echo shar: over-writing existing file "'stack.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'stack.c'
X#include <stdio.h>
X#include "proff.h"
X
Xstruct _proffitem {
X         int  Xinval;
X         int  Xrmval;
X         int  Xoffset;
X         int  Xlsval;
X         int  Xplval;
X         int  Xm1val;
X         int  Xm2val;
X         int  Xm3val;
X         int  Xm4val;
X         int  Xfill;
X         int  Xrjust;
X
X         char Xcchar;
X         char Xgenesc;
X         char Xroman;
X         char Xbolding;
X         char Xpaging;
X         char Xautopar;
X
X         struct   _proffitem *prev;
X};
X
Xstatic struct
X_proffitem *head = NULL;
Xstatic struct
X_proffitem *top  = NULL;
X
X
Xchar *pusherr = "save: stack overflow.\n";
Xchar *poperr  = "restore: stack underflow.\n";
X
X/*
X * save - save proff parameters
X *
X */
```

```
Xsave()
X{
X    struct _proffitem *sp;
X    char *malloc();
X
X    if ((sp = (struct _proffitem *) malloc(sizeof(*sp))) == NULL) {
X         fprintf(stderr,pusherr);
X         return(FALSE);
X    }
X    else {
X         p_memoryus += sizeof(struct _proffitem);
X         if (head == NULL) {    /* first element in stack */
X              head = sp;
X              top = NULL;
X         }
X
X         sp->Xinval = inval;
X         sp->Xrmval = rmval;
X         sp->Xoffset= offset;
X         sp->Xlsval = lsval;
X         sp->Xplval = plval;
X         sp->Xm1val = m1val;
X         sp->Xm2val = m2val;
X         sp->Xm3val = m3val;
X         sp->Xm4val = m4val;
X         sp->Xfill  = fill;
X         sp->Xrjust = rjust;
X         sp->Xcchar = cchar;
X         sp->Xgenesc= genesc;
X         sp->Xroman = roman;
X         sp->Xbolding = bolding;
X         sp->Xpaging = paging;
X         sp->Xautopar = autopar;
X
X         sp->prev = top;
X         top = sp;
X    }
X    return(TRUE);
X}
X
Xrestore()
X{
X    struct _proffitem *sp;
X
X    if (top != NULL) {
X
X         inval = top->Xinval;
X         rmval = top->Xrmval;
X         offset= top->Xoffset;
X         lsval = top->Xlsval;
X         plval = top->Xplval;
X         m1val = top->Xm1val;
X         m2val = top->Xm2val;
```

```
X        m3val = top->Xm3val;
X        m4val = top->Xm4val;
X        fill  = top->Xfill;
X        rjust = top->Xrjust;
X        cchar = top->Xcchar;
X        genesc= top->Xgenesc;
X        roman = top->Xroman;
X        bolding = top->Xbolding;
X        paging = top->Xpaging;
X        autopar = top->Xautopar;
X
X        sp = top->prev;
X        free(top);
X        p_memoryus -= sizeof(struct _proffitem);
X        if ((top = sp) == NULL)
X             head = NULL;
X    }
X    else
X         fprintf(stderr,poperr);
X}
SHAR_EOF
if test 1909 -ne "`wc -c 'stack.c'`"
then
     echo shar: error transmitting "'stack.c'" '(should have been 1909
characters)'
fi
#    End of shell archive
exit 0
--
 __________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom


From 551585989910668985
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522de78713dda03c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 12:57:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Proff repost (4 of 4)
Message-ID: <1339@trwrb.UUCP>
Date: Tue, 7-Oct-86 15:57:30 EDT
Article-I.D.: trwrb.1339
Posted: Tue Oct  7 15:57:30 1986
Date-Received: Wed, 8-Oct-86 08:16:45 EDT
References: <8610061437.AA18001@ucbvax>
```

Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 790

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    proff.uud
# This archive created: Fri Mar 21 22:45:15 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'proff.uud'" '(46940 characters)'
if test -f 'proff.uud'
then
     echo shar: over-writing existing file "'proff.uud'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.uud'
Xbegin 644 proff.prg
XM8!H  &F6   4T@  -1@                  $*%3KD  &!F8$9#3$5!4C8X
XM2R!6,#(N,# L($-O<'ER:6=H="AC*2 Q.3@T+"!$:6=I=&%L(%)E<V5A<F-H
XM(%A86%@M,# P,"TV-30S,C$ (&\ !"/(  !^:")H !C3Z  <(\D  'YL1>@
XM@! : H    #_/P O"IW.3KD  $!^3OD   #&(&\ !" (0>@! +_(9 1P_TYU
XM(\   'YL0H!.=4Y6   P+P ((B\ "DY"O_D  'YL9!0P/  )0?D  &F6(@A.
XM0C\\  !.04Y>3G4@;P $,B\ "# O  I(P%. ;P80P5'(__Q"@$YU(&\ !# O
XM  A*$&8$0H!.=; 89O0@"%. 3G5.5O_J/7P  ?_^8  !GC!N__[1R-'(T>X
XM"BU0__0@;O_T#!  +68  512KO_T(&[_]! 02( P0")\  !]DA PF !(@,!\
XM !AG  $@(&[_]!U0__)2KO_T$"[_\DB 8   \C/\  $  &I<8   _!/\  $
XM &J&8   \#/\  $  &I28   Y"!N__0,$ !O9PH@;O_T#!  3V9(4J[_]$)N
XM__PNCE&7+PY9ER\N__1.N0  (&Q0CSU __H^N0  :F935T)G0F<_+O_X/R[_
XM^B\\  !J6DZY   1#M_\    #& &3KD  !I$8   ?BZ\  !K#DZY   +:"ZN
XM__1.N0  "V@NO   :Q!.N0  "VA@6"!N__00$$B 8!1".0  :EY@)D(Y  !J
XMB& >8!Q@&K!\ $)GYK!\ %!GZ+!\ &)GVK!\ '!GW&#B8!Y.N0  &D1@%DC
XM('P  &J@<@RPF%?)__P@:  P3M!@$"ZN__1.N0  /F(SP   :E9@*B!N__0,
XM$  K9AY2KO_T+J[_]$ZY   ^8C/   !J5&8&3KD  !I$8 )@$%)N__XP+O_^
XML&X "&T _EHP+O_^L&X "&8&3KD  !I$+KP  &L5(&X "C)N__[3R=/)+S"8
XM $ZY   _[%B/+4#_[F8N(&X "C)N__[3R=/)+K"8 "\\  !K%R\\  ![P$ZY
XM  !!.%"//KP  4ZY  !)+E)N__XP;O_^T<C1R-'N  HM4/_T9SXNO   :RDO
XM+O_T3KD  #_L6(\CP   A]QF(BZN__0O/   :RLO/   >\!.N0  03A0CSZ\
XM  %.N0  22Y@"B/\  ![L@  A]Q">0  B_PC^0  A]P  'Z40F[__F T,"[_
XM_DC @?P "$A 2D!F$C!N__[1R-'\  "$*#"\  %@#C!N__[1R-'\  "$*$)0
XM4F[__@QN 0#__FW$$_P "@  A_Q".0  A_T3_  *  "*_$(Y  "*_1/\  H
XM +* 0CD  +*!$_P "@  @9A".0  @9D^O  ,3KD  %3.(\   &J0(_D  &J0
XM  !JE 9Y  P  &J>+J[_[DZY   &<DZY   %Y QY &0  &HT;BI*>0  :C)N
XM!$) 8 )P 4IY  !J*&X$0D%@ G(!@$%G"CZ\=3!.N0  $=(NN0  ?I0_/  *
XM3KD  %*^5(]*>0  :EQG?#ZY  !JF"\\  !K0"\\  ![P$ZY  !!.%"//KD
XM &J:+SP  &MH+SP  'O 3KD  $$X4(\^N0  :IPO/   :X$O/   >\!.N0
XM03A0CSZY  !JGB\\  !KK2\\  ![P$ZY  !!.%"/+KP  &O/+SP  'O 3KD
XM $$X6(]"5TZY  !)+DY>3G5.5O_X0F[__$)N__Y@  !Z(&X ##)N__S1R2)N
XM  @T;O_^T\H0D5)N__P@;@ (,F[__M')#!  (&=*(&X "#)N__[1R0P0  EG
```

```
XM.B!N  @R;O_^T<D,$  (9RH@;@ ,,F[__-')$+P ""!N  PR;O_\T<DR;O_\
XMT^X #!%I__\  51N__Q2;O_^(&X "#)N__[1R0P0  IG#C N !!50+!N__QN
XM /]L(&X ##)N__S1R1"\  H@;@ ,,F[__-')0B@  2ZN  PO+@ (3KD  %[Z
XM6(].7DYU3E;__$IY  !J*&\N('P  (S^,GD  &HHT<D0O  *('P  (S^,GD
XM &HHT<E"*  !+KP  (S^80 '3$)Y  !J*$)Y  !J*D)Y  !J+$Y>3G5.5O_Z
XM+JX "&$ $ 8_ # Y  !J9M!Y  !J:)!?2,"!_  "/4#__DIN__YO!C N__Y@
XM D) ,\   &IH3EY.=4Y6_OPC[@ (  "'O$)Y  "._F   +1@,! N_P!(@+ Y
XM  !J@&80+HX&E____P!.N0  (UY@$BZ.!I?___\ 80 ,]E)Y  !JF#!Y  ".
XM_M'(T<@B?   A[PNL)@ +PX&E____P!A  /\6(^P?/__9JA*>0  COYO2C!Y
XM  "._M'(T<C1_   A[Q*D&,V,'D  ([^T<C1R")\  "'O"ZPF !.N0  27A*
XM>0  :EQG%"Z\  !K\B\\  ![P$ZY  !!.%B/4WD  ([^#'G__P  COYN /]$
XM3EY.=4Y6__Q@!%*N  @@;@ ($!!(@$C T+P  'V2($ ($  %9^1@!%*N  @@
XM;@ ($!!(@$C T+P  'V2($ ($  %9N0NK@ (+RX #$ZY  !>^EB/(&X $#"Y
XM  !J9"!N ! Q>0  :F8  DY>3G5.5O_X(&X ##U0__Q";O_^8!X@;@ 0,F[_
XM_M')(FX "#1N__S3RA"14F[__%)N__X@;@ (,F[__-')2A!G,"!N  @R;O_\
XMT<D,$  @9R @;@ (,F[__-')#!  "6<0(&X "#)N__S1R0P0  IFI& 6(&X
XM$#)N__[1R1"\ "!2;O_\4F[__B!N  @R;O_\T<D,$  @9]H@;@ ,,*[__"!N
XM ! R;O_^T<E"$# N__Y.7DYU3E;_^$)N__X@;@ ,/5#__$IN !!O  !V,&[_
XM_")N  @0,)@ 2("P+@ 79@12;O_\8!X@;@ 2,F[__M')(FX "#1N__S3RA"1
XM4F[__E)N__PP;O_\(FX "! PF !(@+ N !=G*"!N  @R;O_\T<E*$&<:(&X
XM"#)N__S1R0P0  IG"C N__ZP;@ 0;Z8@;@ 2,F[__M')0A!@!%)N__PP;O_\
XM(FX "! PF !(@+ N !=G'B!N  @R;O_\T<E*$&<0(&X "#)N__S1R0P0  IF
XMRB!N  PPKO_\,"[__DY>3G5.5O_X/6X #/_^/6X $O_\8!X@;@ .,F[__-')
XM(FX "#1N__[3RA"14F[__E)N__P@;@ (,F[__M')2A!FU$Y>3G5.5O_V+JX
XM"&$ #+(]0/_Z#&X  P 09AX^K@ .,"[_^I%7+RX $D)G+RX "&&0W_P    *
XM8&@,;@ " !!F2# N  [0;@ ,D&[_^DC @?P  CU __PP+O_\L&X #&\&,"[_
XM_& $,"X ##U __X^KO_^+RX $D)G+RX "&$ _T+?_     I@&#ZN  PO+@ 2
XM0F<O+@ (80#_*-_\    "DY>3G5.5O_X80#[M$)N__Y@!%)N__X@;@ (,F[_
XM_M')#!  (&?L(&X "#)N__[1R0P0  IG-DHY  !JC&<>+KP  &P 80 "_# Y
XM  !J9-!Y  !JCC/   !J:& 0,#D  &IDT&[__C/   !J:$)N__Q@'B!N  @R
XM;O_\T<DB;@ (-&[__M/*$)%2;O_^4F[__"!N  @R;O_^T<E*$&;4(&X "#)N
XM__S1R4(03EY.=4Y6__A";O_\8"P,;@#___QL%# N__Y(@#)N__S3[@ ($H!2
XM;O_\#&X "O_^9SX,;@ -__YG-DIY  !IOFT:,'D  &F^(GP  (C\$#"8 $B
XM4WD  &F^8 HNK@ ,3KD  $%8/4#__K!\__]FGB!N  @R;O_\T<E"$$IN__QF
XM#@QN_____F8&/7S____\,"[__$Y>3G5.5O_Z+JX "$ZY  !?'%- /4#__F 8
XM,&[__B)N  @0,)@ 2( ^@&$  OQ3;O_^2F[__FSB3EY.=4Y6__P^N0  :CQA
XM  7D2GD  &H^;T8P.0  :BY(P('\  )(0+!\  %F&CZY  !J+B\\  !J2B\\
XM  "R@&$  N10CV 8/KD  &HN+SP  &I.+SP  (&880 "RE"/#'D  0  :EAF
XM,BZY  !^E#\\  Q.N0  4KY4CU)Y  !JG$IY  !J4F\2+KD  'Z4/SP "DZY
XM  !2OE2/3EY.=4Y6__PS^0  :C   &HN,#D  &HNL'D  &I4;1@P.0  :BZP
XM>0  :E9N"C/\  $  &I88 9">0  :EA*>0  :E)O% QY  $  &I89@HNO
XM:E)A  ""4GD  &HP2GD  &HX;U ^N0  :CA35V$ !.8P.0  :BY(P('\  )(
XM0$I 9AH^N0  :BXO/   :D(O/   A_QA  'P4(]@&#ZY  !J+B\\  !J1B\\
XM  "*_&$  =90CSZY  !J.F$ !)@P.0  :CC0>0  :CI20#/   !J,DY>3G5.
XM5O_X(&X "#U0__P,;@ !__QF%BZ\  !K\"\\  !L DZY  !!%EB/8 PNO
XM:_!.N0  018NO   >Z1.N0  05@]0/_^4F[__"!N  @PKO_\3EY.=4Y6  !(
XMYP, 2GD  &HR9PXP.0  :C*P>0  :D!O!&$ _K0,>0 !  !J6&8  )(@;@ (
XM#!  "F8:+KD  'Z4/SP "DZY  !2OE2/4GD  &J:8&Q^ 6 4+KD  'Z4/SP
XM($ZY  !2OE2/4D>^>0  :EIOY'X!8!0NN0  ?I0_/  @3KD  %*^5(]21[YY
XM  !J:&_D8!PNN0  ?I0@;@ ($!!(@#\ 3KD  %*^5(]2K@ ((&X "$H09MQ2
XM>0  :IHS^0  :F0  &IH,#D  &IB4T R.0  :D"2>0  :C*P06P*/KD  &IB
XM4U=@#CZY  !J0# Y  !J,I%780 #+C Y  !J8M%Y  !J,C Y  !J,K!Y  !J
XM0&\$80#]($J?3-\ @$Y>3G5.5O_\4GD  &F^#'D"    :;YO#"Z\  !L(DZY
```

```
XM   82B!\  "(_#)Y  !IOM')$*X "4Y>3G5.5O]R2GD  &I89P "/"!N  P]
XM4/]Z(&X ##UH  +_>#Z\ !0O#@:7____]C\N !!.N0  &6!<CSU _X!*.0
XM:HIG-"Z.!I?___^*+PX&E_____9.N0  /=Y8CSU _X NC@:7____BB\.!I?_
XM___V3KD  %[Z6(\NC@:7____VF$ !V(NC@:7____VDZY  !?'#U _W9";O]\
XM(&X "#)N_WS1R1U0_XA";O^"8!0@?   B_XR;O^"T<D0O  @4F[_@C N_X*P
XM;O]X;>)";O]^$"[_B$B /H O/   ?I@_+O]X,"[_>I%7+PX&E____WPO+@ (
XM80#XKM_\    #DI ;P  ?#ZN_X O#@:7____]B\\  !_F#\\ ",O/   ?IAA
XM  -:W_P    ./J[_=B\.!I?____:+SP  'Z8/SP )2\\  !_F&$  S3?_
XM  XNO   B_XP;O]^T<@B?   :G8_,)@ /R[_>#\N_WHO/   ?IAA /E0W_P
XM   *4F[_?B!N  @R;O]\T<E*$&<:(&X "#)N_WS1R0P0  IG"@QN  /_?F8
XM_RA@%C!N_WC1_   B_X,*  @__]F#%-N_W@,;@ !_WALXB!\  "+_C)N_WC1
XMR1"\  H@?   B_XR;O]XT<E"*  !/7P  ?]\8!8NN0  ?I0_/  @3KD  %*^
XM5(]2;O]\,"[_?+!Y  !J6F_>+7P  (O^_X1@'"ZY  !^E"!N_X00$$B /P!.
XMN0  4KY4CU*N_X0@;O^$2A!FW%)Y  !JFDY>3G5.5O_Z(&X "#U0__X,;@ *
XM  YF"#UN !#__F J#&X *P .9@HP+@ ,T6[__F 8#&X +0 .9@HP+@ ,D6[_
XM_F &/6X #/_^,"[__K!N !1L!C N__Y@!# N !0]0/_^,"[__K!N !)O!C N
XM__Y@!# N !(]0/_^(&X "#"N__Y.7DYU3E8  $CG!P ^+@ (#'D  0  :EAF
XM(GP!8!HNN0  ?I0_/  *3KD  %*^5(]2>0  :II21KQ';^)*GTS? ,!.7DYU
XM3E;__&$ ] PP.0  :C*P>0  :D!N5DIY  !J,F8$80#Z2C Y  !J0%) D'D
XM &HRL&X "&\&/JX "& 0/KD  &I 4E<P.0  :C*15V$ _W P+@ (T7D  &HR
XM,#D  &HRL'D  &I ;P1A /ED3EY.=4Y6__A(YP< 0F[__DIN  YO  #@#&X
XM 0 0;P  UG !D&[__CU __X];@ .__HP+@ 04T ]0/_X,#D  &IHL'D  &ID
XM9PP,;@ !__AO!%-N__@^+@ ,4T<P!]!N__JP? '^;P8P/ '^8 8P!]!N__H\
XM &   'HP1M'N  @R1]/N  @0D3!'T>X " P0 "!F6C!'T>X " PH "#__V=,
XM2F[__F84,"[_^E- 2,"![O_X4D ]0/_\8 XP+O_Z2,"![O_X/4#__# N__R1
XM;O_Z4V[_^& 04T8P1M'N  @0O  @4V[__$IN__QNZE-'4T:^1FV$2I],WP#
XM3EY.=4Y6  !(YP\ 0D9"1V! (&X "! P< !(@+ N  UF'D)%8!(P1M'N  XR
XM1=/N !(0D5)&4D6Z;@ 6;>A@$#!&T>X #C)'T^X "!"14D921S!'T>X "$H0
XM9K8P1M'N  Y"$$J?3-\ X$Y>3G5.5O[^2.<# "ZN  @O#@:7___^_DZY   V
XME%B/+HX&E____OXO+@ (3KD  %[Z6(\^O $ +PX&E____OXO+@ (3KD  #5&
XM4(\^O $ +PX&E____OXO+@ (3KD  #>P4(\@;@ (#!  (&<*(&X " P0  IF
XM""ZN  AA /8(2GD  &IN;@A*.0  :G!G'#Z\ 0 O#@:7___^_B\N  AA  $0
XM4(]3>0  :FY*>0  :G)N"$HY  !J=&<</KP! "\.!I?___[^+RX "&$ \)Q0
XMCU-Y  !J<DIY  !J:FX(2CD  &IL9QHNK@ (80#QHBZN  AA /C.4WD  &IJ
XM8   J"!N  @,$  *9@PNK@ (80#XLF   ))*>0  :F!F#"ZN  AA /B>8
XM?BZN  A.N0  7QQ30#U __X@;@ (,F[__M')$+P (#!N__[1[@ (#"@ +O__
XM9A)2;O_^(&X "#)N__[1R1"\ " @;@ (,F[__M')0B@  4)N__Y@#BZ.!I?_
XM__[^3KD  !]6+HX&E____OXO#E67+RX "&$ \G!0CTI ;MA*GTS? (!.7DYU
XM3E;_^$)N__Q";O_^8   DB!N  @R;O_^T<D,$  @9T @;@ (,F[__M')#!
XM"&<P(&X "#)N__[1R0P0 %]G(#!N__S1[@ ,$+P 7U)N__PP;O_\T>X #!"\
XM  A2;O_\(&X "#)N__[1R0P0 "!F%#!N__S1[@ ,$+D  &J$4F[__& 8,&[_
XM_-'N  PB;@ (-&[__M/*$)%2;O_\4F[__B!N  @R;O_^T<D,$  *9PXP+@ 0
XM54"P;O_\;@#_5"!N  PR;O_\T<D0O  *(&X ##)N__S1R4(H  $NK@ ,+RX
XM"$ZY  !>^EB/3EY.=4Y6__A";O_^0F[__& ^(&X "#)N__S1R0P0  AF!E-N
XM__Y@)"!N  @R;O_\T<D,$  @;10@;@ (,F[__-')#!  ?FX$4F[__E)N__P@
XM;@ (,F[__-')2A!FM# N__Y.7DYU3E;__"Z\  !L1"\N  A.N0  7OI8CTY>
XM3G5.5O_X0F[__"!N  X]4/_^,"X $E- L&[__FT6,&[__M'N  H0K@ )4F[_
XM_CU\  '__"!N  XPKO_^,"[__$Y>3G5.5O_V0F[_^B!N ! ]4/_\+JX "$ZY
XM  !?'-!N__PR+@ 44T&P06(V0F[__F <,&[__-'N  PB;@ (-&[__M/*$)%2
XM;O_\4F[__B!N  @R;O_^T<E*$&;6/7P  ?_Z(&X $#"N__PP+O_Z3EY.=4Y6
XM__9";O_\(&X ##U0__Y@!%)N__X@;@ (,F[__M')#!  (&?L(&X "#)N__[1
XMR0P0  EGW#U\  '_^B!N  @R;O_^T<D,$  K9Q @;@ (,F[__M')#!  +68@
XM,&[__M'N  @,$  K0,!2;O_^1,!F!' !8 )P_SU __I";O_\8"0P+O_\P?P
```

```
XM"B)N  @T;O_^T\H2$4B!T$'0?/_0/4#__%)N__X@;@ (,F[__M')#!  ,&T0
XM(&X "#)N__[1R0P0 #EOO"!N  PPKO_^,"[_^L'N__Q.7DYU3E;__"ZN  @O
XM/   ;%HO/   >\!.N0  03A0CSZ\  %.N0  22Y.7DYU3E;_^$)N__P@;@ ,
XM/5#__F $4F[__B!N  @R;O_^T<D,$  )9^P@;@ (,F[__M')#!  (&?<8!HP
XM;O_\T>X $#)N__[3[@ ($)%2;O_^4F[__"!N  @R;O_^T<D,$  @9RX@;@ (
XM,F[__M')#!  "6<>(&X "#)N__[1R4H09Q @;@ (,F[__M')#!  "F:H,&[_
XM_-'N !!"$%)N__P@;@ ,,*[__C N__Q.7DYU3E;_^B!N  P]4/_^8 12;O_^
XM(&X "#)N__[1R0P0 "!G["!N  @R;O_^T<D,$  )9]P@;@ ,,*[__DY>3G5.
XM5O_R/6X "/_X; HP+@ (1$ ]0  (0F[__C N  A(P('\  I(0-!\ # R;O_^
XMT^X "A* 4F[__C N  A(P('\  H]0  (;PPP+@ .54"P;O_^;L9*;O_X;!PP
XM+@ .4T"P;O_^;Q P;O_^T>X "A"\ "U2;O_^(&X "C)N__[1R4(00F[__"ZN
XM  I.N0  7QQ30#U __I@.B!N  HR;O_\T<D=4/_V(&X "C)N__S1R2)N  HT
XM;O_ZT\H0D2!N  HR;O_ZT<D0KO_V4F[__%-N__HP+O_\L&[_^FV\,"[__DY>
XM3G5.5O_\+KP  &Q>+SP  'O 3KD  $$X6("5TZY  !)+DY>3G5.5O_Z0F[_
XM_F 0(&X "! 02(#1;O_^4JX ""!N  A*$&;H,"[__DC @?P 9$A 3EY.=4Y6
XM__@NK@ (8<0P0-'(T<C1[@ ,+5#__& F(&[__"Z0+RX "$ZY  !>N%B/2D!F
XM!B N__Q@$B!N__PM:  (__Q*KO_\9M1"@$Y>3G5.5O_V+JX $"\N  AAIEB/
XM+4#_^F9L/KP #$ZY  !4SBU __H&>0 ,  !JGDJN__IF!D* 8   ="ZN  AA
XM  !P+P @;O_Z()]F!$* 8%P@;O_Z+I!A /\L/4#__B!N__HR;O_^T\G3R=/N
XM ! A40 (,&[__M'(T<C1[@ 0(*[_^F .(&[_^BZH  1.N0  5EPNK@ ,81@O
XM "!N__HA7P $9@1"@& $("[_^DY>3G5.5O_\2.<# "ZN  A.N0  7QP^ %)'
XM/H=.N0  5,XM0/_\9Q;?>0  :IXNK@ (+R[__$ZY  !>^EB/("[__$J?3-\
XM@$Y>3G5.5O_V+JX $"\N  AA  ".6(\M0/_Z9F@^O  ,3KD  %3.+4#_^@9Y
XM  P  &J>2J[_^F8$0H!@8"ZN  AA /]Z+P @;O_Z()]F!$* 8$H@;O_Z+I!A
XM /XV/4#__B!N__HR;O_^T\G3R=/N ! A40 (,&[__M'(T<C1[@ 0(*[_^B!N
XM__HQ;@ ,  0@;O_Z,6X #@ &("[_^DY>3G5.5O_X+JX "&$ _>8P0-'(T<C1
XM[@ ,+5#__& F(&[__"Z0+RX "$ZY  !>N%B/2D!F!B N__Q@$B!N__PM:  (
XM__Q*KO_\9M1"@$Y>3G5.5O_T+JX "&$ _9@P0-'(T<C1[@ ,+5#__"UN__S_
XM^& Z(&[__"Z0+RX "$ZY  !>N%B/2D!F%"!N__@B;O_\(6D "  (("[__& 8
XM+6[__/_X(&[__"UH  C__$JN__QFP$* 3EY.=4Y6__I">0  :F0S_ !!  !J
XM9D)Y  !J:#/\  $  &IB,_P  0  :F!">0  :FI">0  :FY">0  :G(3_  N
XM  !J@!/\ %\  &J",_P  0  :G8S_  "  !J>#/\  ,  &IZ0GD  &I\,_P
XM 0  :GX3_  @  !JA$)N__Y@-# N__Y(P('\  A(0$I 9A(P;O_^T<C1_
XMA"@PO  !8 XP;O_^T<C1_   A"A"4%)N__X,;@$ __YMQ$)Y  !J,D)Y  !J
XM+C/\  $  &HP,_P /@  :C0S_  #  !J.#/\  (  &HZ,_P  @  :CPS_  #
XM  !J/C Y  !J-)!Y  !J/)!Y  !J/C/   !J0!/\  H  (?\0CD  (?]$_P
XM"@  BOQ".0  BOT3_  *  "R@$(Y  "R@1/\  H  (&80CD  (&9,_D  &ID
XM  !J0C/Y  !J9@  :D0S^0  :F0  &I&,_D  &IF  !J2#/Y  !J9   :DHS
XM^0  :F8  &I,,_D  &ID  !J3C/Y  !J9@  :E!">0  :EQ">0  :E)">0
XM:E0S_'4P  !J5C/\  $  &I80GD  &I:0GD  &HH0GD  &HJ0GD  &HL,_S_
XM_P  :;Y";O_^8!(P;O_^T<C1_   :<!"4%)N__X,;@ :__YMYD(Y  !J;$(Y
XM  !J<$(Y  !J=$(Y  !JAD(Y  !JBA/\  $  &I>0CD  &J,3EY.=4Y6__0N
XMK@ (3KD  !9$/4#_^"ZN  A.N0  7QS0>0  :B@]0/_^,#D  &IFD'D  &IH
XM/4#__# Y  !J*M!N__BP;O_\;@H,;@( __YM  ".,#D  &HHD6[__C N__R0
XM>0  :BH]0/_Z8"(P>0  :BC1_   C/X,*  @__]F!E)N__I@ F .4WD  &HH
XM2GD  &HH;M8,>0 !  !J?F8X/KD  &HL/R[_^C\Y  !J*"\\  ",_DZY   2
XM0E"/2F[_^F\4#'D  0  :BQO"C N__K1>0  :BA.N0  !>0NK@ ((#P  (S^
XM,CD  &HH2,'0@2\ 3KD  %[Z6(\S[O_^  !J*# N__C1>0  :BI2>0  :BQ.
XM7DYU3E;_^"!N  P]4/_^(&X $#U0__PNCE67+RX "$ZY   9(EB/,&[__B)N
XM  @0,)@ 2( ]0/_\#&X *__\9P@,;@ M__QF!%)N__X@;@ ,,*[__B!N ! P
XMKO_\+JX #"\N  A.N0  %W!8CTY>3G5.5O_\2.<# "!N  P]4/_^/7S____\
XM+HY5ER\N  A.N0  &2)8CR!N  @R;O_^T<E*$&<  39";O_\(&X "#)N__[1
XMR0P0 ")F  "N4F[__F!4(&X "#)N__[1R0P0 ")F*B!N  @R;O_^T<D,*  B
```

```
XM  %F%C!N__S1[@ 0$+P (E)N__Q4;O_^8 )@*#!N__S1[@ 0,F[__M/N  @0
XMD5)N__Y2;O_\(&X "#)N__[1R4H09IX@;@ 0,F[__-')0A!2;O_^,&[__B)N
XM  @0,)@ 2( P0")\  !]DA PF !(@,!\ !QG#"Z\  !MHDZY   82E)N__Y@
XM:B!N  @R;O_^T<D>$& F,&[__-'N ! R;O_^T^X "!"14F[__E)N__P@;@ (
XM,F[__M')'A"^/  @9QR^/  )9Q:^/  L9Q"^/  -9PJ^/  *9P1*!V:X(&X
XM$#)N__S1R4(02@=G!%)N__X@;@ ,,*[__C N__Q*GTS? (!.7DYU3E;_]DCG
XM#QPJ;@ (*&X #&   .(<%1 &2(!@  #"8 )2C0P5 "!G^ P5  EG\F   ,1*
XM+0 !9P@8[0 !5(U@ E*-8   L! M  %(@$C T+P  &RB($ :$&<"&,54C6
XM )12C6 <#!4 (F<$&-U@$@PM "(  68(&/P (E2-8 )@!$H59N!2C6!J1^[_
XM]F "%MT0%4B 2,#0O   ?9(@0 @0  )FZD(3+HX&E_____9.N0  /F(^ # '
XML'P! &\.+KP  &VZ3KD  !A*8 I*1V\&, =(@!C 8!H8W6 62, @?   ;2)R
XM#["85\G__"!H #Q.T P5  IG!DH59@#_%D(42I],WSC@3EY.=4Y6_JA(YP\
XM0B[^KD(N_JPNK@ (+SP  'Z83KD  #:46(\NO   ?I@O+@ (3KD  %[Z6(\]
XM?  !_K(NC@:7____L"\.!I?___ZR+RX "$ZY   8=%"//  Z+OZR+HX&E___
XM_K O#@:7____##\&+PX&E____[!A  \HW_P    */4#^N QN ^?^N&< #PI*
XM.0  =-1G%@QN &W^N&<.+JX "$ZY   -:&  #NP^O $ +PX&E____Q O+@ (
XM3KD  #5&4(\NC@:7____8"\.!I?___ZR+RX "$ZY   @VE"//  ]?  *_KI"
XM1TI&;P  G PN "O_8&<(#"X +?]@9AP0+O]@2( ]0/ZZ+HX&E____V%.N0
XM/F(^ &!N('P  'V2$B[_8$B!2,'1P0@0  )G%D)N_KHNC@:7____8$ZY   ^
XM8CX 8$(NC@:7____8"\\  !XW$ZY  !>N%B/2D!F"!U\  '^KF @+HX&E___
XM_V O/   >-].N0  7KA8CTI 9@8=?  !_JPP+OZX8  -\BZN_PPO+@ (3KD
XM #CD6(]@  WR3KD   7D,_P  0  :F!@  W@3KD   7D0GD  &I@8  -T$ZY
XM   %Y&  #<8^O'4P/SP  3\\  $_+OZZ/P<O/   :F).N0  $0[?_     Q@
XM  V>3KD   7D2B[^KF<*$_P  0  :FQ@-DHN_JQG#D(Y  !J;$)Y  !J:F B
XM/KQU,$)G/SP  3\N_KH_!R\\  !J:DZY   1#M_\    #&  #4Y*+OZN9PX3
XM_  !  !J<&  #3Q@.DHN_JQG$D(Y  !J<$)Y  !J;F  #21@(CZ\=3 _/  !
XM0F<_+OZZ/P<O/   :FY.N0  $0[?_     P@?   ?9(2+O]@2(%(P='!"!
XM F92+HX&E____V O/   >.-.N0  7KA8CTI 9A 3_ !?  !JA$)Y  !J;F H
XM+HX&E____V O/   >.=.N0  7KA8CTI 9@X3_  @  !JA$)Y  !J;F  #)0,
XM.0 !  !J7F9&2B[^KF<*$_P  0  :G1@-DHN_JQG#D(Y  !J=$)Y  !J<F B
XM/KQU,#\\  %"9S\N_KH_!R\\  !J<DZY   1#M_\    #&  #$ NO   :D(O
XM/   A_PO+@ (3KD   =*4(\NO   :D8O/   BOPO+@ (3KD   =*4(]@  P,
XM+KP  &I*+SP  +* +RX "$ZY   '2E"/+KP  &I.+SP  (&8+RX "$ZY   '
XM2E"/8  +V$HY  !JB&< "\Y.N0  !>1*>0  :C)O"CZ\=3!.N0  $=(^O'4P
XM/SR*T#\Y  !J+E)7/R[^NC\'+SP  &HN3KD  !$.W_P    ,,_D  &HN  !J
XM,&  "X ^O'4P0F<_/  !/R[^NC\'+PX&E____K1.N0  $0[?_     P^KOZT
XM3KD  !'28  +3DZY   %Y#ZY  !J9E-70F="9S\N_KH_!R\\  !J9$ZY   1
XM#M_\    ##/Y  !J9   :FA@  L6/KQU,#\Y  !J:%)7/SP 03\N_KH_!R\\
XM  !J9DZY   1#M_\    #&  "NI.N0  !>0^N0  :F9"9T)G/R[^NC\'+SP
XM &IH3KD  !$.W_P    ,8  *OBZ\  !S1"\.!I?___]@3KD  !S&6(\M0/ZH
XM9T@NC@:7____$"\.!I?___ZR+RX "$ZY   8=%"/2D!G)BZ\  !S1"!N_J@_
XM*  &(&[^J#\H  0O#@:7____$$ZY   ;W%"/8!PNC@:7____8"\\  !X[2\\
XM  ![P$ZY  !!.%"/8  *.BZ\  !X_"\.!I?___]@3KD  %ZX6(]*0&8*$_P
XM 0  :HI@5"Z\  !Y B\.!I?___]@3KD  %ZX6(]*0&8(0CD  &J*8#(NC@:7
XM____8"\.!I?___^P$#D  &J 2( _ "\\  !Y"2\\  ![P$ZY  !!.-_\
XM#F  ";Y@  FZ2D9O  "N('P  'V2$B[_8$B!2,'1P0@0  )G("Z.!I?___]@
XM+SP  'DH+SP  'O 3KD  $$X4(]@  E^0B[_$"Z.!I?___\0+PX&E____K(O
XM+@ (3KD  "#:4(\\ $I&;BHNC@:7____8"\\  !Y0B\\  ![P$ZY  !!.%"/
XM+HX&E____Q!.N0  0#9*+O\09QXNO   ABPO#@:7____$"\.!I?___]@3KD
XM !KF4(]@*BZ.!I?___^P$#D  &J 2( _ "\\  !Y1R\\  ![P$ZY  !!.-_\
XM    "F  "-I*1F\  *H@?   ?9(2+O]@2(%(P='!"!   F<@+HX&E____V O
XM/   >60O/   >\!.N0  03A0CV  ")Y"+O\0+KP  ("8+PX&E____K(O+@ (
XM3KD  "#:4(\\ $I&;R@NO   @)@O/   >7XO/   >\!.N0  03A0CRZ.!I?_
```

```
XM__\03KD  $ V2B[_$&<>+KP  (8L+PX&E____Q O#@:7____8$ZY   :YE"/
XM8"HNC@:7____L! Y  !J@$B /P O/   >8$O/   >\!.N0  03C?_     I@
XM  ?^#&X "OZZ9AH@>0  :I1"$"!Y  !JE"%\       "8   ?BZ.!I?___ZR
XM+RX "$ZY   9(EB/(&X "#)N_K+1R4H09P 'N# 'P?P  R)Y  !JE!* /"[^
XMLF "4D8P1M'N  @,$  *9O(P1M'N  A"$" N  @R+OZR2,'0@2Z 3KD  !N4
XM+P @>0  :I0A7P "('D  &J4,7D  &HN  8^O  ,3KD  %3.+P @>0  :I0A
XM7P (!GD #   :IX@>0  :I0CZ  (  !JE"!Y  !JE"%\       (8  '(DZY
XM   %Y"/Y  !JD   :I1@  "*('D  &J42J@  F8.+KP  'F>3KD   UH8& @
XM>0  :I00$$B T'D  &ID,\   &IH,#D  &IFD'D  &IH/4#^LB!Y  !JE#ZH
XM  8@>0  :I0O*  "/R[^LB\.!I?___\03KD  #ADW_P    *+HX&E____Q!.
XMN0  #6@@>0  :I0CZ  (  !JE"!Y  !JE$JH  AF /]L8  &=$(Y  !J7F
XM!FH3_  !  !J7F  !EX3_  !  !JC&  !E)".0  :HQ@  9(3KD   7D3KD
XM #KD8  &.$ZY   %Y$ZY   \&&  !BA".0  :H@S^0  :C0  &HV,_QU,
XM:C0P.0  :C20>0  :CR0>0  :CXSP   :D!@  7T,#D  &HR4T SP   :D!.
XMN0  !>0S^0  :C8  &HT8  %TDZY   %Y$ZY   ZY$I 9RA">0  :F0S_ "$
XM  !J9D(Y  !JC$)Y  !J8D)Y  !J8!/\  $  '348  %EDZY   \&$(Y  !T
XMU&  !89.N0  !>0NC@:7___^O# %2,#0K@ (+P!.N0  (E)8CT'N_KPM2/\,
XM8!PNN0  ?I0@;O\,$!!(@#\ 3KD  %*^5(]2KO\,(&[_#$H09MQ@  4T2CD
XM &J(9P %*CZ\=3  _.0  :C@P.0  :CK15S Y  !J/-%7,#D  &H^T5=25S\\
XM #X_+OZZ/P<O/   :C1.N0  $0[?_     PP.0  :C20>0  :CR0>0  :CXS
XMP   :D!@  3./KD  &IF4U="9T)G/R[^NC\'+SP  &I:3KD  !$.W_P    ,
XM8  $ICZY  !J-# Y  !J.I%7,#D  &H\D5<P.0  :CZ15U-70F<_/  #/R[^
XMNC\'+SP  &HX3KD  !$.W_P    ,8  $9#ZY  !J-# Y  !J.)%7,#D  &H\
XMD5<P.0  :CZ15U-70F<_/  "/R[^NC\'+SP  &HZ3KD  !$.W_P    ,8  $
XM(CZY  !J-# Y  !J.)%7,#D  &HZD5<P.0  :CZ15U-70F<_/  "/R[^NC\'
XM+SP  &H\3KD  !$.W_P    ,,#D  &HTD'D  &H\D'D  &H^,\   &I 8  #
XMR#ZY  !J-# Y  !J.)%7,#D  &HZD5<P.0  :CR15U-70F<_/  #/R[^NC\'
XM+SP  &H^3KD  !$.W_P    ,,#D  &HTD'D  &H\D'D  &H^,\   &I 8  #
XM;BZ\  !J0B\\  "'_"\N  A.N0  !TI0CV   U(NO   :D8O/   BOPO+@ (
XM3KD   =*4(]@  ,V+KP  &I*+SP  +* +RX "$ZY   '2E"/8  #&BZ\  !J
XM3B\\  "!F"\N  A.N0  !TI0CV   OX3[O]@  !J@$HY  !J@&<*##D "@
XM:H!F"!/\ "X  &J , ?0>0  :C*P>0  :D!O'# Y  !J,K!Y  !J0&X./H=.
XMN0  $=)">0  :C)@  *L$^[_8   :H)*.0  :H)G"@PY  H  &J"9@@3_ !?
XM  !J@F   H8P!]!Y  !J,K!Y  !J0&\<,#D  &HRL'D  &I ;@X^ATZY   1
XMTD)Y  !J,F   E8^O'4P0F<_/  !/R[^NC\'+SP  &I\3KD  !$.W_P    ,
XM8  ",#/\  $  &I^8  ")$)Y  !J?F   AI*1F\  A0P.0  COY20+!\  AF
XM#"Z\  !YH$ZY   82BZ\  !YP2\.!I?___]@3KD  #_L6(\O #!Y  "._E)(
XMT<C1R-'\  "'O""?9RY2>0  COX,>0 !  !J7&8<+HX&E____V O/   ><,O
XM/   >\!.N0  03A0CV <+HX&E____V O/   ><XO/   >\!.N0  03A0CV
XM 7Y@  %Z8  !=A/\ %\  &J$/KQU,#\\  %"9S\N_KH_!R\\  !J;DZY   1
XM#M_\    #&   4@P>0  CO[1R-'((GP  (>\+K"8 "\N  A.N0  ,_18CV
XM 21*1F\  1X,+@!A_V!M" PN 'K_8&\6$"[_8$B /H O/   >>!.N0  &$I8
XMCRZ.!I?___ZZ+PX&E____K(O+@ (3KD  "!L4(\^ #Z\=3 _/(K00F<_+OZZ
XM/P<0+O]@2(#0?/^?XT!(P-"\  !IP"\ 3KD  !$.W_P    ,8   I QN "W^
XMNF8*/7D  &HT_K1@!$)N_K0^N0  :D _/  !0F<_+OZZ/P<O#@:7___^M$ZY
XM   1#M_\    ## N_K2P>0  :C)O#DIY  !J,F8&3KD   P\,"[^M+!Y  !J
XM,F\2/J[^M# Y  !J,I%73KD  !'28"Q.N0  '2Y@)"Z\  !Y_DZY   82F 6
XM8!2P? !O8NKE0#! T?P  '36(%!.T$J?3-\ X$Y>3G5.5O_L+KP  (*8+RX
XM"$ZY   :FEB/+4#__&<2(&X #B)N__P@J0 $0D!@  #&/7P#Y__T(&X " P0
XM "-G"B!N  @,$  A9@@P+O_T8   I"Z\  !S1"\N  A.N0  ''A8CRU __AG
XM6$HY  !JAF<Z(&[_^ QH  $ !F<N+JX "! Y  !J@$B /P O/   >A(O/
XM>\!.N0  03C?_     HP/ /G8$I@%B!N__@]:  $__0@;@ 2(F[_^#"I  8,
XM;@/G__1F)BZN  @0.0  :H!(@#\ +SP  'HQ+SP  'O 3KD  $$XW_P    *
```

```
XM,"[_]$Y>3G5.5O[^0F[_!"Z.!I?____.+PX&E____P0O+@ (3KD  !AT4(\]
XM0/\"+HX&E____\XO#@:7____!"\N  A.N0  &'10CSU _P1*;O\$9@PNO
XM>DA.N0  &$I";O\$8&X@;@ ($!!(@+ Y  !J@&8V(&X " PH &4  68J(&X
XM" PH &X  F8>(&X "! H  -(@#! (GP  'V2$#"8 $B P'P '&= /KP R"\.
XM!I?___\$+PX&E____P8O+@ (3KD  !<"W_P    ,/4#_ BZN  PO+@ (3KD
XM  K46(^P?/__9@#_?#Z\ ,@O#@:7____!"\.!I?___\&0F=.N0  %L#?_
XM  I*0&8,+KP  'IE3KD  !A*+KP  (*8+PX&E____P8O#@:7____SDZY   :
XMYE"/2H!F%"Z\  !Z>R\\  ![P$ZY  !!.%B/3EY.=4Y6__A";O_\0F[__F
XM 00P;O_^(FX "! PF !(@+ Y  !J@F8>4F[__C!N__S1[@ ,,F[__M/N  @0
XMD5)N__Q@  #,(&X "#)N__[1R0P0 $!G'B!N  PR;O_\T<DB;@ (-&[__M/*
XM$)%2;O_\8   GB!N  @R;O_^T<D,* !N  %F<"!N  @R;O_^T<D,* !A  )M
XM7B!N  @R;O_^T<D,* !Z  )N3#ZN ! P+O_\D5=35R N  PR+O_\2,'0@2\
XM,&[__B)N  @0,)@"2(#0?/^?,$#1R")\  !IP#\PF !.N0  &6!<C]%N__Q4
XM;O_^8!H@;@ ,,F[__-')(FX "#1N__[3RA"14F[__%)N__X@;@ (,F[__M')
XM2A!G#C N !!30+!N__QN /[D(&X ##)N__S1R4(0+JX #"\N  A.N0  7OI8
XMCTY>3G5.5O_\2.<##&   /@@;@ ,$!!(@+ Y  !J@F8D(&X "")N  P0D5*N
XM  Q2K@ ((&X "")N  P0D5*N  A@  # (&X # P0 "1G$B!N  @B;@ ,$)%2
XMK@ (8   I%*N  P@;@ ,#!  >V8$4JX #"AN  Q@!%*N  P@;@ ,$!!(@#!
XM(GP  'V2$#"8 $B P'P '&;@(&X #!X0(&X #$(0+KP  (8L+PQ.N0  &II8
XMCRU __QG&"!N__PJ:  $8 H@;@ ($)U2K@ (2A5F\@PL 'O__V<,(&X "!"'
XM4JX "& <OCP ?6<6+HPO/   >I@O/   >\!.N0  03A0CU*N  P@;@ ,2A!F
XM /\"(&X "$(02I],WS" 3EY.=4Y6__A";O_\0F[__F!J(&X "#)N__[1R0P0
XM  EF/& L(&X ##)N__S1R1"\ "!2;O_\,&[__-'(T?P  (0H#%   6<4#&X!
XM /_\;@PP+@ 04T"P;O_\;LA@&B!N  PR;O_\T<DB;@ (-&[__M/*$)%2;O_\
XM4F[__B!N  @R;O_^T<E*$&<.,"X $%- L&[__&X _WP@;@ ,,F[__-')0A N
XMK@ ,+RX "$ZY  !>^EB/3EY.=4Y6__I";O_^8!H@;@ (,F[__M')(FX #C1N
XM__[3RA"14F[__C N  Q=0+!N__YO#B!N  XR;O_^T<E*$&;,8! P;O_^T>X
XM"!"\ "Y2;O_^,"X #%U L&[__F[D/JX $B\\  !ZJR N  @R+O_^2,'0@2\
XM3KD  $RP4(].7DYU3E;_ZDCG!P!";O_^8!(@3C)N__[3R=')0FC_ZE)N__X,
XM;@ *__YMYB!N  A"$#U\  '__CU\  '_ZF $4F[__B!N  @R;O_^T<D,$  @
XM9RX@;@ (,F[__M')#!  "6<>(&X "#)N__[1R0P0  IG#B!N  @R;O_^T<E*
XM$&:^,&[__M'N  A"$%)N__Y^ 6   *@NCE67+RX "$ZY   9(EB/(&X "#)N
XM__[1R0P0  IG  ".(&X "#)N__[1R4H09P  ?B!.,D?3R='),6[__O_J8 12
XM;O_^(&X "#)N__[1R0P0 "!G/B!N  @R;O_^T<D,$  )9RX@;@ (,F[__M')
XM#!  +&<>(&X "#)N__[1R0P0  IG#B!N  @R;O_^T<E*$&:N(&X "#)N__[1
XMR4(04F[__E)'OGP "FT _U0NK@ ,3KD  %\</ !31F   (HP1M'N  P,*  D
XM__]G%"!N  P0,&  2( ^@$ZY   .C&!D,$;1[@ ,#!  ,&T,,$;1[@ ,#!
XM.6\4(&X #! P8 !(@#Z 3KD   Z,8#@@;@ ,$#!@ $B T'S_T#U __X@3C)N
XM__[3R=')/6C_ZO_^("X "#(N__Y(P="!+H!.N0  "VA31E-&2D9L /]T0D9G
XM$B!N  P0,&  2( ^@$ZY   .C$J?3-\ P$Y>3G5.5O_X/KP ($ZY  !4SBU
XM__QF'BZY  !ZN"\\  ![P$ZY  !!.%B/0D!@  $$8   _@9Y "   &J>2KD
XM 'JP9@XC[O_\  !ZL$*Y  !ZM"!N__PPN0  :F0@;O_\,7D  &IF  (@;O_\
XM,7D  &I:  0@;O_\,7D  &IB  8@;O_\,7D  &HT  @@;O_\,7D  &HX  H@
XM;O_\,7D  &HZ  P@;O_\,7D  &H\  X@;O_\,7D  &H^ ! @;O_\,7D  &I@
XM !(@;O_\,7D  &I^ !0@;O_\$7D  &J  !8@;O_\$7D  &J" !<@;O_\$7D
XM &J* !@@;O_\$7D  &I> !D@;O_\$7D  &J( !H@;O_\$7D  &J, !L@;O_\
XM(7D  'JT !PC[O_\  !ZM' !3EY.=4Y6__A*N0  >K1G  $@('D  'JT,]
XM &ID('D  'JT,^@  @  :F8@>0  >K0SZ  $  !J6B!Y  !ZM#/H  8  &IB
XM('D  'JT,^@ "   :C0@>0  >K0SZ  *  !J."!Y  !ZM#/H  P  &HZ('D
XM 'JT,^@ #@  :CP@>0  >K0SZ  0  !J/B!Y  !ZM#/H !(  &I@('D  'JT
XM,^@ %   :GX@>0  >K03Z  6  !J@"!Y  !ZM!/H !<  &J"('D  'JT$^@
XM&   :HH@>0  >K03Z  9  !J7B!Y  !ZM!/H !H  &J(('D  'JT$^@ &P
XM:HP@>0  >K0M:  <__PNN0  >K1.N0  5EP$>0 @  !JGB/N__P  'JT9@9"
```

```
XMN0  >K!@%"ZY  !ZO"\\  ![P$ZY  !!.%B/3EY.=4Y6__A(YP$<*FX ""AN
XM  PF;@ 02A1G7BU-__PM3/_X+J[_^"\N__Q.N0  7OI8CV V8!X@;O_X$!!(
XM@+ 39@H@;O_\(FX %!"14J[__%*N__@@;O_X2A!FVBU-__PM3/_X4HM2K@ 4
XM2A-G""!N !1*$&:^8 )"%4J?3-\X $Y>3G5.5O_H(&X #$(08&(NO   >T O
XM/   >S@O+@ ,+PX&E____^QA /]8W_P    ,+HX&E____^PO+@ ,3KD  %[Z
XM6(\@;@ ($!!(@-!\_] P0-'(T<@B?   >O(NL)@ +RX #$ZY  !>CEB/4JX
XM""!N  A*$&:6+JX #$ZY  !?'$Y>3G5.5@  2.<'!"IN  A"1T)&8 )2C1 5
XM2(!(P-"\  !]DB! "!  !6;J#!4 *V8$4HU@"@P5 "UF!%*-4D9@#L_\  H0
XM'4B WD#>?/_0#!4 ,&T&#!4 .6_F2D9G!C '1$ ^ # '2I],WR# 3EY.=4Y6
XM  !(YP<<*FX ""AN  Q"1V (OGP $&P:4D<P!\'\  XF0-?\  ![I# K  +
XM?  #9N"^?  0;09"@&   -0,% !W9P8,% !79A@^K@ 0/SP  2\-3KD  $@N
XM7(\\ &   ' ,% !A9P8,% !!9CX^K@ 0/SP  2\-3KD  $KZ7(\\ &P6/JX
XM$#\\  $O#4ZY  !(+ER// !@$#Z\  )"IS\&3KD  $P^7(]@) P4 ')G!@P4
XM %)F%#ZN !!"9R\-3KD  $KZ7(\\ & $0H!@0$I&; 1"@& X0FL ##:&0H G
XM0  ()T  ! P4 ')G!@P4 %)F"#=\  $  F &-WP  @ "2FX $&8& &L!   "
XM( M*GTS?.,!.7DYU3E;__$)7+RX #"\N  AA /[44(].7DYU3E;__$)7+RX
XM#"\N  AA /Z\4(].7DYU3E;__#Z\  $O+@ ,+RX "&$ _J)0CTY>3G5.5O_\
XM2.<#!"IN  @M3?_\8 (:QRZ\  ![I$ZY  !!6#X OGS__V<&OGP "F;D0A6^
XM?/__9@1"@& $("[__$J?3-\@@$Y>3G5.5@  2.<!!$ZY  !:SD)7+SP  &FO
XM3KD  $OT6(\^O  !+SP  &FO3KD  $OT6(\^O  !+SP  &FO3KD  $OT6(\@
XM;@ (,FX #-')0A J;@ (8"80%4B 2,#0O   ?9(@0 @0  -G"A 52(#0?  @
XM8 00%4B &H!2C4H59M8^K@ ,+RX "$ZY  !$GEB/2I],WR  3EY.=4Y6__PN
XMC@:7    #"\N  @O/   >[).N0  30A0CTY>3G5.5O_\+HX&EP   ! O+@ ,
XM+RX "$ZY  !-"%"/3EY.=4Y6  !(YP$$*FX "%-M  QM%"!M  @0$$B P'P
XM_U*M  A@"F (+HU.N0  09!*GTS?( !.7DYU3E8  $CG 00J;@ (""T    #
XM9@9P_V   -0(+0 '  -G# !M "   G#_8   P$JM  1F)@@M  ,  V80/KP"
XM $ZY  !4SBM   1F" !M  @  F & &T !  """T  P #9PXP%4C T+P  'YR
XM*T  !+O\  ![I&86"#D !@  >[5G#"Z\  ![LDZY  !*8 @M  ,  V<&/KP
XM 6 $/KP" "\M  0_%4ZY  !"AER/.T  #$IM  QN&@QM__\ #&8( &T ,  "
XM8 8 ;0 @  )P_V :4VT #"MM  0 ""!M  @0$$B P'P _U*M  A*GTS?( !.
XM7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$</]@8@@M  4  6<$0D!@5@@M
XM  (  6<6,_P "0  ?8XS^0  ?G   'V0</]@. @M  0  6<:0H P+@ .+H O
XM+@ *+PU.N0  0PY0CV 88!9"@# N  XN@"\N  HO#4ZY  !$,%"/2I],WR
XM3EY.=4Y6__A(YP,,*FX ""AN  PN+@ 0+4?__&   )8^O  !( <_ "\,+RT
XM!B\-!I<    23KD  &!VW_P    ./4#_^D)N__A@%"!,D\DR;O_XT<D,$  :
XM9Q!2;O_X0D P+O_XL&[_^F7@2F[_^F<0($R3R3)N__C1R0P0 !IF"CUN__C_
XM^@!5 " ^KO_Z+PQA4%B//4#_^$* ,"[_^M&M  9"@# N__C9P$* ,"[_^)Z
XM2H=O"@@M  4  6< _V"?KO_\("T !K"M  YO!BMM  8 #B N__Q*GTS?,(!.
XM7DYU3E;_^$CG 0PJ;@ (+4W__" -0H$R+@ ,T($M0/_X*$U@"@P4  UG AK4
XM4HRY[O_X9? @#9"N__Q*GTS?, !.7DYU3E;__DCG PPJ;@ (*&X #"XN ! ^
XMO  !( <_ "\,+RT !B\-!I<    23KD  &!VW_P    ./4#__DIN__YF! !5
XM "!"@# N__[1K0 &("T !K"M  YO!BMM  8 #D) ,"[__DJ?3-\P@$Y>3G5.
XM5O_>2.<'#$)73KD  %F (\   'Z$(\   'Z(0GD  'Z"+KP  &FE80 #%BIN
XM  A@  ).8 )2C4H59Q00%4B 2,#0O   ?9(@0 @0  5FYDH59P ",@P5 ")G
XM!@P5 "=F1AP5$ 9(@#Z +PU2ETZY    [%B/*$ @#&8.+KP  'M(+PUA  )6
XM6(\@#$C D(T^ "!-,D?1R4(04D<NC5*780 "GF   =A"1V "4D<@33)'T<E*
XM$&<6$#5P $B 2,#0O   ?9(@0 @0  5GWDHU< !G"B!-,D?1R4(04D<0%4B
XM8  !AD)73KD  $G00E<O#5*73KD  $P,6(]*0&<0+HU2ER\\  ![6F$  =!8
XMCV   6P^O  !3KD  $G0#"T /@ !9D ^O  !+PU4ETZY  !,#%B/L'P  688
XM/KP  D*G/SP  4ZY  !,/ER/L'S__V80+HU2ER\\  ![9V$  7Q8CV D0E<O
XM#5*73KD  $C\6(^P?  !9Q NC5*7+SP  'MV80 !5EB/8   \CZ\ #\O#4ZY
XM    [%B/2H!F%#Z\ "HO#4ZY    [%B/2H!G  "P+7P  )6H__PNKO_\!I<
XM   X/SP &DZY    HE2//KP $2\-/SP  TZY  !=2ER/' "\/ #_9@XNO
```

```
XM>X4O#6$  .98CV!>+HX&E____]X0!DB /P O+O_\80 !6ER/+HX&E____]Y.
XMN0  7QP^@%)73KD  %^\*$ NC@:7____WB\,3KD  %[Z6(\NC&$  /P^O  2
XM+PT_/  #3KD  %U*7(\< +P\ /]FG& &+HUA  #:8!2P?  \9P#^=K!\ #YG
XM /Z<8 #_$MK'2A5F /VP0I=A  "V4WD  'Z"+KD  'Z(3KD  "&L'S__V80
XM+KP  'N?+SP  'N082I8CT*7+SD  'Z$/SD  'Z"3KD  $&7(\^@$ZY  !)
XM+DJ?3-\PP$Y>3G5.5O]\+JX ""\.!I?___^ 3KD  %[Z6(\NK@ ,+PX&E___
XM_X!.N0  7HY8CRZ\  ![H"\.!I?___^ 3KD  %Z.6(\NC@:7____@#\\  E.
XMN0  *)4CSZ\__].N0  22Y.7DYU3E8  $CG 00J;@ (('D  'Z(((U8N0
XM?HA2>0  ?H)*GTS?( !.7DYU3E8  $CG QPJ;@ ('BX #2AN  Y'[0!6&-MF
XM_$J?3-\X@$Y>3G5.5@  2.<#!$ZY  !::#X OGS__V8&</]@  "2/H=.N0
XM6O P!\'\ C@J0-O\  "/ $IN  YF! !5 ! NO  ::\O+@ (3KD  %]*6(]*
XM0&8* %4  S '8%)@'BZ\  !IM"\N  A.N0  7TI8CTI 9@@ 50 %, =@,CZ\
XM !8O+@ (/P=.N0  74I<CTI 9Q8S_  C  !]CC/Y  !^<  ?9!P_V & %4
XM 3 '2I],WR" 3EY.=4Y6__Q"5S\N  PO+@ (80#_.ER/3EY.=4Y6__Q"5S\N
XM  PO+@ (80#_(ER/3EY.=4Y6__P^O  !/RX #"\N  AA /\(7(].7DYU3E;_
XM_$ZY  !)1CZN  A.N0  ,9.7DYU3E8  $CG P!"1V 6, ?!_  .T+P  'ND
XM+H!.N0  27A21[Y\ !!MY$J?3-\ @$Y>3G5.5@  2.<!!"IN  @P+0 "P'P
XM V<J+HU.N0  2F (+0 "  -G"BZM  1.N0  5EQ"0$C *T  ""M  1";0 ,
XM FW_@  "/I5.N0  2=!*GTS?( !.7DYU3E8  $CG#P0^+@ (/H=.N0  6UXJ
XM0" -9A8S_  )  !]CC/Y  !^<  ?9!P_V!.0D8P%<!\  9F%CZM  0_/  ^
XM3KD  &#N5(\\ &P"?/\^ATZY  !:\#Z'3KD  %JR2D9F!C &8!9@%#/\  4
XM 'V.,_D  'YP  !]D'#_2I],WR#@3EY.=4Y6__Q.7DYU3E8  $CG!P0J;@ (
XM,"T  L!\  JP?  "9BP@+0 (D*T !#P ;R ^AB\M  0_%4ZY  !9ZER//@"\
XM1V<* &T $  "</]@2@@M  $  V<>2JT !&<6""T  P #9P@[?  !  Q@!CM\
XM ?\ #& </KP  3 M  Q$0$C +P _%4ZY  !,/ER/0FT #"MM  0 "$) 2I],
XMWR# 3EY.=4Y6  !(YP,$3KD  %IH/@"^?/__9@9P_V  -8^ATZY  !:\# '
XMP?P"."I V_P  (\ 2FX #&8$ %4 "$IN  YF! !5 ! NO  ::\O+@ (3KD
XM %]*6(]*0&82 %4  SMN  P !# '8  AF >+KP  &FT+RX "$ZY  !?2EB/
XM2D!F" !5  4P!V!D/KP #R\N  @_!TZY  !=2ER/2D!G'CZ'3KD  %JR,_P
XM @  ?8XS^0  ?G  'V0</]@, !5  $^O  "0J<0+0 #2( _ $ZY  !,/ER/
XM0E="IQ M  -(@#\ 3KD  $P^7(\P!TJ?3-\@@$Y>3G5.5O_\0E<_+@ ,+RX
XM"&$ _O9<CTY>3G5.5O_\0E<_+@ ,+RX "&$ _MY<CTY>3G5.5O_\/KP  3\N
XM  PO+@ (80#^Q%R/3EY.=4Y6  !(YP$$/JX "$ZY  !;7BI ( UF%C/\  D
XM 'V.,_D  'YP  !]D'#_8"0^K@ ./RT !"\N  H_/ !"3KD  &#N4(\K0  &
XM E7_WR M  9*GTS?( !.7DYU3E;__#Z\  %"IS\N  AAE%R/3EY.=4Y6__)(
XMYP,$2^[_\CM\?_\ #" N  @K0  $*T  "#M\ ((  CJ\__\NC@:7  $"\N
XM  PO#4ZY  !-"%"//@ NC4)G3KD  %*^5(\P!TJ?3-\@@$Y>3G5.5OWD2.</
XM!"IN !!";OWL2JX #&< !&A@  1@0D4M;@ ,__)@!E*N__)212!N__)*$&<*
XM(&[_\@P0 "5FZ$I%;QPNK@ (/P4O+@ ,3KD  %).7(\M;O_R  S;;OWL(&X
XM# P0 "5 P%*N  Q$P&8 ! Y";OWJ(&X #! 02( > +!\ "U P%*N  Q$P&8.
XM(&X #!X04JX #%)N_>H=?  @__:^/  P9@X=1__V(&X #!X04JX ##U\___]
XM\+X\ "IF&BU-__@@;O_X/5#]\%2-(&X #!X04JX #& X8"I*;OWP; 1";OWP
XM$ =(@#(N_?##_  *T$'0?/_0/4#]\"!N  P>$%*N  R^/  P;0:^/  Y;\I\
XM_[X\ "YF#$)&(&X #!X04JX #+X\ "IF&"U-__@@;O_X/!!4C2!N  P>$%*N
XM  Q@*F <$ =(@#(&P_P "M!!/ #<?/_0(&X #!X04JX #+X\ #!M!KX\ #EO
XMV$)N_>B^/ !L9P:^/ !,9@Y2;OWH(&X #!X04JX #$'N_?(M2/_R$ =(@&
XM @Q2;OWH2F[]Z&<((#P  %A<8 8@/  61(CP  ?HPNN0  ?HP_/  !/SP
XM"B\.!I?___WR+PU.N0  5^K?_  Q*;OWH9P1P!& "< )(P-O 8  !SE)N
XM_>A*;OWH9P@@/  6%Q@!B \  !9$B/  !^C"ZY  !^C$)G/SP "B\.!I?_
XM__WR+PU.N0  5^K?_  Q*;OWH9P1P!& "< )(P-O 8  !>E)N_>A*;OWH
XM9P@@/  6%Q@!B \  !9$B/  !^C"ZY  !^C$)G/SP ""\.!I?___WR+PU.
XMN0  5^K?_  Q*;OWH9P1P!& "< )(P-O 8  !)E)N_>A*;OWH9P@@/
XM6%Q@!B \  !9$B/  !^C"ZY  !^C$)G/SP $"\.!I?___WR+PU.N0  5^K?
```

```
XM_     Q*;OWH9P1P!& "< )(P-O 8   TBU-__P@;O_\+5#_\EB-8   P"U-
XM__@@;O_X,!# ? #_'4#]\D(N_?-4C6   *00!TB /H _!B\.!I?___WR+PU.
XMN0  4<S?_     I8C7S_8   ?A '2( ^@#\&+PX&E____?(O#4ZY  !1E-_\
XM    "EB-?/]@6! '2( ^@#\&+PX&E____?(O#4ZY  !2!-_\    "EB-?/]@
XM-"ZN  @0!TB /P!.N0  4KY4CU)N_>Q@  #68!B0? !#L'P -6+:Y4 P0-'\
XM  !\A"!03M NKO_R3KD  %\<.@"\16P&2D9M CH&,"[]\)!%/4#][DIN_>IF
XM6 PN ##_]F8J(&[_\@P0 "UF(%-%+JX ""!N__(0$$B /P!.N0  4KY4CU*N
XM__)2;OWL8!@NK@ ($"[_]DB /P!.N0  4KY4CU)N_>PP+OWN4V[][DI ;MPN
XMK@ (/P4O+O_R3KD  %).7(_;;OWL8!@NK@ ($"[_]DB /P!.N0  4KY4CU)N
XM_>PP+OWN4V[][DI ;MQ@ /N@,"[][$J?3-\@X$Y>3G5.5O_X2FX $&P$< 9@
XM!# N ! ]0  0(&X "" 0+4#__#ZN ! O+@ ,+R[__$ZY  !A4E"/3EY.=4Y6
XM__A*;@ 0; 1P!F $,"X $#U  ! @;@ ((! M0/_\/JX $"\N  PO+O_\3KD
XM &-04(].7DYU3E;_^#ZN ! O+@ ,+RX "&$ _WY0CRU __PNK@ ,3KD  %\<
XM,BX $%Y!L$%O%#ZN ! O+@ ,+RX "&&,4(\M0/_\("[__$Y>3G5.5@  2.<#
XM#"IN  @^+@ ,*&X #@@L  ,  V<D0FP ##Z'+PT_%$ZY  !9ZER/L$=G"@!L
XM !   G#_8"I"0& F8!HNC! =2( _ $ZY  !2OE2/L'S__V8$</]@"C '4T=*
XM0&;>0D!*GTS?,(!.7DYU3E8  $CG P0>+@ )*FX "E-M  QM%A '2( B;0 (
XM$H# ? #_4JT "& 28! NC1 '2( _ $ZY  !3!%2/2I],WR" 3EY.=4Y6__Y(
XMYP\$'BX "2IN  I"1CH&""T  0 #9@9P_V   21*K0 $9E8(+0 #  -F3CZ\
XM @!.N0  5,XK0  $*T  "&8( &T "  "8#( ;0 $  (^E4ZY  !44DI 9P@
XM;0!   )@&#M\ ?X #! '2( B;0 ($H!2K0 (8   R @M  ,  V<.0>[__BM(
XM  0@""M   @@;0 ($(=2K0 (""T  P #9QIZ 3Z%+RT !#\53KD  %GJ7(\\
XM $)M  Q@;@@M  8  V<^OCP "F<0("T !-"\   " +"M  AB(B M  B0K0 $
XM.@ ^A2\M  0_%4ZY  !9ZER//  K;0 $  A";0 ,8"@@+0 (D*T !#H /H4O
XM+0 $/Q5.N0  6>I<CSP .WP!_P ,*VT !  (ND9G"@!M !   G#_8 @0!TB
XMP'P _TJ?3-\@X$Y>3G5.5@  2.<!!#ZN  A.N0  6UXJ0" -9@1"0& ."T
XM 0 !9@1"0& "< %*GTS?( !.7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$
XM0D!@!C 5P'P!!DJ?3-\@ $Y>3G5.5O_\/JX "&&62D!G"" \  !IKV "0H!.
XM7DYU3E8  $CG P0^+@ (7D?F3U)'/H=A'BI ( UF!$* 8 H^AR\-80  AEB/
XM2I],WR" 3EY.=4Y6  !(YP$,*'D  'UD*E1@6D) ,"T !$)!,BT !K- 1D!*
XM0&<./KP  4ZY  !7XD* 8#I"0# M  2P;@ (900@#& JN_D  'UD9AP^K@ (
XM80  IBI ( UF#CZ\  ).N0  5^)"@& &*$TJ56"D2I],WS  3EY.=4Y6  !(
XMYP$,(&X ""I00D P+@ ,6$"P;0 $90@@;@ (()5@1BA-0D P+@ ,YTA(0$)
XM2$#9P$) ,"T !)!N  PY0  $0D P+  $1D Y0  &*)4@;@ (((P[;@ ,  1"
XM0# M  1&0#M   8C[@ (  !]9" -4(!*GTS?, !.7DYU3E8  $CG PP^+@ (
XMWGP /^Q'[4<P!^= /H!.N0  68 J0+O\_____V8$0H!@*B -4H# O/____XJ
XM0"A-.4< !$) ,"P !$9 .4  !BZ,4)=A$" Y  !]9$J?3-\P@$Y>3G5.5@
XM2.<!#"IN  A1C4) ,"T !$)!,BT !K- 1D!*0&<0/KP  TZY  !7XG#_8
XMQ"AY  !]9+O,902[U&40N=1E"+O48PB[S&0$*%1@Z+O,93(@#4)!,BT !.=)
XM2$%"04A!T($B#$)"-"P !.=*2$)"0DA"TH*P@6(*(\P  'UD0D!@;B -0D$R
XM+0 $YTE(04)!2$'0@;"49AP@5# H  31;0 $0D P+0 $1D [0  &(%0JD& "
XM*I0@#$)!,BP !.=)2$%"04A!T(&[P&8:0D P+0 $T6P !$) ,"P !$9 .4
XM!BB58 (HC2/,  !]9$) 2I],WS  3EY.=4Y6__Q(YP,,*FX ""Z-80#^\CXN
XM  Q>1^9/4D<^AV$ _8@M0/_\9@1"@&!*(&[__"A04(R[S&<RN<UD$& &&-U3
XM;@ ,2FX #&;T8!Y"@# N  S9P$* ,"X #-O 8 89)5-N  Q*;@ ,9O0^AR\N
XM__QA /VN6(]*GTS?,(!.7DYU3E;__$Y>3G5.5O_\3EY.=4Y6__!(YP,,+PX&
XME_____ _+@ 2/RX $"\.!I<    ,+RX ""!N !1.D-_\    $"I ( [0O/__
XM__"[P&8"0ATH;@ ,8!(>)4B'WGP ,+Y\ #EO EY'&,<@#M"\____\+O 9N)"
XM%" ,2I],WS" 3EY.=4Y6__Q(YP\$+7P  'X2__PJ;@ 4/"X $$C&(&X ""X0
XM#&X $  09AIZ"& ,( ? ?  /&L#HAU-%2H=G!$I%9NQ@: QN  @ $&8D>@M@
XM#" 'P'P !QK YH=314J'9P1*16;L2D5F!@(M  /__V \2FX $F<:2H=L%B!N
XM  P@4!"\ "TB;@ ,4I$@!T2 +@!@%BZ&+P=.N0  7^I8CRX (&[__!KH  -*
XMAV;F( U*GTS?(.!.7DYU3E;__$CG!P0@;@ (,!!(P"U __P@+O_\P+P  /__
```

```
XM/@ J;@ 4/"X $$IN !)G'$I';!A"0# '1$ ^ "!N  P@4!"\ "TB;@ ,4I%@
XM$D* , > QDA &L!"@# '@,8^ $I'9NH@#4J?3-\@P$Y>3G5.5@  2.<###XN
XM  A(Q\Z\  #__P@'  !G E*'*GD  'YL*$?9^0  ?FPNC$ZY    AK!\__]F
XM%C/\  P  'V.,_D  'YP  !]D'#_8!(^K@ (0F<O#4ZY    T%R/( U*GTS?
XM,(!.7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$</]@6$IN  YF!$) 8$X(
XM+0 #  %G%C/\  D  'V.,_D  'YP  !]D'#_8# (+0 $  %G%CZN  XO+@ *
XM+PU.N0  6\!0CV 48!(^K@ .+RX "B\-3KD  %S04(]*GTS?( !.7DYU3E8
XM $CG!P!\ 4)'8!@@!L"Y  !]:&8*C;D  'UH, =@'N.&4D>^?  0;>(S_  8
XM  !]CC/Y  !^<   ?9!P_TJ?3-\ P$Y>3G5.5O_\< $R+@ (XV!&0$C P;D
XM 'UH0D!.7DYU3E8  $CG P!"1V &/H=A$E)'OGP $&WT2I],WP" 3EY.=4Y6
XM  !(YP$,,"X ",'\ C@J0-O\  "/ # N  @;0  #0E5"+0 "*WS_____  I"
XMK0 &0JT #CZ\ "!"9R\-!I<    23KD   #07(\^O  +/SP ("\-!I<    3
XM3KD   #07(]*GTS?, !.7DYU3E8  $CG P0^+@ (OGP $&46,_P "0  ?8XS
XM^0  ?G   'V00H!@,$) , ? _ (X*D#;_   CP (+0    %F%C/\  D  'V.
XM,_D  'YP  !]D$* 8 (@#4J?3-\@@$Y>3G5.5O_Z2.<##"IN  @H;@ ,/BX
XM$$) /4#_^CU __Q@  #(8 12;O_ZOF[_^F,0($R3R3)N__K1R0P0  IFYD)
XM,"[_^I!N__QC9CZ\  $_+O_Z0D P+O_\D5<@#$*!,B[__-"!+P O+0 &+PT&
XMEP   !).N0  8++?_     X]0/_^0H P+O_^T:T !DIN__YF%C/\  4  'V.
XM,_D  'YP  !]D'#_8%X];O_Z__Q@.%)N__H^O  !/SP  2\\  !];"\M  8O
XM#0:7    $DZY  !@LM_\    #CU __Y"@# N__[1K0 &OF[__&( _S0@+0 &
XML*T #F\&*VT !@ .0D P+O_\2I],WS" 3EY.=4Y6__Y(YP$$*FX "#Z\  $_
XM+@ 0+RX #"\M  8O#0:7    $DZY  !@LM_\    #CU __Y*;O_^9A8S_  %
XM  !]CC/Y  !^<   ?9!P_V @0H P+O_^T:T !B M  :PK0 .;P8K;0 &  Y"
XM0# N__Y*GTS?( !.7DYU3E;_^DCG QPJ;@ *,"X ",'\ CC0O   CP M0/_\
XM?O\NC6$  .PF36 "4HM*$V<&#!, .F;T2A-G'!UC__H,+@!!__IM# PN $__
XM^FX$*DM@!$OK  (P+@ .8   D$)7+PT_/  \3KD  &#N7(\^ &\*(&[__#%'
XM  1"1V   (9"5R\-/SP 3DZY  !@[ER/2H!G!$) 8 0P/ #_/@!@9#Z\ $].
XMN0  8.Y*@&<$0D!@!# \ /\^ &!*+HT_/  ]3KD  &#N5(\^ &\*(&[__#%'
XM  1"1V L+HT_/ !!3KD  &#N5(\^ & :8!B0?  /L'P !V(.Y4 P0-'\  !]
XM;B!03M P!TJ?3-\X@$Y>3G5.5O_\(&X " P0 &%M$B!N  @,$ !Z;@@@;@ (
XM!!  ("!N  @0$$B 4JX "$H 9M1.7DYU3E8  $CG 0PJ;@ ,*&X "& "4HQ*
XM%&;Z&-UF_" N  A*GTS?, !.7DYU3E8  $CG!PPJ;@ (*&X #& 4'AT<'+X&
XM;P1P 6 :O@9L!'#_8!)*%6<$2A1FY! 52( 2%$B!D$%*GTS?,,!.7DYU3E8
XM $CG 0PJ;@ ,*&X "!C=9OP@+@ (2I],WS  3EY.=4Y6  !(YP$,*FX ""A-
XM8 )2C$H49OH@#$C D(U*GTS?, !.7DYU3E;__$Y>3G5.5@  2.<'#"IN  @H
XM;@ ,8"00'4B /H!A,!X $!Q(@#Z 828< +X&;P1P 6 2O@9L!'#_8 I*%6;8
XM2A1FU$) 2I],WS# 3EY.=4Y6  !(YP, /BX "+Y\ &%M"KY\ 'IN!-Y\_^ P
XM!TJ?3-\ @$Y>3G4@7T* ,!]:@ B    B>0  ?FQ#Z0$ 0_$( +_)8@9.^0
XM +B?P$/O  0@"4[03E8  $CG'P N+@ (+"X #$J&9A8C_(       'X2(#R
XM    @/P  &!(O(=C"B/'  !^$D* 8#J^AF8&>@%"AV H> &^AF4.( ;C@+R
XM8@;CAN.$8.Y"A4J$9PZ^AF4$BH2>AN*,XHY@[B/'  !^$B %2I],WP#P3EY.
XM=4J%9PHNO/____^+_   3G5.5O_Z(&X "#UH__+__BZN ! P;@ 6+P@P;@ 4
XM+PA.N0  8/Y0CR\ /R[__C\\ #].N0  8.Y0CTY>3G5.5O_Z(&X "#UH__+_
XM_BZN ! P;@ 6+P@P;@ 4+PA.N0  8/Y0CR\ /R[__C\\ $!.N0  8.Y0CTY>
XM3G4CWP  ?I!.02\Y  !^D$YU3E;__$)"2JX "&P&1*X "%)"2JX #&P&1*X
XM#%)","X "L#N  XM0/_\,"X ",#N  XR+@ ,PNX "M!!T&[__#U __P@+O_\
XM" (  &<"1(!.7DYU3E;_^$CG'P M;@ ,__Q*;@ 0;@1P 6 2#&X %@ 0;P1P
XM%V &,"X $%) . !"1T*G+RX "$ZY  !EA%"/;!P@;@ ,$+P +5*N  PO+@ (
XM3KD  &;Z6(\M0  (0J<O+@ (3KD  &6$4(]O+F 8+SR@  !$+RX "$ZY  !F
XMVE"/+4  "%-'+SR   !!+RX "$ZY  !EA%"/;=1@&"\\H   1"\N  A.N0
XM9:)0CRU   A21R\\H   1"\N  A.N0  9810CVS4V$=\ 3 &2, O $ZY  !E
XMPEB/+4#_^& 8+SR@  !$+R[_^$ZY  !EHE"/+4#_^%)&O$1MY"\\@   0B\N
XM__A.N0  9:)0CR\ +RX "$ZY  !E9%"/+4  ""\\H   1"\N  A.N0  9810
```

```
XMCVT*+7R   !!  A21TI';#0@;@ ,$+P ,%*N  P@;@ ,$+P +E*N  Q*1&P"
XMGD1\_V .(&X #!"\ #!2K@ ,4T:\1V[N0D9@:B\N  A.N0  9E)8CSH , 70
XM?  P(FX #!* 4JX #+Q'9@P@;@ ,$+P +E*N  PP!4C +P!.N0  9<)8CRU
XM__@O "\N  A.N0  9Q90CRU   @O/*   $0O+@ (3KD  &;:4(\M0  (4D:\
XM1&V2(&X #$(04JX #" N__Q*GTS? /!.7DYU3E;_^$CG'P M;@ ,__Q*;@ 0
XM;@1P 6 2#&X %@ 0;P1P%V &,"X $%) . !"1T*G+RX "$ZY  !EA%"/;!P@
XM;@ ,$+P +5*N  PO+@ (3KD  &;Z6(\M0  (0J<O+@ (3KD  &6$4(]O+F 8
XM+SR@  !$+RX "$ZY  !FVE"/+4  "%-'+SR   !!+RX "$ZY  !EA%"/;=1@
XM&"\\H   1"\N  A.N0  9:)0CRU   A21R\\H   1"\N  A.N0  9810CVS4
XM? $P!DC +P!.N0  9<)8CRU __A@&"\\H   1"\N__A.N0  9:)0CRU __A2
XM1KQ$;>0O/(   $(O+O_X3KD  &6B4(\O "\N  A.N0  9610CRU   @O/*
XM $0O+@ (3KD  &6$4(]M"BU\@   00 (4D="1F!J+RX "$ZY  !F4EB/.@ P
XM!=!\ # B;@ ,$H!2K@ ,2D9F#"!N  P0O  N4JX ## %2, O $ZY  !EPEB/
XM+4#_^"\ +RX "$ZY  !G%E"/+4  ""\\H   1"\N  A.N0  9MI0CRU   A2
XM1KQ$;9(@;@ ,$+P 15*N  Q*1VP2, =$0#X (&X #!"\ "U2K@ ,, =(P('\
XM  K0?  P(FX #!* 4JX ## '2,"!_  *2$#0?  P(FX #!* 4JX #"!N  Q"
XM$%*N  P@+O_\2I],WP#P3EY.=4Y6__Q(YQ\ +BX ""PN  Q.N0  9U@@!TS?
XM /A.7DYU3E;__$CG'P N+@ (+"X #$ZY  !H*DS? /A.7DYU3E;__$CG'P N
XM+@ (+"X #$ZY  !H6B '3-\ ^$Y>3G5.5@  2.<' $JN  AL#GP!("X "$2
XM+4  "& "0D9*K@ (9@1"@&!>?AA@#" N  CB@"U   A2AR N  C O'\   !F
XMZ& ,("X ".. +4  "%.'""X !P )9^P@+@ (X8 M0  (WKP   ! ( ? O
XM '^!K@ (2D9G" "N    @  (("X "$J?3-\ P$Y>3G5.5@  2.</ " N  C
XMO    '_0O/___\ \ $JN  AG!$I&; 1"@&!6("X ","\    @#H O'P 'V\4
XM2D5G"" \@    & &(#Q_____8# N+@ (X(?.O #___^<?  88 3BAU)&2D9M
XM^& $XX=31DI&;OA*16<&( =$@"X ( =*GTS? .!.7DYU3E;__$CG'P N+@ (
XM+"X #$ZY  !HS" '3-\ ^$Y>3G5.5O_\2.<? "XN  A.N0  9SP@!TS? /A.
XM7DYU3E;__$CG'P N+@ (+"X #$ZY  !G1B '3-\ ^$Y>3G7./ !_3G5*!V<$
XM"@< @$YU& 9G4@H$ (!K:AH':VQF#F ^& 9K7F<^&@=K7F<RF@1K.!@'NCP
XM&&0L)@9" ^JK'CP @-Z#900>!$YUXI=2!&D"9/1^_U,$'@0 /  "3G4N!AX$
XM3G5*!TYUNCS_Z&_P1 4F!D('ZJ\6/ " WH-ES!X$3G4:!VNF9]9V@+<%F@1G
XM4&L\NCP &&3,& <> R8&0@/JJYZ#:Z :!$('4P2^O   ?_]B!DA'F#P $-Z'
XM6\S__+D%:P8>!&<"3G5^ $YUNCS_Z&^*1 4F!RX&'CP @&"^&@?+1!X&GH9G
XMX&JZ1(<8!6"VO@9F KZ&3G5*!TYUCOP  $J&9AR.O/___W]*!P \  ).=4A&
XM2$>]!V#J:_I^ $YU&@9GV"@'9^AV@-I%V$2W!;<$F 5IY$('2$=(1KY&:P94
XM!&G.XI](1QH#NT3B3"8'AL8Z \;&GH-(1TA&-@9" \;%GH-D""8&0@/>@U-%
XM)@9(0T)'CL-(16L(.@?:A5,$/@4Z!]J\    @"X%'@1GC$YU&@=G4A@&9VC:
XM1=A$=H"W!+<%V@1I7A@#N47B74A%.@9"!T(%. 7(QTA$)@=(0\;%V(-(1B8&
XMQL?8@T)$V01(1$A'SL9(1DA%WH1J#-Z\    @!X%9QI.=5,%:11E$GA WH3>
XMAV0$XI=2!1X%9P).=7X 3G5J^KT'CKS___]_2@< /  "3G5M8S8X,S0S(&9L
XM;V%T:6YG('!O:6YT(&9I<FUW87)E("AC*2!C;W!Y<FEG:'0@,3DX,2!B>2!M
XM;W1O<F]L82!I;F,N %-T86-K($]V97)F;&]W)$,@<G5N=&EM90!#3TXZ $Q3
XM5#H &@  :PC__P
XM
XM                                          0   #X /@ #  (
XM @ # #D   !!    00   $$   !!     '4P  $      0   0 !    00
XM                  $  @ #     2X 7P @     0        4
XM                1    $D   !0    4@   %,   !6    9    &D   !P
XM    <@   ',   !V         A8   'R   !C    70   &    !:    A8
XM  'R   !C    70   &    !:    E!V+C$N,0 * "YS;R  <@ E<SH@8V%N
XM;F]T(&]P96XN"@!W "5S.B!C86YN;W0@8W)E871E+@H* '!R;V9F(')E860@
XM:6X@)39D('1E>'1L:6YE<R!T;R!P<F]D=6-E"@ @(" @(" @(" @(" @("4V
XM9"!L:6YE<PH (" @(" @(" @(" @(" E-F0@<&%G97,@;V8@9F]R;6%T=&5D
XM('1E>'0N"@ *)60@8GET97,@;V8@;65M;W)Y('=A<R!R97%U:7)E9 H 9F]R
```

```
XM(&EN=&5R;F%L('1A8FQE<R!A;F0@;&ES=',N"@  !P @(" @(" @9&]N92X*
XM  H )7-I;G-E<G0@<&%P97(@86YD('1Y<&4@<F5T=7)N( !T;V\@;6%N>2!C
XM:&%R86-T97)S('!U<VAE9"!B86-K+@H ,# M>'AX+3$Y,# @,# Z,# Z,#
XM "5S"@!U<V%G93H@<')O9F8@6RMN72!;+6Y=(%LM=ET@6RUI9FEL95T@6RUS
XM72!;+7!O;ET@:6YF:6QE(%MO=71F:6QE70H
XM
XM     0(#! 4&!P@)"@L,#0X/$!$2$Q05%A<7&1H;'!T>'P ! @,$!08'" D*
XM"PP-#@\0$1(3%!46%Q@9&@          "0   "     B    ,    #$    R
XM    ,P   #0    U    -@   #<    X    .0   %P   !>        (G
XM ")P   BM   (MP  "+<   BW   (MP  "+<   BW   (MP  "+<   BW
XM(MP  "*$   BF   (RQI;7!R;W!E<B!A<F=U;65N="!L:7-T+@!N;VXM87-C
XM:6D@8VAA<B!V86QU92!I;B!W<FET92!S=')I;F<N    =I8 %0
XM=ID &P    !MX   =IP &0          =I\ (0 !        =J$ '0
XM    =J0 .0    !N$   =JX 'P          =K$ )0    !N*   =K0 *0 !
XM        =K8 (0          =KD 8P    !N3   =KP 9P    !N6   =K\
XM6P          =L( !0 !        =L8 "P !  !N?   =LD 8P !  !NB
XM=LP ;0 !  !NE   =L\ !P !        =M, "0    !NK   =M8 -0
XM    =MD :0    !NQ   =MP #P !        =M\ -0    !NW   =N0 -P !
XM  !NZ   =N< /P    !N]   =NH 90 !  !O    =OH "0 !        =O\
XM$0    !O&   =P( $P    !O)   =P@ (P    !O,   =PL 00    !O/
XM=PX "0 !        =Q$ &P    !O5   =Q< )P    !O8   =QH 0P    !O
XM;   =QT 30 !  !O>   =Q\ %P          =R( .0 !  !OD   =R4  P
XM        =RH #P !  !OJ   =S  )0    !OM   =S< )P !  !OP   =SH
XM&0          =T$ 90 !  !OV   =T4 10          =T@ 7P    !O\
XM=TP 40          =T\ 7P    !P"   =U( #0          =U4 80    !P
XM(   =U@ (0 !        =UT *0    !P.   =V  *P    !P1   =V, 1P
XM  !P4   =V8 20 !  !P7   =VD .P          =VP :P !  !P=   =V\
XM4P          =W( *P !        =W8 2P    !PF   =WD 10 !
XM=WP 30    !PL   =W\ 40 !  !PO   =X0 -0 !        =X< /0    !P
XMU   =XH 2P !  !PX   =XX 60    !P[   =Y$ 5P          =Y0 60
XM  !Q!   =Y@ "P !        =Y\ 3P          =Z( 50    !Q*   =Z<
XM70          =ZL 50          =ZX 70    !Q3   =[$ ;P    !Q6
XM=[0 30 !        =[D 2P          =\$ %0          =\@ *P !  !Q
XMB   =]  -P          =]< 6P    !QH   =]X  0          =^0 1P
XM  !QN   =^L :P !        =_, !P !        > $ #0 !        > H
XM(P          >!$ /P    !Q]   >!@ ;P    !R    >!X 10 !
XM>"< 2P          >"X +0          >#$ !0 !        >$  +P    !R
XM/   >$, ,0          >$8 9P    !R5   >$\ ;0 !  !R8   >%H ,P
XM        >%T -0 !  !R>   >&8 80          >'$ )P !        >'P
XM2P !  !RG   >(0 3P          >(L 4P    !RM   >)4 5P
XM>)T 20 !        >*D *0 !        >+$ /0          >+@ 8P !
XM    >,8 :0          >-   P          >-, !0    !S%   >-8 $P
XM  !S(   >-D !P          ;>P  &WX  !N!   ;AP       !N-   ;D
XM &YD  !N<   ;J   &ZX  !NT   ;PP  &](        ;X0  &^<  !OS
XM     &_D  !O_   <!0  ' L  !P:   <(   '",  !PI   <,@  '#X  !Q
XM$   <1P  '$T  !Q0   <60                              <7   '%\
XM  !QE            !QK             !QQ        ''0  !QW   <>@
XM                 '(,  !R&   <B0  '(P  !R2   <FP  '*$  !RD
XM          !RJ   <L                              <LP
XM                                !RV        '+D
XM                  !R\         '+\        <P@
XM      !S+   <S@     )/   #+(   RT   )F(  #+0   L@@  ,M   "R,
XM   RT   )QX  #+0   M @  ,M   "S.   RT   )28  #+0   PH   ,M
```

```
XM "_X   RT   )5@  #+0   Q@   ,M   #&N   RT   ,$H  #+0   OP
XM,M   "^(   RT   )00  #+0   FZ@  ,M   ":V   RT   )Z@  #+0   P
XMQ@  ,M   "4P   RT   +E   #+0   ND@  ,M   "[4   RT   +RX  #+0
XM   P<   ,M   "46   RT   ,-(  #+0   QT@  ,M   #%X   RT   ,7P
XM #+0   OW   ,M   "^D   RT   +<(  #+0   N*   ,M   "?@   RT
XM,-P  #+0   G=@  ,M   #)2   RT   * P  #+0   EJ   ,M   "RN   R
XMT   ++X  #+0   H.   ,M   "DX   RT   *3P  #+0   J'   ,M   "B\
XM   RT   +)@  #+0   LI   ,M   "KX   RT   *]0  #+0   M)   ,M
XM "U@   RT   +7!C90!E8P!D90!F &5F &YO:G5S=&EF>0!E: !H90!J &9I
XM &YA &-L &EG &1B;P!P80!A< !E; !E8F\ 8G  ;F4 <&, 8G( ;F5E9 !N
XM9@!O90!N;V%U=&]P87)A9W)A<&@ <&%G90!B<P!C8VAA<@!F;P!O9@!P9P!E
XM8VAA<@!I;@!O: !S &-U &YJ &)O;&0 8G)E86L :&5A9&5R &QM &1E9FEN
XM90!N87  <&P 9V5T '1I '9G &YP '!N &9I;&P :G4 ;', <&\ <FT ;G(
XM;'0 =6P <W!C '-O '!S '-P &QE9G0 ='  ;W4 <F5Q &QX ')S &QE> !P
XM86=I;F< <W0 <V%V90!S970 <W8 =G, =W( <VMI< !I;F-L=61E &-E;G1E
XM<@!S<&%C:6YG &YO9FEL; !I9VYO<F4 <F5S970 ;V9F<V5T &QI=&5R86P
XM96YA8FQE8F]L9&EN9P!N;W!A9VEN9P!F;V]T97( ;W5T96YD '=R:71E '!A
XM9V5S:7IE '-O=7)C90!M,0!D:7-A8FQE8F]L9&EN9P!M,@!M,P!C;VYT;&EN
XM90!E;F1L:71E<F%L &TT '1E<W1P86=E '!A9V5N=6UB97( ;&5F=&UA<F=I
XM;@!R97%U:7)E '-K:7!T;P!U;F1E<FQI;F4 <F5S=&]R90!R:6=H=&UA<F=I
XM;@!J=7-T:69Y &]U='!U= !A=71O<&%R86=R87!H '!R:6YT8V]N= !B9 !D
XM8@!C8P!E8@!O;@!O9F8 86QL '=O<F1S "5S('5N9&5F:6YE9"X* ')O;6%N
XM &%R86)I8P E8R5S(&1O97,@;F]T(&AA=F4@)7,@;W!T:6]N+@H :6QL96=A
XM;"!V87)I86)L92!N86UE("5S"@ E<SH@ "5C)7,@;F5E9',@82!V87)I86)L
XM92!N86UE+@H :6QL96=A;"!V87)I86)L92!N86UE("5S"@ E<P E8R5S(&YE
XM961S(&$@=F%R:6%B;&4@;F%M92X*  H /R!33R!C;VUM86YD<R!N97-T960@
XM=&]O(&1E97!L>2X <@!S;W5R8V4@)7,* "5S.B!C86YN;W0@;W!E;BX* &EN
XM=F%L:60@;G5M8F5R(')E9VES=&5R(%LE8UTN #\@0F]T8V@@:6X@8V]M;6%N
XM9"X )6,E<R!I<R!N;W0@82!R=6YO9F8@8V]M;6%N9"X* '5N:VYO=VX@8V]M
XM;6%N9" E8R5S"@  ;6ES<VEN9R!N86UE(&EN(&-O;6UA;F0@9&5F+@!D969I
XM;FET:6]N('1O;R!L;VYG+@H ;F\@<F]O;2!F;W(@;F5W(&1E9FEN:71I;VXN
XM"@!M:7-S:6YG(")](B!I;B E<PH )35D"@             >L   'K7<V%V
XM93H@<W1A8VL@;W9E<F9L;W<N"@!R97-T;W)E.B!S=&%C:R!U;F1E<F9L;W<N
XM"@   'L:  ![&P  >QT  'L@  ![)   >R<  'LI  ![+   >S   'LU $D
XM24D 24E) $E6 %8 5DD 5DE) %9)24D 25@ 25983$-$30!83$-$32HJ #H@
XM=6YM871C:&5D('%U;W1E $-A;FYO="!O<&5N( !#86YN;W0@87!P96YD( !#
XM86YN;W0@8W)E871E(  Z($YO(&UA=&-H %-T86-K($]V97)F;&]W   -"B0
XM     0               0 *               "  H               ,
XM                !                  %                  8
XM            !P                 (                   D
XM        "@                 +                   P
XM    #0                  .                   \
XM % *  !.I@  4"8  %!,  !0<   4)0  %"4  !0E   4)0  %"4  !0E
XM4)0  $]0  !0E   4)0  %"4  !/^   4)0  $[\  !0E   4)0  $^D  !0
XME   4)0  %"4  !0E   4)0  %"4  !0E   4)0  %"4  !0E   4 H  $ZJ
XM  !0)@  4$P  %!P  !0E   4)0  %"4  !0E   4)0  %"4  !0E   3U0
XM %"4  !0E   4)0  $_X  !0E   3P   %"4  !0E   3Z@  'U<  #__P
XM?5P     #0   %X$  !>3@  7<H  %WJ  !>(@  7DX  %Y.  !=J      !
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XM @(" @("$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! " @(" 0    !#4"]-
XM+38X2RAT;2DL(%9E<G-I;VX@,2XR+"!#;W!Y<FEG:'0@*&,I(#$Y.#,L($1I
XM9VET86P@4F5S96%R8V@@6%A86"TP,# P+38U-#,R,0      !%(.& 88& R"
```

```
XM+ P,,@P4!@X*!@H&!A((* H:!AH&""0&%AX&!@P<"@@,!@8," 0&!@0B$A8&
XM" 8(!@@&"@8&! @*!@@(#A8&"@@(!@8&" 8&!@@&!@8(!@8&" 8&"M00" 8,
XM!@P*!@88!B 0!A(0% 8*'@@*"@H*!@@&!@@((AX6# H! ;@("@8&" I^" 8,
XM##$ T"@@4!@8.!@8." H(!@@*$ 0&!@@&"@@&"@@*!@@,$@8&#@8&# H&"!X&
XM!@H&!@8B" 8.% H(# H*# H*"A 4!@0&" 8*"@8,!@8&&@@(!@8&%"P,&!P<
XM(BHX"AP*$ P20AH0& H0" H0%)H,"@@>!@@,"!(($ 8&2 8!/A08&"0('@8(
XM'@8(&" 86*)J<@IB 3X&!@P!@EX&!@I@0@QD, P,#C(,FE1 " 8(" 8&!@@(
XM" @(!@@((A(4!@@(" @(" 8&!@8(!@@&" 8(!@8$!@0&! 8$!@0&! 8$!@0&
XM!@8(" 8&!@8($A0&!@8&" 82#@8*!@H:#@P&%@8*" H&!A ,!@H&# H*!B9&
XM*K82!MI*&! &&D &" HB0!0:'#H*(A(&' 8B# @*!@H<!A .#@88!A@2!AP&
XM#!X&#@80!@X&#! .!A@&$ 8*" 8*# 8*" 8*# H&# X.!@P$(A *!A(&# 0.
XM$@80!A &$ XB#!X2!@8,#@X(#@P8"@8&&AX&!B06!@80#!82"@8&%AX&!A 2
XM#@8&!A ,%A(*!@88"!X>,@@*!@P(# 8(!A(&! H,!@@*!@8&"@H6% 8(!A(,
XM# H*!@H&"@8$" 8&!@8*" 8&! H&"@@&!@8("@8*&!(0& X&" @4!@P&!@8*
XM$@80!@@(%@80!@@(%@80!@@(%@8,!@8&"@8("!8&# 8&!@H&"@P&"@P&"@P&
XM"@X&"@H(!@@&"@8,!@H*# 8(!@H&&@82"A .!@8."@P*"! &!A(&!A86!A *
XM#BH&'"@(& X:$ @("@P(" @&%!@*0@H.& H&!C8*!@8P(!(&%"PJ&"80!@86
XM# 8&*KH*8"!N'@A"!@9><&P4IJHH+#@@& P&!A0&"@8*"@P,# P,# P,# P,
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XM" @(!@8T9@8H&@X8)'@R)!84'K@&-@@&# 8,!B L(@8@-% F"@H(!AY<)@8$
XM(!I$ 1Q.!@8&!B L#D0H#! 4%A@2%!(6$@X6$A P"A(8/ 8&# 8,!@8*(!0(
XM#A0,%@@&/A8.$ H6"AX.!@1H"AP(,!(>'@X&!!P0"!(&!$A.)A8.&@H>"AX.
XM" 8$'!1J#@8$&FH.8 %>" 8&&"H(!@86*@@&!A8J" 8&%F F)!P@#D0>(AI6
XM."I2)%I&(%Q *$(T+DHB&AJ&+C@V#$IP 1Z,K @(#@8$$B D!@0<%B((%@8$
XM(D R&"8&!!00!@2((@8$'A)F& 8$2%(B'!P>' &&$B@6/$ 2*A(,") :$A88
XM%A@4&!P.%E0P$A9>&A(6&!88$A@<#A8<,!(6BB > 3H<( $!E@$<! 0$! 0$
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XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$ 0$! 2X$-@0$! 0$! 0$! %P! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$" H$! 0$! 0$ &$
X< Q8J;@ (8  "3F "4HU*%6<4$!5(@$C T+P   0$
X
Xend
SHAR_EOF
if test 46940 -ne "`wc -c 'proff.uud'`"
then
     echo shar: error transmitting "'proff.uud'" '(should have been 46940
characters)'
fi
#    End of shell archive
exit 0
--
```


```
 __________ ______ ____ _____ ___
/__________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________       TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /       One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /        Redondo Beach, CA 90278
```

/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From -3431118571333859895
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b211e6d7c3222872
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 13:02:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!sri-spam!sri-unix!hplabs!ucbvax!
Xerox.COM!"Michael_Krause.ROCH"
From: "Michael_Krause.ROCH"@Xerox.COM
Newsgroups: net.micro.atari16
Subject: Re: Text/Graphics packages.
Message-ID: <861007-134837-5226@Xerox>
Date: Tue, 7-Oct-86 16:02:05 EDT
Article-I.D.: Xerox.861007-134837-5226
Posted: Tue Oct 7 16:02:05 1986
Date-Received: Wed, 8-Oct-86 08:22:39 EDT
Sender: broome@ucbvax.BERKELEY.EDU
Reply-To: "Michael_Krause.ROCH"@Xerox.COM
Organization: The ARPA Internet
Lines: 7

YES!!! Try Xerox's Ventura Publisher software. It's great for creating
newspaper type documents with graphics included in or between the
columns. It displays the text and graphics right on the screen and
allows for all text and graphics manipulation stuff. You can even
magnify or shrink the graphics frames to suit the situation.

Mike

From 5590670840471172282
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 163a0f,afa9f207ba7caa70
X-Google-Attributes: gid163a0f,public
X-Google-Thread: 140593,afa9f207ba7caa70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 13:29:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!
ubc-vision!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.lang.c++,net.micro.atari16
Subject: Re: C++ preprocessor wanted
Message-ID: <429@vaxb.calgary.UUCP>
Date: Tue, 7-Oct-86 16:29:44 EDT
Article-I.D.: vaxb.429
Posted: Tue Oct 7 16:29:44 1986
Date-Received: Wed, 8-Oct-86 22:36:06 EDT
References: <2939@sdcc6.ucsd.EDU>
Organization: U. of Calgary, Calgary, Ab.

Lines: 18
Keywords: Atari C-source
Summary: not likely...
Xref: mnetor net.lang.c++:360 net.micro.atari16:2400

In article <2939@sdcc6.ucsd.EDU>, ix181@sdcc6.ucsd.EDU (John Ogawa) writes:
> I am an avid C++ fan who is about to get an Atari 1040ST and a C
> package. My question is: is there any way to get a C++ package for
> the 1040? Alternately, is there any C source code for CC that I can
> get my hands on?

   I am afraid this is unlikely. All C++ compilers I am aware of
(i.e. AT&T's) are actually fancy preprocessors that spit out rather
wild looking C. If CC is to work on an atari, your ATARI C compiler
must (and i mean MUST) be able to cope with *ARBITRARILY* long
identifiers.

   I am not aware of any C compiler for the atari ST that will suffice,
(my own Lattice C compiler nmormally uses only the first 8 characters,
and will in any event, use at most 32 characters of an identifier.
This is probably not enough for C++.)

                              M. Brinsmead @ Univewrsity of Calgary.

From 2978957797932470631
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7dac74cdc1cbe590
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 17:31:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!pyrnj!mirror!rayssd!rmk
From: rmk@rayssd.UUCP (Richard M. Kulakowski)
Newsgroups: net.micro.atari16
Subject: Re: Atari Fair -- San Jose
Message-ID: <217@rayssd.UUCP>
Date: Tue, 7-Oct-86 20:31:13 EDT
Article-I.D.: rayssd.217
Posted: Tue Oct 7 20:31:13 1986
Date-Received: Wed, 8-Oct-86 07:37:41 EDT
References: <428@atari.UUcp>
Sender: rmk@rayssd.UUCP (Richard M. Kulakowski @ Raytheon Co., Portsmouth RI)
Organization: Raytheon Co., Portsmouth RI
Lines: 2

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

From -4896764941534952506
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a89a176a19edd809,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-10-07 17:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!ULKYVX.BITNET!
RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Scribble ---> Proff preprocessor (a sh archive)
Message-ID: <8610080704.AA15036@ucbvax.Berkeley.EDU>
Date: Tue, 7-Oct-86 20:38:00 EDT
Article-I.D.: ucbvax.8610080704.AA15036
Posted: Tue Oct 7 20:38:00 1986
Date-Received: Wed, 8-Oct-86 22:18:58 EDT
Sender: wolfe@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 810

```
#       This is a shell archive.
#       Remove everything above and including the cut line.
#       Then run the rest of the file through sh.
#----cut here-----cut here-----cut here-----cut here----#
#!/bin/sh
# shar:    Shell Archiver
#       Run the following text with /bin/sh to create:
#       read.me
#       scribe.c
#       envir.c
#       keytab.c
#       scribe.h
#       scribe.mac
# This archive created: Tue Oct  7 20:21:12 1986
sed 's/^x//' << \SHAR_EOF > read.me
xThis is the first installment of a simple preprocessor for proff that
xconverts scribble format files to a format that scribe can interpret.
xThe pr
```

From -7807884511356792228
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51e29eb69687b094,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 20:26:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: ARC for the ST
Message-ID: <1341@trwrb.UUCP>
Date: Tue, 7-Oct-86 23:26:40 EDT
Article-I.D.: trwrb.1341
Posted: Tue Oct 7 23:26:40 1986
Date-Received: Wed, 8-Oct-86 20:56:51 EDT
References: <573@chinet.UUCP>

Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 978

I just got this from CIS. In light of the large postings of late, it's
time has probably come. Give it to everyone you know, and we can all save
time and money when we upload/download stuff. I'll also be posting a
uuencoded/ARCd version of alite.prg in a few minutes...

-Rich

```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - arc.doc
sed -e 's/^X//' > arc.doc << '!FaR!OuT!'
XIntroduction and short docs.
X          ARC (short for archive) is a file library and compression
X          utility.  It may be thought of as an improved version
X          of LU and SQUEEZE all rolled into one program.
X
X          ARC analyzes each file to see which of a number of
X          compression techniques will generate the smallest code.
X          The following estimates give the user a general idea of
X          how much compression may be gained by using ARC.
X
X                ARC Text -            45-55% reduction from original
X                SQUEEZED Text -       30-40% reduction
X
X                ARC Programs -        25-30% reduction
X                SQUEEZED Programs -   15-20% reduction
X
X                ARC Pictures -        45-55% reduction
X                SQUEEZED Pictures -   40-50% reduction
X                TINY Pictures -       40-50% reduction
X
X          The user should see that compressing files with ARC
X          will allow easier telecommunications by combining files
X          and shortening their transfer time.
X
X     Usage from TOS
X          - double-click-left on ARC.TTP icon
X          - observe OPEN APPLICATION menu for ARC.TTP parameters
X          - enter switch, archive name and file template
X            (ex: lh arc.arc *.*)
X          - hit return or click-left on OK box to begin execution
X          - "press any key to continue" after completion
X
X     History
X          ARC has been in use in the CP/M and MS-DOS world for many
X          years.  Thom Henderson developed the version which I
X          converted for use on the Atari ST.  I am not sure but he
X          may also be the original author.
```

X
X   It is important to note that no matter who developed this
X   program, ARC is based on the file compression theories
X   developed by Huffman, Welch, Knott, Knuth, and many other
X   scientists.
X
X   Bug Reports
X   Since I developed this version of ARC, I will be responsible
X   for any erroneous features. Please relay any problems with
X   a written discription of what happened and the .ARC file
X   which caused the problem to:
X
X   Harvey Johnson
X   2398 Oaklyn St NE
X   Palm Bay, FL 32907
X
X   - or -
X
X   QUILL BBS 305-724-2303
X
X
X   Future Products
X   It would be nice to have a version of ARC written to utilize
X   GEM. I would also like to write a picture display feature
X   that will show compressed pictures directly to the screen.
X   This will be useful in that ARC squeezes file 5 to 10% smaller
X   than TINY format. If anyone has the C source to dump NEO,
X   Degas, or other pictures to the screen please upload a copy
X   to QUILL BBS.
X
X   If you have any ideas for additional capabilities, then send
X   them to me with a detailed explanation. All thoughts are
X   welcome.
X
X   Donations
X   It would be nice to be supported if you think that ARC
X   is any good. Make no mistake, I did NOT write the original
X   version of ARC, but I have spent all my extra time for
X   two months making it a reality on the Atari ST.
X
X   As I do recieve contributions, I will consider improvements
X   more seriously. Any donations may be sent to address
X   specified in Bug Report section.
X
X   Thank you one and all in advance for considering this
X   request, but if you are like me (lazy) then I don't
X   really expect to ever see a single dime.
X
XARCHIVE (ARC.TTP)
X
X   Usage
X   arc {amdxelvth} <filename.ARC> [<filename> ...]
X

```
X               a   = add files to archive
X               m   = move files to archive
X               d   = delete files in archive
X               x,e = extract files from archive
X               l   = list files in archive
X               v   = verbose listing of files in archive
X               t   = test archive integrity
X               h   = hold screen before returning to Desktop
X
X     Description
X          This program is a general archive utility, and is
X          used to maintain an archive of files.  An "archive"
X          is a single file that combines many files, reducing
X          storage space and allowing multiple files to be
X          handled as one.
X     Switches
X
X          a - add files to archive.  This switch will force update
X              or addition the indicated reguardless of creation
X              time and date.
X
X          m - move files to archive.  Same as "a" switch except
X              that the files are deleted from the directory as
X              they are moved to the archive.
X
X          d - delete files in archive.  The files are lost forever
X              and the archive is recompacted to remove the data
X              for these files.
X
X          x,e - extract files from archive.  A copy of the files
X              in the archive are created in the current directory
X              in an uncompacted state.
X
X          l - list files in archive.  Limited information listing
X              of files contained in an archive.  Displays only the
X              filename.
X
X          v - verbose listing of files in archive.  Complete
X              information listing of files contained in an archive.
X              Displays the filename, original length, storage method,
X              storage factor (% savings), compacted size, date, time,
X              and CRC.
X
X          t - test archive integrity.  Check the archive to make sure
X              it does not have any bad files contained.
X
X          h - hold screen before returning to Desktop.  This switch
X              should be used whenever ARC is executed from the
X              Desktop, except in conjunction with file redirection.
X
X     Examples when executed from GEM Desktop:
X
X     ah FILES.ARC *.PRG      Creates a new archive file called FILES.ARC
```

```
X                           and puts all files ending in .PRG inside.
X
X     xh FILES.ARC *.*      Extracts all files from FILES.ARC.
X     xh FILES.ARC          ""
X     xh FILES              ""
X
X     xh FILES.ARC *.DOC    Extracts all files ending in .DOC.
X
X     In each case, the 'h' holds the display instead of immediately returning
X     to the GEM Desktop so you can view filenames, messages, etc.
X     These are just to help you get started.  ARC seems to be the most
X     reliable of the 'masher' programs and has the best overall size
X     reduction.
!FaR!OuT!
echo x - arc.uue
sed -e 's/^X//' > arc.uue << '!FaR!OuT!'
Xbegin 664 arc.ttp
XM8!H  'E    1U@  8UX                  $[Y    -D[Y  !73D[Y  !5
XMBD[Y  !7Z$[Y  !6HD[Y  !7-$[Y  !6)$[Y  !5Y$[Y  !S;"I/*FT !" M
XM  S0K0 4T*T '-"\   A "( THW"O/____XN02\ +PU"9S\\ $I.0=_\
XM#"!M !@B;0 8T^T '" M !13@&\&$R!1R/_\(&T $" M !Q3@$(84<C__"AM
XM !#9[0 <*4W__"IM  A.K0 P(&S__$AH (!.NEVF6(\O+/_V/RS_^DZZ !I<
XMCS\\  !.NE!$/SP 03\\  ).05B/3G5.5O_T0B[__PQN  , "&P  CI(;
XM3KIK=EB/2&P .$ZZ:VQ8CTAL %!.NFMB6](; !R3KIK6%B/2&P F$ZZ:TY8
XMCTAL ,!.NFM$6](; #R3KIK.EB/2&P!!$ZZ:S!8CTAL 31.NFLF6](; %(
XM3KIK'%B/2&P!>DZZ:Q)8CTAL 9!.NFL(6](; '(3KIJ_EB/2&P!W$ZZ:O18
XMCTAL A!.NFKJ6](; (J3KIJX%B/2&P"8DZZ:M98CTAL G9.NFK,6](; *H
XM3KIJPEB/2&P"P$ZZ:KA8CTAL OA.NFJN6](; ,N3KIJI%B/2&P#1DZZ:II8
XMCTAL W).NFJ06](; .<3KIJAEB/2&P#S$ZZ:GQ8CTAL ^Q.NFIR6](; 02
XM3KIJ:%B/2&P$.$ZZ:EY8CTAL!&!.NFI46](; 2*3KIJ2EB/2&P$M$ZZ:D!8
XMCTAL!.!.NFHV6](; 4:3KIJ+%B/2&P%1$ZZ:B)8CTAL!59.NFH86](; 5\
XM3KIJ#EB/2&P%L$ZZ:@18CTAL!=A.NFGZ6](; 8,3KII\%B/2&P&.DZZ:>98
XMCTAL!FQ.NFG<6](; :63KIITEB/2&P&PDZZ:<A8CTAL!OI.NFF^6](; <H
XM3KIIM%B/#&X  @ (9EP@;@ *+6@ !/_Z8$@@;O_Z$!!(@+!\ $AG#B!N__H0
XM$$B L'P :&8H2&P'6$ZZ:7I8CTALGN!.NDZN6(\_/  '3KIB_%2/2&P'<DZZ
XM:5Q8CU*N__H@;O_Z$!!FL$)G3KI-[E2/2&P'=$ZZ!$Q8CRE _^)F#DAL!WQ.
XMN@0\6(\I0/_B/7P  ?_T8!@P+O_TY8 @;@ *T, O$$ZZ()!8CU)N__0P+O_T
XML&X "&W>2&S_>$AL!X(@;@ *+R@ "$ZZ$J#>_  ,2&S^L$AL_WA(; >(3KH2
XMC-[\  Q(;/\42&S_>$AL!XY.NA)XWOP #"!N  HM:  $__I@  %L(&[_^A 0
XM2( _ $AL!Y1.NFS&7]*@&=H$"[__V=6(&X "BUH  3_]F F(&[_]A 02("P
XM? !(9PX@;O_V$!!(@+!\ &AF!CE\  '_]%*N__8@;O_V$!!FTB!N__H0$$B
XM/P 0+O__2( _ $AL!Z).NA]X4(\@;O_Z'5#__V   .@@;O_Z$!!(@+!\ $AF
XM"CE\  '_]&   - @;O_Z$!!(@+!\ $)F"CE\  '_\F   +@@;O_Z$!!(@+!\
XM %=F"$)L__!@  "B(&[_^A 02("P? !.9@A";/_N8   C"!N__H0$$B L'P
XM1V8>("[_^E* *4#_WF $4J[_^B!N__H0$&;T4Z[_^F!>(&[_^A 02("P? !3
XM9@@Y?  !_^I@2"!N__H0$$B L'P 2V8(.7P  ?_H8#(@;O_Z$!!(@+!\ "UG
XM#B!N__H0$$B L'P +V8"8!0@;O_Z$!!(@#\ 2&P'N$ZZ'H9<CU*N__H@;O_Z
XM$!!F /Z.$"[__V8*2&P'TDZZ'FA8CQ N__](@+!\ $%G%+!\ $UG#K!\ %5G
XM"+!\ $9G F!6$"[__TB L'P 1E? P'P  3\ $"[__TB L'P 55? P'P  3\
XM$"[__TB L'P 35? P'P  3\ (&X "D'H  PO"# N  A70#\ 3KH""M[\  Q@
XM  $.8 BP? !$9P)@'B!N  I!Z  ,+P@P+@ (5T _ $ZZ#EY<CV   .A@%+!\
XM $5G#K!\ %AG"+!\ %!G F P$"[__TB L'P 4%? P'P  3\ (&X "D'H  PO
XM"# N  A70#\ 3KH4C%"/8   I& (L'P 5F<"8 @Y?  !_^Q@"+!\ $QG F <
```

```
XM(&X "D'H  PO"# N  A70#\ 3KH>.ER/8&Y@"+!\ %1G F (3KI$&&!>8 BP
XM? !#9P)@'"!N  I!Z  ,+P@P+@ (5T _ $ZZ"PY<CV Z8 BP? !29P)@+B!N
XM  I!Z  ,+P@P+@ (5T _ $ZZ-B)<CV 6$"[__TB /P!(; ?J3KH<[%R/8 )@
XMZC L__1G*$AL" I.NF6>6(](;)[@3KI*TEB//SP !TZZ7R!4CTAL""1.NF6
XM6(\_+/_F3KI*'%2/3EY.=4Y6_^@@;/_\("@ )"E _E0@+@ (9QPO+@ (2&[_
XM[$ZZ:310CTAL""9(;O_L3KIHJE"/(&S^5"UH "S_Z& N("X "&<62&[_["\N
XM_^A.NFC$4(\,0   9@)@&F $4J[_Z"!N_^@0$&;T4J[_Z"!N_^@0$&;*("[_
XMZ$Y>3G5.5O_\+RX "$ZZ_WI8CRU __P@;O_\$!!G&& $4J[__"!N__P0$&;T
XM4J[__" N__Q@!B \     $Y>3G5.5O^"0J[_E$*N_Y!";O^./7P  ?^*#&X
XM 0 (;!(]?  !  A![ @H( @@;@ *((!";O^"8  ""# N_X+E@"!N  K0P"\0
XM2&[_F$ZZ:%!0CS\\ %Q(;O^83KIHRER/+4#_AF8T/SP +TAN_YA.NFBV7(\M
XM0/^&9B _/  Z2&[_F$ZZ:*)<CRU _X9F#$'N_Y@@"%. +4#_AE*N_X8]?  !
XM_XQ"9S N_X+E@"!N  K0P"\03KH-,ER/+4#__&   4Y";O^,4F[_CC N_X[!
XM_  $/P O+O^43KH(8%R/+4#_E# N_X[!_  $/P O+O^03KH(2%R/+4#_D"\N
XM__PO+O^&3KIGFE"/2&[_F$ZZ9ZA8CU) /P!.NEI.5(\R+O^.Y8$@;O^4T,$A
XM0/_\2&[_F# N_X[E@"!N_Y30P"\H__Q.NF=<4(\P+O^.Y8 @;O^4T, @*/_\
XM0>[_F"((D($B+O^&T($R+O^.Y8$@;O^0T,$A0/_\3KH'K R    4 &P  ( _
XM+@ 2/RX $#\N  XO+O^0+R[_E#\N_XY.N@% WOP $#U _XXP+O^*9P@P+O^.
XM5\!* %; P'P  3U _XI@&%-N_XXP+O^.Y8 @;O^4T, O$$ZZ6CQ8CS N_XYF
XMXB\N_Y1.NEHL6(\O+O^03KI:(EB/(#P     +4#_D"U _Y1"9T*G3KH+XER/
XM+4#__"!N__P0$&8 _JPP+O^,9QXP+/_P9Q@P+O^"Y8 @;@ *T, O$$AL""Q.
XMNF* 4(]2;O^","[_@K!N  AM /WP,"[_CF=P/RX $C\N ! _+@ .+R[_D"\N
XM_Y0_+O^.3KH <-[\ ! ]0/^.,"[_BF<(,"[_CE? 2@!6P,!\  $]0/^*8!A3
XM;O^.,"[_CN6 (&[_E-# +Q!.NEEL6(\P+O^.9N(O+O^43KI97%B/+R[_D$ZZ
XM65)8CS N_XIG$# L__!G"DAL"$!.NF'D6(].7DYU3E;_>$)N_YA@  #$,"[_
XMF%) /4#_FF   *8P+O^:Y8 @;@ .T, O$# N_YCE@"!N  [0P"\03KIE2%"/
XM#$   &]X,"[_F.6 (&X "M# +5#_E# N_YKE@"!N  K0P" 0,B[_F.6!(&X
XM"M#!(( P+O^:Y8 @;@ *T, @KO^4,"[_F.6 (&X #M# +5#_E# N_YKE@"!N
XM  [0P" 0,B[_F.6!(&X #M#!(( P+O^:Y8 @;@ .T, @KO^44F[_FC N_YJP
XM;@ (;0#_4E)N_Y@P+O^8,BX "%-!L$%M /\P0F[_F&   0@P+O^8Y8 @;@ *
XMT, O*  $,"[_F.6 (&X "M# +Q!.NF1Z4(]*0&=62&S_># N_YCE@"!N  K0
XMP"\03KID7E"/2D!G.DAL_K P+O^8Y8 @;@ *T, O$$ZZ9$)0CTI 9QY(;/\4
XM,"[_F.6 (&X "M# +Q!.NF0F4(]*0&8  (8P+O^8Y8 @;@ *T, O$$ZZ5\!8
XMCS N_YCE@"!N  [0P"\03KI7K%B//6[_F/^:8$ P+O^:Y8 @;@ *T, @*  $
XM,B[_FN6!(&X "M#!(( P+O^:Y8 @;@ .T, @*  $,B[_FN6!(&X #M#!((!2
XM;O^:,"[_FC(N  A30;!!;;)3;@ (8 12;O^8,"[_F#(N  A30;!!;0#^[$AL
XM_W@P+O^8Y8 @;@ *T, O$$ZZ8W!0CTI 9SA(;/ZP,"[_F.6 (&X "M# +Q!.
XMNF-44(]*0&<<2&S_%# N_YCE@"!N  K0P"\03KIC.%"/2D!F+# N_YCE@"!N
XM  K0P"\03KI6U%B/,"[_F.6 (&X #M# +Q!.NE; 6(]3;@ (,"X "&8(,#P
XM &   6!";O^88%8P+O^8Y8 @;@ .T, O*  $,"[_F.6 (&X #M# +Q!.NF+0
XM4(]*0&8J,"[_F.6 (&X "M# +R@ !# N_YCE@"!N  K0P"\02&P(5DZZ%CK>
XM_  ,4F[_F# N_Y@R+@ (4T&P06V</SP  4ZZ.W!4CT)N_YA@,#\N !8_+@ 4
XM,"[_F.6 (&X #M# +Q P+O^8Y8 @;@ *T, O$$ZZ ,+>_  ,4F[_F# N_YBP
XM;@ (;<9@(B\L_J1(;O]X3KH3Y%"/+R[_AB\L_J0O+/ZH3KH57M[\  PO+/ZH
XM2&[_>$ZZ$+I0CTI 9LQ"+/_<+RS^I$AN_WA.NA.L4(\_/  !3KH[1E2/,"X
XM$F=.0F[_F& ^,"[_F.6 (&X "M# +Q!.NF+:6(]*0&<B,"S_\&<<,"[_F.6
XM(&X "M# +Q!(; AV3KI>#E"/4FS_YE)N_Y@P+O^8L&X "&VX,"X "$Y>3G5.
XM5O^\0F[_O$AL"(@O+@ (3KI,0E"/+4#_Q&8<,"S_\&<2+RX "$AL"(Q.NEW$
XM4(]2;/_F8  "("\N  Q(;O_D3KIAE%"/0J[_\D)N__I(;O_X2&[_]B\N_\1.
XMN@M&WOP #" L_JAG  %0+RS^J$ZZ3LA8CRU _\!@  "J2&[_Y$AN_\A.NF$.
XM4(]*0&90/7P  ?^\,"X $&8&,"X $F<^,"[_]K!N_]IE%# N__:P;O_:9BHP
XM+O_XL&[_W&(@0F<O+O_ +RS^J$ZZ3BS>_  *+R[_Q$ZZ0@98CV   7I(;O_D
XM2&[_R$ZZ8*Q0CPQ   !M F!$+RS^I$AN_\A.NA)$4(\O+O_6+RS^I"\L_JA.
```

```
XMNA.^WOP #"\L_JA.NDX<6(\M0/_ +RS^J$AN_\A.N@\,4(]*0&8 _T8P+O^\
XM9RHP+/_N9PXO+@ ,2&P(HDZZ7*)0CS\\  $O+O_6+RS^J$ZZ39;>_  *8$XP
XM+@ 29R)"9R\N_\ O+/ZH3KI-?-[\  HO+O_$3KI!5EB/8   RF F,"S_[F<.
XM+RX #$AL"+I.NEQ04(]"9R\N_\ O+/ZH3KI-1M[\  I@*C N !)G$"\N_\1.
XMND$86(]@  ",8!0P+/_N9PXO+@ ,2&P(TDZZ7!)0CR\L_J1.NDU06(\M0/_
XM&7P "/_<+RS^I$AN_^1.NA%"4(](;O_D+RS^I"\N_\1.NB;8WOP #$)G+R[_
XMP"\L_J1.NDS2WOP "B\L_J1(;O_D3KH1#E"//SP  2\N__(O+/ZD3KI,L-[\
XM  HO+O_$3KI BEB/3EY.=4Y6   O//____\_/ !(3KI5'%R/3EY.=4Y6__@_
XM+@ ,3KI2(E2/+4#__ RN       (9SI"KO_X8!@@;@ (T>[_^! 0(&[__-'N
XM__@0@%*N__@@+O_X,BX #,*\  #__["!;=8O+@ (3KI2A%B/("[__$Y>3G5.
XM5@  *6S_WOY03EY.=4Y6   @+/Y09R0@;/Y0$!!F!BEL_][^4# N  @@;/Y0
XM4JS^4!802(.W0& &8 0P+@ (3EY.=4Y6_ZX@+/_B9Q8O+/_B2&P(ZDAL_>Q.
XMNEK:WOP #& 42&S][$AL_WA(; CZ3KH$9-[\  P_/  !3KHW,%2/0F[_KF 2
XM,"[_KN. 0>[_L-# 0E!2;O^N,"[_KK!N  AMY"\N  H_+@ (3KHDWER/,"X
XM"&<  )Q@  ""0F[_XD)N_ZY@.# N_Z[E@"!N  K0P"\02&[_Y$ZZ(U!0CTI
XM9Q@]?  !_^(P+O^NXX!![O^PT, PO  !8 Y2;O^N,"[_KK!N  AMOC N_^)G
XM#$AN_^1.N@#"6(]@(B\L_J1(;O_D3KH/3%"/+R[_\B\L_J0O+/ZH3KH0QM[\
XM  PO+/ZH2&[_Y$ZZ#")0CTI 9@#_;F >8 I(;O_D3KH ?%B/+RS^J$AN_^1.
XMN@P 4(]*0&;D0BS_W"\L_J1(;O_D3KH.\E"//SP  4ZZ-HQ4CS L_^YG0$)N
XM_ZY@,# N_Z[C@$'N_[#0P# 09APP+O^NY8 @;@ *T, O$$AL"09.NEEB4(]2
XM;/_F4F[_KC N_ZZP;@ (;<9.7DYU3E;_^$AL"1I(;/WL3KI'GE"/+4#_^&8.
XM2&S][$AL"1Y.NA!@4(\P+/_N9Q(@;@ (0= O"$AL"4).NED.4(](;)[@3KH^
XM0EB/+RX ""\N__@O+/ZH3KHW\-[\  Q"9T*G+R[_^$ZZ2>C>_  *+RS^I$ZZ
XM2AY8CRU __P9?  (_]PO+/ZD+RX "$ZZ#A!0CR\N  @O+/ZD+R[_^$ZZ(Z;>
XM_  ,0F<O+O_\+RS^I$ZZ2:#>_  *+RS^I"\N  A.N@W<4(\_/  !(&X ""\H
XM  XO+/ZD3KI)>M[\  HO+O_X3KH]5%B/2&S][$ZZ70A8CTI 9Q@P+/_P9Q)(
XM;/WL2&P)9$ZZ6$90CU)L_^9.7DYU3E;_KC N  AF"DAL"79.N@]D6(]";O^N
XM8!(P+O^NXX!![O^PT,!"4%)N_ZXP+O^NL&X "&WD+RX "C\N  A.NB)F7(\_
XM/  !3KHT?E2/8   H$)N_^)";O^N8#@P+O^NY8 @;@ *T, O$$AN_^1.NB#6
XM4(]*0&<8/7P  ?_B,"[_KN. 0>[_L-# ,+P  6 .4F[_KC N_ZZP;@ (;;XP
XM+O_B9RH_/  !+R[_\B\L_JA.NDB.WOP "C L_^YG#DAN_^1(; F@3KI7<E"/
XM8"(O+/ZD2&[_Y$ZZ#+10CR\N__(O+/ZD+RS^J$ZZ#B[>_  ,+RS^J$AN_^1.
XMN@F*4(]*0&8 _U!"+/_<+RS^I$AN_^1.N@QZ4(\_/  !3KHT%%2/,"S_[F=
XM0F[_KF P,"[_KN. 0>[_L-# ,!!F'# N_Z[E@"!N  K0P"\02&P)M$ZZ5NI0
XMCU)L_^92;O^N,"[_KK!N  AMQDY>3G5.5O_^#*X       AG0$AL_G@_/  :
XM3KI03ER//RX #"\N  @_/ !.3KI0/%"//4#__@QN  #__FP20BS^ED'L_G@@
XM"-"\    'F V8"@_/ !/3KI0$E2//4#__@QN  #__FP20BS^ED'L_G@@"-"\
XM    'F ,0>S^>" (T+P    >3EY.=4Y6_Q!(;O^(2&[_CDAN_YA(;O_\+RX
XM"$ZZ 2+>_  42&[_$$AN_Q9(;O\@2&[_A"\N  Q.N@$&WOP %"!N !!"$! N
XM__Q(@+!\  !G$$AN__PO+@ 03KI97%"/8!H0+O^$2("P?   9PY(;O^$+RX
XM$$ZZ64!0CQ N_YA(@+!\  !G$$AN_Y@O+@ 03KI9)E"/8#@0+O\@2("P?
XM9Q!(;O\@+RX $$ZZ60I0CV <(&X $! 02("P?   9PY(; G(+RX $$ZZ6.Q0
XMCQ N_XY(@+!\  !G$$AN_XXO+@ 03KI8TE"/8!H0+O\62("P?   9PY(;O\6
XM+RX $$ZZ6+90CQ N_XA(@+!\  !G$$AN_X@O+@ 03KI8G%"/8!H0+O\02("P
XM?   9PY(;O\0+RX $$ZZ6(!0CTY>3G5.5O_>/7S____^/7S____\/7S____Z
XM/7S____X0F[_]F   (0@;@ (T.[_]A 02("P?  Z9@X,;O____YF!CUN__;_
XM_B!N  C0[O_V$!!(@+!\ %QF#@QN_____&8&/6[_]O_\(&X "-#N__80$$B
XML'P 7&8,/6[_]O_Z/7S____X(&X "-#N__80$$B L'P +F8.#&[____X9@8]
XM;O_V__A2;O_V(&X "-#N__80$$B L'P  &8 _VP@;@ ,0A ,;O____YG)"!N
XM  @0$"!N  P0@"!N  @0*  !(&X #!%   $@;@ ,0B@  B!N !!"$ QN____
XM_&=B,"[_^K!N__QF$$AL"<HO+@ 03KI7YE"/8$A";O_V8!XP+O_VT&[__"!N
XM  C0P! 0(&X $-#N__80@%)N__8P+O_V,B[_^I)N__RP06X(#&X -?_V;<H@
XM;@ 0T.[_]D(H  $@;@ 40A ,;O____IG&C N__@R+O_Z4D&P06<,,"[_^E)
```

```
XM/4#_]&!,#&[____Z9A@,;@ !__YF$ QN  +_^&<(/7P  O_T8"P,;O____IF
XM%@QN_____F8.#&X  /_X9P9";O_T8 XO+@ (3KI71%B//4#_]"\N  A.NE<V
XM6(\]0/_H,"[_]+!N_^AL<@QN  #_^&\,,"[_^%- /4#_\F .+RX "$ZZ5PI8
XMCSU __(P+O_TL&[_\FY&0F[_]F >,"[_]M!N__0@;@ (T, 0$"!N !30[O_V
XM$(!2;O_V,"[_]C(N__*2;O_TL$%N" QN  C_]FW*(&X %-#N__9"$"!N !A"
XM$ QN____^&=40F[_]F >,"[_]M!N__@@;@ (T, 0$"!N !C0[O_V$(!2;O_V
XM+RX "$ZZ5GI8CY!N__@]0/_>,"[_]K!N_]YN" QN  3_]FV^(&X &-#N__9"
XM*  !3EY.=4Y6__HO+@ (3KH ;%B//4#_^D)G/R[_^DAN__P_/ !73KI+PM[\
XM  H@;@ 0,*[__"!N  PPKO_^3EY.=4Y6__HO+@ (3KH ,%B//4#_^CUN  [_
XM_#UN  S__C\\  $_+O_Z2&[__#\\ %=.NDMXWOP "DY>3G5.5@  (&X "# H
XM  Q.7DYU3E;_IC N  C!_  $/P!.NDAF5(\M0/^H0F[_IF   )8P+O^FXX!!
XM[O^PT,!"4#\\ %PP+O^FY8 @;@ *T, O$$ZZ5?1<CRU _ZQF4#\\ "\P+O^F
XMY8 @;@ *T, O$$ZZ5=9<CRU _ZQF,C\\ #HP+O^FY8 @;@ *T, O$$ZZ5;A<
XMCRU _ZQF%# N_Z;E@"!N  K0P" 04X M0/^L("[_K%* ,B[_IN6!(&[_J-#!
XM((!2;O^F,"[_IK!N  AM /]B0F=.NBV25(\P+@ (9P  HF   (A";O_B0F[_
XMIF X,"[_IN6 (&[_J-# +Q!(;O_D3KH9XE"/2D!G&#U\  '_XC N_Z;C@$'N
XM_[#0P#"\  %@#E)N_Z8P+O^FL&X "&V^,"[_XF<@/RX #C N_Z;E@"!N  K0
XMP"\02&[_Y$ZZ +;>_  *8!0_/  !+R[_\B\L_JA.ND%ZWOP "B\L_JA(;O_D
XM3KH"KE"/2D!F /]H8"A@%#\N  Y(; G,2&[_Y$ZZ '3>_  *+RS^J$AN_^1.
XMN@*"4(]*0&;:0F=.NBTB5(\P+/_N9T!";O^F8# P+O^FXX!![O^PT, P$&8<
XM,"[_IN6 (&X "M# +Q!(; G.3KI/^%"/4FS_YE)N_Z8P+O^FL&X "&W&+R[_
XMJ$ZZ1S18CTY>3G5.5O\P,"X $&<B+RX "$ALGN O+/ZH3KHNNM[\  Q(; GB
XM3KI/L%B/8  !\"\N  Q(;O\T3KI3A%"//SP 7$AN_S1.NE/^7(\M0/\P9C0_
XM/  O2&[_-$ZZ4^I<CRU _S!F(#\\ #I(;O\T3KI3UER/+4#_,&8,0>[_-" (
XM4X M0/\P(&X "$'0+P@@+O\P4H O $ZZ4R90CS L_^YG#DAN_S1(; GD3KI/
XM+%"/,"S_\&<  ,Q(; GZ2&[_-$ZZ/7I0CRU __QG  "V+R[__$ZZ,_!8CTAN
XM_S1(; G^3KI.]E"/8%I(; H@3KI.ZEB/2&R>S#\\ &1(;O^83KI /M[\  I!
XM[O^8($@0$$B /P!.NC*05(]![O^8($@0@$'N_Y@@2! 02("P? !99Q!![O^8
XM($@0$$B L'P 3F8"8 8P/  !9J!![O^8($@0$$B L'P 3F8J2&[_-$AL"CA.
XMNDYV4(\_/  !(&X ""\H  XO+/ZH3KH_9M[\  I@  ">2&P*3$AN_S1.NCRP
XM4(\M0/_\9C(P+/_P9Q)(;O\T2&P*4$ZZ3C)0CU)L_^8_/  !(&X ""\H  XO
XM+/ZH3KH_'M[\  I@5B\N  @O+O_\+RS^J$ZZ+0#>_  ,+R[__$ZZ,N)8CTAL
XM"F)(;O\T3KH\3%"/+4#__&<D(&X "#\H !0@;@ (/R@ $B\N__Q.NONV4(\O
XM+O_\3KHRJEB/3EY.=4Y6__!";O_P("X #&8(,#P  &   O @;@ ,,"@ "L!\
XM "!G"# \  !@  +:+RX #$ZZ-B18CPQ  !IG  #4,"S_\&<22&S_>$AL"F9.
XMNDUH4(]2;/_F8$I2;O_P+RX #$ZZ-?18CPQ  !IF-B\N  PO+@ ,3KHUX%B/
XM&4#_W$B /P!.NC6:7(\0+/_<2("P?   ;0X0+/_<2("P?  (;@)@#B!N  PP
XM*  *P'P (&>H(&X ## H  K ?  @9R@P+/WJ9R(O+/ZD3KHQV%B/2&S^L$ZZ
XM48Q8CTAL_WA(; J(3KH$#E"/,"S_\&<./R[_\$AL"IY.NDS 7(\@;@ ,,"@
XM"L!\ "!G"# \  !@  'V+RX #$ZZ-4!8CQE _]P0+/_<2("P?   ; Y(;/]X
XM2&P*M$ZZ [Q0CQ L_]Q(@+!\  !F"# \  !@  &Z$"S_W$B L'P "&\V+RX
XM##\\  T_/  !2&[_\DZZ/&S>_  ,2&S_>$AN__)(; K23KI,.-[\  Q(; L$
XM3KH#9EB/$"S_W$B L'P  68  +0O+@ ,/SP  3\\  T@;@ (0= O"$ZZ/"3>
XM_  ,+RX ##\\  $_/  *(&X "$'0( C0O     XO $ZZ/ #>_  ,(&X ""\H
XM  Y.N@.$6(\@;@ ((4  #B!N  @_*  23KH#N%2/(&X "#%  !(@;@ (/R@
XM%$ZZ Z)4CR!N  @Q0  4(&X "#\H !9.N@.,5(\@;@ (,4  %AE\  +_W"!N
XM  @@*  .(&X ""%  !A@  "P+RX ##\\  $_/  -(&X "$'0+PA.NCMRWOP
XM#"\N  P_/  !/SP #B!N  A!T" (T+P    .+P!.NCM.WOP #"!N  @O*  .
XM3KH"TEB/(&X ""%   X@;@ (/R@ $DZZ P94CR!N  @Q0  2(&X "#\H !1.
XMN@+P5(\@;@ (,4  %"!N  @_*  63KH"VE2/(&X "#%  !8@;@ (+R@ &$ZZ
XM GI8CR!N  @A0  80FS]ZC \  %.7DYU3E8  "\N  P_/  :3KHS>%R/+RX
XM#! L_]Q(@#\ 3KHS9ER/$"S_W&8$8  !7"!N  @O*  .3KH"*EB/(&X ""%
XM  X@;@ (/R@ $DZZ EY4CR!N  @Q0  2(&X "#\H !1.N@)(5(\@;@ (,4
```

```
XM%"!N  @_*  63KH",E2/(&X "#%  !8@;@ (+R@ &$ZZ =)8CR!N  @A0  8
XM+RX ##\\  $_/  -(&X "$'0+PA.NCJBWOP #"\N  P_/  !/SP #B!N  A!
XMT" (T+P    .+P!.NCI^WOP #"!N  @O*  .3KH!?%B/(&X ""%   X@;@ (
XM/R@ $DZZ ;!4CR!N  @Q0  2(&X "#\H !1.N@&:5(\@;@ (,4  %"!N  @_
XM*  63KH!A%2/(&X "#%  !8@;@ (+R@ &$ZZ 218CR!N  @A0  8(&X "# H
XM !*P;/ZN8AP@;@ (,"@ $K!L_JYF(B!N  @P*  4L&S^K&,4(&X "#EH !+^
XMKB!N  @Y:  4_JQ.7DYU3E;__F 6+RX #"\N  A.NC&R6(\_ $ZZ !1<CR N
XM !!3K@ 02H!FWDY>3G5.5@  ("X "F<B+RX "A N  E(@#\ 3KHQMER/#$#_
XM_V8*2&P++DZZ  A8CTY>3G5.5@  3EY8CTZZ2+PP+/_T9RA(; M(3KI(KEB/
XM2&R>X$ZZ+>)8CS\\  =.ND(P5(](; MB3KI(D%B//SS__TZZ+2Q4CTY>3G5.
XM5O_\+6X "/_\8!H@;O_\$!!(@#\ 3KHL,E2/(&[__!" 4J[__"!N__P0$&;>
XM3EY.=4Y6   @+@ ()CP    8YZ# O/\    B+@ (X8'"O #_  " @2(N  C@
XM@<*\  #_ ("!(BX ""8\    &.:APKP   #_@(%.7DYU3E8  # N  CA0,!\
XM_P R+@ (X$'"? #_@$%.7DYU3E;_HB \     "U _Z0M0/^H+4#_K$)N_Z)@
XM$C N_Z+C@$'N_[#0P$)04F[_HC N_Z*P;@ (;>0O+@ */RX "$ZZ$@Y<CS L
XM_^AF+C L_^QG*$AL"V1.ND>,6](; N63KI'@EB/2&P+L$ZZ1WA8CTAL"^).
XMND=N6]"9TZZ(_14CS N  AG  "F8   C$)N_^)";O^B8#@P+O^BY8 @;@ *
XMT, O$$AN_^1.NA!$4(]*0&<8/7P  ?_B,"[_HN. 0>[_L-# ,+P  6 .4F[_
XMHC N_Z*P;@ (;;XP+O_B9R0P+/_H9@I(;O_D3KH!3%B/4J[_K" N__S1KO^H
XM("[_\M&N_Z0_/  !+R[_\B\L_JA.NC?8WOP "B\L_JA(;O_D3KKY#%"/2D!F
XM /]D8$Q@.# L_^AF"DAN_^1.N@#\6(]2KO^L("[__-&N_Z@@+O_RT:[_I#\\
XM  $O+O_R+RS^J$ZZ-XC>_  *+RS^J$AN_^1.NOB\4(]*0&:V0F=.NB-<5(\P
XM+/_H9A P+/_L9PI(; O^3KI&4%B/,"S_[&=0+R[_J"\N_ZQ(; PP3KI&.-[\
XM  PO+O^D,#P 9"(\    9"\!(B[_I"\!3KHZY"(?+P$B+O^H+P%.NCID(A]8
XMCY!!/P!(; Q$3KI%_-[\  HP+/_N9T!";O^B8# P+O^BXX!![O^PT, P$&8<
XM,"[_HN6 (&X "M# +Q!(; Q>3KI%QE"/4FS_YE)N_Z(P+O^BL&X "&W&3EY.
XM=4Y6__0@;@ (,"@ $N)(X$C ? !_/4#__B!N  @P*  2ZDC ?  //4#__"!N
XM  @P*  2P'P 'SU __H@;@ (,"@ %.9(X$C ?  ?/4#_^"!N  @P*  4ZDC
XM?  _/4#_]B!N  @P*  4P'P '\#\  (]0/_T(&X "$'0+PA(; RB3KI%*E"/
XM,"S_[&<  6H@;@ (+R@ &$AL#*A.ND404(\0+/_<2("P?  !9PBP?  "9P)@
XM#DAL#+).ND3R6(]@<F (L'P  V<"8 Y(; R\3KI$W%B/8%Q@"+!\  1G F .
XM2&P,QDZZ1,98CV!&8!2P?  %9PZP?  &9PBP?  '9P)@#DAL#-!.ND2D6(]@
XM)& (L'P "&<"8!A(; S:3KI$CEB/8 Y(; SD3KI$@EB/8 )@\B(\    9"!N
XM  @O 2(H  XO 4ZZ.3 B'R!N  @O 2(H !@O 4ZZ.*PB'UB/,#P 9)!!/P!(
XM; SN3KI$0%R/(&X ""\H  Y(; SV3KI$+E"/,"[__M!\ %!(P('\ &1(0#\
XM,"[__.6 0>S]MM# +Q _+O_Z2&P- $ZZ1 #>_  ,(&X "#\H !8,;@ ,__AO
XM!C \ '!@!# \ &$_ #\N__8,;@ ,__AO"C N__B0?  ,8 0P+O_X/P!(; T.
XM3KI#O-[\  Q(; TB3KI#L%B/3EY.=4Y6__Y";O_^8!(P+O_^(&X "-# $*X
XM#U)N__XP+O_^L&X #&7D3EY.=4Y6__P@+/U\T+P  "<0*4#"P@RL '____U\
XM;S@@+/UXX( M0/_\#*X     __QF"BU\?______\8!@@+/U\+P @+O_\+P!.
XMNC>.(!]8CRU __Q@&B L_7SA@"\ ("S]>"\ 3KHW<B ?6(\M0/_\("[__+"L
XMPL9O""EN__S"QF P0JS"QC\\ /\_/$XL+RS^9$ZZ_T10CSE\ 0'66CE\  '"
XMRB\N  @_/ $ 3KH "%R/3EY.=4Y6__8];/YN__X];/VT__Q![/VD+4C_^ QN
XM    "&T  90P+O_^YD!(P-&N__@";@ '__X@;O_X$! R+O_^XX%![/V T,%(
XM@,!0,BX "#8N__[G830N__[C@D'L_9+0PL)02(" 02!N__@0@%*N__@P/  (
XMD&[__I%N__PR/  (DF[__C N  CB8#U   @,;@ (__QM'# N  @@;O_X4J[_
XM^!" ,"X ".! /4  "%%N__PP+O_\9PHP+@ ((&[_^!" ,"S]M-%L_FXP+/YN
XM,BS]M.=!L$%F.D'L_:0M2/_X/6S]M/_\,"[__$C T:S]>"\N  H@;O_X4J[_
XM^! 02( _ $ZZ$@!<CU-N__QFXD)L_FXP+-9:L&S]LFX*#&P  ,+*;P  C@QL
XM  #^;F\\0>S]I"U(__@P+/VT/4#_]DC T:S]>& 8+RX "B!N__A2KO_X$!!(
XM@@#\ 3KH1JER/,"[_]E-N__9*0&;<0FS^;C LPLIG&C \  $R/  ).4']M.-@
XM4T Y0/VR0FS"RF D4FS]M QL  S]M&8(.6S]L/VR8! P/  !-BS]M.=@4T Y
XM0/VR8$@P+/YN7D!(P('\  @]0/_V2,#1K/UX#&P  /YN;R9@&"\N  H@;O_X
```

```
XM4J[_^! 02( _ $ZZ$1Q<CS N__93;O_V2D!FW$)L_FY.7DYU3E;_]D'L_:0M
XM2/_V#&P  ,+*;A8P+,+ L&S"OFP,,"S66K!L_;)O  "P,"S66K!L_;)O)%)L
XM_;0,;  ,_;1F"#EL_;#]LF 0,#P  38L_;3G8%- .4#]L@QL  #"RF\8,#P
XM 3(\  DY0?VTXV!30#E _;)";,+*0FS"OF J+RX "$ZZ(D18CSU __X,0/__
XM9@1@'F .,"[__D'L_:30[,*^$(!2;,*^,"S"OK!L_;1MS QL  #"OFX(,#S_
XM_V   +Y";,+ ,"S"ON= ,BS]M%-!D$$Y0,*^/6S"P/_\/6S]M/_Z,"[__.9
XM2,#1KO_V FX !__\(&[_]E*N__80$$B P'P _S8N__SF8#U __XP/  (D&[_
XM_)%N__HP/  (D&[__#U __P,;@ (__IM(B!N__92KO_V$!!(@,!\ /\V+O_\
XMYV"!;O_^4&[__%%N__H@;O_V$! R+O_ZXX%![/V T,%(@,!0-B[__.=@@6[_
XM_C L_;31;,+ ,"[__DY>3G5.5@  0FS^;D*L_G(I?     ']>$)LPLI"K,+&
XM*7P    !_7PI?   )Q#"PC \  $R/  ).4']M.-@4T Y0/VR.7P! =9:/SP
XM_S\\3BPO+/YD3KK[3%"/.7P "?VT+RX ##\\  Q.N@\:7(\XM3E;__# LUEAG5! N  G ?
#_.4#]=D)LPK@I?   $XO"NF <4FS"N" LPKHO
XM " \     B\ 3KHS9" ?*4#"N@RL  $  ,*Z;=HP/  (D&S"N#E PKA";-98
XM8  !4%*L_7P0+@ )2(!(P,"\    _^F X8 V+/UVQKP  /__T(,I0,*Z$"X
XM"4B P'P _S8LPKCG8#8L_7:W0#U __XP+O_^Y8 @;/YDT, @$+"LPKIF%C N
XM__[C@$'LUF#0P#E0_79@  #H8!8P+O_^Y8 @;/YDT, ,D     !L F!N,#P3
XMBY!N__X]0/_\#&X  /_^9@8]?  !__PP+O_^D&[__#U __X,0   ; 8&;A.+
XM__XP+O_^Y8 @;/YDT, @$+"LPKIF$C N__[C@$'LUF#0P#E0_79@=C N__[E
XM@"!L_F30P R0     &\"8*PO+@ */RS]=DZZ^K)<CQ N  G ? #_.4#]=C L
XMUEJP;/VP;"@P+-9:4FS66C(N__[C@4'LUF#0P3" ,"[__N6 (&S^9-# (*S"
XMNF 4("S]?+"LPL)M"B\N  I.NOFL6(].7DYU3E8  "\N  @_+/UV3KKZ2ER/
XM+RX "#\\__].NOH\7(\@+/UX3EY.=4Y6__0O+@ (3KH>[EB//4#_^ Q   QG
XM$C\\  P_+O_X2&P-)$ZZ] Y0CSE\  G]M$)LPLHP/  !,CP "3E!_;3C8%-
XM.4#]LCU\ /__^& @,"[_^.. (&S67-# 0E P+O_X(&S^8-#N__@0@%-N__@,
XM;@  __ALV#E\ 0'66B\N  A.NONL6(\]0/_V/4#_^@QN____]F8$8  !4"\N
XM  PP+O_Z2( _ $ZZ';Q<CT'LPLPM2/_\8  !' QN 0#_^&9&/7P ___X8!(P
XM+O_XXX @;-9<T,!"4%-N__@,;@  __ALYCE\  '"RCE\ 0#66B\N  A.NOLZ
XM6(\]0/_X#$#__V8$8   Y#UN__C_]# N__BP;-9:;10P+O_Z(&[__%*N__P0
XM@#UN__;_^& D(&S^8-#N__@0$"!N__Q2KO_\$( P+O_XXX @;-9<T, ]4/_X
XM#&X! /_X;-0@;/Y@T.[_^! 02( ]0/_Z(&[__%*N__P0@"\N  Q3KO_\(&[_
XM_! 02( _ $ZZ'-Y<CR N__Q![,+,L(ANW# LUEH]0/_XL&S]L&PH,"[_^..
XM(&S67-# ,*[_]C N__H@;/Y@T.[_^!" ,"[_^%) .4#66CUN__3_]B\N  A.
XMNOI66(\]0/_X#$#__VX _M).7DYU3E;__# N  @6+@ +QGP _]!#@'P( ,"\
XM  #__RU __P@+O_\+P @+O_\+P!.NB^H(!\M0/_\("[__.R P+P   __3EY.
XM=4Y6   P+@ (%BX "\9\ /_00\#\.N' ? __3EY.=4Y6__Y@!CUN__X "# N
XM  CG@"!L_FC0P#UH  +__F;F,"X "$Y>3G5.5O_X$"X "TB /P _+@ ((&S"
XMM$Z06(\]0/_^,"[__N> (&S^:-# $!!F"# N__Y@<&!N/R[__DZZ_YY4CSU
XM__XP+O_^T'P 9<!\#_\]0/_\,"[__.> (&S^:-# 0= M2/_X8!Y2;O_\,"[_
XM_ Q $ !F#$)N__PM;/YH__A@!%"N__@@;O_X$!!FVC N__[G@"!L_FC0P#%N
XM__P  C N__Q.7DYU3E;__D)G/SR  " L_F@O $ZZ]B!0CT)N__Y@$C\N__X_
XM//__3KH &EB/4F[__@QN 0#__F7F.7S___VX3EY.=4Y6__P_+@ */RX "$ZZ
XM_PQ8C^> (&S^:-# 0= M2/_\,#P  %? P'P  2!N__P0@"!N__Q":  "(&[_
XM_#%N  @ !# N  H@;O_\$4  !DY>3G5.5O_\#&S___VX9F0O+@ (3KH;-%B/
XM/4#__@Q __]F"# \__]@  "( FX ___^+RX "$ZZ&Q)8CSE _;@,0/__9@8P
XM//__8&8"; #__;@P+O_^Z4# ? _P,BS]N.A)PGP #]!!/4#__ )L  _]N& Z
XM+RX "$ZZ&M!8CSU __X,0/__9@8P//__8"0";@#___XP+O_^,BS]N.%!PGP/
XM -!!/4#__#E\___]N# N__Q.7DYU3E8  # N  A![,+,T.S]MA" 4FS]MC L
XM_;8,0!  ;0I(; U43KKOJEB/3EY.=4Y6   ,;   _;9O&E-L_;8P+/VV0>S"
XMS-# $!!(@,!\ /]@!F $,#S__TY>3G5.5@  ,"X "&<*0?K]:"E(PK1@"$'Z
XM_1@I2,*T0FS]MDZZ_CXY? \ PK(Y?  !PK!.7DYU3E;_]C LPK!G+$)LPK O
XM+@ (3KK^JEB/.4#"KC LPJ[G@"!L_FC0P! H  9(@#E PJQ@  #:,"S]MF8
XM ,XO+@ (3KK^>EB//4#_^CU __P,0/__9@@P//__8   LC N__SG@"!L_FC0
```

```
XMP$'0+4C_]B!N__80$&8B/6S"KO_\,"[__.> (&S^:-# 0= M2/_V/RS"K$ZZ
XM_MI4CV N(&[_]A H  9(@#\ 3KK^QE2/(&[_]CUH  3__# N__SG@"!L_FC0
XMP$'0+4C_]B!N__8,:/__  1FQB!N__80*  &2( Y0,*L/P!.NOZ(5(\P+,*R
XM9Q(_+,*L/RS"KDZZ_7!8CU-LPK(Y;O_ZPJY.NOZ23EY.=4Y6   O+@ (3KKN
XM;%B/+RX #$ZZ[F)8CV   ( @;@ ($! @;@ ,$A!(@4B L$%G8B!N  P0$$B
XML'P /V=4(&X #! 02("P?  J9PHP/   8  !"F Z8 12K@ ((&X "! 09PX@
XM;@ ($!!(@+!\ "YFYF $4JX #"!N  P0$&<.(&X #! 02("P?  N9N9@.F (
XM4JX "%*N  P@;@ ($!!G$"!N  @0$$B L'P +F8 _VP@;@ ,$!!G$"!N  P0
XM$$B L'P +F8 _U0@;@ ($!!G$B!N  @0$$B L'P +F8$4JX ""!N  P0$&<2
XM(&X #! 02("P?  N9@12K@ ,8$@@;@ ($! @;@ ,$A!(@4B L$%G+"!N  P0
XM$$B L'P /V<>(&X #! 02("P?  J9P@P/   8"9@!C \  %@'F (4JX "%*N
XM  P@;@ ($!!FL"!N  P0$&:H,#P  4Y>3G5.5O_Z0F[_^F!V/SP 7# N__KE
XM@"!N  K0P"\03KHYY%R/+4#__&8Z/SP +S N__KE@"!N  K0P"\03KHYQER/
XM+4#__&8</SP .C N__KE@"!N  K0P"\03KHYJ%R/+4#__" N__QG%" N__Q2
XM@#(N__KE@2!N  K0P2" 4F[_^C N__JP;@ (;8!.7DYU3E;_BD*N_XH_/(
XM3KHKIE2/*4#^:" L_F@I0/YD("S^:"E _F P+/_J9@  Y# L_^YG"DAL#61.
XMNC3,6](;)[@3KH: %B/("S_XF<62&[_CB\L_^)(; UR3KK>8-[\  Q@%$AN
XM_XY(;/]X2&P-?DZZWDK>_  ,2&P-BDAN_XY.NB+H4(\M0/^*9@Y(;O^.2&P-
XMCDZZZZI0CT)L_G @/      M0/_Z*4#"J$)L_G9.NMDT+R[_BB\N  A.NO4
XM4(].N@A08!Q2KO_Z/R[__DZZ"+A4CR\N_XH_+O_^3KKU5%R/+RX "$ZZ QA8
XMCSU __X,0/__9M!.N@C6+4#_]B\N_XI.NO;>6(\M0/_R8"9"K,*H(#P    !
XM+4#_\BU __8M0/_Z,"S_[F<*2&P-LDZZ,]18CT)G0J<O+@ (3KHDS-[\  H@
XM;@ 0,6S^=@ 6(&X $"%LPJ@ &$)L_G!.NMB&("S"J+"N__IN  "H("S"J+"N
XM__9N  "<("S"J+"N__)N  "0,"S_Z&<4("[_\I"LPJ@O $AL#;1.NC-J4(\P
XM+/_N9PI(; V\3KHS6EB/2&R>X$ZZ&(Y8CQE\  +_W# \   Y0/YV2, I0,*H
XM8 XO+@ ,/R[__DZZ V9<CR\N  A.N@,F6(\]0/_^#$#__V;>(&X $#%L_G8
XM%B LPJ@@;@ 0(4  #B!N ! A0  88  !G" N__JPKO_V;'8@+O_ZL*[_\FQL
XM,"S_Z&<4("[_\I"N__HO $AL#<9.NC+(4(\P+/_N9PI(; W.3KHRN%B/2&R>
XMX$ZZ%^Q8CQE\  /_W"!N ! A;O_Z  Y@#B\N  P_+O_^3KH"R%R/+RX "$ZZ
XM 8!8CSU __X,0/__9MY@  $<("[_]K"N__)L5# L_^AG%" N__*0KO_V+P!(
XM; W83KHR4E"/,"S_[F<*2&P-X$ZZ,D)8CTALGN!.NA=V6(\9?  $_]PO+@ ,
XM+RX "$ZZ#G!0CR!N ! A0  .8   OC L_^AG%" N__:0KO_R+P!(; WL3KHQ
XM_E"/,"S_[F<*2&P-]$ZZ,>Y8CTALGN!.NA<B6(\9?  (_]P@;@ 0(6[_\@ .
XM("[_BF<V0F="IR\N_XI.NB+&WOP "F .+RX #\#\N__Y.NNBX7(\O+O^*3KH:
XM1%B//4#__@Q __]FWF \+RX #"\N  A.NO)"4(]@#B\N  P_+O_^3KKRJ%R/
XM+RX "$ZZ &Q8CSU __X,0/__9MXO+@ ,3KKT.EB/("[_BF<P+R[_BDZZ%CA8
XMCTAN_XY.NC7L6(]*0&<8,"S_\&<22&[_CDAL#@!.NC$J4(]2;/_F+RS^:$ZZ
XM*'18CS L_^YG"DAL#B).NC$,6(].7DYU3E8  # L_G"P?   9P)@&CE\  '^
XM<"\N  A.N@#L6(\Y0,*F8   WF *L'P  6<$8   EC LPJ:P? "09P)@#D)L
XM_G P/   8   NF (L'S__V<"8&XP//__8   J#E\  '"I& $4FS"I"\N  A.
XMN@"86(\Y0,*BL&S"IF8(#&P _\*D;> P+,*DL'P  6<"8 PP+,*B.4#"IF!H
XM8 BP?  "9P)@&CE\  +^<# LPJ9@4CE\  /^<# \ )!@1F "8/!@ F"88 BP
XM?  "9P)@$CE\  '^<# LPJ(Y0,*F8"1@"+!\  -G F 8.7P  OYP,"S"I& .
XM2&P.*DZZYT)8CV "8/).7DYU3E;__B\N  A.NAB26(\]0/_^#$#__V<6/R[_
XM_C\L_G9.N@VX6(\Y0/YV4JS"J# N__Y.7DYU3E8  "\N  H0+@ )2( _ $ZZ
XMU*)4CS\ 3KKFMER/3EY.=4Y6_Q0O+@ *0F=.NOH$7]";O_>0F[_W# N  AG
XM  &.0F=.N@P.5(]@  #&2&[_%"!N  HO$$AL#D!.NMD>WOP #$AN_Q1(;O_@
XM3KKX9%"/2D!G  "(/7P  ?_<,"S_\&<B2&P.1DAN_Q1.NAV<4(\M0/_\9PY(
XM;O\42&P.2DZZYEY0CTAL#FQ(;O\43KH=>E"/+4#__&8.2&[_%$AL#G!.NN8\
XM4(\P+/_N9PY(;O_@2&P.E$ZZ+NY0CTAN_^ O+O_\+RS^J$ZZ#=K>_  ,+R[_
XM_$ZZ$[Q8CV J8!0_/  !+R[_[B\L_JA.NA_ WOP "B\L_JA(;O_@3KK@]%"/
XM2D!F /\J0F=.N@N25(]"9TZZ"R)4CV!D2&[_>$AL#JH@;@ *+Q!.NM@TWOP
XM#$AN_WA(;O_@3KKW>E"/2D!G*#U\  '_WB!N  I!Z  $+P@P+@ (4T _ $AN
```

```
XM_^!.N@",WOP "F H8!0_/  !+R[_[B\L_JA.NA\VWOP "B\L_JA(;O_@3KK@
XM:E"/2D!FBD)G3KH+"E2/,"[_WF80(&X "B\02&P.KDZZ+?Y0CV *2&P.PDZZ
XM+?)8CS N_]QG*$AN_Q1.NC*,6(]*0&<:,"S_\&<42&[_%$AL#MI.NBW*4(\Y
XM?/___^9.7DYU3E;]QB!N  A!T"\(2&[_F$ZZ,9!0CTAN_LY(;O^82&P._$ZZ
XMUT[>_  ,2&[^:DAN_YA(; \"3KK7.M[\  Q(;OX&2&[_F$AL#PA.NM<FWOP
XM#$AN_LY(;O^83KHQ!%"/2D!G0$AN_FI(;O^83KHP\E"/2D!G+DAN_@9(;O^8
XM3KHPX%"/2D!G'#\\  $@;@ (+R@ #B\L_JA.NAXHWOP "F   20P+/_P9R)(
XM; \.2&[_F$ZZ&VQ0CRU __QG#DAN_YA(; \23KKD+E"/2&P/-$AN_YA.NAM*
XM4(\M0/_\9@Y(;O^82&P/.$ZZY Q0CT)N_S)@*DAL#UQ(;O\T3KHP*%"/,"[_
XM,N6 (&X #M# +Q!(;O\T3KHP$%"/4F[_,C N_S*P;@ ,;<PP+/_N9QA(;O\T
XM(&X "$'0+PA(; ]>3KHL?-[\  Q"9TAN_<8_/ !'3KHF %"/+RX ""\N__PO
XM+/ZH3KH+5M[\  PO+O_\3KH1.%B/0J=(;O\T2&[_F$)G/SP 2TZZ)<S>_  0
XM.4#_YDAN_<8_/  [3KHEN%R/2&[_F$ZZ,,)8CTI 9QHP+/_P9Q1(;O^82&P/
XM=$ZZ+ !0CSE\____YDY>3G5.5O_^0F[__F! ,"[__N> 0>RRFM# 0E P+O_^
XMYX!![+*<T,!"4# N__[G@$'LLI[0P#"\__\P+O_^YX!![+*@T, PO/__4F[_
XM_@QN @'__FVX0F[__F 2,"[__N6 0>RJCM# 0I!2;O_^#&X! ?_^;>9.7DYU
XM3E;__ QN__\ "&8&/7P!   (,"X ".> 0>RRFM# 0= @""U __P@0 Q0__]G
XM!B!N__Q24# N  CE@$'LJH[0P%*03EY.=4Y6_?)"KOWT/SS__TZZ_ZQ4CSU\
XM___]^#\N_?A.N@$T5(\P+OWXP+P  /__@/P  CU _?@P/   /4#]^CU __Y@
XM.# N__[G@$'LLIK0P Q0  !G(C N__[G@$'LLIS0P$)0,"[]^E)N_?KC@$'N
XM_?S0P#"N__Y2;O_^#&X! ?_^;< _+OWZ2&[]_$ZZ 9Q<CS\N_?I(;OW\3KH"
XMXER/3KH#XC\LLIA"9TZZ _Q8CPQ __]G /]D0FRJC$)L_FQ";O_^8# P+O_^
XMY8!![*J.T, @$#(N__[C@4'LL);0P2\ ,!!(P"\ 3KH?&" ?T:[]]%)N__X,
XM;@$!__YMR" N_?1>@"\ (#P    (+P!.NAZ (!]8CRU _?0,; $!LIAL!C \
XM  !@"# LLIB0? $ /4#]\C \  (R/  "P^[]\L/\  +004C T:[]]" N_?1.
XM7DYU3E;_]DCG P ^/   /4?__CU'__A@+C 'YX!![+*:T, P$#(N  B2;O_X
XML$%C!%)N__XP!^> 0>RRFM# ,!#1;O_X4D<,1P$!;<PP+O_^4D ]0/_\0B[_
XM]T)'8#@P!^> 0>RRFM# /5#_^C N__HR+O_\L$%D' QN  #_^F<4, ?G@$'L
XMLIK0P#"N__P=?  !__=21PQ' 0%MPA N__=F /]H#&X  ?_\;R1"1V :, ?G
XM@$'LLIK0P# 0P+P  /__@.[__# 4D<,1P$!;>!,WP# 3EY.=4Y6   _!SXN
XM  Q51TC'C_P  F 6,"X #%- /P _!R\N  A.N@ 24(]31PQ'  !LY#X?3EY.
XM=4Y6  !(YP, /CP  L_N  Q21SPN  SCAB!N  C0QCP0, >P;@ .;GPP![!N
XM  YL)C 'XX @;@ (T, _*  ", ?C@"!N  C0P#\03KH 8%B/2D!G E)', ?C
XM@"!N  C0P#\0/P9.N@!&6(]*0&<V, ?C@"!N  C0P# 0,BX #..!(&X "-#!
XM,( P!^. (&X "-# ,(8_+@ ./P<O+@ (3KK_8%"/3-\ P$Y>3G5.5@  ,"X
XM".> 0>RRFM# ,! R+@ *YX%![+*:T,&P4&,&,#P  6!&,"X ".> 0>RRFM#
XM,! R+@ *YX%![+*:T,&P4&8D,"X ".> 0>RRG-# ,! R+@ *YX%![+*<T,&P
XM4&\&,#P  6 $,#P  $Y>3G5.5O_Z2.<!$#X\ 0%@  #"(&X "#U0__Y3;@ ,
XM,"X #.. (&X "-# ,! @;@ (,( P+@ ,4T _ $)G+RX "$ZZ_J)0CR!N  @]
XM4/_\, ?G@$'LLIK0P$'0)D@P!U)'(&X "#" -V[__@ $-V[__  &,"[__N>
XM0>RRFM# ,! R+O_\YX%![+*:T,'04#: ,"[__.> 0>RRG-# /Q P+O_^YX!!
XM[+*<T, _$$ZZ #Y8CR( ,#P  =!!-T   C N  Q30#\ 0F<O+@ (3KK^%E"/
XM#&X  0 ,;@#_."!N  @Y4+*83-\(@$Y>3G5.5@  ,"X "+!N  IO!C N  A@
XM!# N  I.7DYU3E8  #\'0D=@#C 'XX![+"6T,!"4%)'#$<! 6WL/A].7DYU
XM3E;_]DCG P ^+@ *YX=![+*>T,<^$#PN  KGAD'LLJ#0QCP0#$?__V98#$;_
XM_V92,"X "N. 0>RPEM# ,*X "# \__\R/  0DFX ".)H/4#_]C LKI+ ;O_V
XM,BX "N.!0>RNE-#!,( ,;@ 0  AO"# \__](P& &(#P     8&I@8@Q'__]G
XM+# \  $V+@ (YV!&0,%LKI(_!S N  A20#\ 3KK_7%B/#$#__V8&,#S__V V
XM#$;__V<J,#P  38N  CG8(%LKI(_!C N  A20#\ 3KK_+%B/#$#__V8&,#S_
XM_V &(#P     3-\ P$Y>3G5.5@  +RX "C N  C ? #_/P!.NO7$7(\O+@ *
XM,"X ".! /P!.NO6R7(].7DYU3E;_^DCG P ,; $!LIAL!C \  !@"# LLIB0
XM? $ /4#_^B\N  @_+O_Z3KK_IER/,#P  #U __PP++*8/4#__F!P/B[__N>'
XM0>RRGM#'/A \+O_^YX9![+*@T,8\$ Q' 0%L"# '4D!$0& &,"RRF)!'/@ ,
```

```
XM1@$!; @P!E) 1$!@!C LLIB01CP +RX "#\'3KK_0%R/+RX "#\&3KK_-%R/
XM4F[__# N__Q3;O_^,"[__C N__RP;O_Z;88P/  ",B[_^L/\  +#_  "T$%(
XMP$S? ,!.7DYU3E;_^D)N__X]?  (__PP+*J,L&[__&U$#&X  /_\9@@P+O_^
XM8   NC LJHHR/  (DF[__.-@@6[__C LJHHV+O_\YF@Y0*J*,"[__)%LJHPP
XM+O_^P'P _V   (8,;   JHQO&C LJHHR/  (DF[__.-@@6[__C LJHR1;O_\
XM#&P! /YL9AQ";*J,#&X "/_\9@8P//__8 @P+O_^T'P  & ^+RX "$ZZ\NQ8
XMCSE _FP,0/__9@8Y? $ _FPP+/YLXX![*Z4T, Y4*J*,"S^;.. 0>RPEM#
XM.5"JC&  _S!.7DYU3E;_^B\N  Q.NOXZ6(\M0/_Z8!(O+@ ,/R[__DZZ\]!<
XMCU*N__HO+@ (3KK^\%B//4#__@Q __]FVB N__I.7DYU3E8  $AL#Y9(;/]X
XM3KH1R%"/*4#^J&8D,"X "&<02&S_>$AL#YI.NB-*4(]@#DAL_WA(; ^T3KK:
XM=%"/,"X "&<B2&P/SDAL_K!.NA&*4(\I0/ZD9@Y(;/ZP2&P/TDZZVDQ0CTY>
XM3G5.5@  ("S^J&<*+RS^J$ZZ!^98CS N  AG  #*+RS^I$ZZ!]18CTAL#_)(
XM;/ZP3KH1/E"/*4#^I&<</RS^K#\L_JXO+/ZD3KK0L%"/+RS^I$ZZ!Z18CR L
XM_JAG8C L__)G0$AL_Q1.NB=,6(](;/\42&S_>$ZZ)9I0CTI 9Q1(;/\42&S_
XM>$AL#_9.NMFXWOP #$AL_Q1(;! .3KHB;E"/8!Q(;/]X3KHG#%B/2D!G#DAL
XM_WA(;! J3KK9BE"/2&S_>$AL_K!.NB5(4(]*0&<42&S_>$AL_K!(;!!*3KK9
XM9M[\  Q.7DYU3E8  # N  C@0,!\ /\R+@ (%BX "TB#MT'"? #_XX%![*B*
XMT,$V$+= 3EY.=4Y6_^!"9TZZ_GI4CS\\  )"IR\L_JA.NA+BWOP "B\L_JA.
XMNA,86(\M0/_@0F="IR\L_JA.NA+$WOP "F!H+RS^J$ZZ$OA8C]"N__*PKO_@
XM;Q9(;O_D2&P08DZZ(9A0CU)L_^9@4F ^2&[_Y$AL$(!.NB&"4(](;)[@3KH&
XMMEB/2&[_Y$*G+RS^J$ZZ &;>_  ,2D!G!E)L_^9@"DAL$)9.NB%26(\O+/ZH
XM2&[_Y$ZZTXY0CTI 9H8,;  !_^9L#$AL$)Q.NB$N6(]@(@QL  '_YF8,2&P0
XML$ZZ(1I8CV ./RS_YDAL$,1.NB$*7(].7DYU3E;__C\\@ !.NA>F5(\I0/YH
XM("S^:"E _F0@+/YH*4#^8$)L_G8@;@ 0*6@ #OYR0FS^<$ZZQ:P0+/_<2("P
XM?  !9PBP?  "9P)@*F .+RX ##\N__Y.N@'F7(\O+@ (3KH"GEB//4#__@Q
XM__]FWF   8I@"+!\  -G F J8 XO+@ ,/R[__DZZ >1<CR\N  A.N@)L6(\]
XM0/_^#$#__V;>8  !6& (L'P !&<"8#0O+@ (3KH"FEB/8 XO+@ ,/R[__DZZ
XM :A<CR\N  A.N@,(6(\]0/_^#$#__V;>8  !'& (L'P !6<"8#)"9TZZY]A4
XMCV .+RX ##\N__Y.N@$^7(\O+@ (3KKG\EB//4#__@Q __]FWF   .)@"+!\
XM  9G F R0F=.NN>>5(]@#B\N  P_+O_^3KH!-%R/+RX "$ZZY[A8CSU __X,
XM0/__9MY@  "H8 BP?  '9P)@,C\\  %.NN=B5(]@#B\N  P_+O_^3KH ^%R/
XM+RX "$ZZYWQ8CSU __X,0/__9MY@;& (L'P "&<"8& O+@ ,+RX "$ZZXF10
XMCV!2,"S_\&<@(&X $$'0+PA(;!#83KH?1%"/2&P0_$ZZ'SI8CU)L_^8_/  !
XM(&X $"\H  XO+@ (3KH0)M[\  HO+/YH3KH6;%B/,#P  6!"8 )@KB\L_FA.
XMNA986(\P+/YV(&X $+!H !9G(C L__!G%B!N !!!T"\(2&P1)DZZ'MI0CU)L
XM_^8P/  !8 0P/   3EY.=4Y6   0+@ )2( _ #\L_G9.NOR06(\Y0/YV+RX
XM"A N  E(@#\ 3KK5IER/3EY.=4Y6   P+/YPL'P  &<"8#(0+@ )2(# ? #_
XM#$  D&8(.7P  ?YP8!8O+@ *$"X "4B .4"HB#\ 3KK_EER/8$Y@"+!\  %G
XM F!"$"X "6<88 XO+@ */RRHB$ZZ_W1<CU,N  EF[& .+RX "C\\ )!.NO]>
XM7(]";/YP8!(_+/YP2&P12$ZZU4A<CV "8.Y.7DYU3E8  " L_G)F!C \__]@
XM%E.L_G(O+@ (3KH&B%B//P!.NL+.5(].7DYU3E8  "\N  A.NO_,6(\O "\N
XM  A.NO_ 6(\B " ?X4& 04Y>3G5.5O_^.7P 8Z2"+RX "$ZZ_\I8CSE I( ,
XM;   I(!M" QL 0&D@&T*2&P19DZZU+Y8CSE\_O^DA#E\_O^DAD)N__Y@-B\N
XM  A.NO^06(\R+O_^Y8%![*2$T,$P@"\N  A.NO]X6(\R+O_^Y8%![*2$T,$Q
XM0  "4F[__C N__ZP;*2 ;<!.7DYU3E;_]$)N__Y@>E)LI((P+*2"#$  !V]
XM+RX "$ZZ_PI8CSE _FP,0/__9@@P//__8   @D)LI((P/  !P&S^;#(N__[E
XM@4'LI(30P>. 0=#0P#U0__Y@+# L_FSB0#E _FP]0/_T,#P  <!N__0R+O_^
XMY8%![*2$T,'C@$'0T, ]4/_^#&X  /_^; #_?C N__Y20$1 /4#__@QN 0#_
XM_F8&,#S__V $,"[__CU __XP+O_^3EY.=4Y6   _+@ (3KH4O%2/#&Z#   (
XM;@8P/   8!X_+@ (/SP /DZZ%>)8CSE GC)G!C \__]@!# \  !.7DYU3E8
XM  QN &$ "&T4#&X >@ (;@PP+@ (D'P (& &8 0P+@ (3EY.=4Y6__Y(;!&(
XM+RX "$ZZ'Z)0CTI 9V!(;!&.+RX "$ZZ'Y!0CTI 9TY(;!&4+RX "$ZZ'WY0
XMCTI 9SQ"9R\N  @_/  \3KH57%"//4#__@Q   !L##EN__Z>,C \__]@.# N
```

```
XM  S ?"  /P _+O_^3KH3I%B/8!XP/  ",BX #,)\( " 03\ +RX "$ZZ%#Y<
XMCSU __XP+O_^3EY.=4Y6   _+@ (/SP 3$ZZ%/A8CTY>3G5.5O_^+PM![)[,
XM)DA@%C K  K ?  #9P@O"TZZ "I8C];\ !0@"T'LGLPB"-*\   %M+"!;=@_
XM+@ (3KK_KE2/)E].7DYU3E8  "\+)FX ""\+3KH 1%B/2D!G!C \__]@,# K
XM  K ?  09PHO*P &3KH2VEB/0FL "C\K  Q.NOYH5(]*0&<&,#S__V $,#P
XM "9?3EY.=4Y6  !(YP$0)FX "# K  K ?  #9@@P//__8   F"X3GJL !C K
XM  K ? " 9U8P*P *P'P  F8&,#S__V!V,"L "L!\  1G$#\\  )"IS\K  Q.
XMN@^D4(\_!R\K  8_*P ,3KH?UE"/#$#__V8&,#S__V!  FO_?P *, =(P-&K
XM  Y@) QK    #&\</SP  3 K  1$0$C +P _*P ,3KH/6%"/)T  #B:K  9"
XM:P $,#P  $S?"(!.7DYU3E;__"\+)FX "# K  K ?  !9@8 :P!   HP*P *
XMP'P 8&<0,#S__V   0 FJP &0FL !&!2,"L "L!\  AG'B +0>R>S)"(@?P
XM%$'LGH#1P$'0( @F@"=   9@*C K !)(P"\ 3KH1>EB/)H G0  &#(
XM9@@ :P (  I@!@!K !  "@RK       &9Z0M2__\/SP  3\K  Q"IS\\ $).
XMNA+VWOP "B!N__PA0  .)JL !@QK@P  #&8*2&R>X$ZZ_GY8CS K  K ? $(
XM9P8P/  !8 0P*P 2/P O$S\K  Q.NAK84(\W0  $4VL !# K  0,0   ;" ,
XM:___  1F" !K "  "F & &L 0  *0FL !# \__]@#"!34I,0$$B P'P _R9?
XM3EY.=4Y6__PO"R9N  I":P $,"L "L!\  )F!@!K $  "C K  K ? ! 9P@P
XM//__8  !"F!2,"L "L!\  AG'B +0>R>S)"(@?P %$'LGH#1P$'0( @F@"=
XM  9@*C K !)(P"\ 3KH03EB/)H G0  &#(      9@@ :P (  I@!@!K !
XM"@RK       &9Z0P*P *P'P "&<0(%-2DQ"N  D :P"   I@/# K  K ? $
XM9S( :P"   H@4U*3$*X "1 N  E(@+!\  IG&" 3D*L !K!K !)L#! N  E(
XM@,!\ /]@5"\+3KK]+%B/2D!G# !K $  "C \__]@/# K  K ? $(9Q)":P $
XM$"X "4B P'P _V B8" P*P 24T W0  $ &L @  *$"X "2!34I,0@$B P'P
XM_R9?3EY.=4Y6   O"R9N  HP*P *P'P @&8((!.PJP &9@8P//__8!!2:P $
XM$"X "5.3(%,0@$B )E].7DYU3E8  "!N  A3:  $,"@ ! Q   !M%"!N  @@
XM$%*0($ 0$$B P'P _V *+RX "$ZZ_2I8CTY>3G5.5@  (&X "E-H  0P*  $
XM#$   &T8$"X "2!N  HB$%*0($$0@$B P'P _V 2+RX "A N  E(@#\ 3KK^
XM%ER/3EY.=4Y6   @ L"\____ &8$0D-@)E-#XX)D^E1#, + ? $ 9Q8P L!\
XM O]G#M2\   " &0&XHI20V#BXHK@BL9\ /_O0TA"A$,P$,!\@ "$0$A"((),
XMWP/_3EY.=4Y6  !.5@  2.?P@"!N  @@&"(0(&X #"08)A!*@&H(1H!&@0C
XM !]*@FH(1H)&@PC" !^2@Y&"3-\!#TY>0.R>:$YU3E8  $CG_\ @;@ ((FX
XM#"00X8+G@@C" !\P*  $ZDB$0#80Z$/&? ?_9P  WBX1X8?GAPC' !\P*0 $
XMZDB.0#H1Z$7*? ?_9P  P)9%UGP#_D*&0H0P/  ?XX&^@F4&9@JXAF(&4D&<
XMA)6'XH_BE%'(_^@D 3 1L5!@  %(3E8  $CG_\ @;@ ()!#A@N>"",( 'S H
XM  3J2(1 -A#H0\9\!_]G9")N  PN$>&'YX<(QP ?,"D !.I(CD Z$>A%RGP'
XM_V=$EGP#_]9%* )(1"H'2$4R!,+%, + Q\[$Q,5(1TA"0H1"A3@'.@)"1T)"
XMT(?3A-""TX5*@&<$",$  20!,!&Q4&   +Q"@F   +9.5@  2.?_P")N  PP
XM/(  .4">9K%18   $DY6  !(Y__ (FX #$)LGF8@;@ (+!#AAN>&",8 'S H
XM  3J2(Q .!#H1,A\!_]F D*&+A'AA^>'",< 'S I  3J2(Y .A'H1<I\!_]F
XM D*',A#BCN*/) 8V!# $D$5N%&8$O(=L#C@%+ <Z RX"-@0D!C"12H=G'# $
XMD$5G"+!\ !]N$."O,!&S0 @   ]G D2'U(<P+)YFL5$@ L"\____ &8&0H%"
XM@F!(4T/C@F3Z5$,P L!\ 0!G%C "P'P"_V<.U+P   $ 9 ;BBE)#8.+$?/X
XM(@+HBN"*QGP'_^E#2$+$?  /A$,P$,!\@ "$0$A"(,+I04A!0D$@@4S? _].
XM7DYU3E;_]DCGX( P+@ (P'S_ #U __X";@#_  @,;B  __YF("!N  XP$$C
XM+4#_]DAN__9.N@"X6(]![O_V+4@ #F ^#&XH /_^9P@,;A  __YF+B!N  XM
XM4/_V#&XH /_^9@Q(;O_V3KH A%B/8 I(;O_V3KH /EB/0>[_]BU(  XO+@ .
XM+RX "C N  CE@$'LGD+0P"!03I!0CTS? 0=.7B]7  K>_  *1.R>:$YU3EY.
XM=4Y6  !(Y\" (&X "$*!(!!F!$* 8!CB@.*1XH#BD>* XI' O(_____0O#@
XM   @P""!3-\! TY>3G5.5@  2.?_P"!N  @D$&8&0D-"@F 8;@)$@C8\!!T@
XM L"\____ &8&X8*6?  (3OK^>DY>3G5.5O_R2.<',"9N  @D;@ ,0F[_^BU*
XM__P@"R! *5">7BEH  2>8BULGE[_\BULGF+_]D)%1^[_\CX3Z$_.? ?_9P
XM@)Y\ _]*1VX(OGS__6T28"!214ALGG@O"TZZ_%)03V#44T5(;)YX+PM.NOS
XM4$]@Q"83X8/G@S K  3J2(9 ",, 'TI'9P1$1^ZK,#P ,..#9 )20!3 ,"X
```

```
XM%$)!XX/C42P#/@'C@^-1XX/C4=:&TT?2?  P%,%1R/_B0A)@!%)N__HP+O_Z
XM9QXD;O_\0H=@!A3\ #!2AR ',BX %$C!L(%M[D(28&(@+O_\-BX %$C#T(-2
XM@"1 (&[__! 02("P?  P9@)2BEHB8 8$$@ *4B(0$DB L'P .6[P(&[__! 0
XM2("P?  P9A D;O_\( I2@"9 %-MF_%-%("[__#8N !1(P]"#($!"$"!N ! P
XMA4S?#.!.7DYU3E;__$CG 3 F;@ ,0F[__! 32("P? !B9@@]?"  __Q2BQ 3
XM2("P? !R9QX0$TB L'P =V<4$!-(@+!\ &%G"B \     &   48@+)X^)$ ,
XM@     !F*D'LGLPD2& 0,"H "L!\  -F F 6U/P %" *0>R>S"(XML(%MWB *0>R>S"((TKP
6TL(%M"B \     &   /)"K)X^0FH "D)N__X0
XM*P !2("P?  K9@P]?  "__X :@ #  H0$TB L'P =V88/R[__"\N  A.NO2Z
XM7(\^  !J  ( "F!H$!-(@+!\ &%F0C \  * ;O_\/P O+@ (3KH)7%R//@ ,
XM0/__9A _+O_\+RX "$ZZ]'Q<CSX /SP  D*G/P=.N@6N4(\ :@ &  I@'# N
XM__Z ;O_\/P O+@ (3KH)&ER//@  :@ !  H,1___9@Q":@ *(#P     8# U
XM1P ,0FH !" \     "2 )4  !C\\  %"IS\J  Q.N@544(\E0  .-6R>R@ 2
XM( I,WPR 3EY.=4Y6   I;@ 0GCXO+@ 03KKTXEB/+RX #"\N  A.NOY,4(].
XM7DYU3E;__DCG Q F;@ (/BX #L_N  P\!V!.(&X $%-H  0P*  $#$   &T4
XM(&X $" 04I @0! 02(# ? #_8 HO+@ 03KKUEEB//4#__@Q __]F## 'D$9(
XMP('N  Q@(# N__X6P%-&#$8  &ZL#&X    .;P8P+@ .8 0P/   3-\(P$Y>
XM3G5.5@  2.<# #XN  [/[@ ,/ =@+"\N ! @;@ (4JX "! 02( _ $ZZ^ I<
XMCPQ __]F## 'D$9(P('N  Q@&E-&#$8  &[.#&X    .;P8P+@ .8 0P/
XM3-\ P$Y>3G5.5@  +PLF;@ (+PM.NO0J6(]*0&<&,#S__V @ FO_WP */RX
XM$"\N  P_*P ,3KH$ %"/)T  #C \   F7TY>3G5.5@  +PLF;@ (("L #B(3
XMT($B*P &D($F7TY>3G5.5O_^2.< ,"9N  @D2V 0,"[__A3 2("P?  *9@)@
XM2%-N  PP+@ ,#$   &\Z(&X #E-H  0P*  $#$   &T4(&X #B 04I @0! 0
XM2(# ? #_8 HO+@ .3KKT.EB//4#__@Q __]FJ$(2#&[____^9@X@"K"+9@@@
XM/     !@ B +3-\, $Y>3G5.5OY@2.<!,$)N__Q";O_Z0J[_]D*N__(Y?  !
XM__H@;@ (4JX "! 02(# ? #_/4#__B N  @F0"1 0D=@  %4$!-(@+!\ "!G
XM*! 32("P?  )9QX0$TB L'P #6<4$!-(@+!\  IG"A 32("P?  ,9APP+O_Z
XM9@XP+O_\9P1";O_\0AI@!!3\ "!@  #^$!-(@+!\ ")F/ QN  '_^F8&0F[_
XM^F J,"[__&8@,"[_^F8:/7P  ?_Z,"S_^E)L__KE@$'N_F#0P""*8 04_  B
XM8   N! 32("P?  G9CH,;@ "__IF!D)N__I@*C N__QF(# N__IF&CU\  +_
XM^C L__I2;/_ZY8!![OY@T, @BF $%/P )V!R,"[__&9J,"[_^F9D/7P  ?_\
XM$!-(@+!\ #QF"B *4H M0/_V8$H0$TB L'P /F8N( M2@"! $!!(@+!\ #YF
XM$" *5( M0/_R/7P  ?_P8 P@"E* +4#_\D)N__!@$C L__I2;/_ZY8!![OY@
XMT, @BA33( M2BS '4D<P![!N__YM /ZF0A(@+O_V9RQ![)[,($@Q?  !  I!
XM[)[,($@Q? (  !)(;)[,2&P1KB\N__9.NOQ WOP #" N__)G,D'LGN @2#%\
XM  ( "DALGN P+O_P9PA![!&P( A@!D'L$;(@""\ +R[_\DZZ_ C>_  ,,"S_
XM^E) P?P !$C +P _/ !(3KH%BER/*4#_]CX\  %@&C 'Y8!![OY@T, @$#('
XMY8$@;/_VT,$@@%)', >P;/_Z;=X@;/_V((HP+/_ZY8 @;/_VT,!"D$S?#(!.
XM7DYU3E;__DCG\  D+@ (9@J _   0H!"@6!*(BX #$)N__Y*@6P&5F[__D2!
XM2H)L!E)N__Y$@G8!M(%D!N."XX-@]D* M(%B!("#DH+BBN*+9/(,;@ #__YM
XM D2!XN[__F0"1( M0  (+4$ #$S?  ].7DYU3E;_^B\ 0F[__DJN  AL"%)N
XM__Y$K@ (2JX #&P(4F[__D2N  PP+@ *P.X #BU __HP+@ (P.X #M%N__HP
XM+@ *P.X #-%N__H";@ !__YG!$2N__H@'RUN__H #$Y>+I]*KP $3G5.7DYU
XM3E;_\@QN    "&P*(#S_____8   _C\N  X_+@ (+RX "C\\ $).N@0XWOP
XM"BU __P,@     !M"" N__Q@  #2/SP  3\N  A"IS\\ $).N@0.WOP "BU
XM__@_/  "/RX "$*G/SP 0DZZ _3>_  *+4#_] QN  $ #F8.("[_^-"N  HM
XM0  *8"0,;@ "  YF#B N__30K@ *+4  "F .,"X #F<((#S_____8&(@+@ *
XML*[_]&\>2&[_\B N  J0KO_T+P _+@ (/SP 0$ZZ X[>_  ,0F<_+@ (+RX
XM"C\\ $).N@-XWOP "@R      %W P'P  3E GC)G"B \_____V *8 A";)XR
XM("X "DY>3G5.5@  2.<!,#X\!!@R+@ (TGP$&%-!PKP  /__@OP$&,[!, ?
XM_  &/P!.N@R^5(\F0+?\_____V8((#P     8!@@"R1 -4< !" *7( O $ZZ
XM +I8CR LGC1,WPR 3EY.=4Y6  !(YP$P/CP  3(N  A<05-!PKP  /__@OP
XM!MY!("R>-"1 #(      9A1![)XX( @D0"E GC0I0)XX0FR>/"92,"L !+!'
```

```
XM92HP*P $L$=F!"238!0P!Y%K  0P*P $P/P !M? -T< !"E*GC0@"UR 8"P@
XM"["LGC1F&C\'3KK_'%2/)D ,@     !F"" \     & *( LD0" 3)D!@HDS?
XM#(!.7DYU3E8  $CG # @+@ (78 F0"1LGC1@%B *L))M#B +L(IN!B +L))L
XM F .)%(@"["*;^0@"["2;-X@"S(K  3"_  &T(&PDF80(%(P*  $T6L !"!2
XM)I!@ B:2( HR*@ $POP !M"!L(MF## K  31:@ $))-@ B2+*4J>-$S?# !.
XM7DYU3E8  "\N  @_/ !(3KH!K%R/3EY.=4Y6   O+@ (/SP 24ZZ 99<CTY>
XM3G5.5O_^0F[__F V,"[__N6 0>R= M# ,!!F(C N__[E@$'LG0+0P#"N  @P
XM+O_^Y8!![)T$T, PK@ *8 Q2;O_^#&X 3/_^;<).7DYU3E;__D)N__Y@)C N
XM__[E@$'LG0+0P# 0L&X "&8.,"[__N6 0>R= M# 0E!2;O_^#&X 3/_^;=).
XM7DYU3E;__C\'/BX "#U\ 3#__D'LG0(B2-+N__Z^4&<&6$BSR&;V,"@  CX?
XM3EY.=4Y6__Y(;!&T+RX "$ZZ"MA0CTI 9@H]?(, __Y@  ">2&P1NB\N  A.
XMN@J\4(]*0&8*/7R"___^8   @DAL$< O+@ (3KH*H%"/2D!F"#U\@O[__F!F
XM,"X #,!\  %G,"\N  A.N@N&6(]*0&<&,#S__V!@0F<O+@ (/SP /$ZZ %A0
XMCS\ /SP /DZZ $Q8CS N  S ?  #/P O+@ (/SP /4ZZ #10CSU __XY0)XR
XM#$   &P&,#S__V 8,"X #,!\(  _ #\N__Y.NOY^6(\P+O_^3EY.=2E)G/XI
XM2ISZ*5^<]DY!(FR<_B1LG/HO+)SV3G5.5O_62.<!$"9N  Q";O_6,"X "+!\
XM &1G F (/CP "F N8 BP? !U9P)@"#X\  I@'F (L'P ;V<"8 @^/  (8 Y@
XM"+!\ 'AG F $/CP $ RN       0;"H,;@!D  AF%"!34I,0O  M("X $$2
XM+4  $& .,"X "F8( JX  /__ ! ,1P (9@P@+@ 0P+P    '8"8,1P 09@P@
XM+@ 0P+P    /8!0@+@ 0+P P!TC +P!.NOGP6(\@'S(N_]92;O_6XX%![O_8
XMT,$P@ Q'  AF#B N !#F@,"\'____V H#$< $&8.("X $.B P+P/____8!0@
XM+@ 0+P P!TC +P!.NOFB(!]8CRU  ! @+@ 09@#_<&!&4V[_UC N_];C@$'N
XM_]C0P Q0  IM&# N_];C@$'N_]C0P# 0D'P "M!\ $%@$C N_];C@$'N_]C0
XMP# 0T'P ,"!34I,0@# N_]9FM$S?"(!.7DYU3E;_WDCG Q F;@ ,#&X!   *
XM9@8]?  &  HI;@ 0GEXI;@ 4GF)(;!'&2&R>7C\\" 1.NO"67<# ?  !'4#_
XMWC N  I20#\ 2&[_X$AN_^)(;@ 03KKQEM[\  X0+O_>9P@@4U*3$+P +1 N
XM_^)(@+!\ #!F$A N_^-F#"!34I,0KO_B8  !2@QN &8 "&8  . ^+O_@WFX
XM"E)', >P;)YJ;P8P+)YJ8 (P!SX #$<  &P&,#P  6 ", <_ $AN_^!(;O_B
XM2&X $$ZZ\2#>_  .0D9@&# &4D9![O_BT, 0$"!34I,0@%-'4V[_X# '9P@,
XM;@  _^!LW& ,(%-2DQ"\ #!3;O_@#&X  /_@;.PP+@ *9P@@4U*3$+P +F 0
XM(%-2DQ"\ #!2;O_@4VX "C N  IG" QN____X&WB8"(,1P  ;Q P!E)&0>[_
XMXM# $!!(@& $,#P ,"!34I,0@%-',"X "E-N  I*0&;28& @4U*3$*[_XC N
XM  IG""!34I,0O  N/CP  6 2, =21T'N_^+0P! 0(%-2DQ" ,"X "E-N  I*
XM0&;B(%-2DQ"\ $4_+O_@2&P1SB\33KH#.M[\  HO$TZZ!QA8CTC T9-,WPC
XM3EY.=4Y6__Y";O_^8"(P+O_^P?P "B!N  @@4!802(/00Y!\ # ]0/_^(&X
XM"%*0(&X ""!0$!!(@+!\ #!M$"!N  @@4! 02("P?  Y;[XP+O_^3EY.=4Y6
XM_^9(YP,P)FX #"UN  C__" +($ D4%B+8  "4F *(&X "%*N  @0FA 29PH0
XM$DB L'P )6;H$!)(@+!\ "5F  (L4HI";O_L/7P! /_H0F[_YAU\ "#_[Q 2
XM2("P?  M9@@]?  !_^Q2BA 22("P?  P9@@=?  P_^]2BBU*__!(;O_P3KK_
XM)%B//4#_ZB1N__ 0$DB L'P +F884HHM2O_P2&[_\$ZZ_P)8CSU _^@D;O_P
XM$!)(@+!\ &QF"#U\  '_YE**$!)G!!X:2(<M;@ (__@,1P!D9Q(,1P!O9PP,
XM1P!X9P8,1P!U9D(P+O_F9P@@"R! (!!@"" +($ P$$C +P!(;@ (/R[_YC\'
XM3KK[5M[\  PP+O_F9P8P/  $8 0P/  "2,#7P&   *0,1P!C9A@@"U* ($ 0
XM$"!N  A2K@ ($(!4BV   (8,1P!S9C0@"R! +5#_]%B+/"[_Z& 6(&[_]%*N
XM__00$"!N  A2K@ ($(!31C &9P@@;O_T$!!FWF!*#$< 96<,#$< 9F<&#$<
XM9V8L( L@0"E0GEXI:  $GF(O+)YB+RR>7DAN  @_+O_H/P=.NOP8WOP $%"+
XM8 PP!R!N  A2K@ ($( @+@ (D*[_^+!N_^IL  "."[_[&<D/"[_ZB(N  B2
XMKO_XG$%@#B!N  A2K@ ($*[_[U-&, 9F[F!B("[_^#(N_^I304C!T($M0/_T
XM+4#_\"PN  B<KO_X8!P@+O_X,@9304C!T($@0! 0(&[_]%.N__00@%-&, 9F
XMX& ,(&[_^%*N__@0KO_O("[_^+"N__1OZB N__!2@"U   @0$F8 _:P@;@ (
XM0A @+@ (D*[__$S?#,!.7DYU3E;^_B\N  Q(;O\ 3KK]:%"//4#^_B\N  A(
XM;O\ 3KH .%"/,"[^_DY>3G5.5@  2&X "$ALGN!.NO_&4(].7DYU3E8  $AN
XM  PO+@ (3KK])E"/3EY.=4Y6  !@&"\N  P@;@ (4JX "! 02( _ $ZZZ))<
```

```
XMCR!N  @0$&;@3EY.=4Y6__P,;H,   AF  $Z,"R<I+!LG*)F  $ ,#P  #E
XMG*(Y0)RD8   Z#\\  =.NOD05(\]0/_\#&X "/_\9BHP+)RD9R!3;)RD/SP
XM&S\\  ).NOCL6(\_/ !$/SP  DZZ^-Y8CV   *@,;@ -__QF,# LG*12;)RD
XM0>R<IM# $+P "C\\  T_/  "3KKXLEB//SP "C\\  ).NOBD6(]@=@QN  /_
XM_&8*/SP  DZZXZ!4CPQN !K__&8R,"[__#(LG*12;)RD0>R<IM#!$( _/  -
XM/SP  DZZ^&98CS\\  H_/  "3KKX6%B/8"HP+O_\,BR<I%)LG*1![)RFT,$0
XM@#\N__P_/  "3KKX-%B/,#P  68 _Q1![)RFT.R<HA 02("P?  :9@8P//__
XM8!(P+)RB4FR<HD'LG*;0P! 02(!@'& :#&Z"_P (9@X_/  #3KKW[%2/8 9@
XM!# \__].7DYU3E;__$CG # F;@ *,"X #L"\  #__RU __Q";)XR#&Z#   (
XM;DA"KO_\8!X_+@ (3KK^:E2/%H!(@+!\__]F!& 48 92BU*N__PP+@ .4VX
XM#DI 9M8@+O_\9@@P//__8   XB N__Q@  #:8"XO+@ *+R[__#\N  @_/  _
XM3KKW7-[\  PM0/_\.4">,@Q   !L"# \__]@  "J/RX "$ZZ]C14CTI 9@
XMDB N__P]0  .("X "B9 )$!@;" +D*X "DC L*[__&U*+PHP+@ .P+P  /__
XM+P _+@ (/SP /TZZ]OC>_  ,.4">,@Q   !L!C \__]@2C LGC)F F N,"X
XM#I!LGC+ O   __^1KO_\)DH0$TB L'P #68$4HM@!A3;4VX #C N  YFCB *
XMD*X "DC +4#__$)LGC(@+O_\3-\, $Y>3G5.5@  +RX #"\N  A"9S\\ %9.
XMNO9\WOP ##E GC)G"# \__]@!F $,#P  $Y>3G5.5O_\,"X ","\  #__R\
XM/SP 2$ZZ]DI<CRU __P@+O_\9@@M?/_______" N__Q.7DYU3E;__$CG # F
XM;@ ()&X #"U+__Q@   "$!MF /_\4XM@   "%MIF /_\("[__&    ),WPP
XM3EY.=4Y6  !(YP P)FX ""1N  Q@   &4HM2BA 39P  $! 3$A)(@4B L$%G
XM /_J$!-(@!822(.00V    ),WPP 3EY.=4Y6   @;@ (( @B;@ ,$-EF /_\
XM3EY.=4Y6  !(YP P)FX ""1+8   !%*+$!-F /_Z( N0BF    ),WPP 3EY.
XM=4Y6  !(YP,0)FX "#XN  Q@   $4HL0$QP 9P  #! &2("P1V8 _^X0!F<
XM  @@"V    @@/     !@   "3-\(P$Y>3G5.5@  2.<#,"9N  @^+@ ,)'P
XM    8   $! &2("P1V8   0D2U*+'!-F /_N( I@   "3-\,P$Y>3G5.5@
XM+RX "#\\ $%.NO3>7(\Y0)XR9P@P//__8 9@!# \  !.7DYU3E8  & T(&X
XM"! 02("P?  *9@X_/  -/SP  DZZ]*98CR!N  A2K@ ($!!(@#\ /SP  DZZ
XM](Y8CS N  Q3;@ ,2D!FP$Y>3G5.5@  8!@@;@ (4JX "! 02( _ #\\  1.
XMNO1@6(\P+@ ,4VX #$I 9MQ.7DYU3E8  & 8(&X "%*N  @0$$B /P _/  %
XM3KKT,EB/,"X #%-N  Q*0&;<3EY.=4Y6__)(YP P)FX "B1+0>P1TBU(__8,
XM;H,   AF%C\N  XO"TZZ_S1<CSUN  [__F   4P,;H+_  AF%C\N  XO"TZZ
XM_V!<CSUN  [__F   2X,;H+^  AF%C\N  XO"TZZ_W!<CSUN  [__F   1 M
XM2__Z0F[__C\N  A.NO*:5(]*0&8  *9@  "4$!)(@+!\  IF  "&( J0KO_Z
XML'P  &] ( J0KO_Z2, M0/_R+R[_^B\N__(_+@ (/SP 0$ZZ\US>_  ,.4">
XM,DC L*[_\F<(,#S__V   *@P+)XRT6[__B\N__8O/     (_+@ (/SP 0$ZZ
XM\R;>_  ,.4">,@Q   )G!C \__]@=%)N__Y2BB *+4#_^F "4HH@"I"+L&X
XM#F4 _V1@$" +-BX #L:\  #__]"#)$ @"I"N__I(P"U __(O+O_Z+R[_\C\N
XM  @_/ ! 3KKRQ-[\  PY0)XR2,"PKO_R9P8P//__8! P+)XRT6[__D)LGC(P
XM+O_^3-\, $Y>3G4Y?   __0Y?   __(Y?  !__ Y?  !_^XY?   _^PY?
XM_^HY?   _^@Y?   _^8Y?  !_>I#[/VZ0>P,<B+(0>P,=B+(0>P,>B+(0>P,
XM?B+(0>P,@B+(0>P,AB+(0>P,BB+(0>P,CB+(0>P,DB+(0>P,EB+(0>P,FB+(
XM0>P,GB+(.7P0 /VP0^S]DC+\ /\R_ #^,OP _#+\ /@R_ #P,OP X#+\ , R
XM_ " ,OP  $/L_8 R_   ,OP  3+\  ,R_  ',OP #S+\ !\R_  _,OP ?S+\
XM /]![-9@*4C67#E\  #"P#E\  #"OD/LJ(HR_   ,OS P3+\P8$R_ % ,OS#
XM 3+\ \ R_ * ,OS"03+\Q@$R_ ; ,OP'@#+\QT$R_ 4 ,OS%P3+\Q($R_ 1
XM,OS, 3+\#, R_ V ,OS-03+\#P R_,_!,OS.@3+\#D R_ H ,OS*P3+\RX$R
XM_ M ,OS) 3+\"< R_ B ,OS(03+\V $R_!C ,OP9@#+\V4$R_!L ,OS;P3+\
XMVH$R_!I ,OP> #+\WL$R_-^!,OP?0#+\W0$R_!W ,OP<@#+\W$$R_!0 ,OS4
XMP3+\U8$R_!5 ,OS7 3+\%\ R_!: ,OS603+\T@$R_!+ ,OP3@#+\TT$R_!$
XM,OS1P3+\T($R_!! ,OSP 3+\,, R_#& ,OSQ03+\,P R_//!,OSR@3+\,D R
XM_#8 ,OSVP3+\]X$R_#= ,OSU 3+\-< R_#2 ,OST03+\/  R_/S!,OS]@3+\
XM/4 R_/\!,OP_P#+\/H R_/Y!,OSZ 3+\.L R_#N ,OS[03+\.0 R_/G!,OSX
XM@3+\.$ R_"@ ,OSHP3+\Z8$R_"E ,OSK 3+\*\ R_"J ,OSJ03+\[@$R_"[
```

```
XM,OPO@#+\[T$R_"T ,OSMP3+\[($R_"Q ,OSD 3+\), R_"6 ,OSE03+\)P R
XM_.?!,OSF@3+\)D R_"( ,OSBP3+\XX$R_"- ,OSA 3+\(< R_"" ,OS@03+\
XMH $R_&# ,OQA@#+\H4$R_&, ,ORCP3+\HH$R_&) ,OQF #+\IL$R_*>!,OQG
XM0#+\I0$R_&7 ,OQD@#+\I$$R_&P ,ORLP3+\K8$R_&U ,ORO 3+\;\ R_&Z
XM,ORN03+\J@$R_&K ,OQK@#+\JT$R_&D ,ORIP3+\J($R_&A ,OQX #+\N,$R
XM_+F!,OQY0#+\NP$R_'O ,OQZ@#+\ND$R_+X!,OQ^P#+\?X R_+]!,OQ] #+\
XMO<$R_+R!,OQ\0#+\M $R_'3 ,OQU@#+\M4$R_'< ,ORWP3+\MH$R_'9 ,OQR
XM #+\LL$R_+.!,OQS0#+\L0$R_'' ,OQP@#+\L$$R_%  ,OR0P3+\D8$R_%%
XM,OR3 3+\4\ R_%* ,OR203+\E@$R_%; ,OQ7@#+\ET$R_%4 ,OR5P3+\E($R
XM_%1 ,OR< 3+\7, R_%V ,OR=03+\7P R_)_!,OR>@3+\7D R_%H ,OR:P3+\
XMFX$R_%M ,OR9 3+\6< R_%B ,OR803+\B $R_$C ,OQ)@#+\B4$R_$L ,OR+
XMP3+\BH$R_$I ,OQ. #+\CL$R_(^!,OQ/0#+\C0$R_$W ,OQ,@#+\C$$R_$0
XM,OR$P3+\A8$R_$5 ,OR' 3+\1\ R_$: ,OR&03+\@@$R_$+ ,OQ#@#+\@T$R
XM_$$ ,OR!P3+\@($R_$! 0^R>S"+\     #+\   B_      R_  ),OR# "+\
XM     #+\   B_      R_   (OP     ,OP! C+\@P B_      R_ ( (OP
XM    ,OP  "+\     #+\ 0(R_(, (OP     ,OP" -+\!7@Y? ( GLHI;!&:
XMGG@I;!&>GGPI;!&BGG0I;!&FGFPI;!&JGG Y?  'GFI#[)Y"0>T !B+(0>T
XM'B+(0>T &"+(0>T )"+(0>T *B+(0>T $B+(0>T #"+(*7P     GCXI?
XM  ">-#E\  "<I#E\  "<HDYU*$,I($-/4%E224=(5" Q.3@U+#@V(&)Y(%-Y
XM<W1E;2!%;FAA;F-E;65N="!!<W-O8VEA=&5S.P @04Q,(%))1TA44R!215-%
XM4E9%1 H*  !0;&5A<V4@<F5F97(@86QL(&EN<75I<FEE<R!T;SH*"@  (" @
XM(" @(%-Y<W1E;2!%;FAA;F-E;65N="!!<W-O8VEA=&5S"@ @(" @(" @,C$@
XM3F5W(%-T<F5E="P@5V%Y;F4@3DH@,#<T-S *"@  66]U(&UA>2!C;W!Y(&%N
XM9"!D:7-T<FEB=71E('1H:7,@<')O9W)A;2!F<F5E;'DL   @<')O=FED960@
XM=&AA=#H*   @(" @,2D@("!.;R!F964@:7,@8VAA<F=E9"!F;W(@<W5C:"!C
XM;W!Y:6YG(&%N9  @9&ES=')I8G5T:6]N+"!A;F0* " @(" R*2 @($ET(&ES
XM(&1I<W1R:6)U=&5D($].3%D@:6X@:71S(&]R:6=I;F%L+   ('5N;6]D:69I
XM960@<W1A=&4N"@H  $EF('EO=2!L:6ME('1H:7,@<')O9W)A;2P@86YD(&9I
XM;F0@:70@;V8@=7-E+"!T:&5N('EO=7( (&-O;G1R:6)U=&EO;B!W:6QL"@!B
XM92!A<'!R96-I871E9"X@(%EO=2!M87D@;F]T('5S92!T:&ES('!R;V1U8W0@
XM:6X@80  (&-O;6UE<F-I86P@96YV:7)O;FUE;G0*  !O<B!A(&=O=F5R;FUE
XM;G1A;"!O<F=A;FEZ871I;VX@=VET:&]U="!P87EI;F<@82!L:6-E;G-E "!F
XM964@;V8@)#,U+B @4VET90H ;&EC96YS97,@86YD(&-O;6UE<F-I86P@9&ES
XM=')I8G5T:6]N(&QI8V5N<V5S(&%R90 @879A:6QA8FQE+B @02!P<F]G<F%M
XM"@!D:7-K(&%N9"!P<FEN=&5D(&1O8W5M96YT871I;VX@87)E(&%V86EL86)L
XM92!F;W(@)#4P+@H   I)9B!Y;W4@9F%I;"!T;R!A8FED92!B>2!T:&4@=&5R
XM;7,@;V8@=&AI<R!L:6-E;G-E+"   "!T:&5N('EO=7(@8V]N<V-I96YC90H
XM '=I;&P@:&%U;G0@>6]U(&9O<B!T:&4@<F5S="!O9B!Y;W5R(&QI9F4N"@H
XM05)#("T@07)C:&EV92!U=&EL:71Y+" U+C$R("T@071A<FD@4U0*"@  57-A
XM9V4Z($%20R![86UU9F1X97)P;'9T8WU;8G-W;FA=6V<\<&%S<W=O<F0^70
XM(#QA<F-H:79E/B!;/&9I;&5N86UE/B N("X@+ET*"@!7:&5R93H@("!A(" @
XM/2!A9&0@9FEL97,@=&\@87)C:&EV90H  " @(" @(" @(&T@(" ](&UO=F4@
XM9FEL97,@=&\@87)C:&EV90H (" @(" @(" @=2 @(#T@=7!D871E(&9I;&5S
XM(&EN(&%R8VAI=F4* " @(" @(" @(&8@(" ](&9R97-H96X@9FEL97,@:6X@
XM87)C:&EV90H  " @(" @(" @(&0@(" ](&1E;&5T92!F:6QE<R!F<F]M(&%R
XM8VAI=F4* " @(" @(" @('@L92 ](&5X=')A8W0@9FEL97,@9G)O;2!A<F-H
XM:79E"@  (" @(" @(" @<B @(#T@<G5N(&]N92!F:6QE('=I=&@@87)G=6UE
XM;G1S(&9R;VT@87)C:&EV90H  " @(" @(" @(' @(" ](&-O<'D@9FEL97,@
XM9G)O;2!A<F-H:79E('1O "!S=&%N9&%R9"!O=71P=70* " @(" @(" @(&P@
XM(" ](&QI<W0@9FEL97,@:6X@87)C:&EV90H (" @(" @(" @=B @(#T@=F5R
XM8F]S92!L:7-T:6YG(&]F(&9I;&5S(&EN(&%R8VAI=F4* " @(" @(" @('0@
XM(" ]('1E<W0@87)C:&EV92!I;G1E9W)I='D*   @(" @(" @("!C(" @/2!C
XM;VYV97)T(&5N=')Y('1O(&YE=R!P86-K:6YG(&UE=&AO9 H (" @(" @(" @
```

```
XM8B @(#T@<F5T86EN(&)A8VMU<"!C;W!Y(&]F(&%R8VAI=F4* " @(" @(" @
XM(',@(" ]('-U<'!R97-S(&-O;7!R97-S:6]N("AS=&]R92!O;FQY*0H (" @
XM(" @(" @=R @(#T@<W5P<')E<W,@=V%R;FEN9R!M97-S86=E<PH (" @(" @
XM(" @;B @(#T@<W5P<')E<W,@;F]T97,@86YD(&-O;6UE;G1S"@ @(" @(" @
XM("!H(" @/2!H;VQD('-C<F5E;B!B969O<F4@<F5T=7)N:6YG('1O($1E<VMT
XM;W * " @(" @(" @(&<@(" ]($5N8W)Y<'0O9&5C<GEP="!A<F-H:79E(&5N
XM=')Y"@ *071A<FD@4U0@=F5R<VEO;B!D979E;&]P960@8GD@2&%R=F5Y($IO
XM:&YS;VX*  !P<F5S<R!A;GD@:V5Y('1O(&-O;G1I;G5E  H 05)#5$5-4 !4
XM14U0   N05)#   N)"0D   N0D%+  !!355&1%A%4$Q65$-2 $-A;FYO="!M
XM:7@@)6,@86YD("5C"@ E8R!I<R!A;B!U;FMN;W=N(&-O;6UA;F0* $D@:&%V
XM92!N;W1H:6YG('1O(&1O(0H  $D@9&]N)W0@:VYO=R!H;W<@=&\@9&\@)6,@
XM>65T(0H <')E<W,@86YY(&ME>2!T;R!C;VYT:6YU90 * #T *BXJ $YO(&9I
XM;&5S(&UA=&-H.B E<PH 3F\@9FEL97,@=V5R92!A9&1E9"X* $1U<&QI8V%T
XM92!F:6QE;F%M97,Z"B @)7,*(" E<P  0V%N;F]T('5N<V%V92 E<PH 8G(
XM $-A;FYO="!R96%D(&9I;&4Z("5S"@!5<&1A=&EN9R!F:6QE.B E+3$R<R @
XM  !!9&1I;F<@9FEL93H@(" E+3$R<R @  !!9&1I;F<@9FEL93H@(" E+3$R
XM<R @   E<UQ!4D-414U0+D-65   05)#5$5-4"Y#5E0 1FEL92!N;W0@9F]U
XM;F0Z("5S"@!B=RL 56YA8FQE('1O(&-R96%T92!T96UP;W)A<GD@9FEL92 E
XM<PH 0V]N=F5R=&EN9R!F:6QE.B E+3$R<R @(')E861I;F<L $-A;FYO="!U
XM;G-A=F4@)7,* %EO=2!M=7-T('1E;&P@;64@=VAI8V@@9FEL97,@=&\@9&5L
XM971E(0H  $1E;&5T:6YG(&9I;&4Z("5S"@  1FEL92!N;W0@9F]U;F0Z("5S
XM"@!< %P   !&:6QE(&YO="!F;W5N9#H@)7,*  P 17AT<F%C=&EN9R!F:6QE
XM.B E<PH  &)R  !705).24Y'.B!&:6QE("5S(&%L<F5A9'D@97AI<W1S(0
XM("!/=F5R=W)I=&4@:70@*'DO;BD_(   )7,@;F]T(&5X=')A8W1E9"X*  !B
XM=P  0V%N;F]T(&-R96%T92 E<PH 8G(  $%N(&5N=')Y(&EN("5S(&AA<R!A
XM(&)A9"!H96%D97(N"@ E<R!I<R!N;W0@86X@87)C:&EV90H (" E9"!B>71E
XM<R!S:VEP<&5D+@H  $EN=F%L:60@:&5A9&5R(&EN(&%R8VAI=F4@)7,  $D@
XM9&]N)W0@:VYO=R!H;W<@=&\@:&%N9&QE(&9I;&4@)7,@:6X@87)C:&EV92 E
XM<PH 22!T:&EN:R!Y;W4@;F5E9"!A(&YE=V5R('9E<G-I;VX@;V8@05)#+@H
XM5W)I=&4@9F%I;" H9&ES:R!F=6QL/RD*  !P<F5S<R!A;GD@:V5Y('1O(&-O
XM;G1I;G5E  H 3F%M92 @(" @(" @("!,96YG=&@@(" @4W1O<F%G92 @("!3
XM1B @(%-I>F4@;F]W   @($1A=&4@(" @(" @5&EM92 @("!#4D,* #T]/3T]
XM/3T]/3T]/2 @/3T]/3T]/3T@(#T]/3T]/3T](" ]/3T](" ]/3T]/3T]/0
XM(" ]/3T]/3T]/3T@(#T]/3T]/2 @/3T]/0H  " @(" @(" @/3T]/2 @/3T]
XM/3T]/3T@(" @(" @(" @(" ]/3T](" ]/3T]/3T]/0H 5&]T86P@)39L9" @
XM)3AL9" @   @(" @(" @(" @)3-D)24@("4X;&0@( H  $9I;&4@;F]T(&9O
XM=6YD.B E<PH 2F%N $9E8@!-87( 07!R $UA>0!*=6X 2G5L $%U9P!397
XM3V-T $YO=@!$96, )2TQ,G, (" E.&QD("   " @("TM(" @   @4&%C:V5D
XM(   4W%U965Z960  &-R=6YC:&5D  !#<G5N8VAE9   56YK;F]W;B$  " @
XM)3-D)24 (" E.&QD("   "4R9" E,W,@)3 R9   (" E,F0Z)3 R9"5C(" E
XM,#1X   * $9I;&4@<&%C:V5D('=I=&@@)60@8FET<RP@22!C86X@;VYL>2!H
XM86YD;&4@)60* %-T86-K(&]V97)F;&]W"@ @86YA;'EZ:6YG+"   $%20U1%
XM35 N0U). $%20U1%35 N0U). &)W*P!5;F%B;&4@=&\@8W)E871E('1E;7!O
XM<F%R>2!F:6QE("5S   @ "@E;&0I(   <W1O<FEN9RP@ "@E;&0I(   <&%C
XM:VEN9RP@ "@E;&0I(   <W%U965Z:6YG+"  *"5L9"D@  !C<G5N8VAI;F<L
XM( !#86YN;W0@9&5L971E('1E;7!O<F%R>2!F:6QE("5S"@  9&]N92X*  !"
XM=6<@+2!B860@;F-R('-T871E"@  +E)30P  8G(  %1E;7!O<F%R>2!F:6QE
XM("5S(&%L<F5A9'D@97AI<W1S"@!B=RL 56YA8FQE('1O(&-R96%T92!T96UP
XM;W)A<GD@9FEL92 E<PH 17AT<F%C=&EN9R!F:6QE.B E<PH  "XJ  !&:6QE
XM(&YO="!F;W5N9#H@)7,* $D@:&%V92!N;W1H:6YG('1O(&1O(0H  $-A;FYO
XM="!D96QE=&4@=&5M<&]R87)Y(&9I;&4@)7,*   N5%10   N4%)'   N5$]3
XM  !B<@  5&5M<&]R87)Y(&9I;&4@)7,@86QR96%D>2!E>&ES=',* &)W*P!5
XM;F%B;&4@=&\@8W)E871E('1E;7!O<F%R>2!F:6QE("5S"@ @ $EN=F]K:6YG
```

```
XM(&9I;&4Z("5S)7,*  !#86YN;W0@9&5L971E('1E;7!O<F%R>2!F:6QE("5S
XM"@  8G(  $-R96%T:6YG(&YE=R!A<F-H:79E.B E<PH 0V%N;F]T(')XM("5S"@!B<@
0V%N;F]T(')E;F%M92 E<R!T;R E<PH 2V5E<&EN9R!B86-K
XM=7 @87)C:&EV93H@)7,* $-A;FYO="!D96QE=&4@;VQD(&%R8VAI=F4Z("5S
XM"@  0V%N;F]T(')E;F%M92 E<R!T;R E<PH 07)C:&EV92!T<G5N8V%T960@
XM:6X@9FEL92 E<PH 5&5S=&EN9R!F:6QE.B E+3$R<R @ &]K87D* $YO(&5R
XM<F]R<R!D971E8W1E9 H 3VYE(&5R<F]R(&1E=&5C=&5D"@ E9"!E<G)O<G,@
XM9&5T96-T960* $D@9&]N)W0@:VYO=R!H;W<@=&\@=6YP86-K(&9I;&4@)7,*
XM $D@=&AI;FL@>6]U(&YE960@82!N97=E<B!V97)S:6]N(&]F($%20PH  %=!
XM4DY)3D<Z($9I;&4@)7,@9F%I;',@0U)#(&-H96-K"@!"860@3D-2('5N<&%C
XM:VEN9R!S=&%T92 H)60I"@!&:6QE(&AA<R!A;B!I;G9A;&ED(&1E8V]D92!T
XM<F5E"@  0T]..@  0558.@  4%)4.@  0"0       $_@   /_        !R
XM &$ =P!#3TXZ  !!55@Z  !04E0Z             "5D   -"@       @8&
XM!@8&!@8& !H:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:
XM&AH:&AH:&AH:&AH:&AH:&AH:&AH:&AH:
XM
XM
XM
XM
XM
X-
X
Xend
!FaR!OuT!
exit
--
 __________ ______ ____ _____ ___
/__________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________       TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /       One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /        Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/         {...decvax,ucbvax,ihnp4}!trwrb!sansom


From -8534230453848695743
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51e29eb69687b094
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 20:54:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: alite.prg
Message-ID: <1342@trwrb.UUCP>
Date: Tue, 7-Oct-86 23:54:13 EDT
Article-I.D.: trwrb.1342
Posted: Tue Oct  7 23:54:13 1986
Date-Received: Wed, 8-Oct-86 22:17:03 EDT
References: <573@chinet.UUCP> <1341@trwrb.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
```

Organization: TRW EDS, Redondo Beach, CA
Lines: 609

The following shar file contains:

```
     readme       obvious
     alite.uue   uuencoded ARC file
```

After running alite.uue through uudecode, you must use the ARC archive program I just posted to extract the files alite.prg, 1alite.sng, and 1alite.pic from alite.arc. I didn't write any of this stuff, I'm just distributing it. Enjoy.

-Rich

```
#! /bin/sh
# To extract, remove mail header lines and type "sh filename"
echo x - readme
sed -e 's/^X//' > readme << '!FaR!OuT!'
XHere is my test case for ARC.  Uudecode the file alite.uue and you'll end
Xup with alite.arc.  You may then use the "x" option in ARC to extract the
Xfollowing files:
X
X    alite.prg
X    1alite.sng
X    1alite.pic
X
XLet's all start using ARC and we can cut down considerably the amount of
Xtime and money we spend uploading/downloading software.
X
XAlite.prg was written by the fellows who brought you The Music Studio (tm)
Xand was posted nearly a year ago on CIS.  Basically, it is a MIDI/graphics
Xdemo with a pronounced yuletide flavor.  However, you can also use it to
Xplay all those *.sng files floating around out there.  To do so, you must
Xdo the following:
X
X    1) move the *.sng file to the same disk as alite.prg
X    2) rename the *.sng file 1alite.sng (or 2alite.sng, 3alite.sng,...)
X    3) make sure a corresponding 1alite.pic file is on the disk
X    4) execute alite.prg, the rest is easy
X
XI've included 1alite.sng and 1alite.pic in this posting to get you started.
X
X-Rich
X
X _________ ______ ____ _____ ___
X/_________//___   ||__|/____|/__/   Richard E. Sansom
X   ___    ____/  / ____________     TRW Electronics & Defense Sector
X  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
X /  /   /  /  \  \ |   / |   /      Redondo Beach, CA 90278
X/__/   /__/    \__\|__/  |__/       {...decvax,ucbvax,ihnp4}!trwrb!sansom
!FaR!OuT!
echo x - alite.uue
```

```
sed -e 's/^X//' > alite.uue << '!FaR!OuT!'
Xbegin 664 alite.arc
XM&@@Q04Q)5$4N4$E#    0R,  +T*D99B1H!]   , " 9*$  @)""!P $$%!@
XM0H +!0X(&'!@@  Z!V <@'( SD40D!"X #D@()5__P(:0*F2I4"7*U.^E!FS
XM)4V8.&_JM,ES9L^:/GT"$"'BSS]1(B 50)DT9E.F,Y_^DTHUJE6G5Z%BW:JU
XMZ]2L_D2,(%JEBM%J592B3!N3[=J9;O_%G0NW;EN[;^_JS<M7;MT")_VE'4 %
XM 2*CB! 9AC0 ):*9CV-&=@RYLF3+E"]KSLSYWV3/F$%O]H<H46(H .  ^/8/
XMM=J=08'*SOF3=FS;LV'G#CB  @ /_^H!H'#BWYU_K_X5AR1)V#]O_\;]$W;%
XM^', U94" /!/X/;N!KY[YSX>O/CPY-&;3W^^/7OVC2&-H/8\^#]J!ZP[ I!?
XM^_OU )8GH'H#NA<@@0@"$-\(R-27SC_(7!',<=Y@]\\Y][#$W3_]=%<2>0/\
XMHN&!X@W084K_E?=/AHP96""(&:+H88P*HL3B "QR0!]T]=QW@B#'N0+ "<,<
XM\XZ&S[R3CX?;[8/2#R,:!4E!*0ZPI(Q.3FG@/T>V"$"7!;A(X #GC'ADF2DU
XM]DZ7 QS9I01N>GBD<]!)1UT/%&+7QSEH;G=D,,.,^,\PC<GXQS"^C,A8H#+^
XM,T@PB@Z0B*"],/K=A9:".(B@@V2*TC">.@IIH\.,JA!*YS":*DJ;,M;J OV<
XM$^N)9>YH'WX!'+?? 3^<<XR&[SP32" :@GI( !H>,T0@/!3;QS_$RCA( -%N
XM-T2@&WZ71 Z':+C',<=TB^(SOR(KXQ#4:GCM(=4"<,PP 6R*XA"+!"*O@H,L
XM<DRT^SX#KX?(#M%= OR\PXL[O/CSRY'(O.+-*P]&"$B>5P3")[#OY%#H=GO\
XM,4 .&OZP1P[-HKC'LZ9NF /()N_Q#PDCMJ&QM[U"B>([1K'\W1X[; Q QP/X
XM_,,?.?3Y\SO!]*GF.2PS_<[('H+L,B0)]/-()XYTXL\GC]SG\"L]4G,"+T$.
XM&:O1:^:0G\E'!*(S (.,7 %+!.P!9;N#KNRMRRS$G$.[>PQRCLU^YCRBW6MO
XM]T?;B<-]1-'>OF,Q2P,,\P[3J.;P-,B,23UP/ _$XD L"C\PW==V7I'K=5?\
XM,(YTC08@] _#O/W/'@,LPA("/WSRC\___)"#N1Q#6?)W?020*93C  \E\'_\
XMX'/TA(XH?#C>GC, ]BD%T&OS*($O?-2W=T> /_^@[T\XGX3 20C\]'[?*=Z<
XM$O8!@^C*WR#@)GO,(.+:#@ /X3(4$? 0OTH) 1#XCP!RAX#W^MFFGB6C/@!0
XM0P ,5[*ZU;A_'.$/#@0A8S1T" +.PUOS.,0)TZ1"#?XC7.&:V@!<-C4"\.,?
XM-^3'"6> #Q[:#!FC\,8H(E8=BG4G3"E*4!+%Y*(!&,50YF,B?+I3 ?6E#R5_
XMR$<6GTB-67AC%F$K3MF6@T02+?&,9DSCB\RS(#I%9SI%9-T1I:A&)=:1C@5:
XMD*WNUP_]]:>,C#%:@$RDJ#&=B(X<8M)_$NDEE(BHD7GL#H,<!*$KY(-B6:*2
XMAQ+XG6=$$417^DXF2Q1*[HQRD4OR4I;*^(]4?LA)4/*2E  9'CW6)XP3^H>0
XMBH,H00U#D.\81@0_E3(/A>I1D1JFHT(5C%[XDIF*1,D G(DBH]RH/6VL3^H"
XM0;%A,,M9DT.1Y0)!/  ,8UGM A6T1C2M=EWK'^7\![K<Z<VW#6,/[$J6-Q49
XMJ "\;0A[8).?YFA+'MWG #GP(^XZH*'HD:FA&7O;'G#WMC^XK)C_T%O+,GJX
XM'4AT9!^57D.)IDB7:91C>[CF%.73(.@0,:&LV\,!=(>B(WSB $8[0D3WAE -
XM'<%E>*O=1SDJ([M5%*1[^T'C%L>Y#YFTG'83Z)<(*LD]^FAUNY0>)P'P@V<,
XM ';;>9[0/%;.'SS/>L.CV>^B)-)J_B  997>[)#EI>>UZP^MTJ1WLEDG..:/
XM=0 \D@'?P4 #AJMQASC"(2*XV :."(+>VE0'/QC"Q49P$ ,D86.])-E,_1&;
XM5;WE0?7#GSE6Z8G?D9)>[<@8U')'M7@<DP,=JZ653M*EE;1.A;)#R]CZ%HUK
XMC*1\K"HVZ^S2M'<$+FN7ZUN^OI$ZNK60?Y)+W> R=XD%O55^=!6 _C0 &.SY
XM0'<\ -[J7I>-DFSI/XBHVP!DY[OA'6]YK?M;] Y7M,4-4@"6 U_SB!<2Y%5N
XM??<J23>F+KJ\E=(+YGM>^MJ6N-O]QZZ.J& &<[4[4U O>XVHE JS)Y93(*X8
XM=3DD"G=GP1_N#@*Z!8D#G! 2#X@E[\#CNQ;[X[\9,# <$6QB2%0 O/-%2&DA
XMX0 +RS@^;?+0.#S)&/0U&3Q=18F3!^ /FTEI /\E)&/X@6,(D_:/4JJ B$0T
XM7QRM" "F@P0#YEL ?US8R09 \CM$%)VN/?G.(7I2UZ[89"M[*,L=VC*.-9Q;
XM#A<@S$8Q"B!@=.8TKYD\;7XS2I@<-#G1>1QVIK*'IDSG'^QYRE7&XI\]=,,M
XMQS(#(C9NB3O<'0=8,20ERM ]T-R=1Q_1S5!"'Y<\- (Y^2XZ-=8TGG\M/SY3
XM.98&2+.PC]V='&MSQX:6D@,ZU"$XQ[K1M68SKOD<YQF 9Q"4UO4AX!SE].E:
XM$"L1B+)!W2R!>."_$?"R'WOL "<YJ=1CDC6MU:QM2:=/L +H-6/H/(!,ZWK9
XMG?ZTK@4@ /"LVTGIPP%X&)#F"! Z0CQF-9%E_0]\#%+?CNYWKJ7L#I0(0 0>
XM2M3O'+%I:4Y9Y3]@N;E-WO!_7#G+_H"X/R3^CWW8# $53_48Z1TG>'P<V_R&
XM]+9U[8R2_^/DDU;Y &3^C(.__$DR=X8GGUZHFV]:YSS?P:\14.,(Z!BZT6XU
XM:U@#CJ//.N1*][<[G$X4E+Q#Y2.0^3MT/8*K!T_F[A"L6$3-F _\.N=2YODN
XM/(2([DA WA(>\J%;/>9_ ,/M^[:U4I:.$G?H6@0-9XS46?[DW_E]ZE(&>*]M
XM_L0#9%GG&$#)XAF#""9;G)(83SN1$_T/0& >[K>6^^=#/X#1M]ST'A*1/PJ.
```

```
XM$C^H'HNM%R^'(,Z/V/]C]@- 1-#Q.^+C:KP!5DS)[[,=]Y'_P_-,B<D?C&]S
XM71^ T]+<LP.>'SR;N1XE_:"^]7/!>'B?/8Z[U6,-0&WI4R4@1W[!9WYF8#K_
XML( H<0"_!H$H\0"Z1H$/Z#O^(('I<P8FQX'_\ AT]@B_Q@\L0X(HP0DV@X+=
XM$6_X%6$3]GWVAD,&B'2:%QZQU &@!A[Q@0"/% (7!X#2-7F0T  <AP\S^'8(
XMZ!TWF(,"T1\$<&6Q% )"1V)D)"4-4'1'F'E&UATX>'S*EF9/Z"%2$@+_EW%"
XMV !K]P_@D(7 IX08!GDO>(:59V&,AH1)9QX@]H-F:(6\MVCC=X=N" DAQGVJ
XM5H7@\6H(T$0'"(@VJ&(_X G@\0'XEF80,(G=(0)EJ'L&0(#6!B(G- \ P  S
XM0H-;"&<^P &MY@,9 ![, !P"\5\'<(K@P0&N:  >4(O_I0"0]P@9V&,&$(/X
XM5B+K$!T @(J,L8@>@ .<$(G=<0 \D RLR S@P63.*(T"P0Q,9@#,8(T&P&0*
XMH(?'\0W^D&#@482#M W_L T T&YF9H?)*(H"08W/&(T.UXP\ (\&P _XQ@"6
XM" FZ2(C'\0K^8(@"472#M'B[  !\,(KN^ /+&(_V"(T"P036Z  \@&_Z2(^0
XM8';/AG;_(([D*!!IV'8",D.W P"EUH[[=@%P]@&0^(K-*(L"P0G.4(\MY@/X
XMR ]PY@"UF&;_:%#X81V\"&;@,8< DC[[D',!D)*+F ;@^)'CZ(M]>)3YEW\#
XMP)1(EP93*) $V697)'XJL@]3<@!8:8=ID(D?"0PA60"<N$CWL ]O^0!EN9)P
XMEF:\$DMD26,U%@.[" Q$J13 N$COL ^#*8D,N9(8F8W\X "1Z'$"X0#_%0-/
XM^0UJV6,%4(2+] W[H)D_,)=IQI+@P0,U*1 _T&[=B&^8L)=;"01=B85'^0O[
XM )M_X)GCQ0C96)H.AYII%@-H^0U L)8CN4A_L _#B4.'F68>@(U0UFX'X)C)
XMIIHM*)1 \)<%,(<@HCZGPAC >)S=<0'XY@&,^8JDEVSX]@E[.9F_:9E]""+4
XM5B/:V7/&>8Q9N9K+<3Y_X&2)""+V-F0#L)WR:9:]F9Y3T@]_4&U_V)_P29N0
XMH)71>1R/,)WF0YSW-DAN @"OEZ >8G3P0&MIXIX1 &=2\@#](8&0  %I9@ U
XMA@#A:0 'L*('8#KHF1T$< ]_D"'.62)K=V'O.:$EN9_]88$"\0<G^G[@\0<N
XM.J3-Z ]F !XCJJ3@X0<<*!#.P('T:3XX<R1&5Y)C!@!7YI]CXJ/= :0&X =+
XM&J1P=@1E(A">4*8&("7OYP?@$:7OEVX&X !' !Z.<*<!*J/?\ =L-TB)1AX$
XMX*4E J8P!F=0RJ1P9@;]80">$*4LFJ1PVH0JEJ8&8 [+<:G%L8L0.B6_\ =D
XM=I161%>#BJ$]VG-#)J:)*A#GL*B0^JC@D:;OQZ91B@"C:0!FP*9FP($Q:CY_
XM,$*^IR($&!^ERJ-?BJH_"F<M:I,'T*S@<0PK^@ UMJP"4:O_E6PG^@"F4Z5/
XM!J=@J1[PZ21.2*CZB:S=<0.QE )[2FH**:@!00#FDQ^-2JX>8JAAP*E_>0 L
XM4F^F>JS[,&1AT*L:9P'TNJ, RZU"2+#]6JCF"@D6\ $^ !YX$'LMAF\X8(P&
XMT)E0)G$"@0$XMJX#6[ (^J_)"AY\8)IY **IA**<@Z(KJX("\0FGAJ\]IK#&
XMRK D&Z;X%@\1*Q!X@&QXF8R1B&\Q@&P^<&H"F[ >YY@%,2515!+Q$0'X!@^U
XM^ <UEK'X9K7@@0FK*!"0\!M%6F.H!I#(P9H4=J-I9@&A!@D9 *(]:P!Y\))M
XMNK+Y<+4_L+*?8)IUVVP@>VAHVYV/! (?8)H\P+'-.8NF.9O+"1[QTVPTVV%_
XM"PF#D+1_$+F#@+"5:QYI]@,W*F#I$1\<T+>9ZQV;V[GF!;J/VUO*)25LD+0#
XMMERQQ 53Z'VJ2R)2,@>]^0_9X03!Z+G@05<ZTJ ?^ _]P;OF=1[ .YFZVQW&
XMZV ' KQ"=PBO< C+,0%_\ S7>ZZ]:U[ FXE^\ T^D!T#H /K0+[FPP@X@+[F
XM$P?/P+[:>[SI ;T-V@>/T ?],0#0$ 3Y:S[U< W]:SX<&*4XL+W.*Q#)BWM%
XMU ??T ?BBQ9H83X%< T1;#YY\ P5_+X%C"#R"Y1B9 BO8 C+,0 WT 4C;#Z%
XM@ TG;#YC\ TKO&N04 ,$W& &T+T=&4>LL;LQ'%L;K%U"2;S=(0F3R0^\];JQ
XMU1]4L)7\L!S-4</6\0U"_,.[R _] <0(W,1/W&1])W"+@,0A[ ^KX ^Z PDM
XM4'EJ!@\_8,;=L02]><54M@S^L Q'%"B! ICP"0D40,8%X$E,5IW_\$@%8,9H
XM# E+$,7WZ\5>?$1D3  ?$ ^+;#['@ ^/O+[;$ ?H."4?@ ^7;*4\\ [M1@ Q
XM\ ^?K&[_D&9+$,3BZP^;@,I') O_P,I3,IB#:3Z[L ^S;#Z@< ZW;#Z_, ^[
XM;*6[\ ZS1P"@\ _#+,JDS,6;]L5A7 "Z\ _-_,J$F4FS7,M3\@KG8,VZS ^_
XM4&H$ ,S ;#[)D1S&G,9K?,I9',>#8CX?T _K[,C[< R9% O;(,_F\PWQ8,^.
XMS ''8(R>#,KU>,S"^PA2W!U$8#JD;,H$;=!IO"/W$$;6\0I)G-"C3,[/<0\'
XM%HY77- 3#0DE0,8,0,:;R$@+P-#W(Y0#/26-$1\]D-)'5'(E-X0>'8-*$2>[
XM9W/=L0 M=0\;]I%L[ ][X-/=00(R;0$LK10N;3[C\ %);3[N< I-;3X8\ =1
XM;3[#X -5;3XM\ ]9K10X$ ==;3[&D -A;3[=\ AE[2$D[2,/'=%--@C^T"H%
XMH-!#^&H%D$-')-,%0-/?97GF\P/NX-?FXPP/(-CFHPZ:8-CFLP"_H-BRS N[
XMP M(_49*L0N^0-FZW >_\"Q3T@T'P-D>0B<6#6T\?<ISX ]S8#XYAWA3@@N'
XMP-I0#0<8  ='Q'*D1P#S, RW;3X>D *[#=;O8 Q@<GF7-R5^#=A3(@__@-Q*
XMH0ZZP-P1"IN/1 "[\ O3C=5:?42[  H[4,P$D-F9;3[K\ ?AC=8_X TW4-(.
XM>M)4M@#^L !'M '_ -]3,@NZ0-^)[0H+X I'%+$].ZBZL _/3  ,8 X#;CZZ
```

```
XM\ H'?D3"W=> [,@?< S_10#DL L3;CX;\ L73M4<, S\[ ;_X.%*L0&P, "P
XMX,BX< RX8#[W\ @K[B'(4-XWL--.?,KSX \O5@##.(Q3P@NZP.,1Z@K[H-]*
XM49.CZ=\ ?D0N\ ])/B4'GN!*L>#$'3PGUB44D-;YA1QL367OYX3^P %=;CXQ
XM< AA;N&P(.)'A(K\' ?#H.;FPP%NX.9@_03&\ 1'5-1J7-$7_0_=<,5WW,?=
XMT0)V;N41U@@GK=$'7=$R?L4%L(9U%!\F(->#7-$.?1RKP-8=X(<9[)YQO=%W
XMWE<>N0V*7F,7@.DRK.F0#GF+H-[^<,YJ1H"0X *0_I2@?LJ+ ,9')*]'Q'%B
XM+-<?H%SQ4>5D6^E=/ 7^, 5'!*>32@#9, [9@#V[[@]IUNN-WAT4@):S;C[%
XM049R30 ]< _=SKB^*R";'NV^3NVHKNK$;NRLIEK=_NT"P0_A3B $ ,BQ).W6
XM]>NRWM.UOLPKD6X$@ W[ /#@#K_F0^_=8>_+]>M3*.R;QNH6$&A(4.YV;.U7
XMW $0+_' #I01ENK]8?'=$?'3;L?Y/L1)E&20\ 08OR/X,.G_L K*\<-T@@]Y
XMCH[9(0DJC][_H @^S!PMA0\[3?-0_!PKK]:4_O(;N4I9D@&PJ<M9 @)([WA@
XMTB7.Y@WX, 9^=1PTWRH0\ M.UMWX>>,GI-KGDY2W-C!@OX)11MQ,MO6(_"1'
XM%$LL2/5U<%"_<!RZ<P"_P &JI??'P,U]/P/B8#Z C\]38L_OP,V'#P=S3 "*
XMSP.G/26.;PS\+/E34P NPPAA<+YA, Q=S_GST"6V_0X>$$L$,/J2#]8<\ -%
XMKOH>$ ^Z'0^_HA2Q_XU"GP:59 A8K[N&T [1S?O[D$F_OPM%+OS&30!^/<<%
XM$"BN$,S+[PN9Y/RZ /K1/WL%L'@[(.0$</V[P,W;OP,OG?WN (\%((KZH.,$
XM4/Z_\/WISPY+3@#LOPU@"/\#H_)S+S:^4/0GX OM<$3[/PB9Y/^[H-S2+0_?
XM\/W?$'A,^P[XX +![ *4_?P C@X&C@X[<$0[\ _+@/W+X J<3]4Y]_W[4'*Q
XM5  _( CF+PCKD/ZZ[ XC-"5SQQI*P1K^&/-63QUUGXZZ^PL,I10,-0S</ S\
XM$ /& .; [?JO' ^';Z7\  .+#P/#\ %QH,YQ8 SL -;L$,H%\,EP/B5N3O93
XMDI2P;SZPK_=M_@?"P [F(PSL\ /&T-?&X ZN/R7N<,]'Q!K^J/(E,%IV[\-U
XM7 !9@@0L5@ LI@,]'P*%EH[+ZV1>Z8]^+")/#PDH$/4H\?20D ,J7P(^<@WX
XM?PT<\/@$P %S8 P1;@R+S&($$ ^'L &Q8.&Q\ _&6  <4 <L1@!U< @>X&U3
XMX@$S< A@> @/$ \L1@#Q< @/X/I3\@"PCP6.C 5SP&($, >'@ .R/24X  ?^
XMP ZHS0YN$/L$X 9]#^(VY 8L5@ LI@ QWVO4\5=9[PZ9Y X +OU[%^#^H OK
XM$,SKL MBGW.@$."@H OLD$GL .#2OW<![@_1#_IKH@ONS>0+L O!O N,@?V[
XMX K^8/[^L ZN4,D$X K;L ^J$*&J0/VS]Y/X4 ('I0IV3[RJP*]34F_1;^#O
XM  X!#@ZZL [!O Z[(/8YIPH!K@K1OP-6N@.[ (:[\ #@$.#@$/V@OR:ZX/),
XMO@J[$,R[P!@E/B6[4.+NK13YS1I3X@J:J0H1J@K4/WNT3_4A4$F[D/M7L L/
XM$ ?F\P!Q -R^#0\L-N^'P $]T.8]\ _&6 !NSF($X :'P %QT.9Q\,NR_ [P
XM$,SPL L/X/I3\@#Q8 SH -;H$ ?!' >[L &),B4;D"CL<$3L  >L,25PX,1D
XM8#[\0 ;4/WL_B0\E0/0M;_0JX,>/A  WAMK_%0+.7@#A<&.H_5]D*/2]]NG+
XM6\<%D"4?6O:0  ).YI4/D/E3\@"9[\<B$OL%\"M^+"*Q5 !0XL>_X,<B$OL%
XM,/LJ7P('=0AV3[R'P -Q8#X\$ >[P,^[P %X<$1X\ ^Q_=K_P A'A/F+O_EV
XM5@!=,PX42P#C$-M=#P?^X MO8#Z^\ ;_8(P%H/<!_@>ZP [>-B7L, /' -E3
XM<@R\  ^G4/"G\%\%(%[NP,_NH/<F!B%"'P*5M NY?P6[0,W23<MH(,MHX&U*
XMX6WK@/WKH-\[<$3:;S[+'TL% "7.X-Y3X@SY?43Z_0&9;\F93_W3+0BZ+ CK
XM$,SKL N6/264[0Z;P-2;X,<BX@[F[PXZG@ J7P(^L@OXOPO4+-VT7$.[L <Z
XM:3XZF=_W_0]PK!3+X J+[PK#X RJY0Q_( ^9) ]!?D3Z_0K)_@IP2OW3'>"_
XMH OK$,SKL N6/264#0_!# ^4K5J^\ ?N8/[NL ZI5 !7$O.]1AV'D/M7< @<
XMH-D$P %], P+.27#P =Q<$1Q\ \+4.)3L@ E;HP%X.:9Y ;[X &JY0%_< SR
XM30#'(.)=#PLWEOF6G/G<<$3<\ ?!_ >[P "A+. QL,_Y[ ?![ >[X VJY0U_
XM8 SL -;LD ='E <HH?(E0/=V3[R/E (L5@"'4&IUO8)^W(/.7@#84VIU[7@]
XM'P*%EH[+RQPJ7P)$W_)&O\14WVN?OKS,H?(E,%IVO_,*,$MCR"*7V1TAP!I*
XMP1HL<IG--DLUFNLHT?,A4$F'D/M7P&((,$M/%&ALJ6(/$&@$\ "!A@ TJN(%
XM>D2!I@!(O[;G\P.!QI:M=$1+T@^!1@#]T ]G3Z,J_@?'H13'X8\J7P(^X@?X
XM[P<XL/@X, Q.@ ?FXP1X$ _<' _\< .J=0-_8 <<2P!V@ .8AM0L'J4S>@:-
XM$."-H OC (;C\ #NP"($X [WT _78#[]< UA\)($$ :>T -IRNWG4 @<2P"%
XM@ /S$/NV?0SSH%KS\ =VL)!38@=\< :, ,",\ ,Q/P(_0!UFD/M78 ;?T 7U
XM3,+',24W< >R8CZR<@VJ=0U_P  ,-24,T '!< OF$PRW4 _',27U< =\(-M3
XMP@=PT ?',25]< ?J /KJ</@78#[\< %=T WFTP7=T TL0@#=< ]TT WF0P?=
XM< XU1@#G\ GUD/E34@]A< =Y8#YWD ?W,/=3<@]U\ TJ7P+?@!]V8/?$:P?P
XMT 4%WP5W<!Q3<@=WD ^!1@#YT _8H%K8\ =]$&@$T ?]\ W1_0V_( _'<=QW
```

```
XMT >U8#Y]4 M!<!Q3$@1WH ZL,27J\ W]< WFTP_7T 7=8#Y=T W=P"($T WW
XM4 C=8,+=<"%'= [VH%KV\ >OD.ROX =W,/=3<@=UP TMM0\AP T1@OOIJ/OX
XM(#!3@@]#8 <<2P!V@ /CP,WC$#^J-31^T-]^X /C$-WC\ OW8/53<@]CT C7
XM8#Z-< UA<!Q3$@9W0 [130Z_T _88#[]@ UA4-MAX @X(!U3@@/C4 _0,27U
XM !UV5@ LKEHTZ@T<2P#>@ /CT A(W0C<L"/[4 +<<.4N7QP?>42L4:)9^L?=
XMD01IMNF0@(E"WVN?OKR0( ,L<IG=@0,L<IG=H0$J7P(']0AV3[PB>$0UE@"L
XMH12LX8\L<IEC$)X$, 8.$$L%8#.!QI;= 0&LH12L\0\U5@ UE@"S)"4(,$M2
XM(@$]'P*5] VY?P5]V@V^V@V-P!I3T@C?, V-8#[3T C8<$38\('*30"/( ]W
XM<!Q3<@=W\ =I^H3G\  42P /@ 'C8 =(;0>XL/BX, QV5@!=,PS=0-7=@ VJ
XMA0U_X FD[PF] H;G\ "S)"6/)_0EX"/><!RIH!S>\ '=H,[=4 >L,25U\ W-
XMT"-3T@SU  VJ!0TUVB-3TM!W<!Q3<@=W4*.^>@]VH-D$8 =]T YT8#[M0 <0
XMT 7F P%=P!I*P1K=T UDW0W7H%K7X*>JU:?W<!Q3<@]W,$M2(@'*(/2]I@Q7
XM\ W'@0T@< 5]RCV X %_$ YUP!HY#P)U\ W=X!3YT T&< L>$O&W0+PQ@@\(
XMH*]W<!R>@0AW< <UBA* @  U>@>=X!AB< >=\ YS_P\0H CO4 =7T TH@0HB
XM< 7=\ TV P+ \ T_T W=P!0BT W=@ U/= * @ U^^D0@  A]>@_'\0^&<0_'
XM,25T.$@[ @ E<%"/<!R-=P"/4*"^V@^.$.&.\ '=P&($T V'@ ='A <-Q"(+
XM= ]C$)X$, 8.X#I]/0YVT-]VX /O4 A6>L+=8#[8T WO0/KO0#NU/0R.\ &J
XM]0%_ (+F X+C<!Q3,@YW,$M2(@$MY0\I4&C_@ W+F\Y*,<=(X ^JY0]^>D2L
XMD:5_W!TJL"/^4 )$_P^H8/1+[ VK+MK8L+S,L2/^4 *C=1R--\4MY0\A4$F$
XM< >$@ V$4!T8$ X8$ X8P#V-@ V-@ V-@ U81 A_0 A_0 @H 0-!  -!  -!
XM@!(&< ,&< ,&< ,H$0:'$ :'$ ;BX@_CX _CX ^PPP@_P @_P @V$PR/$ R/
XM$ Q[A@_O@ _O@ ^"]0OX\ OX\ L>]P_!P C!P C!P @H@0/C@ /C@ .P8P<?
XM8 <?8 ?2%PP.$ P.$ R,^0\W\ <W\ <W\$2-  V-  V-  TH,0:', :', 8L
XM-@ [X@\EX"-]< =]@ I]4!SW\ 7W\ 7W\ 4H00?70 ?70 ?7X"'/\BP4= W?
XM< W?< VL\9%S\ US\ VG_0]?\ =?\ =?\$3\L.=[W@TH,?=S/_?'> ?W< ?W
XM<!PK\@;W\ ;W\ :.= ^_< ^_$"-W4 =W4 =W,/=Z/A,U\ \U\ \UX"'?4 ??
XM4 ??,/?_( U_( U_( U/1 ?=0 ?=0 ?=8",U6J-71B>K#D>,< >,@ V,4!TP
XM, 8P, 8P8/7_4 =84 =84 =8X"%D\ ]D\ ]D@!(P, PP, PPP"C?4 ??4 ??
XM,/?_D 6/D 6/D 6?%@[KLSXHP0@_P @_P @V<P]W< ]W< _'\0_P\ ;P\ ;P
XM\ :.! ^_  ^_8'3&00!W0 !W *__T /!T /!T .C8@4_8 4_8 4V,PP-, P-
XM, P-@!+5\ ?5\ ?5\$0%T 4%T 4%T 4V4J,U>F4[X@\E<%#U< ?UX CUD!_W
XMT ?WT ?W0$%U\ EU\ EU\&M_4 =_4 =_,/?&\0UW\ UWP!H?:0??8 ??8 <H
XMT07WT 7WT 4QX@_]X _]X \G<@??< ??< >LL2)W< ]W< _'L2)O< ]O< ]O
XMX$CW\ OW\ LQ<@=U< =U< =S_P]]T U]T U]T TH<0;?< ;?< :L\9%=\ U=
XM\ U=@!+7\ ?7\ ?7\$1UT EUT EUT DV4J,U>F4MY0\A4$D,< <,X T,4!T7
XM, 07, 07(##_T C0T C0T C0X"&%\ ^%\ ^%@!)?&P1?&P1?&P0H8=[F;=XH
XM$08/$ 8/$ 8,Z _CX _CX ^PPP@_P @_P @VL^(KWN(K$@;W$ ;WD/D-= ^'
XM< ^'$"-W4 =W4 =W,/?_@ G=@ G=@ G=@!)T\ -T\ -T8#/?8 ;?8 ;?L*3_
XM< -_< -_< -/5 ?=4 ?=4 ?=$#Z', Z', XL-@ [X@\E0/3(@0]DQ$3_Y0,A
XMRD0G^D@'L*&#1"< T&L>"9+(E>GQ3L3QWD0[ @ E<!_;H1I=4QNZ@1NX@1NX
XM@1NX@1LN,0")"!SA   (4!9G005I :\HDA;PBB)I :\HDA;P^@\%D!9+X1=[
XMX1=[X1=[X1=[X1=[X1=[X1=W 1CI,QA40!1&@12OL1U) :\HDA3PBB)) :]/
XMEQ1+\15<\15<\15<\15<\15<\15<\15<$19C(0)E<194D!;PBB)I :\HDA;P
XMBB)I :__4 !IL11^L1=^L1=^L1=^L1=^L1=^L1=^<1> D3Z#007OBANX@1NX
XM@1NX@1NX@1NT 0 :"#%!3$E412Y33D<   !O&   O0KEE>)[@$L   S-FLRA
XM4X=,FC?-! AA\V;,FCD (!% $D9.FS=NTHP) ^!,G31T*D8D8(1-'3IE(A88
XMPJ9B&C=EZ   4/)D2I@SD:1!$T;F&P!N $QQ4S'E3T@#A+@PDH8,&38IA8;!
XM X .QJ@L7<*4"<!*&C%E($(J("3,'(AB"7@%"S'F3"%EV+ 16^!1A $J#8E@
XM4& !@ (  $EH,.  @0("!%%0@( ! @0'$)508&"!@@,*#*%@X&#!@P0# *5P
XMP-C!  $?#  (L$# ZD)#'!Q (#N 8@8/ A"8*<@(9 ,*+!.:T*  Z-6$9!1_
XM?'IX\>,!$HUPP."  P,&BK@ <41.&#=D<E:\F'&C5*IPW"(]\C&DG)%9Y;QT
XM2[/ER:-J#[)Y^3/HE#=P>.?&44F9)98!9<EG%4Y=?1662B6%<1]\&)UAUD@1
XM3L@5%7*\T888/X6WVE@BS!#  "<&$$ ,(0@0@$36O4B BRY&1($0 I)1AAMB
```

```
XMU"''&2 ,@=$89<AA%0@R@"!&'B"4-08:,_WS#R S 1%88"H.4D @:! 2P!\
XM?,:# 0E0<4"9@@"0&AB? 4'F$V<^H:8!8,P)!G9,'&  $Y\-82=V3>C9A)UM
XMOAFGG7_NJ2>?"?"0:* &#+IFH0G 62FBDR8P!)EFEHDIG9\A8>BE:Q*J*:=G
XM4@& (*5FZF:EA[9*)YZ+]OFHH*:^:JF<LMZIZ)YBWAIIKJ/R2J>IFY:9ZJ=L
XM&B JK*2":H 2A.Z)JJ</1,KJL6MB9X6>5GQFK*]F&J!JMP9\FZZXB6*A)Q:)
XM9J%G%NRBZZX!\*(KKP'T1NOKO?E*^X2WX%8;!7;EGBLP=E/H.87!V$6A9Q35
XM#FP G!=#;*Z>"C=K<<,&/)SMP1N;NVV=Z(9[<<'H4C$RQXFJC+$5[;Z,;[S9
XM8IQ%S09(?+.^.<_+L\\!^RHSR[.::W/'# <=<J)1V$PQNAB/"RBNZ.8); )(
XM ("=$GHJ<?*?7(=Z9M>]TKJUG^B"/2W92/1Y-K/85=VFL)+.F@"C0)S)!-UE
XMBKELVBM?'"RZD.;MJ]:,=OUUV&-W6S;7<Q/.N*UMAPVWW%S37?@3=R..M=Y\
XM^\VLX&5RZKG=C4(]<:)39#N$PUXK;<#L)A.N;K@,L)TTP/$*G3+2_[Z;:,*)
XM@GZ[GE;;CCO3Z8+[0._M&J^O\$GO7OW/22,_Z>UD;G'F%F'>'GG2^_;K>_'<
XM&YTM$L0C+#O,W^L:J[2.2AZ[IF<^G';@#.@; SH&.Z@E[U&)RM.EOG8^,$R,
XM3&BC$^W6]#H*/LV"_I.@N>Q400UFT(&>ZI6>(NC MUGP;Q94'/, L*@&=K"$
XM*C2A!F-X! [*L(3C&ET)43A#&^9P3QSL7*_$="U5-9!2N_+<Y32%-V)!:UP)
XMK%7K1#<L5Q7K=*=25@BY!2JN77&(6>R4$<%H/W]%<6U-M.(3E2C%_"4M<4Y,
XM(AB3)49F,2]4;[)AQQ;%PMQQ$89ZM&$,]UA%#=(LA38\I 9_6+056K"1&;,@
XM(>7$,1<6LH2$'*0@;?A!'4Y0@X149 DA.<E /K)/9()7)8=X,3)]*P&B'%FU
XMIL"P3S:+9-Y;&"S/%,N>S;*6%Y06+NFGRU?&TA"*RUGXQF>P7^X2EM7J6+9H
XMF0#Q5;-\43AB*Y_9RZE)BY8AL^7($$9,C[F2E\W\'CA!]L%QEDR:E3HG-.>X
XMS&O^SYB HUD#L5,T QAB9_;ZTS\%"M"DD2^@W1JHY [ZQ[H9$%T?1%C,:C>%
XM?;9/HNCR)KD$JKB(3;1E!01IRD*J-RAF*EG6))\V!\;-='X3F.WL&3DW^#V6
XMXO-[&ITF3#662W.V=%+(K%@]&7I+9]Y46M(,V5"QN5)Y=O.7X0SF+6>:5)NB
XM$Z=092=/RRDNIV(1I<S4W54-"KO/4 L[6] F$S!JT <$]7MKI6E;W]H]MR:S
XME0;H0K7B"KTNV%6HZ4K4%_Y:4V]I[ N %25:"2NMN-(L6TI JUK9VJS(&H"H
XMV>(K8(DJ/[HV:ZT*E99EDRJJT/IJ"V;]:-+VMS[#4NVAHJWEI2!;-XOZ+&H,
XMH!;5')FTV\+.EE3]K51I^\YJ65:K&9W8]'2;M*IQ] ">51L/?>4VYOK*N=^+
XM+#*A.RCB5LVVRLUM\GCK*]]"%+C%/>]PIQ7<[.XTN3U;[G@C.:OM1O=7TWW<
XM#?5+0CT=P:SAZV,1]EG-,PTAM2(TP'^W*4H]%8&Q=WKF@<UHP<@F8'_6'2'9
XM&I: _R; NLZ4HS!M:&'07=B&_55P^%+K8 );<\(@MN"";6K#!T=7PO7Z8]C(
XMA&$4;_A,'HZQM*SP1:22^$V?:3 0*8A,5_;Q"98DF48=QC ]RN^&#XSODCW8
XMM _[T*$5_EJ.<0AF#4H9PE26*L>NG&&9:GFZ:>ZQ!2V60UBZDEV6I(+\F(C!
XM*EM0RE^F+P@M+&0')J()!CBT'5O)@!].6= ',$(,X8QE9W&*7= =<((?+-,M
XMEO# :C9$$&1I02!,TX8^T.D\-0CJ/8J:U*P^=:E3^1E"KL_![[/A@ML<-VMY
XM.M/9BB&G*7F[S(Y-3T' J>I&^+U!^3>[?41"L_LXA.\EZV'/%JV :]K'(TR;
XMV8U=]NV^;0 @<%M/U6YLM#/5-727*F(4W-MG_L8P"] I30B#J^F\16Y1X0NN
XM?;2L%::=[\;N.UW]YB? =XQP:0VJX)\]^, =7CLJZ#L!%&,8P7MV<7H;X@D;
XMC\+%*19L0=C;5P^#>&8EGO!_JYOA$V_6P\W5\=K%/-C15OC+V=MPF5<\WO3N
XM^<\EB/%Y4[14BX)W%RFVYI AW5H<[^+?!-'T)YR\=DV8U .<;2X\/1W1D7JZ
XMGB_V=:77J>IEC_K9NQ[V8VF\BUP'I\B/):BWL\G+:;8XW2/%[RX2&YQZ7SO8
XM;^YE0=2[H?A:%.@H#4XEQQ62X"SH#M'*2>Q(/NF7K?Q%\[JH%^S-A@<S!%$Q
XM[U<AFAD[B#TA=NX>0Y*E7H-QO7N[W=R%RHC!DKNV/>@SJVO(@G[UO)<QZGW_
XM9^SX=<LE/((_45OIT-,+^?ZE[0(:^?'@:W#!_?VXMXA__3W#6?MJ5G%\\:[]
XMC[LP 44@4]1,CS)07OG1ZW1KG0]6=(PO&@O\-+H%B1S8>.LY<)_'2IU2>PF@
XM5^ID0_B'+[662*[E?DKS>7%V?O2W?M-E9;8#?TWS<4$T@9^A40B8?P%H2 T(
XM0O_G,B'8?LTR@&1B@-]D0W'%**Z&:)X%70.C@5F630FV3A882MM7;IH7.SXH
XM27MF)<7G2ZH'?6Z&@>$W=CRX+D'(92&3+43H@"8XA24$:/&&?PD +Q:E/2W#
XM5>7V7M+B)CWS0I2B0!5H18D )VOH.1)3= S@1ALU/(+&3SKD3_N27Z*G.>C2
XM!2-D=*CG7Q950@]V@H&H8-7B;W[H+,9UB#6$+H2H?TGS!?Z5B,:G8>YE )2(
XMB)"(:X9H &( 7:VE086H48Z8*(L8-X:XA_O%><[2@;6SBXMB)@86[?
(B4D3B9\HBY;HBB1$7,+8B=DAB;X2BH8PBL!HBKWXB!JDBFM5@"1F
XM,$EGC4%C"$AP1$U6@'QH<,A'6__$77N%5GP$5(@&CC>T<N/(7N7H69F%CN/X
XMC8MH7=M8C-\8BNV(7XT(CO+X*^-"6PG C-V%7]ZXCO>X5^D86_%X5W$E/O6H
```

```
XMD.$8<>^H7?(2D!'9D&QBCQ69CX2RCQ_ICYEB8=\R@W4(BJ^S>MQE49O8/(L(
XMC1(94:X(C2^)BB]$CS09DX)%7BQY7S?9ASEY6<!5CG)U6K1SB3WCDCY9DXDR
XMDSAIA)/8E#R)+E IE%+I*T'YB^:(+EOI*U6I-U<)2LBR3('E,$?D1076/O&C
XM@/QSE)9'/)0BD9"D6&[Y/,'3?UTT)FL)29*'2@DP2HGD1!))2.V419C41U9@
XM25J(6NQ'/$V'!9@C@OSR@=44.H9D@9+)9Y1Y>?BR8G%H0YZIA2@(F5UG3YEY
XM2N"SA7WD,N:38/S'.[?&=DVH9 GHEY;W@6S)+Y8G.[HIF;?#@.M"/4)XE''V
XM>UG)/&6&29059[[9=*XY!)84F],SFTPHG+;)3Z*9FX^DG1:4!;T9G-VI@.))
XMF;*Y@S^(G(]&9X+D44=(;);5!.?W+&D(>XLU11ID69)GAY-CA=RY2" XFX-W
XM/'X3*@>47  XBIV$5U78GGHY>6[I* R7!19E38QBBRQX)X;@A_+VB1F*CAV*
XMH4]9H)^XGXD7HJJEH9URH2G*GRRJ+R.*HL9G228)BTS6>GAHHP#*EM\8+O8W
XM9QS49'FEHQ Z>NR5"/WR:$6@:V0B!D2ZBR5D6:7W:/YFI!@)BYB'!=HD,8>6
XM:+VTH%'3=8F@9,H34UR*:&,Z2WHT3FF*03D3DH&"<5Y:,=B(I'/*;6[:9&UJ
XM9F\Z9VQ*,]PU31;E+FNHC,O7DQXJ4.+3AGVHJ/U#4-7#FA!%H"<V4O9R (Q:
XM7_NYAY\WHVFSH7$RF;Z"@MCAI(90!/<SJFZUI G%H28VBA]Z62OG+^%I7?QI
XM8B3TG_\2-+3JA!UE.PID-880IK:J9?##FG6SJFGY+'$J>=42ITDU79\!K5AT
XMK![(;F=RK<)$)O*2 '<UD'*: -VJ.*;R+)VR,\MZ+<[:;.HW..J6*>OXA@3$
XM;F02I]HJ>_6:K:?3:>-*IYE"?_W*2N:Z+.]C47;# +E:AEGI3Q(SK//5/.;U
XM1CJ4+6/B+%!*L5=S275S1Z$)7Z8XK- %C=C56T,)1[E81.73C:PD@PT+C;<U
XM9L&VL8*F3)%RAY13-@M@4J1C.M,6;TTP/8C& .1Z0M=H0=G'JJ1(;9S2A<A6
XM/:<:,TU[J4][J>7I*QF)M$:#;DZ+M0[&K3Y&15@KLPGK,V$+LAI;,DL:,8+"
XMM%7+L'=8.*UEMK^J-:.(,;98+G'K,[;XAAWEL%^8 $$ 6[[RJQ"KKX!B46Y#
XMDW!B"-"3N./%N%$$N;OUH&JCN- %/7%JE] (*<6JMVF4/4T)*1D7/=IB.2$+
XMM2G).*C;/'G"C0)5+K:H-1];+C^TCF3Z>UZ&2!7F@NTIK@'G0J?JM4R68<&[
XMIPYD"+P6I+QVIQ*$O$=FO)[$7JL&2+O+9(\668G =,-J2:*2O4%*I>KWO5]K
XM9BBF.G]&-F;""%C[)][;*UB$O1RJ3ZRT5HD0OW!ZCN#H:1"VOS/K:QPJ30')
XM4O][OX558.T[8GB*P* RK/(D)SFSI5Z:JFZ54YUF)HJ6P!T9KWO5B$BJK[D8
XMDNGW3!1<C-)K30,YM5VT/C'#.6?E1Z1JMJ"3"&&KL,6*,4J 8"0;73#\ #),
XMH*VH+C?,F>32E?7E,S$\PSYCJV8;Q,5J)O>E+B8FK$",NDQ<<2WYJ4;,PTA<
XMD3);Q<FEPUG<PU_XPV$CJN0$QG<DQB2[7V;+*$U,Q%EK.+U:+M!XDJ-[+U2P
XM3T9IEWC<B'O<B$2Y>7[X3SB,E((,79NZB)Q%=!^ZH8!LOYG(682<N[\#M=;(
XM3WJ\+WP,AA@IESQ'ES@YR<4*RD)I6OZDR(D"0HV<H<0%R;PHR?U2K/WTQP1C
XM"(N98.")FL>K9#ZZCC\42M/*8Z;D0<$\O2]T1]X:8-4+>\7<8"AI8NL(IIQ4
XMS,0&96!4C75$.)O) ZDZ@I32*3I[6IS3/'^IENY"82E,)B 4SO?9-[UJHMM\
XM*-Z2EO2[HHMF8O6\29E2SSRK8\,Z;XE&2#FU-P&=JJ;"SY*J8^.7ST":0@!M
XMC2V48#_KK48@ 1E*7I!EA@(I2-/J0\:ET5I3NQW=T#/TI$@8Q"KDNA6&I7MB
XM21/=!&;P !?=OVY#P2'-T=[JT=D%TN0E*--J M9(TC!DTM5XO4G&NW08Q*.[
XM+RJ+>(O[8(P C?LRPT^=EPEKPU8]7\5ZM?-EB_=2PU+4//="N,@,/6/]L.QB
XMARU-.*([/=!X+\TCNDZ[N>5DAWXKL7"9> M;LY0;/9*+U[V,NOW$U_1RP'$\
XMV)#2+S.W.Q:5)PN 6HW6HLA',)69-=8#NGW=NM"C+C3IV+.;0(;*N$VI-1,]
XMNQRI-D$L)_[DQ$U-JM,RK6>RU5$YT:-\VOP"VY1\6GFY?F_=E#[Z2K\ZV$DZ
XM5KI]/>,7W+[MT_:WVA&->+T<V_$RVX5,C[:HV-!ME;M-I&K=/+]])L&-,QA'
XMW)2'E>OWJYS]NI>;6I1]RX@'/,9MHA*YR.Z-/M@3QYH[E%[X.Y=MM?5-C_*]
XMWW%9V9BM6/FK5Q6J)XN</MLSV/D=86]XKP6="/-*=$3& *(TS,?[:.OYT7QG
XM?^[(!-HT>-<=;NU#7-V*M?-8XGP7/8![CBJNGV>"XE!7-#'+XCX@5'\M<P2#
XM?BY.XSS7K8$+5^/-BR=>/H\7XCN.CS,.R$4NY"HNXBWNY#X.XSPNY<_JS7CE
XM+@P0Y Z'Y9H%4=.=UQR6<DOYJ1@34=NUUZUK8OZ9YA][YIBIH7)MV=67 &T^
XMY_7%YH^:4'VKYPE=7F5EYWO>6X'NSO"",&R[/_Y9,M#8,'5NA5FVV0X3YS/5
XMZ#1(Z8QNR;$30.UBR8,-/6,NV9URZ"%C43U%V31Y+W6,7J=.NJF.WZS.,88:
XM5??MEM)J:;0.R*T.,CYZZ_Y&-.5S7.!BZK+^B>=-M;R-NC29,+-^[/H]?JLN
XM550UZ[P^C,">B=4N20]MF+L7KJIT,1:UB"\]HI/-+V7\HP9EV^(^TNE>[ONB
XMU-M#:1/]0T1FS)%2R*8Y[X/IT!_F9,-..!+YHO3=BO>BBN3,Q8$L\/Q-\'_8
XMJU-\0G9EO@)33K42P&#HN35%\<#RC:KBCGD,1O3GZ&TFK>'JZ)-F*B$/72/_
XM8\C$PR>?*2P%,I1&\C'?T^,83Q?&D1SYT"!#;" ^1-_8L!"Y\WJ*YQZS\S)U
```

```
XM:'#L--):]!J-\1//: .IL+=N\A6S\WMCT))C*35$8%S/1FV;YF$++=+HVG3[
XM7-EA*BSU]6!4\R=H?1D\*F4/L[[&87]C5VFY]D &]A.&YI""XCC/]HA'MY_A
XM]PZF]G*_K]5H]P3L=ZFT]]<LS/1L! \PX7=G*?5Y=PITK^+2SRAH5D!-!4?P
XM"$.K-U%SP7\$8--+-J<_*&FI!"=P:)3_04%TPZC_^1^F]41G^Z4O>T ]!?^5
XM^0\=SGCD:0>=1\MZ GM#^9R?]8E 0N6*J;W?@9@*_6L"U*U_ (Y0:(G6^\*<
XM8!<:OE><^@2]1H0#,H/=L 3.8443J6A.X.=,^^JUR V[GSFORZ"=]2?F3_(9
XM^= B_QJDA=]'X K4_I=:J?4%_X/NVB!#_XC\8_@?;P\#O#'4/)L(C<?[JU^I
XM\RKVYSJOI[?KE4-YO+_ZE;8=_S87994!23FDPWD81,JW".LJ08D@RW_" %J>
XM^<Q2K7.S>FD)5D(LA=52L?>RZ/O"Y7<'5D(LA=52L?>RZ/O"Y7<'5D)<KNI<
XM.>0/5D)<KNH\-VD)5D)<+61X+U:(L>9N %Q^=V EQ-5"AO=BA1AK[@; Y7<'
XM5D)<KNI<.>0/5D)<+71$L*_IW-)#G-U3UZ2[R9NGX%3KXYMB[@+>+)NBUPPN
XM/<39/74=5309L=?5E#TE.SLE.U3%MN<YQI+>U_.]\/"\W[(3X'\)/GK-X-)#
XMG-U3UU%%DQ$;82)&JM R1HBW?L?:M]!(QP::4$8,-6:3TPGELL5^U:>+.&:#
XM[KZ2L$%\K)M:K)!B@E>-7B_;.6X+[H1C@F"C].PW@O[DHV"C].PW@GL&-DK/
XM?B.X9V"C].S'L%!C5M(?XP=:7[0M_3%^H+UE5M(?XP(%C28(-DK/X_.<8"96
XM8IPD7#XZBCYCF*K_R\H>YG3L0UU5J?GI@JIOI.:-S&]\MCUO*VGI)FLXZ*6Y
XM+G:>:+],+&LXZ*5YVW:>:(Q$+&M(W,2RAF?R>J7IEFZ2J26D9%68:']G6VV"
XMJ4R3XR#HSG7\NFV"J9O]NFUR)H--D^OGSK%JBQ-MZ ?:6VWBKBCWNFUBN.F2
XM9T0$O7WMQ#XJAV[[H,7.EX^F6+9<[')8RQI.1+]VUV!9['*(CG>MH?NR?G)H
XM $8 UU#;\JTS4S]/_M=V .+%2A;VEXQ8DL)+_LGR2NN:SL^TKKK$8;V43#C/
XM81=^4@V\*O3T3/(?6^)*W+E6DMQ*W&7Y3.N:SL^TKKK$8;V43#C/81=^LFL$
XM6>EZL]:?-$LTBM55EC=K_<V%S(MNLEWT*FB(17R9S4Z-S'*8L7,K18XS+9 #
XM1L]RK-:?-$LTBM55EC>;L%>-S(MNLEWT*FB(17R9S4Z-S'*HMEDI.SLE.U3%
XMMCXZBO.]\";:X&K]Z6"X*9]3+9N27@-NQGHMW/U-NIN\>3TE.TLE.Q:5/F:L
XMUS[N;PTN.^TUAD76+'((F*$^1 [@)@Y@)@Y@^<S"+*M2*F/S#Q&Q 1H(04Q)
XM5$4N4%)'     "TD  "]"M>366> -   #& T  !P M_  08&%J QT  R ) 4
XMJ'BBH@T  B!: &  K14 "AT!<(#&2R$ $0"D-1+&ZQ^D ?Y<!)%6$D" ?P("
XM_?OG#\"2? -9<%$1B.9 0 !6!+EH% #2GT'U$&WZ)^E2 K)*'D#*AH*37 -/
XM^%("Z(P"4 J^#A0@ U0"(6><+.5S ( 4L !8Z%*28V" *&8L\/4+Y<Q 5E/R
XM!"5C9J H, X2^W4B.2]C(C/X75S,0'$ OTP, _ C1;%-)@C %MBI[P&2<SR!
XM !, !-\_ $ * # "3"V #=*8?/OSKW( )F"8*#$=P,D9 6J$=+;I5PD;'-,_
XMGS[CHG3UU !6_VO].O;LVK=S[^Z-EX(YX<2-*P$OOK63.1 13'@'X,!.1 #L
XM%]Y_ CA1QPL!:N;?/P!"D,-_  "#X * ()C !, 0",('!B+HX$[\$(" 7V?0
XM(V "(!JPH8%.6/$//BVX 0 "__ #@HP(,  ! "[()H4K,Q(!C!GNW#@C!"7-
XM\>.,1B* ) !N+(E DT^>(24(+M3HA!<LNFBC"S/"@E=!9DS9%T'X@.%"DTI
XM8 8%5^*H(P#_F*$BF B (0$8!,0Y8YMFT(/EC%MV6:,0E_S  P @^'8".E0\
XM,@(P ZU@B!"FL4 -&"+ D"DUT2 3C69)07*2:2A( $,D5."5JG=Y43/=CK&V
XM00T(IIW #P00( '(#)3FA0>N8>U:D@ NX&6IHHPZ"NDC/I0T@*/(3!J4(-$"
XM4."8U0;+ C;9$D ML /!X,(9'@AQQ0L\N$0 N^XR6P"UWVCV4EIX76"#"S6Q
XM  .S&C@;*1C:XJ(NNT$YP6P/SG+Q"+E)P;)<I;!8)  ?_%9J ,(O ?+#F2O
XMPNP/SD+Q""PE=6P& 4(  88 < 2 85#H#)87.HW1YF"Y*/@* Q"AABH"'T%Q
XM 0(,F !@;5[JN%#AH@#T <#'%(]<\LDU2;URRR_'///--K. LTWJ^*"LR(OZ
XM(/ C0IS) C '0\V"$V$ T(\L6#R"X,(-/QPL##!8!  J.P, 0\^ _!PT,D-'
XMY0(L27,\@ )4&_[OHB2/B8[)V2J ,  H&%#XX3X#+2KC1.>EQPM( U#W !"8
XMK 009N P.N**G]ZXZH]'#K4?_E0.N-6:FSR!9MJ];7:YEP.@MN:1UAV .; 0
XM+4"9QU,'MMMC Z .&"A(C\S78I_!0;)AX?/"F07Y=@ I>8?-C!GXR'\& F&C
XM<P8R#/0E ,VB\43&DD*Y11F 6I&*UD[6%Q1U,)!I\J*7O287-F"< 0FW*]WB
XM=L<"/1PM:23QBS^6!@,5.,TW&/  ^M#TP!+6C1]BR!N"W >_1\1, F<B72!,
XM%82O':YM- .# :; O6P]P5ED:8,"\F>8?C A;@-!P=06Y82^)7&)W&NB"NQW
XMOC&ICWWXH&'\W#:_,.;K4HE:5*.@)ZE@60H&;L,#,(CV#Q'DBA\2 ,0*EZ7&
XMM0UP!:9BU@&Y%:F)&<X%9<K,3LKE@N4=\H'?@J0@(LBM>D%D<H6J0XM>E*T%
XM(!$(HO%%M@[@+&"D; #_Z  0>"*$+/&# 6!R T_N!TL .($G9E! !XAV$WX0
XM# "$J"4<9IDC,$$!ES*XX9E4H HD[!  /0P6,PNG E;X2@I ^%HUJP< -^D'
```

```
XM>0.I)AB 4,LY$+.64\"E!CKYR3/(8Y3. H,%:HF'<X()"[@TP"ZU52,(N-)7
XM+VM9)C?I2P5,049N8IG+1$"E7@%"!#)B@ 0BX$Q8!,%'0&* E(1T!FO$;*!>
XMLI\"LO>_O+@!#!RHVP/8X8*,O@!/89! WNH& #YD+WG, &F-1N".&94+!(-B
XM@)C29P8&C( ?[@J*,\"  )YN1*D@R*$*2+(3?V!B:2N0Q02  H 4>&,@*>#&
XM5L$*CJ H E-!,49F )" H"!C!EQ% 9#R(@V=\D,(@%B:7B 6 "7 @0P08P%@
XM@]6<P/H""<#0JS#T:@NO$38*Y'.#7:<3 [>R00>><NOB1A64(@$) ;!B 3+,
XMM9$I  &Q,L@4,J:1#-9.@U0L<(<( !%:9.B4'M-I:UZ0L35 @($-F=UM%9"P
XM6=BZHP7'Y$=P13L%XIZ.LWDY[C'QL5QD-'>#J8OM!P&06K=.(0FN;:UQIQ )
XM);CB146M@FKQ*D0^84E+7-*DEXAE.!"TZ0P&X)JV:(L7&  UAR 8:EZ<48;\
XMNDQ;9@!B7EQ0-P& (:H_%3 +"&Q@@@D "1:V 7W]ZZ3^-"8 9+AI4%P !PC8
XM\:<3=:8PB 8!'G[M!9[8, AXY:LYXH9\YI QC0%A8Q"0#Q$Z=JB-'T ^:]SE
XMIT&N,=%\_#<3G$$"V:M*5\6JF0>8%0P4&&M7OSIE+:>@K'E11))Y3#1@D$\9
XM8[;Q!W*W.Q3  G!),VTPXNH*B,& !$>N;^%8H PE1^@,/D@ST?Y /D/DF<-]
XMJ4M>E'$&#""@+PE9]/V(&!1#"%$*;K,T"00-@#\@-H0 4(&*L@F-2A_:OF>"
XM\1D((#T;_-(8G/['J7])B; A$@,TI06$ZRMA"NL7 )SXI9A-X]\=^Z!" );"
XM)>K6#Q#D[=0T'1: >UW@7X,!#'2SFQ&P*@"SC("K*RBI?\. A%W[E]H*!8,,
XM.,4U%J T(-P4A&'^@09N%N(,A."F(<Z "V[^XPS>D#&@[":,C\:7H)?N+U")
XM;5\(G $>,N[P <RP)H9#0(H!\/.:3=?F-[=.SG0VK!#1FA=?Z%0?T]%!6MDP
XM$$HLUQA!(]4*; &#_N(Y4\:PF:I9L&=S^&H<0,!AI9T)B"!T-R_&<*W,;2$#
XMVN)<GB^/>:5L(00HA-88>[9&Z7:7 GM H'6^.CH+DB[>J3?]ZGSZ)3CV; A?
XMP>),*1"'C #@#+:['>[D$!PO;,;,,_#*;5H'Q+&E1P0PC)2KU0R*-<*&B#-0
XM  2I>P$HA)Z7M@<""<&(1C"$ (&PF:/1D!^(Y"G/ LMC7O,0P L+%N\V1)B!
XM"EG?>NJZ_O6D^:H'J_2'N7@R9$ 0S53D,X.62Q^4,WB9&T%!@P_.&[Q%#>!S
XM+#"#].#@,+LV"0%2K,L &@, 0U#ALTV" 03(YW>W71 0;P>KW-,-LP"0_H*!
XMD 7>V\"R(+Q,#@$H^JIC-LZPG6%E_$<#W\<D.")^0P8-OQ<@WI)@;H,&3>(#
XM@>1\T"=] V$-U7=P7N)/;"5[8.5U8$=F /  /\-UYE![ . K)Q9JKD !8)(
XM2" (2" ,TR ,*18(%B4:B&!(*& *HN$'&NB"B0,$7.>!M@>"#^![$1)\]*4"
XMKB !+>A,IQ<,$U!J>>%W3QB$0VB"?N8:P !J*9!C0F@:3,B"&PB#,B@,$! )
XMZL(L C"!86  %V@HXA C,_(/]- !,M( _R /.LB# R$)-V*''8 &-L$32@ F
XM#W &_H4C%V<3?O8/<C  9.@:@H .0D ,1/, DB $PZ 9#+!B=,)#$#4C$P $
XM-I$=U6$&(@ &&-!0OG)LOA$ AO994P F#7"( -  9B . =%21V*+OO(# # %
XM5\ L#$ M>1.(]! !LM03?84JJ& 8!" #,6*',X*'>YB+K@B"\,!-IH)106)!
XM%7814X(C2H!QAC$ =-!*/.%//,&!2<$(6DA;6>(/2@  9D .M<@3M81*_F &
XM6- RJL03 ZD/8. #4E"/[N@/OA(,FN$ (""$V26/'^B$[Q@(4Q $G0@ #M 4
XM+, ((A $-6A1;Z!/S3@>M20 N*0+V*@//+&-Z==5>:<MV@"3<"=WVH(,L0<(
XMIG4.I]6%RB(++;!*[K!/-\%2I^0D]=B0#PEJ'XD@RO92_^ .=:, G& R"\F4
XM'!F1'$21F)!Q@( .LI&)N/</ZI"5@."0'.F4C!"1 B!%5A8 <"  %LF0@;"1
XM'=DO("F2*: MSH0.00"*#\!#:LD  XD/:*F6#L"6;@F7VK)[ZE"7SC0.8%"6
XMY@ '"2"9@4"91@ $98D.VVB1^.!,T! $;)8Z*, -<':"P! (FL$#9:D.J&@3
XM2F &)I M!O #6:(.L2@%"71>Z   5Q ANOD/YA"+9# P3) MAE"<ZL L'(",
XMT%(2A\ L!P 7T$DM#B,#68(.@E!FF->:W&F<F <(@; WBQ*=W.(P: ETEAF:
XM63*:@5":W&0!;S 0F@"?+T*:IFDZT)6:/7!,Z@"9X#"6(?B9D&EC_Q";L]E7
XM9D "RV><SMF;OVF<4E",W4FACP &,!"AYF  P^DQNYF=W)(W'@JB ! (Q8D.
XM)!H6R) W0K1/J\$.H1>/FAF%H^@DD5!+,QH8B=F4>AF10B!%.K*4:0FD0=&6
XM0! !F:((;/6C:QFD0! S,6"*(T584 "EBRFE$'!>[/!+A,"._H"6(Y@Z*^"5
XM)_A0.#*2%P4,"<D3'%5,%\$3;0 -M40 N)1N2+"/_E"C9WJCF;=YO&*DBLF8
XM0/ D!*"EABH$A*@ _-=^)R<$S0@&2$!:"" #S:AT4Q<)40 #S2AU26$+2@ %
XM;M I]0ATGU83,^<T=9,/<!"A_A &'# [JW8%S6@%S;A[_@ +.-<&K'!REFH%
XM0,"K:95+5X!S7.,#/8 C//%@GLH3H#ISF,H35@!>91>JJR(%N>HVQG %P]J,
XM;B -QYI6!F<H^A V;F &2K!K>F$JJF<+9>D/L%HW_^ !WQ84NA 4M@!702$-
XMDR%B)@5'_8I8T:!ZPD P 6 """L"_:,]+)"N R$("O:PBG0;)0<&9% W]"
XMM(H# EMR!&NP["H,[HJOAF5(+. +;Z  _%IRD_%+R  &)$!20>$&+<L"_FH3
XM3O"QS1&R07&PCH&ROM &E/!+EL"NNE"R>0&ON3>O ,"0]YH7^;JT-YNSS?&Q
```

```
XM..NS>2$,*&L,9B %+4,^J$ ^FD ^C!"VC_4U 0 %Y,,,V8( <*&AV?(6<8$7
XM >";TPD "A"W=HNW.F4/7?L&"- #O%0C?"*IABL#2*NT+" ,)YLI*HL!CI2R
XMS*8(6'M8P%"P/]NU;I!SLL0/9R '$XL&B.L/8. %S^H/NR-Y\UB6^G &1/"L
XM^I"%'^BZNZ</O9> P:>KY!>A^L LSR<W%(@/(. PVLJ/,@((=*H)"O87=K56
XM9# 9:T4 B\$O\;(H34!)88$->:-7W) Q+Z$'S(("\H*=B\(AW&(R=K5"+, -
XMT D7Y@L Z.NBZHN!+\*.O@0&1MFL3$"F$MF!\SAD%LD/%14$MEFC7PBHJ-<2
XM_X"6@P< ]D '^_0 //&F_E!+$$"GK/"FKP0F&<P/;8 )Z_M9!G )+C$ IB ]
XM4L F"24E"$L#VVACG\!-(, &"& %GX6P&A##=/1+@L*(4G1AOQ(L** *#QP
XM6H##,_)+- K$C@B"_P Q*, *F9$ OR17'RM7B!4(<47%1.P* Y@G T$+8?Q+
XMK- D$Q"<)>55#7L!8.4-;#!2FJ$;704.8" &#7L";QS'V:-H7X9M#7L#>RS'
XM;$568* ##3N<6\;'FK$ AFP"#2L:7L7(N6C($M"P2+'(WQ2"9*7$>2("GOQN
XM),"*\H18-:H"LB '!@ Y5Y ,-0("A(@!3@ -+-P8_F ,)T>XA6BZ0)"Z.5I[
XM_^ KIC6$-)"IRI!'OLR(2., PAR&X>0*Q<P3TW#,M-6,#(!0=(H+?UNZ4%>/
XMNR-JT>P/TYQ'QWO!,D((="H.Q[-(H78 ZVRQ*G A2 7/#/#.X>0 ]AQJ$'#-
XMU($ =L)_-B$'_#PB""XA'O"OF0 NMQ+W$R;IZP(F#HCT9 ,'7!,^H  8$(G
XM^F &&E"<-I(ZHC:M_C#1C;@ T/ %$6"*"^".^N KX@ $!8G1 S$>'.W1IVP
XM(DW24I0 )YW23YHE+0T(+QW3&4W3'>U*-YW3R="(!]#3IG@ +.W2,+U*%UW4
XM&WW4KPS2./VI2RU%!>#4X1'50CW5XR'3&EW32*W52MV(! #6B0K44DW4,WW5
XM-JW67-V( @#6 B#60TW59DW3%E#7X;35T+K4$'#2$  (!A!1R M,=/JTL&!7
XM>F(D#/#+D2 E2\( @P(!4P DG0<(NQBI]4@P"T -6LJ5$ZD$K6,8"V +I_V_
XM>8&F *6W[*"H4JJ9>.F1>QD!:4 =1?J.1QJE21J13[+7A/J0J)VDJHT)UT,$
XMMCW<0;>4=_F0NAV2O T  [ 1SQW;0MJH".L*K]V5M2?$N$W=>AF2,V"EX3V1
XMM0>6Y<V1U<V7V%W ;^ %ZYVD[>TK[YV721J2$M"7 ^!,/*29,A $FIH7<-!T
XMV_V1$1D!?+!(#0 &7+#@2NK@U-$ ]QW;M1?@@+#?\?W?COA,(BG=!7[@+)#@
XM@."_0I-=<+":'G[>1M?;"G#@*& "F4?@!GZM)Z[@QRW<W!W=%YG;,"X#,D[C
XM1A #4:"W*BXJL 4.54<P"* +&?Z1<*8 +][?03 %,CX[]PD1W62DN0-=)X[C
XM)@X.XA<-40 &;=+C$ G;'UE[#1",7P[<A<JE1 K6O\V000BJ+  .!  % 8 &
XM2R[FX,  @(X&;@ *!', IJLM,\;FR1W;RTT 9N#<;&ZH5Q[;UMW;NI'G6KFE
XMT,VH>HNPQ$#AQ"TM4^Z5!*#?TBWD6)[>2@[I;NZ5')[I'^G??5D ]&W?LB[>
XM2%/KK6[>6 [BNB[B9*[C*&[J2_K@MQ'A$W[I4FKAGX'AO<[>2*/K'1[L\ WC
XM(![@QD[B.?Y:09'L8,YQ+.[BVL[?FA[C>DOC-AX-QR[N",[C=(ZD/V[K>TGD
XM[7ZM*'#D2:X @][D3QX>W)#J58[O(:GE>LOE V$J 3_N\=[D9Y[F:U[O6SGK
XM<"[GRMZ('('2INCI>\[D0>'GA_[P>5'HAY[H!%, (("P^I#JRVT E:[L"!\$
XMUUT7(%_GH>[=-N$)&U\2;VWQH'[OZ?[A?6D SE3B_&X&2![K0A_I;W[MK![D
XMPK[N('X NY[JM8?M-7_U @Y-$3_N]*[G.O_C#@[A$J[LTIZ+6H\T6)_M5+_M
XMPY[K7S_B%ZGT\K[C*5[N*S[NZ![WZG[K\HWT@8#WI(("AG#CX&[BY [<82[P
XM4$ P T "!H\T5E[T,*[P2P0$7>[P?"_R"![V)S_Q:M[VF!#G'C/G9&_O#'ZH
XM=^[QVOWYA/[G@6[R?6[H@:[RVH(&"%OQJW_Q7;G<"& 8 : !/Q_6U8[?2(,
XM4V^7KK[NL [PR:_A2,, S9_TX0Y;C?_[0]_Z9]_L2\Y!+=XZ-:_O,\[O[R[Z
XM>D_SF(_EYF_D32_]CN^?D/_"\J3LHB[_W _UC'#P[;_NFL_P $ *,%_]HJ$(
XMM@\'ZF_F$(#FI3_]47_Z&@_MT,WQ>&[[)%_[LM_DN(_HBLYST [=<-!-<._\
XM52_XI;@1I&P!IL5-!" &#E .O0PTI*("Z@ "4##+IF_]<._\52_X(.Z"-A@$
XM;V#\TQ_UF "$K&CZU@\(7[,"BN"_;68!\WAL(/H/*0XRBB#G&FK!_?C8]& "
XM=C5,F30"WQ!._E!%#Z0"_F @(_ -X>0/3M $#Z0"_F @(_ -X>0/<O% *N /
XM!@(1!D  A&!"<) &8P  S= $<T '=4 &:? &S? _+_$/@@ $B) (3OH2'QD4
XMFA 4J. 7A$@+ ( ' % %)P@ BZ(1'O 1G,P >NM3"4&]+_$9_Y/=U*L;"3$B
XM#   $@  &   '@  )   &K$H6G!)G_$_U#LB$@  &  Z * 1BX($ * % ( '
XM $ +@5X',. 7A$@+ * % * 1%,#);34B":$;U)O=__,9+_$9G_$9>/ 1E_0_
XM_Y/=U*L;"3$B;<4 W00 $@  &, H $ "AH,;)P@ !(,4I@(1,/  P.  R]
XM\]  ,L  A;  Z+  &*  G9  ]Y  8X  X(  :W  X'  @^#.JYQ?!4 /!< )
XM\T( ^T  L4  <$  +#  ^#  NC  @S  4C  (2  ]2  RB  HR  ?2  6"
XM."  &!  ^A  W1  PQ  J1  D1  >A  9O 7 > # = " < ! <  =@, _!$.
XM $ - / 0O0  LS X / ) & ) . (W3<: ' '   ' * & !"]7@  60  5
```

```
XM3^ 3 ' $ #  $4P, .P  .   -<!= ( @+!!J! $ ): T ! "\@L '2 2 " 0
XM&0  ;FP! % ! 0( $@  $=!-G.P $.$ 55$55D8P)!"*M/(9D.   2   T
XM!6  !X  ":  "\  #>  #P !$0!E%% !%G !&) !&K !'- !'O !(! "(C "
XM)% ")G "*) "*K "+- "+L Z,2 #,T #-6 #-X #.: #.P";/O #0! $0C $
XM1% $1G $2) $2K $3- $3O $4! %4C %5% %5G %6) %6K %7- %7O %8! &
XM8C &;O &<! '<C '=% '=G '>) '>K '?- '?E 5D.  .W$'-S #$Q !G^$/
XM[L .S( , /(2 2   T  !6  !X  ":  "\  #1 !G_$9+Z$"FG!)2/$2@7!)
XM@W!)A'!)E/(2MP$)!H !:C 0&  @ ( !P8(!#P$ &0 % Y$!5C 0&2 ' \$!
XM%# 0'L % Q$"*J<T\C 0): /7Y &;D '8\ &:P  H@ 1!* '7P ';! &>3 &
XM8< &HG!)??4%<] &8< &;) &;B *E]0<7] &:4 &:? &=4 'HG!)LO@%;U '
XM=  'ER0*EW2W7] &:8 '$$$ HG!)(/8%<, &89 ';R CHG!)?_$%84 &<R '
XM;R CHG!):_L%;E ';, &<$ '<D *EU007S &;^ &=" '%D$*EZ0K7S '<% &
XM8W!)I'!)4O0%;3 '=% '9) &;T *EQ0Z7P '8< &;% &=$ 'I'!)J?(%<^ &
XM9^ &86 1HG!) 0 *7W &;^ &>& &<A &HG!) 8 .7] &89 &,O(2HG!);/$%
XM<T '<C &;0 ' " *EW0 ;O %:R &<T ';P ' " *EV0 F/ %=O &;# &;1"]
XMI'!)*& !7Q &9# '<@ '=" 'I'!)** !7V &<T '82 & T$*EU3C7T ':4 '
XM82 & T$*E]3O7S '=3 '=! &8@  I'!)*& &7S '9C '=! &8@  I'!)B/\%
XM:3 ';9 &9-#;I'!)._@%:3 '84 '82 ':4 *EX0"J/ %:U &B@$)!$ *EU3$
XM7T '9= &<-#EI'!)4_P%8U '<D ':3 &:T *ER177T &=2 '=! &8@  I'!)
XM;O8%9B '=! &8L &94 *EY2:7S &=2 '=O &+$<*EQ167V ';\ &== &90
XMI'!)7O4%:B '=O &;% ';4 *E_1E7] &88 '9B '91 'I'!)<?<%;9 &Z2H'
XM91 'I'!)*4 .7\ &83 '=- &:4 &I'!)7_@%;9 &9) &8T"(I'!)7?<%:U &
XM>4 '82 & $ *ER1J7[ &99 '8X &82 'I'!)*J (7P '<E &<U &=" &I'!)
XM*J )7P '<E &<U &=/ &I'!)S/0%<Q &=I &;C '=$ *EU1-7P '<E &<U &
XM=   I'!)3/@%<, &89 '92 ' " *E_0^7T &;P '<E &<U &HG!)%X *7Y &
XM;I &=  ';! &HG!)!Z -7S '=! &<D '<, &HG!)S/\%<% '<X &<E &<" *
XMEX0 CO %</ &<" '90 ' " *EX0 VO %;E &>$ '9B '82 *EY0 7/ %<[ &
XM:0 '84"(HG!)"R /7V ';Y &8U &;^ &HG!)#, $7S '94 ':> &<T 'HG!)
XM#N &7_ &=4 ';9 &9) &HG!)#\ #7V ';Y &8U &;V &HG!)#4 -7] &;V '
XM;5 &%B$*E[0!JO %8X &93 &:T '82 *ET0!)O %<Q '=5 &9: '92 *ET0!
XMB/ %:0 ';! &>5 &<B *E^0>7W '89 &=$ &;^ &HG!)%@ &7T ':= &99 &
XM;I &HG!)^O(%=) &;5 &;V &9B *EW0!AO %<U &=% '<  ';" *EY1"7S &
XM;P '>3 '9P 'HG!)&0 (7S '94 ':U &>4 'HG!)&8 -7Q &9# '<G!)HG!)
XMP/$%>% &;/ &:U!9HG!)8O$%9U &;4 &;X ?HG!)C_(%8I &;X ?+R$*EW0"
XMV/ %>" &:? &^ $ HG!))X ,7R &:P '=" ' Q$*EQ1N7X &91 &9% &<@
XMH7!)*V  7_ &;$ &<T '83 &H7!)EO(%;U '=& ';\!RH7!)*Z (7S ';U '
XM;A"] ! *EW2F7S '86 '9  '8< &H7!)@ 0 7X &8> &9, &90  H7!)(?,%
XM84 &<R '=" &;! *EY157V ';Y &8U &=! &H7!),_<%9N &9. &;T '91 *
XME\0"+O %9- &82 &== 8H7!)_O(%<) &8T 'EQ0*ER047Q &9# '<C &;D '
XMH7!)@O4%<, &89 '&4L'H7!)T?<%<! &=3 '96 &;! *E_2P7V '<T '90 '
XM Q$*EW3B7S '<V '<$ '<@  H7!)+& '7S '86 '9# &;D 'H7!)+( '7S '
XM;^ &AO$2H7!)'?0%;/ &9R &88 ?H7!)+" (7S &=2 '9B '91 'H7!)I?<%
XM9> &9$ ':5 & ! *E\0"B/ %84 '82 '=O &;! *E\0"BO %9> &=H ?+Q$*
XME_217S &;/ &8[ &,   H7!)+& +7S &;/ &8[ &<@  H7!)>O$%=$ &9< &
XM=% WH7!)*?L%<^ &_^<&T1L*E_0V7S &;/ &8[ &=   H7!)CXM<C 0H7!)8_<%<V '<$ '<C
0H7!)HO4%83 &<T '84 ' ! *E\1G7P ';! &
XM>9 &<_ &H7!)+, ,7S &=2 '9> &T1L*ES1A7S &=2 '<! &=3 'H7!)./L%
XM8^ &=  1!! *EZ0I7P '8U '<I &;D 'H7!)J_<%<( &>2 &88 ?H7!)W_(%
XM=E &8S '86 ' ! *E]2^7V '<U '%O$2H7!)??X%<T '82 '=$ ':1 *E\0"
XMYO %9% &<B ';R ' ! *ER0V7S &=2 '<S &<@  H7!)+* .7P ';) '8E '
XMC1$*EQ1;7Y &<^ &;T '90  H7!),/8%=) &93 ';R CH7!)DO<%8U '<C '
XM;F 8H7!)_O4%8U '<D &=2 ' ! *EW1G7Y &<Q &8S &9> &H7!),& "7Y &
XM;D &98 ' Q$*EW0X7S &=2 '<_ &,A(*EU1"7S &=2 '<E &>@  H7!)YO(%
```

```
XM:! &;D &;% &,1 *EP0XER0#&* !.F( "*  #&  "H  "N !"I C"H  'J
XMMH  1(  !H  "&  "&  "(  "F  "J  #&  "F  "F  &L  !J  #J  "&
XM"L  "F !!J  #J  #J  %F  "J  "(  $H  "N  $*  #&  #D !#@ !"J
XM!J  %" Z"&  !H  ]_(2#&  "L  ".  $(  !F  #J  "F  "*  "L  "L
XM"H  !F  ") C"&  "H  "H  "H  "F  ]X(!$  $"F  "N  '.  N>0!$*
XM#*  !L  !D  !D  !H  !I"H!H  !F  "&  "" Z"*  "N  "N D#,  "L
XM"L  "L  #H !$&  !N  "F  $@ !3F( #F  #F  #F  !N  "H  "$  !D
XM!N  !G#)!O 2#N  !H  "H  +P$!"&  HN, "L  !G#)#J  !D !"" B!@ #
XM&&  "L  %,  !N D"H  !O 2"*  "H  D%  !J  #(  .8( "H  "N D!&
XM"&  #H  !L  !H  "L !!D  !D  #L "!H  #H  %N !HL,!EZP!$D !HN,
XM$H  *<0$%) J3L #&, "$J  $/D2&H "0F !$$ !%F !(@ $)@ !$J !&'!Q
XM%H  $N  $, !., !%J "#B !(F !"( !#L  #@ !"&  $D  !B B!N D"N D
XM"&  D" B!.  !D  !H  "L  !B !!&  !&  "&  "F  !H  !F  #.  #@ !
XM%F  +X$ "H  !N  $& !'*  #H !$(  %(  !D !$" !)J !F" ""&  "&
XM'(  "@ )"[!.'L "'(  D#"-YP,),J\!&B !&( !%B !&, !%H !%N !%J !
XM$J !&F !&B !%.  $O 2#D !&$ !'  !&( !'/!X%B !&* !&& !&& !'F !
XM&B !&J !%J !$D !#B !+^$ %( !%, !$( !&, !CV<!$H !&F !$B !%F !
XM'F !&B !&J !%J !$D !$O 2&$ !'  !&( !'/!X&( !%H !%B !&$ !#B !
XM+^$ %( !&$ !'H !$( !&, !%( !%L !%F !'J !#.  $J  )(  D%  *$
X1!!   6 J($  D.#(D+ !&@ !
X
Xend
!FaR!OuT!
exit
--
```

```
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom
```

```
From -4733032688659386988
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,985f2401116f63cc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-07 21:07:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!bellcore!ulysses!mhuxr!
mhuxn!ihnp4!houxm!hou2b!dwc
From: dwc@hou2b.UUCP (D.CHEN)
Newsgroups: net.micro.atari16
Subject: help with xmodem
Message-ID: <841@hou2b.UUCP>
Date: Wed, 8-Oct-86 00:07:51 EDT
Article-I.D.: hou2b.841
Posted: Wed Oct  8 00:07:51 1986
Date-Received: Wed, 8-Oct-86 19:31:09 EDT
Organization: AT&T Bell Labs, Holmdel NJ
Lines: 11
```

i've been having trouble downloading with xmodem
and was wondering if anyone could help me. i am
using xmodem on ansigraf and have been having problems
with downloads. most downloads don't work and get
into the "retry" state.

anyone know what's going on?

danny chen
ihnp4!hou2b!dwc

From 3846021353668229313
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a0a97553f56f8863,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 08:42:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Robert E. Fortin)
Newsgroups: net.micro.atari16
Subject: uniterm part6 and UEmacs v3.7i part1
Message-ID: <61@ritcv.UUCP>
Date: Wed, 8-Oct-86 11:42:28 EDT
Article-I.D.: ritcv.61
Posted: Wed Oct 8 11:42:28 1986
Date-Received: Wed, 8-Oct-86 22:37:37 EDT
Distribution: net
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 7

Could someone repost uniterm part 6 of 6 and uEmacs v3.7i part1 ?
My site seems to have lost them, and since I don't have other
versions of uniterm or uE, I would appreciate it very much.
Thanks,

Bob Fortin
{allegra seismo decvax}!rochester!ritcv!ref0070

From 6238375447220773021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b10ca6dd2292772b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 08:58:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!rutgers!lll-crg!nike!ll-xn!adelie!
axiom!linus!philabs!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16
Subject: Re: Vi (for ST)
Message-ID: <1699@alvin.mcnc.UUCP>
Date: Wed, 8-Oct-86 11:58:36 EDT

Article-I.D.: alvin.1699
Posted: Wed Oct 8 11:58:36 1986
Date-Received: Sat, 11-Oct-86 21:05:24 EDT
References: <350@zen.BERKELEY.EDU> <393@unmvax.UUCP> <316@uwmacc.UUCP>
Reply-To: ravi@alvin.UUCP (Ravi Subrahmanyan)
Distribution: na
Organization: Microelectronics Center of NC; RTP, NC
Lines: 23

>From mcnc!philabs!cmcl2!husc6!ut-sally!seismo!uwvax!uwmacc!oyster Wed Oct 8
11:51:56 EDT 1986
>Message-ID: <316@uwmacc.UUCP>
>References: <350@zen.BERKELEY.EDU> <393@unmvax.UUCP>
>Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)

>In article <393@unmvax.UUCP> wampler@unmvax.UUCP (Bruce Wampler) writes:
>>
>> I wrote an editor in C called TVX which was released to the NET
>.....................
>>its own native command set, but also emulates VI and EMACS...

> Is there anybody out there who uses TVX/VI who isn't having problems
>with it? Three ST owners [.. went to market ....]

I've been using vix pretty much exclusively, and I have not had any
of the problems you mentioned. I try not to use it for very large
bodies of text, but that's mainly because my ramdisk tends to throw up
if it gets filled up to it's limit (with programs, text files,
whatever.) Also, saving the stuff every page or so is probably a good
idea. You could try getting the source and recompiling.

                                -ravi
                        {ucbvax, decvax, ihnp4}!mcnc!ravi

From 3882051355228005214
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dde28fb6b578ca6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 09:07:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!clyde!cbatt!ihnp4!ihlpf!rtb
From: rtb@ihlpf.UUCP (Todd)
Newsgroups: net.micro.atari16
Subject: Mac emulator for the ST
Message-ID: <770@ihlpf.UUCP>
Date: Wed, 8-Oct-86 12:07:22 EDT
Article-I.D.: ihlpf.770
Posted: Wed Oct 8 12:07:22 1986
Date-Received: Thu, 9-Oct-86 05:35:56 EDT
Distribution: net
Organization: AT&T Bell Labs, Naperville, IL
Lines: 10

I called Data Pacific about the Magic Sac today. I was ready to order one when I asked about printer support. Unfortunatly, the Magic Sac emulates the Mac so well, it seems you need an Image Writer to use all the printer features of the Mac. I know enough about the Mac to know that it is really locked into the Image Writer. Does any Magic Sac owner out there have any experience using other printers?

R.T. Bradstrum

From 3368862209341543928
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,539782224bf156e9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 09:47:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!mitlns!tether
From: tether@mitlns ("STEPHEN_TETHER")
Newsgroups: net.micro.atari16
Subject: MonST doc in English
Message-ID: <8610080453.AA13823@ucbvax.Berkeley.EDU>
Date: Wed, 8-Oct-86 12:47:12 EDT
Article-I.D.: ucbvax.8610080453.AA13823
Posted: Wed Oct 8 12:47:12 1986
Date-Received: Wed, 8-Oct-86 22:45:46 EDT
Sender: uucp@ucbvax.BERKELEY.EDU
Reply-To: "STEPHEN_TETHER" <tether@mitlns>
Organization: The ARPA Internet
Lines: 455

Here is a translation of the MonST documentation from the German. Ron isn't on the net, so I'll forward comments to him.

Steve Tether

MonST.doc - Translation of manual for MonST monitor program
10/02/86 - Ron Sprunger
R & D Tech
74-050 Highway 111
Palm Desert
CA 92260
(619) 340-5900

Corrections 10/05/86 - Ron Sprunger

*** Introduction to MonST - Version 1.0 - 3/86 ***
Program by:

Matthias Meyer
Rosenwinkel 36
2380 Schleswig
West Germany

"Looking under the keys"

MonSt is a comfortable and powerful monitor program for the Atari ST. The program is fully relocatable, and will run anywhere in memory, but not on EPROM. It makes little use of GEMDOS, and has only one XBIOS call, so it will work with all versions of TOS.

To use the program, you must have an eighty-character monitor, either high or medium resolution only.

When MonST is started, it displays the block of memory which it has occupied. The user should remember or write down these addresses in order to avoid accidentally overwriting the monitor.

Use the program with care! You are working very close to the machine itself, which means that careless memory edits can quickly crash the computer.

a) Full Screen Editor

TOS unfortunately provides only keyboard-in and picture-out routines, and not (as for instance the old Commodores) a picture-in routine. In other words, the screen cannot be read easily to pickup the changes which might have been made. For this reason, a 2000 byte buffer is used to hold the screen text, making changes directly on the screen possible. This text buffer lies just above the program code, and uses no RAM outside of the p
rogram code area (except for the exception vectors -
see "V").

- The cursor can be moved all over the screen with the cursor control keys (arrows).

- <RETURN> scans the current line, and updates memory accordingly. At the start, periods or blank positions will be skipped over. (If someone can make better sense than I can of the treatment of periods and blanks, please let me know. - RS)

- <Backspace> erases the character to the left of the cursor, and shifts the rest of the line to the left.

- <Delete> erases the character under the cursor.

- <Insert> opens an empty position.

- <Home> moves the cursor to the upper left corner of the screen.

- <Undo> moves the cursor to bottom left corner of the screen.

- <Shift-Clr> clears the screen.

- Other commands:

<Ctrl-RETURN>	Jumps to the next line WITHOUT updating memory
<Tab>	Moves cursor ten positions right
<Ctrl-I>	Inserts a line
<Ctrl-D>	Removes a line
<Ctrl-A>	Deletes to end of line
<Ctrl-C>	Abandons the edit - returns to desktop (!)
<Help>	Redisplays screen from the text buffer (see "O" command)

- The numeric keypad can be used for hex digits, "(" for "A", ")" for "B", etc. You can use "." on the keypad for Backspace.

b) Monitor Commands

The most important commands are standard, most of the others follow the convention of SMON for the C64. Lower or upper case may be used (with exceptions).

Addresses are given and received as 6-digit hex numbers.

If two addresses are used to describe the same object, the second address will be invalid.

Parameters in square brackets "[]" are optional and may be omitted.

- X
(Exit)
Leave MonST, if the "are you sure" question is answered with "y". When the program is exited in this manner, the reserved memory (about 12 KB) will not be released. The previously changed exception vectors remain pointed to MonST (see "V"). For this reason, MonST should be re-entered via a system error, such as violation of privileged memory. (Otherwise, each invocation of the program creates a new copy of MonST 12K higher in memory.) This is easily done in ST-BASIC with ?peek(-1). If no register contents have been changed, "G" returns you to BASIC. Other program errors can also be started in this manner, but you should use the disassembler to examine the position of the error, since the program counter may not be correct after a buss error ("g" points in this case to exception number 4].

- R
(Register)
Gives the contents of the processor register, which can be changed with the editor. The register contents will be given to the processor

with a GO- or Trace-Failure.

- G [05 0000]
  (Go)
  Starts a 68000 machine language program at address $050000. If no address is given, the actual value of the program counter (PC) will be used.

- M 05 0000 [05 0100]
  (Memory)
  Gives contents of RAM or ROM as a hex dump with ASCII to the right. Stop and proceed slowly with <Space>. Other keys produce a faster display. <ESC> stops the display.

  In RAM, the hex dump can be changed with the editor. Empty positions are ignored. The listing can be scrolled up or down when editing.

- K 01 e000 [01 f000]
  (Kontrolle)
  Displays 64 characters of text per line from memory. Control characters (less than ASCII 32) will be displayed as periods. When editing, small and capital letters will be differentiated, periods ignored. Otherwise the same as "M".

- D fc 0008 [fc 0200]
  (Disassemble)
  Disassemble and list from $FC0008 to $FC0200 with machine code decoded to opcodes. Changes are unfortunately only on the hex words possible, since an assembler is not yet included in the program. This at least allows easy modification of some operands. With the help of a 68000 opcode table and some patience, small programs can also be entered.

  Since the structure of 68000 machine code is very complex, this part of MonST is sadly somewhat buggy. Attention should be payed to the following: It is not entirely inconceivable that a correct processor command will be incorrectly decoded (although I have not found any errors lately). If this should happen, please pass the information on to me. In addition, illegal opcodes will not always be recognized as such and flagged with "???". For example, code such as:

      MOVE.W D0,#1234 or CLR.B 061234(PC)

  is nonsensical, or illegal, but might not be flagged as such by the program. For this reason, the disassembler can get out of sync (for instance starting to disassemble on an operand instead of on an op-code), and display relatively long stretches of garbage. Scrolling the disassembler (as with "M" and "K") is useless because of this.

- >O {1,2}
  Switch printer protocol in/out
  0: Output to screen only
  1: Centronics port
  2: RS 232

- L filename.xyz, 05 0000   or
  L"filename.xyz" 05 0000
  (Load)
  Loads specified data file. You must always give a load address!

- S filename.xyz, 05 0000   or
  S"filename.xyz" 05 0000
  (Save)
  Writes the memory area to disk. If the file name already exist on the
  disk, you will be asked "are you sure?".

- @ [fil??ame.*]
  Shows a directory of the disk. If "@" is followed by a space, the
  characters which follows will be interpreted as a search mask. "?"
  wildcards a character, "*" wildcards remainder of filename or extension.
  If the command is given without a mask, "*.*" will be used (all files
  will be displayed). The display includes filename, size in bytes,
  and filetype as follows:

                            00 - Normal File
                            01 - Write-Protected
                            10 - Subdirectory, not file

  At the end of the display, the free allocation units of the diskette
  will be shown (each 1024 bytes long).

- @\directory\
  Specifies sub-directory or path. All further disk I/O will use this
  path (Loads, Writes, Directories). Return to the root directory with
  "@\".

- @B
  Specifies disk B: as the working disk (A .. E).

  The most important errors produced by disk I/O:

      -1 General error
      -6 Track not found
      -8 Sector not found
      -13 Disk is write-protected
      -33 File not found
      -34 Path not found

- F 01 0000 05 0000 41 42 43
  F 01 0000 05 0000 "Digital Research"
  F 01 0000 05 0000 44"igital "*"ese"61"rch"
  (Find)
  Searches byte-wise in specified memory. Hex digits and text can be
  intermixed. An asterisk outside of quoted text specifies a wildcard
  character. The addresses of matches will be given - use <ESC> to
  break off the search.

- F "-****(a*)" 03 0000 [03 1000]
  Searches for string in the disassembler listing from $030000 [to
  $031000] - "*" is a wildcard character. This example searches for
  all commands which use the "address register indirect with (negative)
  16 bit offset" reference mode. <ESC> stops the search.

- O 07 8000 08 0000 01 02 03   (512 KB RAM)
  O 0f 8000 10 0000 aa 55   (1024 KB RAM)
  (Occupy)
  Fill memory with specified long word value. If no value is given,
  the default is 00. Check out the above commands for a 512 KB and a
  1024 KB machine. The screen will fill with a fine point pattern -
  pressing the <Help> key will restore the display.

- W 05 0000 06 0000 07 0000
  (Write)
  Moves memory bank $050000 - $05ffff to $070000.

- = 05 0000 06 0000
  The memory bank starting at $050000 is compared with that starting
  at $060000. The position of the first non-match will be shown.

- #491520
  Convert decimal number to Hex. Max 2^32-1

- $00078000
  Convert 8-digit hex number to Decimal.

- %10101011
  Convert 8-digit binary number to decimal.

- ?z xxxxxxxx yyyyyyyy
  Simple calculator, where z = :
      + : 32 bit addition (2 8-digit hex numbers follow)

```
    - : 32 bit subtraction
    * : 16 bit multiplication (2 4-digit hex numbers follow)
    / : Divide 32 bit number by 16 bit number
    & : 32 bit logical AND
      : OR
    ! : EXCLUSIVE OR
```

- V
  (Vectors)
  Displays the vector table from low RAM ($0000 to $3fff). Addresses marked with an asterisk point to the BREAK-entry into MonST. The far left-hand byte gives the exception number. Stop display with <ESC>.

  Upon startup of MonST, the exceptions number 2,3,4,5,6,7,8,9, and 32 (buss, address error, illegal opcode, divide-by-zero, CHK-error, TRAPV-error, privilege violation, trace-mode, Trap #0) will be diverted to the register pointers. Should one of the "errors" occur, an attention character and a blinking cursor will appear in the lower left corner of the screen. The purpose of this is to avoid too-quickly destroying the contents of the screen.

  Pressing <ESC> releases the register display. A keypress produces an announcement of the exception number, and the processor register will be pointed to the location of the break. If it is a buss or address error, the information placed by the CPU on the stack will not be lost. It is this status word, holding the flags in the lower 8 bits, which describes the error more exactly, including the target address which produced the error and the last opcode acted on. A buss error can easily arise, if you try to access memory not implemented in hardware, or to write to ROM. You must be carefull not to set the stack pointer too low, thereby destroying something. Be sure to restore it to the appropriate value.

- TS 05 0000 05 0010
  (Trace Stop)
  The program will be started at $050000 and will break when $050010 is reached. This function uses the Trap #0 opcode, which is installed at the stop address before beginning execution. The machine instruction from that location is saved and restored after execution.

- TW [05 0000]
  (Trace Walk)
  Opcodes starting at $050000 (for example) are executed one at a time, with the help of the trace-bits in the status register. The screen is split into two windows: in the upper, the applicable processor is shown, and in the lower is the running program. The next opcode is displayed in the second-to-last line (pointed to by the current program counter). On the bottom line is a small menu, to remind you of additional possible functions:

<Space> Executes the next instruction
<ESC> Aborts
<C> Does the same as <Help> usually does (separates characters or graphics written to the graphics screen from other programs).
<S> Executes a sub-program in real time from beginning to end (to the RTS opcode).
<E> Does the same for an exception handler (to the RTE opcode).

For the last two, the stack pointer must be the same at the end of the sub-program as it was at the beginning. An example: By stepwise execution, you come to an error Trap #1, which calls GEMDOS. In order to run this program all at once, you press <Space> and see in the next-to-last line "BTST #5,(a7). This is the beginning of GEMDOS. Now you can press <S>, and GEMDOS will do its work undisturbed. The next command after the TRAP #1 will be shown. <E> can only used with the supervisor bit set. If no return address is on the stack, the program may run off into never-never land.

This all sounds very complicated, but with practice it goes smoothly.

"TW" works in ROM as well as RAM. Single-step execution lends itself especially to exploration of complicated calculations made by the CPU.

With the trace-bit set, a test program will not crash due to conflict in the status word, so that a command such as "MOVE #2300,SR" can be traced at your leisure.

- TB 05 0010 000a
(Trace Break) - parameters are address and word
A break point will be set at $050010 for fast step mode. Upon reaching the address for the 10th time, the program will be interrupted, and single-step mode will begin.

- TQ [05 0000]
(Trace Quick)
Fast step mode is only for use in RAM, and is used in conjunction with TB (see above). These functions lend themselves to convenient exploration of the operation of loops.

- TA 05 0000 0001 0000
(Trace Amount) - takes address, longword parameters
Starting at $050000, 2^16 machine instructions will be executed, though with somewhat limited speed. All sub-programs will be counted, as well as group two exceptions (TRAP's, CHK, Division by zero). Up to 2^32-1 instructions can be counted (4.3 billion). In addition, the program may encounter instructions which set the trace bit back! May be used in ROM.

c) The Disk Editor

The disk editor is invoked from MonST with "Z". It needs a 512 byte buffer, whose absolute address may be specified ($050000 is recommended, or somewhere in the middle of free RAM).

All disk I/O is done on drive A: (!)

- X
  (Exit)
  Exits the disk editor

- P
  (Page)
  Toggles the disk side, 0 or 1, with the result displayed.
  Use ONLY on double sided drives!

- B
  Change the buffer address (restart the disk editor)

- M
  Show the contents of the buffer. The contents may be edited.

- R 01 03
  Read sector 03, track 01 (hex)
  Only "R" and "W" specify the actual track and sector numbers.

- W 01 03
  Write the buffer contents to sector 03, track 01 (hex)

- +
  Read the next sector

- -
  Read the previous sector

In the disk monitor, scrolling text up/down is also possible. The sector buffer may also be accessed from the machine monitor.

---------- The End (Das Ende) ----------

  Note from translator:

      The above is a fairly literal translation of the manual for
      MonST as provided on BIX by Jim Omoura. The translator believes
      that the translation is accurate, but does not have the working
      program to check points of operation. I take NO responsibility
      for the accuracy of the above document.

      Ron Sprunger   (BIX "sprung")

From 5351183148062799238
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b211e6d7c3222872
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 10:16:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!nike!ucbcad!ucbvax!NADC.ARPA!kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: Text/Graphics packages.
Message-ID: <8610082316.AA06539@ucbvax.Berkeley.EDU>
Date: Wed, 8-Oct-86 13:16:42 EDT
Article-I.D.: ucbvax.8610082316.AA06539
Posted: Wed Oct 8 13:16:42 1986
Date-Received: Thu, 9-Oct-86 03:28:26 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

John
The MAC presently has the software to do a very fine job of Desktop publishing.
The ST is up and coming, but does not yet have the same level of programs to
support your application. In my opinion, if you have the money, and need to
solve your problem, today, ... buy a MAC.

Ron Kushnier
kushnier@nadc.arpa

From -7100868760937761774
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95549e78eb5733a5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 10:35:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: UNITERM
Message-ID: <8610090159.AA09841@ucbvax.Berkeley.EDU>

Date: Wed, 8-Oct-86 13:35:44 EDT
Article-I.D.: ucbvax.8610090159.AA09841
Posted: Wed Oct 8 13:35:44 1986
Date-Received: Thu, 9-Oct-86 04:59:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I received Uniterm, I linked the files together, I uudecoded it, I got the exact size it should be... The program does not run correctly. If there is no resource, it says no resource, bye bye, otherwise if there is a resource, the bee disappears and the program stops, no bombs no nothing, just a green screen with uniterm.prg at the top in t he menu bar region.

Anyone else have this problem, or has anyone gotten it to run?

Mike Vederman

From 5211651201835393739
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f5aefba228c7964,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 11:07:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Text & Graphics Packages.
Message-ID: <861008140751.00000B60.BUZF.MA@UMass>
Date: Wed, 8-Oct-86 14:07:51 EDT
Article-I.D.: UMass.861008140751.00000B60.BUZF.MA
Posted: Wed Oct 8 14:07:51 1986
Date-Received: Thu, 9-Oct-86 05:32:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Hi,

   I have had excellent experience with Easy-Draw. It is a full resolution-independent draw program, in which you work on a full page. It also allows you to mix text with graphics, using the full power of GEM. I have more than once used this program as a mini word processor to mix text and graphics. It is a very good desktop publisher. It is lacking a laser printer driver and support. Beats me why, I have met several people who would love to use it with a laser printer, and would pay. But it works fine with a epson printer. There also some other packages announced for release. I have tried the Graphic's Artist. I have to say, that program is slow and kludgy and not worth the price. For $149.95 (less mail order) easy draw is the top winner

Rick

From 3175015304622035418
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29bdbd2d36cc8f84
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 11:08:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!mitre-bedford.ARPA!jhs
From: jhs@mitre-bedford.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Another Magic Sac installment
Message-ID: <8610081549.AA03058@mitre-bedford.ARPA>
Date: Wed, 8-Oct-86 14:08:11 EDT
Article-I.D.: mitre-be.8610081549.AA03058
Posted: Wed Oct 8 14:08:11 1986
Date-Received: Thu, 9-Oct-86 02:22:11 EDT
References: <8610071656.AA24154@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 4

Do you know if it runs MacDraw, MacWrite and MacPaint?

-John Sangster
jhs@MITRE-bedford.arpa

From -5289387151527806934
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6156be960d118e5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 12:03:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!nike!ucbcad!ucbvax!lasso.UUCP!didier
From: didier@lasso.UUCP
Newsgroups: net.micro.atari16
Subject: Yamaha chip...
Message-ID: <8610081331.AA17498@inria.UUCP>
Date: Wed, 8-Oct-86 15:03:24 EDT
Article-I.D.: inria.8610081331.AA17498
Posted: Wed Oct 8 15:03:24 1986
Date-Received: Thu, 9-Oct-86 02:24:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

[Hope this gets to the net... My previous message obviously never made it]

Is there any way to bypass all the sound synthesis hardware of the music chip,
and access directly the D/A converter ? The doc I have says nothing about this

possibility (I don't have the developer's kit..yet). Any help welcome.

Didier Giralt

LAAS-CNRS
7 av du Colonel Roche
31077 Toulouse Cedex
France

...!mcvax!inria!lasso!didier

From -924374900063134707
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,774e18c0ce32695d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 13:41:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!tektronix!uw-beaver!ubc-vision!alberta!sask!brecht
From: brecht@sask.UUCP (Tim Brecht)
Newsgroups: net.micro.atari16
Subject: Resource Construction ... ?
Message-ID: <456@sask.UUCP>
Date: Wed, 8-Oct-86 16:41:41 EDT
Article-I.D.: sask.456
Posted: Wed Oct 8 16:41:41 1986
Date-Received: Fri, 10-Oct-86 01:18:32 EDT
Distribution: net
Organization: University of Saskatchewan, Canada
Lines: 41

I've been working on a program that will make extensive
use of GEM objects. I've seen a few comments in this
newsgroup to make me a little leery of the whole idea.

The programming is in Modula-2 using TDI's version 2.00a
(the developer's version). On a 1040 STF (mono).

The question are with regards to the MMRCP.PRG (the
Megamax resource construction program).

Has anyone (other than the original person - Simon Poole)
experienced the limitation of naming less than 200 objects ?

The problems that I have found with MMRCP (I've got Version 1.0):

1) The Merge... facility
   Used to (I imagine) merge two existing .RSC files - doesn't
   work. When I select this option - nothing happens.

2) The Info... facility

Used to provide some sort of information on object -
doesn't work. Again when selected nothing happens.

Has anyone else experienced these problems - or am I
doing something wrong - the documentation is pretty skimpy ?
In both case the 3 dots ... lead me to believe that
when selected I should get some sort of dialog box
or something.

tim

ihnp4!sask!brecht
utcsri!sask!brecht
ubc-vision!alberta!sask!brecht

Tim Brecht
Department of Computational Science
University of Saskatchewan
Saskatoon, Saskatchewan
CANADA

From 9039968304595476808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdb42cec1522259c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 13:44:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!intelca!oliveb!glacier!kestrel!
sci
From: sci@kestrel.ARPA (Mike Liveright)
Newsgroups: net.micro.atari16
Subject: Re: UniTerm V1.4 (at last....)
Message-ID: <13247@kestrel.ARPA>
Date: Wed, 8-Oct-86 16:44:21 EDT
Article-I.D.: kestrel.13247
Posted: Wed Oct 8 16:44:21 1986
Date-Received: Thu, 9-Oct-86 23:58:48 EDT
References: <8610070729.AA03202@ucbvax>
Reply-To: sci@kestrel.UUCP (Mike Liveright)
Organization: Kestrel Institute, Palo Alto, CA
Lines: 7
Keywords: Where is Poole?

I would like to get a copy of UniTerm directly. It would be easier,
I think, that trying to unpack? it. If Simon Poole, or anyone else would
be willing to send me a disk, perhaps for some money and/or a disk. Please
contact me, or leave a message. Thanks:
Mike Liveright, (415) 494-2233, Systems Control Tech. p.o. 10180
Palo Alto, Calf. 94303

From -5008086505833676938
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51e29eb69687b094
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 13:51:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: ARC for the ST (apologies)
Message-ID: <1343@trwrb.UUCP>
Date: Wed, 8-Oct-86 16:51:28 EDT
Article-I.D.: trwrb.1343
Posted: Wed Oct 8 16:51:28 1986
Date-Received: Thu, 9-Oct-86 23:57:30 EDT
References: <573@chinet.UUCP> <1341@trwrb.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 65
Keywords: a bug in my xmodem program

>This time it's your recent
>posting of ARC and ALITE. In both cases, the UUENCODED files seem to have
>been clobbered. In particular, in both cases there are three or four lines
>in the UUENCODED files that are longer than all the other lines, i.e.,
>something like 113 characters across rather than the usual 62. Looks like
>something went wrong in the transmission.
>
>Since this may be only at our site, do you think you could re-send the two
>SHAR files to me? Thanx a lot...

Unfortunately, the error is due to a new (buggy) version of xmodem I just
wrote. Tonight I'll use the old version and repost the whole mess. Sorry
to all burned by this one ("...we can all cut down considerably the amount
of time and money we spend..." if some people would test their stuff before
they post it! :-).

While I'm here...

>I'll probably go ahead and assemble the .S file, but just out of curiosity,
>how do I edit a .PRG file?

You could do one of a number of things:

1) edit the sector on which the bad bytes reside using a sector
   editor (easy)

2) load the program into memory using a debugger, modify the
   offending bytes, re-write the file (kind of easy)

3) write a small program to read in the file (in binary mode)

and then re-write it (in binary mode) with the corrected
bytes (not so easy)

>Is there a way to choose whether you boot with TOS in RAM or TOS in ROM? I
>have a TOS in ROM machine; how can I do the former?
>
>About FRMTPLUS: (a) Will disks formatted with FRMTPLUS work with the
>ordinary TOS, and (b) will ordinary disks work with FRMTPLUS overlaid on the
>basic TOS? In other words, (a) does FRMTPLUS only use unused portions of the
>disk, such that you can still read them using the old slow algorithm if you
>don't have FRMTPLUS loaded, and (b) is FRMTPLUS smart enough to use the
>standard algorithm if it doesn't find the extra formatting information it
>needs? I think you were saying that (a) would work, but I'm not sure.
>
>This sort of compatibility would be really nice. If it doesn't exist, how
>can one copy an ordinary disk to a FRMTPLUS disk with only one disk drive?

You can boot your ST with a RAM TOS image file disk in the disk drive and
it will "override" the ROM TOS. You can probably get such a boot disk from
a dealer, a club, or a BBS.

One of the nice things about frmtplus is that the disk format is recognizable
by TOS - you _can_ do such things as straight disk copies, etc., without
having to reboot with RAM TOS and frmtplus.prg in AUTO.

-Rich

--

 _____ _____ ____ _____ ___
/_____//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ___________   TRW Electronics & Defense Sector
  / /   / /\ < | /| / One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 7439407453009315242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a0a97553f56f8863
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 14:17:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!sri-spam!sri-unix!hplabs!ucbvax!YALE.ARPA!ram-
ashwin
From: ram-ashwin@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Re: uniterm part6 and UEmacs v3.7i part1
Message-ID: <8610082117.AA05953@yale-celray.YALE.ARPA>
Date: Wed, 8-Oct-86 17:17:09 EDT
Article-I.D.: yale-cel.8610082117.AA05953
Posted: Wed Oct 8 17:17:09 1986
Date-Received: Fri, 10-Oct-86 05:49:59 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

Newsgroups: net.micro.atari16
In-Reply-To: <61@ritcv.UUCP>
Organization: Yale University, New Haven, CT
Cc:
Bcc:

>Could someone repost uniterm part 6 of 6 and uEmacs v3.7i part1 ?
>My site seems to have lost them, and since I don't have other
>versions of uniterm or uE, I would appreciate it very much.
>Thanks,
>
>Bob Fortin
>{allegra seismo decvax}!rochester!ritcv!ref0070

Ours too. This may have been a glitch with global consequences, so could
you please repost these to the entire net?

Ta'... Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: ...{decvax, etc.}!yale!Ram-Ashwin
BIT: Ram@yalecs

From 1477788878456352522
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f5731e34bade0c86
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 15:03:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!uwvax!rutgers!caip!lll-crg!lll-lcc!
styx!twg-ap!amdahl!fai!wjvax!qubix!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: ATARI ST and DIABLO C150 Ink Jet - (nf)
Message-ID: <603@imagen.UUCP>
Date: Wed, 8-Oct-86 18:03:42 EDT
Article-I.D.: imagen.603
Posted: Wed Oct 8 18:03:42 1986
Date-Received: Sat, 11-Oct-86 19:48:52 EDT
References: <36100001@pbinfo.UUCP>
Organization: The Houses of the Holy
Lines: 24

> Nf-ID: #N:pbinfo:36100001:000:1124
> Nf-From: pbinfo!mike   Sep 29 09:04:00 1986

>
>
> Hello ST'er
>
> I'm looking for a color screendump program on ATARI ST.
> The printer is an DIABLO C150 Ink Jet.

i know a me too isn't much help, but i could use one too (three four), or
if someone could give a ptr as to where to look (a sample screen dump pgm
for example), ill write the silly thing.
--

         These are days for the locust to eat
                       - Winston Churchill

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -3028082315321396008
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95549e78eb5733a5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-08 15:21:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!yale!husc6!think!nike!ucbcad!ucbvax!LLL-MFE.ARPA!
PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: UNITERM
Message-ID: <8610091708.AA12671@ucbvax.Berkeley.EDU>
Date: Wed, 8-Oct-86 18:21:00 EDT
Article-I.D.: ucbvax.8610091708.AA12671
Posted: Wed Oct 8 18:21:00 1986
Date-Received: Fri, 10-Oct-86 01:25:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I also tried the new version of UNITERM. The decoded length was correct, but
when I ran the program, I got 4 bombs, then back to GEM, which seems to be
running OK (this message is coming to you through the vt52 emulator, post-
UNITERM failure). If it is relevant, my system is a 1040STf with color.

Any suggestions?

Patrick Simon
PSIMON%PPC.MFENET@LLL-MFE.ARPA

From -7141858457793845961
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f5731e34bade0c86,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 01:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!pbinfo!mike
From: mike@pbinfo.UUCP
Newsgroups: net.micro.atari16
Subject: ATARI ST and DIABLO C150 Ink Jet - (nf)
Message-ID: <36100001@pbinfo.UUCP>
Date: Mon, 29-Sep-86 04:04:00 EDT
Article-I.D.: pbinfo.36100001
Posted: Mon Sep 29 04:04:00 1986
Date-Received: Tue, 7-Oct-86 21:09:01 EDT
Lines: 31
Nf-ID: #N:pbinfo:36100001:000:1124
Nf-From: pbinfo!mike   Sep 29 09:04:00 1986

Hello ST'er

I'm looking for a color screendump program on ATARI ST.
The printer is an DIABLO C150 Ink Jet.
The Interface Command looks like:
     ESC g n m (a)(n1)(n2)...(nm)
with
     n - represents the the color of image data and the pixel
         line number. (There are four pixel lines in each scan)
         0 - 3 : Represents black (0 = top line , 3 = bottom line)
         4 - 7 : magenta
         8 - ; : yellow
         < - ? : cyan
     m - represents the number of bytes that will be send as
         graphic data
     a - seperator "," or " "
  n1...nm - graphic data (8 bit bytes) with b0=LSB and Bit state:
         1 = print color dot and 0 = etc.

Any Program that do similar thinks would be appreciated.

Thanks
 mike.

UUCP: ...!seismo!unido!pbinfo!mike | Post: Michael Utermoehle
       or mike@pbinfo.UUCP | Universitaet-GH Paderborn
                                          | FB 17 - Informatik
                                          | Warburger Str. 100

| D-4790 Paderborn
| West Germany

From 4496809375349406591
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f837b33ce793aaab
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 06:22:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!rutgers!topaz!uwvax!
husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: Which hard disk?
Message-ID: <268@husc6.HARVARD.EDU>
Date: Mon, 29-Sep-86 09:22:48 EDT
Article-I.D.: husc6.268
Posted: Mon Sep 29 09:22:48 1986
Date-Received: Tue, 30-Sep-86 14:01:40 EDT
References: <2071@pur-phy.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Distribution: net
Organization: Aiken Computation Lab, Harvard University
Lines: 10

Is it possible to write C applications under OS/9 and have them run under
GEM? This would be ideal. I suspect that the necessary library/glue
routines don't exist yet. Is this the case?

It's important that the ultimate output of the OS/9 compiler run under
GEM without any proprietary run-time support code.

Eagerly awaiting any reply,

-Eric

From 8389223583717679235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,31cb0280177f26d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 07:30:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!mhuxl!cbz
From: cbz@mhuxl.UUCP (Craig B. Ziemer)
Newsgroups: net.micro.atari16
Subject: uEMACS request
Message-ID: <1073@mhuxl.UUCP>
Date: Mon, 29-Sep-86 10:30:39 EDT
Article-I.D.: mhuxl.1073
Posted: Mon Sep 29 10:30:39 1986

Date-Received: Tue, 30-Sep-86 21:26:34 EDT
Organization: AT&T Bell Laboratories, Reading, PA.
Lines: 10

Many thanks to all of you who responded to my request for info on
uuen/decode, shar files, downloading, etc. I have finally succeeded
in downloading a file from the net. Would someone please mail me the c
source or uuencoded binary for HACK and uEMACS 3.7 and possibly a list of
some other ST PD software that I may have missed in recent months. Thanks.

Craig Ziemer
mhuxl!cbz

From 7128170869140660098
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 08:39:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: GNU_EMACS and uEMACS
Message-ID: <589@imagen.UUCP>
Date: Mon, 29-Sep-86 11:39:06 EDT
Article-I.D.: imagen.589
Posted: Mon Sep 29 11:39:06 1986
Date-Received: Wed, 1-Oct-86 18:39:48 EDT
References: <109200001@ccvaxa>
Organization: The Houses of the Holy
Lines: 30

> Nf-ID: #R:<8609201259.AA04886@ucbvax.Berke:-40:ccvaxa:109200001:000:452
> Nf-From: ccvaxa.UUCP!preece   Sep 24 09:47:00 1986
>
>
> People should realize that some of the nicest features of GNUemacs
> are things that would be lost in a port to the ST: compiling from
> inside an edit session, shell windows, and filtering regions
> through commands are obviously not going to work without
> Unix multitasking. It's still a nice editor, and without those
> features it might be small enough to fit...
>
> --
> scott preece
> gould/csd - urbana
> uucp: ihnp4!uiucdcs!ccvaxa!preece
> arpa: preece@gswd-vms

wanna bet ??? i can compile, run commands, etc. from within uE3.7i; but i
will admit that porting GNUemacs would be a mistake
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -258822390884297638
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2fdc1183bc659731
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 09:10:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pyramid!decwrl!
sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: MicroEMACS 3.7 wierdness
Message-ID: <590@imagen.UUCP>
Date: Mon, 29-Sep-86 12:10:38 EDT
Article-I.D.: imagen.590
Posted: Mon Sep 29 12:10:38 1986
Date-Received: Wed, 1-Oct-86 18:40:15 EDT
References: <1111@leadsv.UUCP>
Organization: The Houses of the Holy
Lines: 27

> Keywords: Bugs, uudecode, really odd
>
>
> Bottom line...could somone repost the encoded and (please..on my knees..)
> sources?
>
> Gary Trimble
> Lockheed Advanced Marine Systems
> --
>
> UUCP: {(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!trimble
>   {{allegra ihnp4 dual}!fortune!decvax!decwrl}!amdcad!cae780!leadsv!trimble

i'm getting ready to post the ST port for uE3.7i that really really works
on a b/w monitor (in two resolutions even!) but im going to stand pat on
sources, they go to dan lawrence (he reposts them every major release)
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 969250372844472937
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,818ef080a8553820,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 09:56:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: HD and Reset Survivable Ram Disk, And MW C review wanted
Message-ID: <527@elmgate.UUCP>
Date: Mon, 29-Sep-86 12:56:41 EDT
Article-I.D.: elmgate.527
Posted: Mon Sep 29 12:56:41 1986
Date-Received: Wed, 1-Oct-86 01:13:39 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 22
Keywords: Hard Disk Ram Disk Drive Assignment Marl Williams C Compilers

Two questions for the 'in the know'.

First, after installing an Atari Corp. 20 megger HD on my Atari520st (w/1 meg upgrade), I'm no longer able to acces the RAM disk. I'm using the RAM disk posted some time ago that was in ASCII hex format (640 byte .prg file). The hard disk seems to insist on being drives C: D: (conficts with RAM disk) and E:. I tried patching the hex code to read BSET #5,D0 to provide me with a drive F: ram disk. No go. Drive F: IS recognized but pulling a SHOW INFO says it's got 6meg available (not quite right 8^)). Anyone have this RAM disk living happily with an Atari Hard Disk? If so whats the correct formula? Who should be first in the AUTO folder? Is there a sequence of adding drive icons to the desktop? Maybe that's where I blew it?

Finally, saw MW C being advertised in this months Dr. Dobbs Journal. Does anyone have the package? A small review would be nice.
Do they provide a resource construction set?

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -1022375116162126028
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a780b05646cb703,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 10:29:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: German -> English translation progress (MONST)
Message-ID: <528@elmgate.UUCP>
Date: Mon, 29-Sep-86 13:29:06 EDT
Article-I.D.: elmgate.528
Posted: Mon Sep 29 13:29:06 1986
Date-Received: Wed, 1-Oct-86 01:13:59 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 12
Keywords: monst debugger monitor

Has anyone made any progress in translating the document file of the
recently posted Happy 68000'er monitor program? Surprisingly I was able to
figure out some of it (mostly the English words 8^>). I gave the document
to a relative of mine but her German is rusty and she know's zippo about
computers so many of the words won't be recognizable to her anyways.
Anyone else out there working on this?

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -893261653160622882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-29 10:43:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: Re: The Motorola 68030
Message-ID: <807@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 29-Sep-86 13:43:47 EDT
Article-I.D.: cbmvax.807

Posted: Mon Sep 29 13:43:47 1986
Date-Received: Wed, 1-Oct-86 01:21:48 EDT
References: <877@Shasta.STANFORD.EDU>
Organization: Commodore Technology, West Chester, PA
Lines: 50
Xref: mnetor net.micro.68k:1274 net.micro.amiga:4932 net.micro.atari16:2207
net.micro.mac:7306

> Xref: cbmvax net.micro.68k:327 net.micro.amiga:2836 net.micro.atari16:2165
net.micro.mac:2966
>
> In article <262@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>
>>Apparently the 68030
>>uses what is called "Harvard parallel architecture". Now that Motorola
>>has released this chip, they have in *every category of chip* a far
>>superior chip than does Intel. 68030 > 80386, 68020 > 80286, 68010 and
>>68000 >> 80186, 8086, 68008 > 8088. The 68000 series chips are in every case
>>more orthogonally designed, faster, more compatible with each other,
>>and easier to program.
>
> I agree that the Motorola chips are nicer in many ways than the Intel chips.
> But to say Motorola has "released" the chip is stretching things a bit. Not
> only has the 68030 not been formally introduced as a product yet, but the
> artciles I've read (e.g., Electronics, September 18, 1986) say volume
> production is more than a year away. The 80386 is here now, and actually
> has a system available (Compaq) which uses it. In other words, it's not
> really fair to compare that which Intel has now with what Motorola will have
> in a year. A more fair comparison is between the 68020 and the 80386.
>
> Rich Simoni

Yea, they aren't expecting first silicon on the 68030 until next spring or
so, last I heard. And sure you CAN get a '386 system, like the Compaq, today,
or a 68020 system (a "Turbo" Amiga is in the same price range). But instead
of comparing virtual performance, the actual performance should really be
compared. Today's MS-DOS based 80386 system, like the '286 systems that
preceed it, are still emulating an 8088, still have software than only
supports 640K or so of normally mapped memory, etc. You can add UN*X for a
better throughput. The "Turbo" Amiga, and Amiga with a 14.4MHz 68020 board
and some fast 32 bit RAM will work much better with the "base" system
software. Every progam that runs on the Amiga has the potential to use the
whole 4 Gigabyte address space along with the faster speed and wider bus.
Also, some run-time loaded Amiga libraries can be replaced with libraries
that take advantage of the 68020's additional op-codes, 68881 coprocessor,
etc. Still, programs will have to be recompiled with a 68020 compiler to
take full advantage of the processor, and of course, UN*X could be added.
I think a close comparison of these two systems would indicate the current
"off-the-shelf" winner in the Motorola-Intel battle, at least for the $3000
to $5000 price range. We'll have to wait for an 80386 based workstation, to
compare against a Sun-3 or the like, for the title in that price range.

--
==
Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     These opinions are my own, though if you try them out, and decide
     that you really like them, a small donation would be appreciated.

From 1501646529446589124
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-29 11:12:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gatech!jeff
From: jeff@gatech.EDU (Jeff Lee)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Management (patent 4,527,232)
Message-ID: <4587@gatech.EDU>
Date: Mon, 29-Sep-86 14:12:23 EDT
Article-I.D.: gatech.4587
Posted: Mon Sep 29 14:12:23 1986
Date-Received: Tue, 30-Sep-86 21:25:40 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<79@mtxinu.UUCP> <462@jc3b21.UUCP> <1950@videovax.UUCP>
Reply-To: jeff@gatech.UUCP (Jeff Lee)
Organization: School of Information and Computer Science, Georgia Tech, Atlanta
Lines: 91
Keywords: Long, Patent availability, Generality
Xref: watmath net.micro.atari16:2231 net.micro.amiga:4995 net.micro.68k:1880

> Using the untranslated addresses as the RAS addresses and doing the MMU
> address translation before the column addresses are needed for CAS sounds
> pretty general to me. I am sure the process Andy Bechtolsheim patented is
> quite a bit more specific. A patent cannot be granted for a general idea.
> It requires a specific implementation of an idea, either in a device or
> process. Think about it. Without that provision patents would stifle
> development. They are intended to do just the opposite. A patent is
> supposed to protect the inventor of a process from those who would use his
> work as their own. But it is not supposed to prevent people from using a
> concept the inventor has brought to light in their own inventions, so long
> as they don't plaigiarize from the original work.

I have a copy of the patent in front of me and I'm afraid that it is
quite general. They explain things in term of a general MMU that accepts
the address bus, uses direct address lines and indirect address lines,
a timing generator, and main memory. They then give a specific example
that they are running that uses segmentation and paging on the upper

address lines. They speak specifically about using dynamic rams (actually any rams that use row and column address strobes), and using the untranslated address lines before the translated address lines to increase the breathing room for translation. I'll quote the important section where he is actually telling what the invention is.

---------- begin quote mode ----------

Disclosure of Invention

An object of the invention is to minimize the delay incurred by a memory management unit in accessing a computer memory. The above object of the invention is realized by overlapping the delay time through the memory management unit with the access of memory. This is achieved by a computer memory addresses with row and column addresses and a memory management unit that allows low order addresses to pass directly into the row address of the computer memory whereas the high-order addresses pass through the memory management unit and enter the column address of the computer memory.

The system utilizes an address bus extending from a processor to a memory management means. The address bus splits memory addresses into pre-defined direct and indirect address segments. The direct address segments are fed directly to a computer main memory array of the type having rows and columns of control lines for bit storage elements which are located at intersections of the control lines. While the direct address segments are fed to either of the rows or columns of the main memory, the indirect address segments are fed to a memory management means which translates the indirect segments to a physical address. The translated indirect address segments are then fed to the other of the rows or columns of the main memory array, so that rows and columns of the main memory array are controlled by the direct address segments on the one hand and the translated indirect address segments on the other hand. The rows and columns of the mins array have connected driver circuits for enabling access to the storage elements. A timing generator is provided for strobing the row and column driver circuits with sequential pulses. While the direct address segmentsarrive first at main memory, and are strobed first, the translated indirect address segments arrive shortly thereafter and are strobed second, thereby permitting access to storage locations in main memory. The time between the two strobing pulses is used for indirect address translation, reducing memory access time.

In addition, the invention minimizes the address translation time of the memory management unit by using a high-speed static RAM (random-access-memory) for the translation process and by using the same RAM address lines both for address input and for accessing the entries of the memory management means in order to modify the translation.

---------- end quote mode ----------

This also looks, now that I have read it while typing it in, like they are also patenting using a high speed ram as the memory management storage device. This is even more general than people probably realized, but when I was looking into patents, the suggestion was to make it as

general as possible so you could better protect the heart of the process.

Anyway, if anyone would like a copy of the entire patent (6 pages) you
can send $2 to me and I'll mail you back a copy. This won't quite cover
the expense of getting it to you, but it will deter people who aren't
really interested in it that much and keep me from going broke sending
out a hundred of these. I'll pay for the envelope and the return postage.
Just send your mailing address to:

     Jeff Lee c/o School of ICS
     Georgia Tech
     225 North Avenue
     Atlanta, GA. 30332

I would suggest that you check your local library or maybe a college library
someplace close. This will save you $2 and a couple of weeks time.

--
Jeff Lee
CSNet: Jeff @ GATech   ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

From -8773382638304589888
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,17d01c86df3efa2c,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,17d01c86df3efa2c,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-09-29 11:33:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!amiga!pyramid!gould9!ncr-sd!hp-sdd!nick
From: nick@hp-sdd.UUCP (Nick Flor)
Newsgroups: net.micro.atari16,net.micro.atari8
Subject: Need schematics for Atari 810 disk drive
Message-ID: <456@hp-sdd.UUCP>
Date: Mon, 29-Sep-86 14:33:43 EDT
Article-I.D.: hp-sdd.456
Posted: Mon Sep 29 14:33:43 1986
Date-Received: Wed, 1-Oct-86 01:44:26 EDT
Distribution: net
Organization: Hewlett Packard, San Diego
Lines: 16
Xref: watmath net.micro.atari16:2238 net.micro.atari8:478

Sorry if I've cross-posted to the wrong newsgroups.

I need the schematics for the Atari 810 disk drive. Can someone tell me
how to get them. (You know, give an address/phone number to call)

Thank you in advance.

--

The above opinions are my own and do not necessarily reflect those of my
employers.
==*=*=*=*=*=*=*=*=*
Nick V. Flor -- Flick
..hplabs!hp-sdd!nick
==*=*=*=*=*=*=*=*=*
"What's going down in this world, you got no idea. Believe me."
--The Comedian

From -7456525624373569917
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 11:53:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!mordor!ehj
From: ehj@mordor.ARPA (Eric H Jensen)
Newsgroups: net.micro.atari16
Subject: Multi-tasking
Message-ID: <15693@mordor.ARPA>
Date: Mon, 29-Sep-86 14:53:53 EDT
Article-I.D.: mordor.15693
Posted: Mon Sep 29 14:53:53 1986
Date-Received: Wed, 1-Oct-86 01:25:27 EDT
References: <109200001@ccvaxa> <791@cbmvax.cbmvax.cbm.UUCP>
Reply-To: ehj@mordor.UUCP (Eric H Jensen)
Organization: S-1 Project, LLNL
Lines: 30

In article <791@cbmvax.cbmvax.cbm.UUCP> higgin@cbmvax.UUCP (Paul
Higginbottom) writes:
>...
>I couldn't resist replying to this one. The ST computers are GREAT
>machines but they need a multi-tasking O/S SOOOOO badly. The ...

This reminded me of an article that was posted some time ago by Bruce
Holloway from Digital Reaserch:

|>Date: 20 Feb 86 17:17:36 GMT
|>...
|>In article <409@ccivax.UUCP> rb@ccivax.UUCP (Rex Ballard) writes:
|>>
|>>VDI and AES are re-entrant right? What about BIOS and XBIOS?
|>
|>VDI and AES are reentrant, wrong. We at DRI are currently rewriting both
|>to be reentrant and multi-tasking; whether or not Atari picks this up
|>is up to them. Look for a Multi-tasking GEM sometime this year. But bug
|>Atari to make sure they buy it from us!

Is Atari going to purchase and release this??

--
eric h. jensen   (S1 Project @ Lawrence Livermore National Laboratory)
Phone: (415) 423-0229 USMail: LLNL, P.O. Box 5503, L-276, Livermore, Ca., 94550
ARPA: ehj@angband   UUCP: ...!decvax!decwrl!mordor!angband!ehj

From -2772410076160742969
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-29 13:26:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!mipos3!kds
From: kds@mipos3.UUCP (Ken Shoemaker ~)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <200@mipos3.UUCP>
Date: Mon, 29-Sep-86 16:26:36 EDT
Article-I.D.: mipos3.200
Posted: Mon Sep 29 16:26:36 1986
Date-Received: Wed, 1-Oct-86 04:23:09 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP>
Reply-To: kds@mipos3.UUCP (Ken Shoemaker ~)
Organization: Intel, Santa Clara, CA
Lines: 35
Keywords: here we go again...
Xref: watmath net.micro.68k:1887 net.micro.amiga:5023 net.micro.atari16:2241
net.micro.mac:8031

I can't speak for Intel, and none of this should be taken as the opinion
of Intel, but...

...Motorola's "announcement" came in the same week that they chided
Intel for the 386's non-availability; the week that Compaq introduced
their box. Compaq must have gotten at least a few from us, since they
seem to have filled the channels of distribution pretty well, or at least
out here Computerland seems to have it, and Fry's is advertising it
(for a discount!) in their newspaper ads.

To put things in a historical sense, Motorola held the same kind of blitz
a few months after Intel came out with the 286, describing the 68020,
the 68881(?) floating point unit, and the whatever-the-number-is paged
MMU, all well before their general availiblity, or even their first
silicon. I suppose that Intel should feel flattered in that it seems

to me that Mot, in each case, has conceeded defeat: the 68010 to the
286, the 68020 to the 386, and that in order to maintain any kind of
market share, they have to have a media blitz, rolling out their newest,
half baked, family jewels. Its all pretty comic!

And what about the new family jewels? Should I feel vindicated that Mot
has finally decided that on-chip memory management is a good idea? And
what about performance? Why would a new, ultra-high end user choose
the 68030 over, say, the Clipper, or the MIPS chips, each of which
(if you believe the numbers) should exceed the 68030's performance (with
the promise of delivering more sooner) and are available, in some semblance,
today?
--
The above views are personal.

I've seen the future, I can't afford it...

Ken Shoemaker, Microprocessor Design, Intel Corp., Santa Clara, California
uucp: ...{ hplabs|amdcad|qantel|pur-ee|scgvaxd|oliveb }!intelca!mipos3!kds
csnet/arpanet: kds@mipos3.intel.com

From -446723881925734047
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 13:26:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!bpa!burdvax!sdcrdcf!ucla-cs!rutgers!topaz!
nike!ucbcad!ucbvax!hplabs!oliveb!glacier!Shasta!simoni
From: simoni@Shasta.STANFORD.EDU (Richard Simoni)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1785@curly.ucla-cs.ARPA>
Date: Mon, 29-Sep-86 16:26:37 EDT
Article-I.D.: curly.1785
Posted: Mon Sep 29 16:26:37 1986
Date-Received: Thu, 2-Oct-86 21:21:46 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU>
Reply-To: simoni@Shasta.UUCP (Richard Simoni)
Organization: Stanford University
Lines: 24
Xref: watmath net.micro.68k:1898 net.micro.amiga:5046 net.micro.atari16:2266
net.micro.mac:8055

In article <262@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:

>Apparently the 68030
>uses what is called "Harvard parallel architecture". Now that Motorola
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production is more than a year away. The 80386 is here now, and actually
has a system available (Compaq) which uses it. In other words, it's not
really fair to compare that which Intel has now with what Motorola will have
in a year. A more fair comparison is between the 68020 and the 80386.

Rich Simoni
Center for Integrated Systems
Stanford University
simoni@sonoma.stanford.edu
...!decwrl!glacier!shasta!simoni

From -4059763651043601171
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b753d398c758c25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 13:30:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!bpa!burdvax!sdcrdcf!ucla-cs!rutgers!topaz!
ll-xn!nike!lll-crg!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Coprocessors
Message-ID: <1798@curly.ucla-cs.ARPA>
Date: Mon, 29-Sep-86 16:30:26 EDT
Article-I.D.: curly.1798
Posted: Mon Sep 29 16:30:26 1986
Date-Received: Thu, 2-Oct-86 21:22:26 EDT
References: <8609232056.AA06071@ucbvax.Berkeley.EDU>
<1095@batcomputer.TN.CORNELL.EDU> <420@ubc-cs.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12

[]

The TT will be a UNIX machine and cost several (?).
It is NOT an add-on to the ST - it's just the opposite!

The 32081 chip, 6 MHz version, quantity one, costs <0.

A working board with it could probably sell commercially
for about 00.

If all you want is fast FP, what would you get?

- Moshe Braner

From -8345145322838721781
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,848ac903cecd5694
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 14:50:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!
ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <3693@ism780c.UUCP>
Date: Mon, 29-Sep-86 17:50:57 EDT
Article-I.D.: ism780c.3693
Posted: Mon Sep 29 17:50:57 1986
Date-Received: Thu, 2-Oct-86 21:01:51 EDT
References: <8609261610.AA17706@ucbvax.Berkeley.EDU>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 44

In article <8609261610.AA17706@ucbvax.Berkeley.EDU> ACS19@UHUPVM1.BITNET (Mike
Vederman) writes:
>In case you don't know, or haven't used Red Ryder much, it says that you can
>use Red Ryder for 30 days, then decide if you wish to use the software, in
>which case you are asked to send money for documentation and registration.
>Otherwise, he asks that you destroy it, or pass it on to someone else.
>
>It would seem to me that, Data Pacific is doing him a favor by providing a
>larger distribution base. It would also seem that they are not *ripping him
>off* as I have inferred from your message. They seem to be doing what any
>other person might do, passing on the software (among other software which was
>not mentioned by name).
>

In case you don't know, many people who pay money for disks that
contain shareware think that they have payed for the shareware,
and thus don't have to send in any additional money. From the
posting I was responding to, it sounded like RR was the only
thing on those disks that was not free, and that there were
only two or three disks. $40 seemed a little high for three
disks of free stuff unless the seller of the disk was selling
Red Ryder.

>Flame on

>
Shields up!

>It seems that you are looking to start something where nothing is. If you
>truly care about Mr. Red Ryder losing his fair share, then take your
>grievance to him. Not by posting an insuating letter on the net.
>I am not affiliated with Data Pacific or David Small, but I do not appreciate
>someone who is looking for an argument. Both companies are doing the ST
>community a favor.
>

You are seeing insuation[sic] where there was only curiousity.

>Flame off
Shields down!

--
What's the difference between a duck?

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From 4391504949269141885
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4af47ff6d3edb72e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 15:54:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: 50 line editor.
Message-ID: <860929185414.00000870.ANWI.MA@UMass>
Date: Mon, 29-Sep-86 18:54:14 EDT
Article-I.D.: UMass.860929185414.00000870.ANWI.MA
Posted: Mon Sep 29 18:54:14 1986
Date-Received: Tue, 30-Sep-86 14:55:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I am in need of an editor, any, which supports 50 line mode on a monochrome
monitor for the ST. So far, most TOS editors work fine, but none of the ones
I have support 50 lines. I had STEDT, and the one that comes with Personal
Pascal. Anybody know? Help would be greatly appreciated.

Rick Flashman
AT&T: (413) 549-0173
Bitnet: Flash%UMass.BITNET
US Snail: 1040 N. Pleasant St, Puffton 381, Amherst, MA 01002.

From 2091184488897177634
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3285def2cae1026,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 16:09:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!UOGUELPH.BITNET!SOFPJF
From: SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer)
Newsgroups: net.micro.atari16
Subject: Re: OS9 mudules to run in GEM
Message-ID: <8609300312.AA02344@ucbvax.Berkeley.EDU>
Date: Mon, 29-Sep-86 19:09:53 EDT
Article-I.D.: ucbvax.8609300312.AA02344
Posted: Mon Sep 29 19:09:53 1986
Date-Received: Tue, 30-Sep-86 14:50:33 EDT
References: <husc6!endor!olson@rsch.wisc.edu>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Eric, you don't seem to realize: OS9 'IS AN OPERATING SYSTEM'. It's modules are all re-locatable, use OS9 I/O calls, and in short do not 'fit' onto GEM - NORMALLY. But I seem to recall (when I used my trusty old 6809 a lot more) that the assembler (and at least one C) could gen 'Native' code. But this made testing a pain, as you had to re-boot the old OS, run your code (if you were lucky you had a debugger), and then re-boot OS9 to re-EDIT, COMPILE, LINK... sad. In short, you stayed in OS9. But then the 'native' OS on the Tandy Color Computer with 64K (there I've admitted it!) was BASIC (yech), so it wasn't worth it.

   In short: When you boot OS9, you can still run BIOS, but you kiss TOS, and GEM goodbye (I think). And as you say, I doubt OS9 has the libraries. Now, weather the ST version of OS9 has a SIMILAR type of windowing and menu system... I don't know, havn't seen the ST version, and I don't know how far it has gotten in it's evolution. Comments anyone?
 /PJ

From -6884843957558773924
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df75e23059eaecf5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 19:22:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Spell Version 1.1 Source Code & Info About Binary File
Message-ID: <8609300222.AA21202@ohio-state.ARPA>
Date: Mon, 29-Sep-86 22:22:12 EDT
Article-I.D.: ohio-sta.8609300222.AA21202
Posted: Mon Sep 29 22:22:12 1986

Date-Received: Wed, 1-Oct-86 04:37:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 40

The next file that I will post is the source code to version
1.1 of my SPELL program. I have added one enhancement to the
program:

When SPELL encounters an unfamiliar word, the user is given the
option of inserting the word into the dictionary, or not inserting
the word.

With version 1.1, if the user chooses NOT to insert the word into
the dictionary, the word is considered as being correctly spelled,
and if the word is encountered again, the user is not asked what
to do with it. The word will not be saved in the dictionary, of
course.

This should be helpful when there is a word in the document

Let me try again:

This should be helpful when there is a word repeated several
times in your document that you don't want to insert into the
dictionary.

How to get the executable file for SPELL:

I regret that I am presently unable to successfully send executable
files to my VAX. If someone with OSS Pascal would be kind enough to
compile SPELL 1.1 and send the uuencoded binary to this net, I would
be greatly appreciative!

My next project will be to write a program that gives the times of
moon rise and set, sunrise and set, solar and lunar eclipses for an
observer's location. I hope I can find the time to write it! However,
as a graduate student, I am very busy this semester...

Thanks,

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From 571967219000351643
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d39da1e21ce233da,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 19:22:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609300222.AA21211@ohio-state.ARPA>
Date: Mon, 29-Sep-86 22:22:54 EDT
Article-I.D.: ohio-sta.8609300222.AA21211
Posted: Mon Sep 29 22:22:54 1986
Date-Received: Wed, 1-Oct-86 04:39:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 958

```
program spell;

const
  {$i gemconst}

  { length of largest possible word }
  max_word_length    =             30;

  { number of entries in the hash table }
  table_size         =            1000;

  small_length       =               4;
  medium_length      =               8;
  large_length       =              10;
  largest_length     = max_word_length;
  name_of_dictionary =     'words.txt';
  temp_dict_name     =     'words.xxx';

  { Color of text }
  color              =           $1180;

type
  {$i gemtype}

  word_string      = string[max_word_length];
  string_index     = 1..max_word_length;
  hash_index       = 1..table_size;

  length_type      = (small, medium, large, largest);

  small_string     = string[small_length];
  medium_string    = string[medium_length];
  large_string     = string[large_length];
  largest_string   = string[largest_length];

  { pointer to a small, medium, large, or largest string }
  word_pointer     = record

                       case tag_field : length_type of
```

```
                        small   : (small_ptr   : ^small_string);
                        medium  : (medium_ptr  : ^medium_string);
                        large   : (large_ptr   : ^large_string);
                        largest : (largest_ptr : ^largest_string);

                    end;

  list              = ^cell;

  cell              = record

                        word : word_pointer;
                        next : list;

                      end;

  hash_table        = array[hash_index] of list;

  word_list         = record

                        words   : hash_table;
                        changed : boolean;

                    end;

  char_file         = packed file of char;

var
  { memory-resident dictionary }
  dictionary,

  {
  list of words that are spelled correctly but will not be inserted into
  a dictionary.
  }
  secondary_dict   : word_list;

  cancel,
  out_of_memory    : boolean;
  word             : word_string;
  in_file_name,
  out_file_name,
  in_file_type     : string;
  spell_file,
  spelled_file,
  new_spelled_file : char_file;
  next_char        : char;
  button           : integer;


{$i gemsubs}
```

```
procedure io_check(switch : boolean); external;
function io_result : integer; external;


function file_exists(filename : string) : boolean;

{
Return true if the file specified by filename exists on the default disk.
}

const
  { File operation was successfull }
  no_error = 0;

var
  input_file : char_file;

begin

  { Turn off i/o checking. }
  io_check(false);

  { Attempt to open the named file. }
  reset(input_file, filename);

  { If there was no error opening the file, it is assumed to exist. }
  file_exists := io_result = no_error;

  close(input_file);

  { Turn i/o checking back on. }
  io_check(true);

end;


procedure remove_white(var str : string);

{
Remove all whitespace characters from a character string.  Whitespace
characters are assumed to have character codes less than or equal to
the code for space (' ').
}

var
  new_string : string;
  index      : integer;

begin

  new_string := '';

  for index := 1 to length(str) do
```

```
    if str[index] > ' '
      then new_string := concat(new_string, str[index]);

  str := new_string;

end;


procedure read_char(var input_file : char_file; var ch : char);

{
Read a character from a file.
}

begin

  ch := input_file^;
  get(input_file);

end;


procedure write_char(var output_file : char_file; ch : char);

{
Write a character to a file.
}

begin

  output_file^ := ch;
  put(output_file);

end;


procedure write_word(var output_file : char_file; word : word_string);

{
Write a character string to a file.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    write_char(output_file, word[index]);

end;
```

```
procedure get_word(var input_file, output_file : char_file;
            var word : word_string; var next_char : char);

{
Retrieve the next word from the input file.  When the file is completely read,
(word) will be the empty string.
}

var
  ch         : char;
  letters,
  apostrophe : set of char;

begin

  word := '';

  letters := ['a'..'z', 'A'..'Z'];
  apostrophe := [''''];

  if not eof(input_file)
    then begin

      { Get the initial letter of the word. }
      repeat

        read_char(input_file, ch);

        { Send all letters not in the word to the output file. }
        if not (ch in letters)
          then write_char(output_file, ch);

      until (ch in letters) or eof(input_file);

      { If the initial letter of the word was found, get the other letters. }
      if ch in letters
        then begin

          word := ch;

          repeat

            read_char(input_file, ch);

            if ch in letters + apostrophe
              then word := concat(word, ch)
              else { Save character following word to write to output file. }
                next_char := ch;

          until (not (ch in letters + apostrophe)) or eof(input_file) or
                (length(word) = max_word_length);

        end;
```

```
    end;

end;


function min(a, b : integer) : integer;

{
Return the smaller of a and b.
}

begin

  if a < b
    then min := a
    else min := b;

end;


function capital(ch : char) : char;

{
Return the capital of a lowercase letter.  Return the original
letter otherwise.
}

begin

  if ch in ['a'..'z']
    then capital := chr(ord(ch) - (ord('a') - ord('A')))
    else capital := ch;

end;


function hash(word : word_string) : hash_index;

{
Return an index into the hash table based on a key (word).
}

var
  index       : string_index;
  number      : long_integer;
  power_of_10 : integer;

begin

  { Convert the key to a number. }
  number := 0;
  power_of_10 := 1;
```

```
  for index := min(4, length(word)) downto 1 do begin

    number := number + power_of_10 * ord(capital(word[index]));
    power_of_10 := power_of_10 * 10;

  end;

  { Compute a valid hash index. }
  hash := int(number mod table_size) + 1;

end;


procedure get_word_from_dictionary(var word : word_string;
                                       word_cell : list);

{
Retrieve a word from a cell of the hash table.
}

begin

  case word_cell^.word.tag_field of

    small   : word := word_cell^.word.small_ptr^;
    medium  : word := word_cell^.word.medium_ptr^;
    large   : word := word_cell^.word.large_ptr^;
    largest : word := word_cell^.word.largest_ptr^;

  end;

end;


procedure word_capitalize(var word : word_string);

{
Make all alphabetic characters of a word upper-case.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    word[index] := capital(word[index]);

end;


function words_equal(word_1, word_2 : word_string) : boolean;
```

```
{
Return true if two words are equal (alphabetic case of characters is
ignored.
}

begin

  if length(word_1) <> length(word_2)
    then words_equal := false
    else begin

      word_capitalize(word_1);
      word_capitalize(word_2);

      words_equal := word_1 = word_2;

    end;

end;


function word_in_dictionary(word : word_string; dictionary : word_list) :
                                                                    boolean;

{
Return true when a word is found in the dictionary.
}

var
  index          : hash_index;
  retrieved_word : word_string;
  word_found     : boolean;

begin

  index := hash(word);

  { Single letters will be considered valid words. }
  word_found := length(word) = 1;

  { Search for the word in the hash table. }
  while (dictionary.words[index] <> nil) and (not word_found) do begin

    get_word_from_dictionary(retrieved_word, dictionary.words[index]);
    word_found := words_equal(word, retrieved_word);

    dictionary.words[index] := dictionary.words[index]^.next;

  end;

  word_in_dictionary := word_found;
```

```
end;


procedure insert_word(word : word_string; var dictionary : word_list;
                                          var out_of_memory : boolean);

{
Insert a word into the dictionary if it is not already there.
}

const
  min_free_memory = 1024;

var
  index     : hash_index;
  word_cell : word_pointer;
  new_cell  : list;


  procedure get_word_cell(word : word_string; var word_cell : word_pointer);

  {
  Return a pointer to a word.
  }

  begin

    {
    Depending on the length of the word, allocate the proper amount of
    memory.
    }

    if length(word) in [1..small_length]
      then begin

        word_cell.tag_field := small;
        new(word_cell.small_ptr);
        word_cell.small_ptr^ := word;

      end;

    if length(word) in [small_length + 1 .. medium_length]
      then begin

        word_cell.tag_field := medium;
        new(word_cell.medium_ptr);
        word_cell.medium_ptr^ := word;

      end;

    if length(word) in [medium_length + 1 .. large_length]
      then begin
```

```
        word_cell.tag_field := large;
        new(word_cell.large_ptr);
        word_cell.large_ptr^ := word;

      end;

    if length(word) in [large_length + 1 .. largest_length]
      then begin

        word_cell.tag_field := largest;
        new(word_cell.largest_ptr);
        word_cell.largest_ptr^ := word;

      end;

  end;


begin

  { Find out if memory is getting low. }
  out_of_memory := memavail < min_free_memory;

  if (not out_of_memory) and (not word_in_dictionary(word, dictionary)) and
     (length(word) in [1..largest_length])
    then begin

      { Get a pointer to a cell containing the word. }
      get_word_cell(word, word_cell);

      { Insert the word into the hash table. }
      new(new_cell);
      new_cell^.word := word_cell;

      index := hash(word);

      new_cell^.next := dictionary.words[index];
      dictionary.words[index] := new_cell;

    end;

end;


procedure clear_dictionary(var dictionary : word_list);

{
Initialize the dictionary to empty.
}

var
  index : hash_index;
```

```
begin

  for index := 1 to table_size do
    dictionary.words[index] := nil;

  dictionary.changed := false;

end;


procedure load_dictionary(var dictionary : word_list;
                          var out_of_memory : boolean);

{
Load the dictionary with words from a disk file.
}

var
  word_file : text;
  word      : word_string;

begin

  { Make mouse a "busy bee". }
  set_mouse(m_bee);

  { Load the dictionary into memory. }

  { Make the dictionary empty. }
  clear_dictionary(dictionary);

  { If the dictionary disk file does not exist, create a new (empty) one. }
  if not file_exists(name_of_dictionary)
    then begin

      rewrite(word_file, name_of_dictionary);
      close(word_file);

    end;

  { Prepare to read words from the disk file. }
  reset(word_file, name_of_dictionary);

  out_of_memory := false;

  { Insert each word in the disk file into the dictionary. }

  while (not eof(word_file)) and (not out_of_memory) do begin

    readln(word_file, word);
    insert_word(word, dictionary, out_of_memory);

  end;
```

```
  { Make the mouse an arrow again. }
  set_mouse(m_arrow);

end;


procedure update_dictionary(dictionary : word_list);

{
Save all dictionary words in a disk file if the dictionary has changed.
}

var
  index         : hash_index;
  word          : word_string;
  word_file,
  new_word_file : text;
  button        : integer;

begin

  if dictionary.changed
    then begin

      { Find out if user wants to update the dictionary stored on disk. }
      button := do_alert('[0][Update Dictionary?][YES|NO]', 1);

      if button = 1
        then begin

          { Make the mouse a "busy bee." }
          set_mouse(m_bee);

          { Save dictionary with a temporary filename. }
          rewrite(word_file, temp_dict_name);

          { Save all words stored in each list of the hash table. }
          for index := 1 to table_size do begin

            { Save all words stored in current list of the hash table. }
            while dictionary.words[index] <> nil do begin

              get_word_from_dictionary(word, dictionary.words[index]);
              writeln(word_file, word);

              { Advance to next cell of current list. }
              dictionary.words[index] := dictionary.words[index]^.next;

            end;

          end;
```

```
          { Replace old dictionary with new dictionary. }
          rewrite(new_word_file, name_of_dictionary);
          rename(word_file, new_word_file);

          { Return mouse to arrow shape. }
          set_mouse(m_arrow);

        end;

    end;

end;


procedure process_word(var word : word_string; var dictionary,
     secondary_dict : word_list; var out_of_memory : boolean);

{
Process a misspelled word: either

i.   place word in dictionary
ii.  change spelling of word
iii. don't change word
}

var
  insert_wd : boolean;


  procedure get_option(var word : word_string; var insert_wd : boolean);

  {
  Allow user to correct the spelling of a possibly misspelled word and insert
  it into the dictionary.
  }

  const
    not_in_dict  = 'is not in the dictionary.';
    question     = 'Add this word to dictionary?';

    { Width (in characters) of dialog box }
    box_width    = 40;

  var
    word_line,
    line_2,
    line_3,
    button_pushed,
    no_button,
    yes_button     : integer;
    option_box     : dialog_ptr;
    word_string    : str255;
```

```
  begin

    { Get a dialog box. }
    option_box := new_dialog(5, 0, 0, box_width, 7);

    { Place possibly misspelled word in the dialog box. }
    word_line := add_ditem(option_box, g_ftext, editable, 1, 1, 30, 1, 0,
                                                                  color);

    line_2 := add_ditem(option_box, g_text, none, 1, 2, length(not_in_dict),
                                                          1, 0, color);

    line_3 := add_ditem(option_box, g_text, none, 1, 3, length(question),
                                                        1, 0, color);

    { Place YES and NO buttons in the dialog box. }
    yes_button := add_ditem(option_box, g_button, exit_btn | selectable, 10, 5,
                                                   length('YES'), 1, 0, color);

    no_button := add_ditem(option_box, g_button, exit_btn | selectable,
                                    28, 5, length('NO'), 1, 0, color);

    { Prepare to allow user to correct the spelling of the word. }
    set_dedit(option_box, word_line, '______________________________',
                                    'aaaaaaaaaaaaaaaaaaaaaaaaaaaaaa',
                                         word, system_font, te_left);

    set_dtext(option_box, line_2, not_in_dict, system_font, te_center);
    set_dtext(option_box, line_3, question, system_font, te_center);

    { Prepare to have the YES or NO buttons pressed. }
    set_dtext(option_box, yes_button, 'YES', system_font, te_center);
    set_dtext(option_box, no_button, 'NO', system_font, te_center);

    center_dialog(option_box);

    { Get user input from dialog box. }
    button_pushed := do_dialog(option_box, word_line);

    { Retrieve the possibly edited word. }
    get_dedit(option_box, word_line, word_string);
    word := word_string;

    insert_wd := button_pushed = yes_button;

    end_dialog(option_box);
    delete_dialog(option_box);

  end;


begin
```

```
  {
  Allow user to correct spelling of word, and have him decide if it
  will be inserted into the dictionary.
  }

  get_option(word, insert_wd);

  {
  If the word is to be inserted into the dictionary, do so.  Otherwise
  insert the word into the secondary dictionary so that the user will
  not be asked about the word a second time.
  }
  if insert_wd
    then begin

      insert_word(word, dictionary, out_of_memory);
      dictionary.changed := true;

    end
    else insert_word(word, secondary_dict, out_of_memory);

end;


procedure get_input_filename(var in_file_name, in_file_type : string;
                                               var cancel : boolean);

{
Get the name the file to be corrected.  If cancel is true after this
procedure is called, the program is exited.
}

const
  fl_type_length = 3;

var
  button   : integer;
  path,
  filename : string;

begin

  { Default path for filename selection }
  path := 'A:\*.DOC';

  {
  Place file selection box on screen and allow user to choose a file or
  to press the cancel button.  Repeat until user enters a valid filename
  or presses the cancel button.
  }

  repeat
```

```
    cancel := not get_in_file(path, filename);

    {
    If the requested file does not exist, have the user choose an existing
    file or quit the program.
    }

    if (not cancel) and (not file_exists(filename))
      then begin

        button := do_alert('[2][Not found-Try again?][YES|NO]', 1);
        cancel := button = 2;

      end;

  until cancel or file_exists(filename);

  {
  If the filename of an existing filename has been given, extract
  the name and type of the file.
  }

  if not cancel
    then begin

      in_file_type := copy(filename, pos('.', filename) + 1, fl_type_length);
      in_file_name := copy(filename, 1, pos('.', filename) - 1);
      remove_white(in_file_name);

    end;

end;


procedure introduce_program;

{
Introduce the program with a dialog box.
}

const
  { Width (in characters) of dialog box }
  box_width = 64;

  { Strings that will be inserted into dialog box. }
  str_1     = 'Spell 1.1 - A Spelling Correction Program';
  str_2     = 'Written by Eric Bergman-Terrell';
  str_3     = 'of Cadenza Software, Ltd.';
  str_4     = '1704 Imperial Ridge, Las Cruces, NM  88001, USA';
  str_5     = 'Portions of this product are copyright (c) 1986, OSS and CCD';
  str_6     = 'Used by Permission of OSS';
  str_7     = 'This software has been placed in the public domain.';
  start_str = 'BEGIN';
```

```
var
  intro_box     : dialog_ptr;
  line_1,
  line_2,
  line_3,
  line_4,
  line_5,
  line_6,
  line_7,
  start_button,
  button_pushed : integer;
  start_item    : tree_index;

begin

  { Set up the mouse the be an arrow. }
  init_mouse;
  set_mouse(m_arrow);

  { Get a dialog box. }
  intro_box := new_dialog(8, 0, 0, box_width, 16);

  { Insert strings into dialog box. }
  line_1 := add_ditem(intro_box, g_text, none, 1, 1, box_width, 1, 0, color);
  line_2 := add_ditem(intro_box, g_text, none, 1, 3, box_width, 1, 0, color);
  line_3 := add_ditem(intro_box, g_text, none, 1, 4, box_width, 1, 0, color);
  line_4 := add_ditem(intro_box, g_text, none, 1, 5, box_width, 1, 0, color);
  line_5 := add_ditem(intro_box, g_text, none, 1, 7, box_width, 1, 0, color);
  line_6 := add_ditem(intro_box, g_text, none, 1, 8, box_width, 1, 0, color);
  line_7 := add_ditem(intro_box, g_text, none, 1, 11, box_width, 1, 0, color);
  start_button := add_ditem(intro_box, g_button,
                            exit_btn | selectable | default,
                            30, 14, length(start_str), 1, 0, color);

  { Adjust the strings in the dialog box. }
  set_dtext(intro_box, line_1, str_1, system_font, te_center);
  set_dtext(intro_box, line_2, str_2, system_font, te_center);
  set_dtext(intro_box, line_3, str_3, system_font, te_center);
  set_dtext(intro_box, line_4, str_4, system_font, te_center);
  set_dtext(intro_box, line_5, str_5, system_font, te_center);
  set_dtext(intro_box, line_6, str_6, system_font, te_center);
  set_dtext(intro_box, line_7, str_7, system_font, te_center);
  set_dtext(intro_box, start_button, start_str, system_font, te_center);

  center_dialog(intro_box);

  { Introduce the program. }
  button_pushed := do_dialog(intro_box, start_item);

  end_dialog(intro_box);
  delete_dialog(intro_box);
```

```
end;


begin

  if init_gem >= 0
    then begin

      introduce_program;

      load_dictionary(dictionary, out_of_memory);

      {
      Initialize list of correctly spelled words that will not be
      inserted into a dictionary.
      }
      clear_dictionary(secondary_dict);

      if not out_of_memory
        then begin

          get_input_filename(in_file_name, in_file_type, cancel);

          if not cancel
            then begin

              out_file_name := concat(in_file_name, '.XXX');

              reset(spell_file, concat(in_file_name, '.', in_file_type));
              rewrite(spelled_file, out_file_name);

              repeat

                get_word(spell_file, spelled_file, word, next_char);

                if length(word) <> 0
                  then begin

                    if (not word_in_dictionary(word, dictionary)) and
                       (not word_in_dictionary(word, secondary_dict))
                      then process_word(word, dictionary, secondary_dict,
                                                          out_of_memory);

                    write_word(spelled_file, word);
                    write_char(spelled_file, next_char);

                end;

              until (length(word) = 0) or out_of_memory;

              close(spell_file);

              { Replace old input file with file that has been corrected. }
```

```
              rewrite(new_spelled_file, concat(in_file_name, '.',
                                               in_file_type));
              rename(spelled_file, new_spelled_file);

              { Update dictionary if it has changed. }
              update_dictionary(dictionary);

            end;

        end;

      if out_of_memory
        then button := do_alert('[1][Out of Memory][CANCEL]', 1);

    end;

end.
```

```
From -5174318595741000400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6ebbe9946264421,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 20:07:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!lll-crg!seismo!rochester!cornell!
batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: X-Y plotting, improved
Message-ID: <1125@batcomputer.TN.CORNELL.EDU>
Date: Mon, 29-Sep-86 23:07:40 EDT
Article-I.D.: batcompu.1125
Posted: Mon Sep 29 23:07:40 1986
Date-Received: Wed, 1-Oct-86 03:05:51 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: The Society for the Liberation of the Atari ST
Lines: 231

[]

Here is an improved version of my X-Y plotting program.

Note that I took the log-scale stuff out.  That's because I didn't
like having to link to the math lib all the time.  Instead, take logs
before you call plot().

I added a settable plotting area with VDI clipping, and also a cooked
call to v_pmarker.  You are still limited to one plot at a time as long
as you use this simple approach.

Personally, I am AMAZED how fast this thing runs!
```

- Moshe Braner

---------- cut here ----------

```
/*
 * Simple VDI Interface for X-Y Plotting - version 2.
 *
 *      by Moshe Braner,   860929
 *
 * #include "plotxyz.c" (this file) in your program.
 *
 */

/* globally define arrays to be used by VDI: */

int contrl[12], intin[128], ptsin[128], intout[128], ptsout[128];

/* our own globals */

static   int  work_in[11], work_out[57];
static   int  plothand=0;
static   int  xl, xr, yt, yb;
static   int  curx, cury, curvalid;
static   double   p, q, r, s;

/*
 * Subroutine to set up the VDI workstation.
 * You have to call this first!
 * You have to call cleanplot() before you call this again!
 *
 * The parameters define the clipping area, in screen coords.
 * Suggested values (monochrome): 40,639,0,399.
 */
initplot(xmin, xmax, ymin, ymax)
    int  xmin, xmax, ymin, ymax;
{
     int  i, pxy[4];

     /* initialize VDI */

     if (plothand != 0) {
          puts("initplot(): Recall - cleanplot() first!");
          exit(0);
     }
     for(i=0; i<10; i++)         /* init workstation params
     */
          work_in[i]=1;
     work_in[10]= 2;             /* use raster coords
     */
     v_opnvwk( work_in, &plothand, work_out );
     vswr_mode(plothand, 1);     /* "Replace" mode      */
     vsf_color(plothand, 1);     /* black          */
```

```
     /* set up clipping boundaries    */

     pxy[0] = xmin;
     pxy[1] = ymin;
     pxy[2] = xmax;
     pxy[3] = ymax;
     vs_clip(plothand, 1, pxy);

     /* store the boundaries in our globals    */

     xl = xmin;
     xr = xmax;
     yt = ymin;
     yb = ymax;
}

/*
 * Subroutine to translate from user coords to screen coords.
 */
coords(x, y, pix, piy)
     double   x, y;
     int  *pix, *piy;
{
     *pix = (int)(r * (x-p)) + xl;
     *piy = (int)(s * (q-y)) + yb;
}

/*
 * Subroutine to set up axes and rescaling.
 * You may call this repeatedly.
 * The whole screen is cleared, and also the (text) cursor.
 *
 * Parameters:
 *
 *    xmin = lowest X-value
 *    xmax = highest X-value
 *    xtik = tick interval for X (ratio if log)
 *    ymin = lowest Y-value
 *    ymax = highest Y-value
 *    ytik = tick interval for Y (ratio if log)
 *    xorg, yorg = position where axes cross
 *    mode - if 0 then just remember scaling, alse draw the axes.
 */
axes(xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg,mode)
     double   xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg;
     int  mode;
{
     int  i, pxy[4];
     double   w;

     if (plothand == 0) {
          puts("Must call initplot() before axes()!");
          exit(0);
```

```
    }

    r = ((double)(xr-xl))/(xmax-xmin);
    s = ((double)(yb-yt))/(ymax-ymin);
    p = xmin;
    q = ymin;

    puts("\033E");              /* clear screen
    */
    puts("\033f");              /* cursor invisible
    */
    curvalid = 0;
    if (mode == 0)
        return;

    /* draw X-axis */

    coords(xmin, yorg, &pxy[0], &pxy[1]);
    coords(xmax, yorg, &pxy[2], &pxy[3]);
    v_pline(plothand, 2, pxy);
    w = xorg;
    while (w >= xmin)
        w -= xtik;
    while ((w+=xtik) <= xmax) {
        coords(w, yorg, &pxy[2], &pxy[3]);
        pxy[0] = pxy[2];
        pxy[1] = pxy[3] - 4;
        v_pline(plothand, 2, pxy);
    }

    /* draw y-axis */

    coords(xorg, ymax, &pxy[0], &pxy[1]);
    coords(xorg, ymin, &pxy[2], &pxy[3]);
    v_pline(plothand, 2, pxy);
    w = yorg;
    while (w >= ymin)
        w -= ytik;
    while ((w+=ytik) <= ymax) {
        coords(xorg, w, &pxy[0], &pxy[1]);
        pxy[2] = pxy[0] + 4;
        pxy[3] = pxy[1];
        v_pline(plothand, 2, pxy);
    }
}

/*
 * Subroutine to plot a point
 *
 *   (First call initplot() and axes().)
 *
 * Plots with the pen up if z==0, else pen down.
 * Uses the preset p, q, r, s, for rescaling.
```

```
 * Uses the remembered curx, cury if pen down.
 */
plot(x, y, z)
     double   x, y;
     int  z;
{
     int  xi, yi, pxy[4];

     if (plothand == 0) {
          puts("Must call initplot() and axes() before plot()!");
          exit(0);
     }
     coords(x, y, &xi, &yi);
     if (z && curvalid) {
          pxy[0] = curx;
          pxy[1] = cury;
     } else {
          pxy[0] = xi;
          pxy[1] = yi;
     }
     curx = xi;
     cury = yi;
     curvalid = 1;
     pxy[2] = xi;
     pxy[3] = yi;
     v_pline(plothand, 2, pxy);
}

/*
 * Subroutine to draw a marker.
 *
 *   (First call initplot() and axes().)
 *
 * Last argument is the marker type, a char: ./+/X/#/^/*
 */
mark(x, y, type)
     double   x, y;
     int  type;
{
     static int types[] = {' ', '.', '+', '*', '#', 'X', '^'};
     int  i, xi, yi, pxy[2];

     if (plothand == 0) {
          puts("Must call initplot() and axes() before mark()!");
          exit(0);
     }
     for (i=1; i<7; i++)
          if (type == types[i])
               break;
     vsm_type(plothand, i);
     coords(x, y, &pxy[0], &pxy[1]);
     v_pmarker(plothand, 1, pxy);
}
```

```
/*
 * clean up when you're done, or else you'll get cherry bombs!
 */
cleanplot()
{
     v_clsvwk(plothand);
     plothand = 0;
}
```

From 1017701607660615164
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,818ef080a8553820
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 22:24:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.STANFORD.EDU!
Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Re: HD and Reset Survivable Ram Disk, And MW C review wanted
Message-ID: <12242970309.8.LYNN@PANDA>
Date: Tue, 30-Sep-86 01:24:31 EDT
Article-I.D.: PANDA.12242970309.8.LYNN
Posted: Tue Sep 30 01:24:31 1986
Date-Received: Wed, 1-Oct-86 01:48:38 EDT
References: <527@elmgate.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

If you wish to have a RAM disk living happily with an Atari 20mb
hard disk, you have to "install" it as drive F in addition to having
it come up as drive F:.

I've gotten a ramdisk to work with a hard disk this way.

--Lynn

From 8543956365382747591
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a823e3c045b24fe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 23:36:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Uniterm/Terminal lockup
Message-ID: <8610040635.AA15590@ucbvax>

Date: Tue, 30-Sep-86 02:36:40 EDT
Article-I.D.: ucbvax.8610040635.AA15590
Posted: Tue Sep 30 02:36:40 1986
Date-Received: Sat, 4-Oct-86 13:53:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

This is a known problem. It was discussed a while ago, and i seem to
recall that thre was no general agreement on what should be done. I know
that ST-Talk installs its own interrupt routine (thats how it avoids
the garbage characters that the Mfp insists on spitting out whenever
you do a Rsconf(), even after explicitly disabling the transmitter
in the Tsr(bit 0). The way i worked around this problem in xmdm, was to install
a large (32k) buffer of my own using Iorec(). Since then the problem has
never re-appeared. I use xmdm at full 9600 baud almost all of the time.
Hope that helps.
bammi
PS: if you know how to stop the MFP from spitting those (3) characters, i would
lve to know. Currently, in xmdm, i send three ^H's following a rsconf to
get rid of them. Also, with the large rs232 buffer in place, i put flow control
completely off, and have never lost a character at 9600 baud.

From 5364235090693250455
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a77a326c4f74d1d7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 23:51:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Gem Bug List
Message-ID: <1582@cwruecmp.UUCP>
Date: Tue, 30-Sep-86 02:51:10 EDT
Article-I.D.: cwruecmp.1582
Posted: Tue Sep 30 02:51:10 1986
Date-Received: Wed, 1-Oct-86 06:09:54 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 947

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    gembugs.txt
# This archive created: Tue Sep 30 02:49:50 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'gembugs.txt'" '(37636 characters)'
```

```
if test -f 'gembugs.txt'
then
     echo shar: over-writing existing file "'gembugs.txt'"
fi
sed 's/^X//' << \SHAR_EOF > 'gembugs.txt'
X       #11000-#GEM Bug List                                    Page -1-
X
X
X
X      #: 11020 S2/GEM Support 04-Sep-86 01:13:17
X
X Fm: Tom Jeffries 73717,2261       To: SYSOP*Dave Groves 76703,4223
X      Here's a bug for which I still need a solution.  GEM does not always seem
X to report the release of a mouse button.  I've tried evnt_multi(), vq_mouse(),
X a  routine  that  steals  the  mouse  interrupt  and checks the buttons before
X handing  things  back  to GEM, and a few other things and in all instances the
X status  returned  is not always correct.  It is correct if you move the mouse,
X which  leads me to think that the mouse packet doesn't always get sent (which,
X of  course, would not be a GEM bug).  John Feagans at Atari said they were not
X aware  of  this  problem;  however,  several other developers on the Atari BBS
X reported the same thing.  It happens on the Desktop sometimes: you click on an
X option  but  nothing  happens  until  you  move the mouse.  I hope someone has
X solved this one.
X
X
X      #: 11023 S2/GEM Support 04-Sep-86 01:21:46
X
X Fm: Tom Jeffries 73717,2261       To: SYSOP*Dave Groves 76703,4223
X      Evnt_timer()  doesn't  always  happen.   I've never tried to find out any
X details,  but  sometimes  you  just don't get a noticeable time delay when you
X call the function.
X
X
X      #: 11041 S2/GEM Support 04-Sep-86 03:39:23
X
X Fm: Corey Cole 76224,66       To: Tom Jeffries 73717,2261
X      We've  run into several symptoms that appear to be manifestations of this
X (mouse  state  change  not  being  reported back properly).  In particular, we
X discovered  that  vq_mouse  often  reports  an out-of-date error status, while
X evnt_multi  and evnt_mkstate "go into the tank" for a noticeable time (approx.
X 1-2  seconds,  perhaps  a  bit  less)  before  returning correct status.  This
X applies  even when the "number of clicks" parameter is set to one (not looking
X for  multiple clicks), and even if the mouse is instantly moved outside of the
X mouse  click dither range.  We reported the latter to DRI at their GEM seminar
X in  April  of 1985, but the problem still exists in version 1.2 of IBM PC GEM,
X as well as on the ST.  -- Corey
X
X
X      #: 11048 S2/GEM Support 04-Sep-86 10:37:13
X
X Fm: Quack Computer Co., NM 75426,3451       To: SYSOP*Dave Groves 76703,4223
X      A  GEM bug : If a virtual floppy disk is installed after system start-up,
X the  system  bombs  when  required to do virtual disk swapping.  Disk swapping
```

X works fine if the floppies are installed on start-up, though.
X
X
X   #: 11053 S2/GEM Support 04-Sep-86 12:59:39
X
X Fm: Dan Moore 74035,243   To: Tom Jeffries 73717,2261
X   I can confirm the mouse packet DOES get sent since I have played with the
X packet handler.   I think the "missed" release is in GEM or the GEM packet
X handler.
X
X
X
X
X   #11000-#GEM Bug List   Page -1-
X
X
X
X
X   #11000-#GEM Bug List   Page -2-
X
X
X
X   #: 11075 S2/GEM Support 04-Sep-86 23:06:47
X
X Fm: Tom Jeffries 73717,2261   To: Dan Moore 74035,243
X   Very interesting. That means it would be worth writing my own interrupt
X routine and avoiding GEM. I've been holding off because I thought it might be
X in the hardware. Thanks! Tom Jeffries
X
X
X   #: 11041 S2/GEM Support 04-Sep-86 03:39:23
X
X Fm: Corey Cole 76224,66   To: Tom Jeffries 73717,2261
X   We've run into several symptoms that appear to be manifestations of this
X (mouse state change not being reported back properly). In particular, we
X discovered that vq_mouse often reports an out-of-date error status, while
X evnt_multi and evnt_mkstate "go into the tank" for a noticeable time (approx.
X 1-2 seconds, perhaps a bit less) before returning correct status. This
X applies even when the "number of clicks" parameter is set to one (not looking
X for multiple clicks), and even if the mouse is instantly moved outside of the
X mouse click dither range. We reported the latter to DRI at their GEM seminar
X in April of 1985, but the problem still exists in version 1.2 of IBM PC GEM,
X as well as on the ST. -- Corey
X
X
X   #: 11073 S2/GEM Support 04-Sep-86 23:04:18
X
X Fm: Tom Jeffries 73717,2261   To: Corey Cole 76224,66
X   Thanks, Corey. If you ever find a solution please let me know. I have a
X situation where I'd like some text to keep scrolling as long as the mouse
X button is held down in a certain location, but because of this bug it will
X sometimes keep scrolling after the button is released. Not good. Tom
X

X
X   #: 11068 S2/GEM Support 04-Sep-86 22:36:34
X
X Fm: Christopher F. Chabris 73277,305   To: SYSOP*Dave Groves 76703,4223
X   Just to put in my two cents worth: I suggested to Tim Oren a few days ago
X that the compendium that we are now compiling include all types of ST bugs,
X not just GEM ones. Accordingly, I suggest that the GEMDOS bugs that have been
X responsibly documented by Atari in the GEMDOS spec. in DL7 be included here
X for the benefit of non-registered developers who do not have access to the
X manual. Each function given there has a list of zero or more known bugs which
X should be put in the list.-- Chris Chabris
X
X
X   #: 11061 S2/GEM Support 04-Sep-86 20:34:09
X
X Fm: Mark McCulley 72337,3500   To: Tim Oren
X   I seem to remember some discussion here a while back about nested
X event_multi() problems and problems that can occur if the message buffer is
X not cleared.   I don't remember if the two problems were related. Anybody
X remember the essence of that discussion?
X
X   What happens if you just ignore messages (assuming the event_multi is NOT
X waiting on a message)?
X
X
X
X   #11000-#GEM Bug List   Page -2-
X
X
X
X
X   #11000-#GEM Bug List   Page -3-
X
X
X
X   #: 11063 S2/GEM Support 04-Sep-86 21:29:34
X
X Fm: Tim Oren 76703,202   To: CHUCK WALBOURN 73537,527
X   Chuck, first of all I don't have anything to do with RCS any more, having
X left DRI over a year ago. As to Pascal, version 2.0 which will EVENTUALLY be
X released by DRI/Atari does have hooks for Pascal, Fortran, and BASIC. I put
X them in before I left.   Unknown trees are mainly used when a resource is
X opened and there isn't any definition file - then you retype them to whatever
X you want. Or, you can make a tree an UNKNOWN if you want to leave a reminder
X that it is odd in some way, and shouldn't normally be altered. - Tim
X
X
X   #: 11105 S2/GEM Support 05-Sep-86 20:21:54
X
X Fm: Anker Berg-Sonne 72337,3211   To: SYSOP*Dave Groves 76703,4223
X   I have been battling a really weird problem in EAS and VDI for quite a
X while.   First the scenario. I'm writing an editor that used GEM windows to
X look into several disk files and use v_text() to write the text. Everything

X works just fine until I resize the window manually with the mouse. If I make
X the window smaller on both axes text doesn't appear in the box until I do
X another resize that makes one of the axes larger! Clearly there's a solution
X to the problem, since 1stword can handle that case. I have tried all kinds of
X tricks, but to no avail. The problem is easy enough to reproduce with
X apskel.c by inserting a call to v_text in the routine that does the painting.
X I'm at my wit's end HHHHEEEEELLLLLLPPPPP!
X
X Anker
X
X
X #: 11106 S2/GEM Support 05-Sep-86 20:24:35
X
X Fm: Anker Berg-Sonne 72337,3211 To: Anker Berg-Sonne 72337,3211
X Of course I meant v_gtext() where I wrote v_text().
X
X Anker
X
X
X #: 11113 S2/GEM Support 05-Sep-86 23:34:54
X
X Fm: Alan Page 72227,3507 To: Anker Berg-Sonne 72337,3211
X GEM doesn't seem to send redraw messages if you shrink a window, just if
X you enlarge it. My solution was to check the size change when I get the
X WM_SIZED message, and if neither axis is being increased then send myself a
X redraw message as in Tim Oren's self_redraw code in the GEM tutorials. -
X Alan
X
X
X #: 11111 S2/GEM Support 05-Sep-86 22:47:28
X
X Fm: NEIL R LINCOLN 73267,2265 To: Tim Oren 76703,202
X An obvious but maybe gentle reminder. Before submitting bugs to the
X compendium it would be helpful for contributors to check that the 'bugs' still
X exist in the current environments. "Bugs" that i have cataloged in my system
X have disappeared over time as various upgrades in software etc have occurred
X
X
X
X #11000-#GEM Bug List Page -3-
X
X
X
X
X #11000-#GEM Bug List Page -4-
X
X
X here. Unfortunately my aged memory plays tricks on me and I find myself
X avoiding nonexistent or antiquated pitfalls.
X
X
X #: 11116 S2/GEM Support 06-Sep-86 00:16:28
X

X Fm: Corey Cole 76224,66   To: Tom Jeffries 73717,2261
X   We have a kludgey solution -- depending on one of our state variables, we
X either use vq_mouse or graf_mkstate (the AES equivalent). I have no idea why
X vq_mouse works at some times and not at others, which makes me very nervous!
X Fortunately, at least so far, the situations in which vq_mouse can't be used
X are also those in which response time is not critical. You should stick with
X graf_mkstate if you can handle the slow "feel". - Corey
X
X
X   #: 11108 S0/General 05-Sep-86 20:25:17
X
X Fm: OZZIE BOESHANS 73157,2672   To: [F0] SYSOP 76703,2010
X   If I have a dialog box with a button in it and the button is defined as
X an EXIT button but not selectable, should pointing at it and clicking cause
X form_do to want to be able to have a big button that I can click on and exit
X from form_do but I don't want it turned to reverse video when it is selected.
X I have found that unless the button is defined as EXIT and SELECTABLE form_do
X does not exit when the button it clicked. Any ideas? Thanks in advance for
X any help!
X
X   Ozzie Boeshans 73157,2672
X
X
X   #: 11120 S2/GEM Support 06-Sep-86 03:27:52
X
X Fm: Don Curtis 76703,4321   To: SYSOP*Dave Groves 76703,4223
X   Dave,
X
X   evnt_button(etc....) locks you in never-never land IF while waiting for
X the button event, you move the mouse into the menu bar.   There is a
X work-around, you do an evnt_multi(etc...) looking for both the button event
X AND the timer event with a time value of 1ms. The C code for the workaround
X goes like this:
X
X   while(evnt_multi(MU_BUTTON | MU_TIMER, .etc...) == MU_TIMER);
X
X   As you can see, you will only exit this routine when the button has been
X pressed. Moving into the menu bar will not lock you with this work-around.
X
X
X Don
X
X   #: 11121 S2/GEM Support 06-Sep-86 05:07:00
X
X Fm: Dan Rhea 71777,2337   To: SYSOP*Dave Groves 76703,4223
X   Well here's one that has bothered me for a long time though it may be a
X feature rather than a bug.   When using a file selector box, and you have
X selected a file at the bottom of the list (the slider has been moved down from
X the top). You select the file and all is well. Now you call up the selector
X
X
X
X   #11000-#GEM Bug List   Page -4-

again but this time you are sent back to the top of the selector and need to go searching for where you left off. Is it possible for a selector box (even optionally), to be able to remember its previous state. Dan Rhea, 71777,2337

#: 11128 S2/GEM Support 06-Sep-86 12:30:24

Fm: Stephen Mehalek 73277,2557 To: SYSOP*Dave Groves 76703,4223

The modulus operator that comes with VDIBIND library is incorrect. The lrem.o object module contains 144 bytes and produces results of zero when it is used to give the remainder of long integers. The fix is to take the lrem.o module from the GEMLIB object modules and move it to the VDIBIND libraries. Use the AR^ AR68 utility routine to do this. This bug is not a GEM bug, but most people owning the developers package should know about this.

#: 11137 S2/GEM Support 06-Sep-86 18:30:21

Fm: OZZIE BOESHANS 73157,2672 To: 76703,4224

Is there any way to keep a button in a DIALOG box from going reverse video when it is selected?

Also, is there a way to set the state of the mouse buttons. I have an application that for some reason thinks the button is still down after a press and release sometimes. Pressing and releasing the button clears the condition. What happens is that I select an option that causes a dialog box to appear and once in a while when I move the mouse to a button the button becomes reverse video before I even click. If I move to a different button the new button doesn't turn reverse video but if I go back to the original it goes reverse video. If I click anywhere else on the screen and then reenter the first button it no longer goes reverse video. This really has me frustrated. Thanks for any help that is given.

Ozzie Boeshans 73157,2672

#: 11166 S2/GEM Support 07-Sep-86 21:01:48

Fm: David Beckemeyer 74236,625 To: Corey Cole 76224,66

I've noticed that the lines between when you should (can) use VDI calls and when to use AES are somewhat fuzzy. Is this documented anywhere that you know of?

#: 11173 S2/GEM Support 07-Sep-86 22:32:42

X Fm: Corey Cole 76224,66   To: David Beckemeyer 74236,625
X   I don't know of any documentation on [when to use VDI vs. AES calls].
X In general, any display operation can use either/both, while input should be
X restricted to one or the other (if the AES is used at all, your program should
X only do input with AES calls).   The catch is that AES is frequently less
X efficient than VDI, sometimes (as with graf_mkstate) by major amounts.
X
X
X   #: 11167 S0/General 07-Sep-86 21:13:31
X
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X   #11000-#GEM Bug List   Page -5-
X
X
X
X
X   #11000-#GEM Bug List   Page -6-
X
X
X Fm: David Beckemeyer 74236,625   To: Ric Clayton 73317,1350
X   Ric, assuming there isn't a simpler, plain old bug, in your program, it
X looks like you may be running up against the classic GEMDOS getting confused
X bug.
X
X   I have seen this sort of problem, (GEMDOS unable to open, or create a
X file for no apparent reason), and I have traced it some internal data structure
X handling bugs in GEMDOS. It seems than GEMDOS keeps a copy of the directory
X tree structure of each disk, and as you access directories continually adds to
X this data structure.   The idea is to make file accesses faster by avoiding
X reading each directory in the tree of a file spec whenever a file is accessed.
X
X   So far so good, but under some circumstances, which seem to relate to the
X number of directories accessed (across all drives), and I think also related
X to floppy disk media changes, this internal GEMDOS data structure gets messed
X up, and GEMDOS doesn't know where to put the next link in its structure, and
X goes out to lunch forever.
X
X   I don't know the whole solution to this problem, b but I have been able to
X reduce its frequency by making an undocumented BIOS call at certain times,
X which seems to force GEMDOS to free some internal memory. I found it by
X catching the desktop making BIOS calls. I don't have the code in front of me,
X but maybe John Feagans @ Atari could help? If not, I'll look it up and leave
X you a message. - david
X
X
X   #: 11026 S0/General 04-Sep-86 01:31:42
X
X Fm: Ric Clayton 73317,1350   To: All
X   Hi there, I have written a program to backup files from my hard disk to a
X floppy disk and have run into a problem I can't seem to get around. The
X program is rather simple; it just copies files from a source directory to the
X same directory on a designated floppy drive, creating directories as needed,

X using GEMDOS calls. Nothing fancy, just regular DOS type file copies. So the
X program goes chugging alone, happily copying files and all of a sudden gets an
X "file not found" error (-33) when it tries to open the Source file for
X reading, the name of which it just got from a directory scan! After this
X occurs, GEMDOS seems to be completely dorked and strange things start to
X happen, requiring a re-boot to restore it to normalcy. It doesn't always
X happen, and when it does it's not always in the same place. Sometimes I can
X get through a whole 5MB partition with no mishap. Sometimes I can't even get
X through the files in the root directory. I have gone over and over the code
X and can't find any error that would cause this. However, I'm new to both the
X ST and 'C' programming environments and may have made some false assumptions,
X so I'm asking for any help I can get. I would be glad to upload the source
X code if anyone would like to give it the go over. The program doesn't use
X GEM, just gemDOS (or is it TOS?). (I've compiled it with Megamax-C and Mark
X Williams C and get the same error. Though I haven't tried Alcyon-C yet.)
X
X   Thanks in advance for your help.
X
X   Ric Clayton [73317,1350]
X
X
X   #: 11196 S2/GEM Support 08-Sep-86 12:30:21
X
X
X
X   #11000-#GEM Bug List   Page -6-
X
X
X
X
X   #11000-#GEM Bug List   Page -7-
X
X
X Fm: Jim Needhan, DRI 76703,1064   To: Corey Cole 76224,66
X   I assume the confusion is with "mouse" calls and the such... The AES
X should always be used rather than the VDI when making mouse or other hardware
X calls. I have heard the complaints about speed but I do not fully agree with
X those programmer's with the concerns. I do realize that there is a speed
X "hit" but what is gained is a program that is more reliable and more portable.
X The AES cannot keep track of what the VDI is doing so by going through the AES
X the "system" is aware of what is going on.
X
X   Of course, you may write directly to the VDI and in graphics display
X calls etc. it is the correct path, but, for windowing, mouse control, etc.
X it is better from the DRI point of view to go through the AES.
X
X   Portability? There will be GEM available for other environments, and
X announcements will be made as appropriate, so don't lock yourself out if it
X isn't necessary.
X
X   << jim >>
X
X

X   #: 11219 S2/GEM Support 08-Sep-86 22:13:27
X
X Fm: SYSOP*Tom Hudson 76703,4224   To: Jim Needhan, DRI 76703,1064
X   Right you are, Jim. The VDI mouse routines are great because they are
X not affected by the DCLICK speed setting, but the system goes "HUH?" if you
X try to intermix the VDI and AES mouse calls. My solution: if you are doing a
X mouse operation that won't be declicked, before the mouse is used set the
X dclick speed to its fastest speed and restore it afterwards. Thanks for the
X help.
X
X   Oh, do you guys have any information on writing custom GDOS device
X drivers (like printers and custom screen devices)? If so, I'd like to get the
X info if I may. I'd appreciate it.
X
X   -Tom
X
X
X   #: 11248 S2/GEM Support 09-Sep-86 01:10:50
X
X Fm: Corey Cole 76224,66   To: Jim Needhan, DRI 76703,1064
X   Jim, I guess I didn't make myself totally clear. When I was complaining
X about "speed hits" when using the AES to read the mouse, I didn't just mean
X response delays (although those are bad enough). We're talking actually
X failing to recognize events -- for example, if the user presses the left mouse
X button in an application using graf_mkstate, the application will not be
X notified unless the button remains depressed for a sizable fraction of a
X second. I believe the same is true with evnt_multi. This behavior can be
X seen in many GEM applications (Megamax editor, DEGAS, etc.) -- user has to
X hold down the button for about a second to get a new cursor (or whatever).
X Highlighting (in FLASH, megamax editor, my word processor until I went over to
X vq_mouse, etc.) also "feels" jerky to the user because the program isn't
X immediately notified.
X
X   At the GEM seminar last year, I was told that evnt_multi does not wait
X the double-click time if the mouse moves more than a pixel or two. This
X
X
X
X   #11000-#GEM Bug List   Page -7-
X
X
X
X
X   #11000-#GEM Bug List   Page -8-
X
X
X simply doesn't seem to be the case (it should be), in my observation. In
X general, mouse events have a "clunky" feel to the user, which tends to hurt
X the "feel" of the entire application. Sorry to drag this into the ground,
X just not sure how clearly I'm stating this! -- Corey
X
X
X   #: 11252 S2/GEM Support 09-Sep-86 03:23:11

X
X Fm: Alan Page 72227,3507 To: Corey Cole 76224,66
X I agree with you about the slowness of evnt_multi in picking up button
X clicks. Flash 1.1 uses a complicated kludge involving a mixture of vq_mouse
X and ev_mmobutton which gives it _immediate_ response for cursor positioning.
X - Alan
X
X
X #: 11203 S2/GEM Support 08-Sep-86 13:18:40
X
X Fm: Mark Skapinker (BI) 76703,207 To: SYSOP*Dave Groves 76703,4223
X Here are a few 'goodies' we know about:
X
X First some bugs:
X
X -If you use a regular "form_do" in a desk accessory, you may find that
X your keys 'fall through' to the application, so be prepared to write your own.
X Falling through means that if you have a desk accessory on top of a word
X processor for example, keys pressed during a form in the desk accessory would
X be picked up and used by the word processor.
X
X -Evnt_timer is a very dangerous call to make from a desk accessory; it
X sometimes causes the entire program to freeze up . Regarding timers see the
X following message from Chris.
X
X - The system exception handler has some bugs. (See the following message
X from Chris)
X
X -Appl_play and record do not work without an ROM patch from Atari.
X
X -Alcyon Compiler problems. Appl_init returns the wrong value (always
X returns 1).
X
X -The documentation for Vex_motv is wrong - it requires a jump to the
X saved address to update the driver.
X
X
X Some things to remember:
X -Before doing an fsel_input call, and before any I/O, make sure you have
X set path names (A: is not good enough, it must be A:\), or be ready for a
X freeze.
X
X -Form_alert strings can only be about 30 characters per line.
X
X -You should modify the source of form_do (form_keybd) to change
X underscores to dashes; underscores blows your application out of the water.
X
X Mark
X
X
X
X #11000-#GEM Bug List Page -8-
X

#: 11204 S2/GEM Support 08-Sep-86 13:20:55

Fm: Mark Skapinker (BI) 76703,207 To: SYSOP*Dave Groves 76703,4223
There are 2 serious bugs related to desk accessories. Both were reported to Atari months ago.

1. EVNT_TIMER is flaky. The timer event will not always return when called. This seems to happen most often when there is heavy disk activity, but not always. If you do an evnt_multi() with messages and timers, the timers will eventually hang up, but if the accessory receives a message, the timers start working again (for a while). We call this burping the timer. As a programmer, this means that you must find an alternate way of releasing control (it isn't easy). That's why some desk accessories degrade the system performance so much. This bug has been ported from the IBM PC version of GEM.

2. The system exception handler has one or more bugs. If an application generates a system alert (drive not responding, insert your new A: disk, etc.), any desk accessory that is running is not stopped. That is, if you have an accessory buzzing along waiting for evnt_timers (which you shouldn't), or mouse movement events (actually any evnt_ function has this problem), the multitasking of the desk accessories is not turned off while the alert is presented. I checked this out with an accessory that woke up constantly and wrote a counter to the screen. As soon as the alert is cleared, the desk accessory, then the application bomb. I suspect it's because the accessory gets running in supervisor mode and messes up the super stack or something like that. The same thing can happen in a one drive system in another way (this is probably a separate bug). If the desk accessory reads from drive B:, and the system alert is generated to swap diskettes, after the alert is cleared first the desk accessory then the application will bomb. We've even seen it bomb the GEM Desktop.-- Chris Bailey (Batteries Included)

#: 11232 S2/GEM Support 08-Sep-86 23:33:36

Fm: Rich Plom (Intersect) 73307,1676 To: SYSOP*Dave Groves 76703,4223
You want bugs, use the file selector. It is one of the most flawed things in the system. You can crash it two ways, put the '_' in the path. Or, you can just leave a disk out and wait two times for it to give the abort continue error, after that booomb! Also, when you have a single drive system and you try to treat drive b as disk b, he really gets strange.

- Rich

#: 11267 S2/GEM Support 09-Sep-86 11:39:02

X
X Fm: Ken Settle 76556,753   To: SYSOP*Dave Groves 76703,4223
X   I have noticed the following bugs in GEM: Bug series #1: (AES object
X library section)
X
X   In the TEDINFO structure, te_pvalid field, the following validation
X characters DO NOT work properly: 9, A, a, N, n, P, p, (all except F and X).
X The bug occurs when a form_dial is called with an object containing any of the
X
X
X
X   #11000-#GEM Bug List   Page -9-
X
X
X
X
X   #11000-#GEM Bug List   Page -10-
X
X
X above characters in the PVALID field. If the user types an underscore "_" on
X any character position (except the last), the system promptly "bombs" out.
X The bug with the "F" character in that situation was fixed in ROM TOS and the
X "X" character never had this problem (to my knowledge).
X
X   Also in the TEDINFO structure, the te_txtlen and te_tmplen fields both
X contain   the   length+1   of   their respective strings, contrary to the
X documentation.
X
X   Bug series #2: (GEMDOS section)
X
X   Hard disk file WRITE time increases by roughly 1 second for each megabyte
X stored on that drive (partition, whatever).   This is probably due to
X unspeakably slow FAT search code (it takes about 450 times as long as it would
X using two simple 68000 instructions to search a FAT sector).
X
X   Dfree() command takes "next to forever" on the hard drive.
X
X   It is somehow possible to get a folder (on the hard disk) that is
X impossible to delete, even though it's empty. - Ken Settle [76556,753]
X
X
X   #: 11268 S2/GEM Support 09-Sep-86 11:42:38
X
X Fm: Ken Settle 76556,753   To: Ken Settle 76556,753
X   Bug series #3: (GEM Desktop section)
X
X   SOMETIMES when you close a directory window and re-open it from another
X drive, the window decides to exactly cover up the top window on the screen.
X This has been a major annoyance causing me to be paranoid about closing a
X directory window. It seems to be very random (as all truly good bugs are).
X
X   Changing resolution and/or colors can really screw up the desktop when
X you return to it. It should be Desktop's responsibility to make sure these

X conform to the current defaults. Desktop should also automatically set ALL
X DESKTOP.INF defaults on power up, and allow ANY application or accessory to
X have access to/modify these defaults (palette, key rate, RS232/Printer
X setup).
X
X Desktop should be hardy enough to survive a "close workstation" call by
X an application, without losing it's "pull-down menu" capability. This might
X allow VDI to be used in any resolution as dictated by the application, not
X desktop.
X
X It should be possible to abort a multiple-file COPY or DELETE operation
X at any time using the mouse and/or keyboard.
X
X Bug series #4: ("TOS" section)
X
X An error box stating "TOS ERROR #35" means nothing to most people, what's
X the real message?
X
X Bug series #5: (AES/VDI section)
X
X The dot-pattern in the move bar of a window can get screwed up by a
X
X
X
X #11000-#GEM Bug List Page -10-
X
X
X
X
X #11000-#GEM Bug List Page -11-
X
X
X redraw attempt such as after a dialog has disappeared. It appears to happen
X because of the "blit" feature being used to move a window to any odd
X line/pixel where VDI can't accurately match up the pattern. - Ken Settle
X [76556,753]
X
X
X #: 11307 S2/GEM Support 10-Sep-86 00:26:44
X
X Fm: Dan Rhea 71777,2337 To: SYSOP*Dave Groves 76703,4223
X Here is another interesting one I've stumbled on. It is not a "GEM" bug
X but a bug in the C Runtime (GEMLIB), or the AS68.PRG step of the latest and
X greatest compiler. This has been driving me nuts till I finally isolated it
X to the following test case. The test works fine with the old compiler/runtime
X but gives bad results for the new one (i.e. every other long has a value of
X 0). main()
X
X {
X
X long int a, b, c, d; int i; a = b = c = d = 0L;
X
X for (i=0; i<25; i++)

```
X
X      { a++; b++; c++; d++;
X
X      printf ("a=%D b=%D c=%D d=%D\n",a,b,c,d);
X
X      }
X
X      Cconin (); /* Wait for any character */
X
X      }
X
X
X Good Results: a=1 b=1 c=1 d=1
X      a=2 b=2 c=2 d=3
X
X      ...
X
X      a=25 b=25 c=25 d=25
X
X      Bad Results a=1 b=0 c=1 d=0
X
X      a=2 b=0 c=2 d=0
X
X      ...
X
X      a=25 b=0 c=25 d=0
X
X
X Note:  I  included OSBIND.H in the above program too.  Has anyone hit this one
X yet  or  devised  a  workaround  (other than floating point or the obvious two
X longs for each one used).  Dan Rhea, 71777,2337
X
X      #: 11314 S2/GEM Support 10-Sep-86 09:38:33
X
X
X
X       #11000-#GEM Bug List                                    Page -11-
X
X
X
X       #11000-#GEM Bug List                                    Page -12-
X
X
X Fm: Mark Skapinker (BI) 76703,207       To: SYSOP*Dave Groves 76703,4223
X      Dave,  As the GEM DESKTOP is simply a 'program' , I think its bugs should
X be kept separate.
X
X      Mark
X
X
X      #: 11310 S2/GEM Support 10-Sep-86 00:43:55
```

X
X Fm: Rich Plom (Intersect) 73307,1676 To: SYSOP*Dave Groves 76703,4223
X Nope, the only way around them is to write your own file selector. Atari
X will someday weed the bugs out(hopefully). It is a shame that a solid program
X can be crashed by it. It looks like the authors fault to everyone else, but
X the blame is the operating systems. The one that gets me the most is when you
X forget to put a disk in or put it in crooked and it dies after the second
X retry.
X
X
X #: 11443 S2/GEM Support 12-Sep-86 00:14:24
X
X Fm: Tom Jeffries 73717,2261 To: Jim Needhan, DRI 76703,1064
X There's an old rule of thumb- if one person tells you you have a tail,
X don't bother to look. If ten people tell you you have a tail, you'd better
X take a look to see what's going on. Actually, I think most of us look when
X one person tells us we have a bug. There is a whole series of problems with
X reading the mouse which include: slow and inaccurate reading of the mouse
X buttons, especially from the AES, evnt_multi() will not read both mouse
X buttons (as far as I know that's not in the bug list yet, we should add it),
X mouse button releases are not always recognized, etc. etc. etc. I must
X admit I'm getting a little tired of DRI and Atari trying to blame these
X problems on bad code. Too many developers are having the same problems for it
X to be bad code. In an earlier note, you defend the slowness of evnt_multi.
X If it really were accurate, I might go along. However, even if that were the
X case, it is hard to ignore the fact that the Mac, which also has to read
X double clicks, feels much less clunky than the ST. GEM, like all operating
X systems, has some problems. Actually, if you compare it with MS-DOS, which is
X much simpler but also has lots of bugs, you guys at DRI and the folks at Atari
X did a terrific job, especially considering the time it took to get the machine
X on the market. No purpose is served, however, by trying to blame bad code for
X problems that are real and don't seem to be getting solved. I don't mean to
X cause offense- but since we have the benefit of having some of the people who
X wrote GEM online, I would like the discussion to be at a realistic level.
X Thanks,
X
X Tom Jeffries
X
X
X #: 11445 S2/GEM Support 12-Sep-86 00:18:23
X
X Fm: Tom Jeffries 73717,2261 To: Mark Skapinker (BI) 76703,207
X One more bug- despite the documentation, you cannot read both the left
X and the right mouse button with one evnt_multi() call. You have to use two,
X which gives you time to go out for dinner before the mouse button event is
X reported, or use a different call.
X
X
X
X

X   #: 11456 S2/GEM Support 12-Sep-86 16:24:52
X
X Fm: Michael T. Smith 73317,3470   To: Mark Skapinker (BI) 76703,207
X   OK, I want in this mesh of messages... I just yesterday started writing
X a ml routine to be used in the vex_motv function. I had heard of some bugs in
X the vq_mouse and my program has been slipping in the area of mouse handling..
X So, the problem occurred when it hits the vex_motv it gives me 2 bombs and i
X don't know why, I haven't looked on Dl2 yet but I will to see if my problem can
X be answered there. (I think thats where you were going to put the
X compiled list of bugs) If its simply in MY ml code then I will eventually
X find it, but if there is funny business in that routine I would like to know
X how to get around it. The only other thing I think I'll be able to answer
X myself: Desk Acc's. I know that if I get a message 20 then I need to redraw.
X Is that It? If you have any Advice simply give it. I appreciate you help.
X Thanks.... Michael T Smith Xetec Inc. Salina Ks 73317,3470
X
X
X   #: 11483 S2/GEM Support 13-Sep-86 10:55:39
X
X Fm: Tom Jeffries 73717,2261   To: Michael T. Smith 73317,3470
X   One more bug (There's always one more bug), I think this one is pretty
X well known and documented but it can be unpleasant if you don't know about it:
X fsel_input() resets the clipping rectangle and does not reset it on exit.
X It's easy to work around- you just set your own clipping area when you regain
X control.
X
X
X   #: 11539 S2/GEM Support 13-Sep-86 22:58:44
X
X Fm: Alan Page 72227,3507   To: [F7] SYSOP*Dave Groves 76703,4223
X   Here's another bug for the list. When I use the function appl_find (from
X a desk accessory) it should return -1 if the application is not found.
X However, if I call appl_find with the name of an application just after I exit
X it, I get a 'valid' ID. As soon as I run another application then I get the
X proper -1 value returned.   It acts like the name of the application is not
X erased until you run another application. - Alan
X
X
X   #: 11540 S2/GEM Support 14-Sep-86 01:37:43
X
X Fm: SYSOP*Tom Hudson 76703,4224   To: [F7] Alan Page 72227,3507
X   By golly, Alan -- you have the same bug as I found yesterday!!! I was
X working on a desk accessory that looked for DEGAS Elite, and it works fine
X until Elite is run. That is, it knows it's not there before Elite is run, but
X thinks it's there after Elite's done! Fortunately, The accessory is written so
X that that does not matter, but it is a bug that should be reported.
X

X   -Tom
X
X
X   #: 11641 S2/GEM Support 16-Sep-86 08:47:54
X
X Fm: Michael T. Smith 73317,3470   To: SYSOP*Russ Wetmore 76703,2010
X   Russ, Thanks for the info.. I am using the 'asm{...}' from megamax for
X
X
X
X   #11000-#GEM Bug List   Page -13-
X
X
X
X
X   #11000-#GEM Bug List   Page -14-
X
X
X my interrupt interrupt but also 'C'... mint() { asm{...} }. The problem now
X exists that as soon as I call the vex_motv(num1,,); it crashes (2 bombs:Bus
X error) then returns to the desktop where it sits until I move the mouse and
X then I get 4 bombs.. (Illegal inst.) Currently, my int. is only a nop which
X leads me to believe that it is not caused by my int. but by the way I am
X calling the vex_motv();. I saw something about having to call , or jump to,
X the location that thee function returns to you. Also I noticed once that it
X executed the next 'C' instruction after the vex_motv. Go FIgure? Well, if any
X of this sounds familiar than let me know. Michael T Smith... Xetec Inc.
X
X
X   #: 11667 S2/GEM Support 16-Sep-86 22:23:41
X
X Fm: SYSOP*Russ Wetmore 76703,2010   To: Michael T. Smith 73317,3470
X   There's an example of calling vex_timv in DL0 someplace that I uploaded.
X The procedure should be similar for vex_motv if you'd like to look at it. [
X Russ]
X
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X       #11000-#GEM Bug List                                    Page -14-
SHAR_EOF
if test 37636 -ne "`wc -c 'gembugs.txt'`"
then
     echo shar: error transmitting "'gembugs.txt'" '(should have been 37636
characters)'
fi
#    End of shell archive
exit 0
--
usenet: .....!decvax!cwruecmp!bammi       jwahar r. bammi
csnet:       bammi@case
arpa:        bammi%case@csnet-relay
compuServe:  71515,155


From 783622049760960557
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ea680d63dcda70e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 23:53:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Rcs V1 bug list
Message-ID: <1583@cwruecmp.UUCP>
Date: Tue, 30-Sep-86 02:53:20 EDT
Article-I.D.: cwruecmp.1583
Posted: Tue Sep 30 02:53:20 1986
```

Date-Received: Wed, 1-Oct-86 06:11:01 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 83

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    rsbug.not
# This archive created: Tue Sep 30 02:52:33 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'rsbug.not'" '(2668 characters)'
if test -f 'rsbug.not'
then
     echo shar: over-writing existing file "'rsbug.not'"
fi
sed 's/^X//' << \SHAR_EOF > 'rsbug.not'
X         Bugs in the ST Resource Construction Set
X
XThe RCS originally shipped with the Atari Developers' Kit did not receive
Xadequate testing, and as a result contains a number of bugs, two of which
Xare show stoppers.  Due to numerous questions on the SIG, and Tom Hudson's
Xsuggestion, I am documenting them here.  (The statements here are my
Xown, and have nothing to with Atari or DRI.  Use them at your own risk.)
X
XBug #1)  The RCS does not work properly with color systems.  The character
Xsize used is incorrect, resulting in objects which are twice as high as
Xintended.  The only solution is to use the RCS with a monochrome system only.
X
XBug #2)  When using icons or bit images, the RCS may produce a resource file
Xwhich causes an address error on the 68000.  This occurs because the RCS
Xis not forcing the images to an even byte boundary.  Since the images are
Xwritten immediately after strings, any resource with an odd number of bytes
Xin the string will suffer from this problem (if it contains images as well).
XTo work around: make a copy of the resource BEFORE adding ANY images.
XThen add the images and attempt to save the resource from the RCS.  If you
Xget an error, restore from your backup, add one byte to any string, and try
Xagain.  Whenever editing ANY string, do the same thing.  ALWAYS keep a
Xbackup copy!  By the time the RCS bombs, your resource is history!
X
X"Feature" #3)  The icon format expected by the RCS is rather obscure,
Xshall we say.  This happened because the RCS expects to find icons written
Xby the GEM IconEditor, which was never ported to the ST.  If you want to
X"roll your own", an example of the correct format follows.  You may change
Xthe hex size values, and add or subtract data lines to suit.  You must
Xmaintain the EXACT format of the data lines.  Easiest place to go wrong:
Xthere is one and ONLY one padding blank at the end of each of the hexadecimal
Xdata lines.  It's important!
X
X/* GEM Icon Definition: */
```

```
X#define ICON_W 0x0030
X#define ICON_H 0x0018
X#define DATASIZE 0x0048
XUWORD clock[DATASIZE] =
X{ 0x0000, 0x0000, 0x0000, 0x0000,
X  0x3FFC, 0x0000, 0x000F, 0xC003,
X  0xF000, 0x0078, 0x0180, 0x1E00,
X  0x0180, 0x0180, 0x0180, 0x0603,
X  0x0180, 0xC060, 0x1C00, 0x0006,
X  0x0038, 0x3000, 0x018C, 0x000C,
X  0x60C0, 0x0198, 0x0306, 0x6000,
X  0x01B0, 0x0006, 0x4000, 0x01E0,
X  0x0002, 0xC000, 0x01C0, 0x0003,
X  0xCFC0, 0x0180, 0x03F3, 0xC000,
X  0x0000, 0x0003, 0x4000, 0x0000,
X  0x0002, 0x6000, 0x0000, 0x0006,
X  0x60C0, 0x0000, 0x0306, 0x3000,
X  0x0000, 0x000C, 0x1C00, 0x0000,
X  0x0038, 0x0603, 0x0180, 0xC060,
X  0x0180, 0x0180, 0x0180, 0x0078,
X  0x0180, 0x1E00, 0x000F, 0xC003,
X  0xF000, 0x0000, 0x3FFC, 0x0000
X};
SHAR_EOF
if test 2668 -ne "`wc -c 'rsbug.not'`"
then
     echo shar: error transmitting "'rsbug.not'" '(should have been 2668
characters)'
fi
#    End of shell archive
exit 0
--
usenet: .....!decvax!cwruecmp!bammi       jwahar r. bammi
csnet:       bammi@case
arpa:        bammi%case@csnet-relay
compuServe:  71515,155


From 4821513086932810365
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,306681b33c237b6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 00:19:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Preceding 2 messages
Message-ID: <1584@cwruecmp.UUCP>
Date: Tue, 30-Sep-86 03:19:54 EDT
Article-I.D.: cwruecmp.1584
Posted: Tue Sep 30 03:19:54 1986
Date-Received: Wed, 1-Oct-86 06:11:33 EDT
```

Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 10

 The two preceding messages (if they reach your site in that order) were files of bugs, from discussions on Compuserve ataridev.

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -8402447366696733232
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3f020b7094d9240e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 04:26:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!Ulrich.wbst
From: Ulrich.wbst@XEROX.COM
Newsgroups: net.micro.atari16
Subject: APPL_READ and APPL_WRITE
Message-ID: <860930-042558-1363@Xerox>
Date: Tue, 30-Sep-86 07:26:07 EDT
Article-I.D.: Xerox.860930-042558-1363
Posted: Tue Sep 30 07:26:07 1986
Date-Received: Wed, 1-Oct-86 02:49:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Does anyone know how to use these functions? In particular, is it
really possible for multiple applications to exchange messages? If so,
how does one get the ap_id to send to?   An example would be helpful.

Thanks,

Denny

From -6259251561394626852
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 06:16:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16

Subject: Re: A few questions
Message-ID: <2304@gitpyr.UUCP>
Date: Tue, 30-Sep-86 09:16:22 EDT
Article-I.D.: gitpyr.2304
Posted: Tue Sep 30 09:16:22 1986
Date-Received: Thu, 2-Oct-86 20:56:20 EDT
References: <233@husc6.HARVARD.EDU> <280@uwmacc.UUCP> <2285@gitpyr.UUCP>
<301@uwmacc.UUCP>
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Distribution: na
Organization: Georgia Institute of Technology
Lines: 38

In article <301@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>In article <2285@gitpyr.UUCP> tynor@gitpyr.UUCP (Steve Tynor) writes:
>>>>standard altogether) uses the right mouse button. The documentation doesn't
>>>>talk about it. In fact, I don't think GEM supports it. Good thing it's
>>>>there, huh?
>>
>>The fact is that the AES event library calls do *not* allow you to wait for
>>a right mouse button event. In order to use the right mouse button, you
>>must poll the mouse. Methinks the gentleman has a valid gripe.
>>
>Methinks you ought to RTFM...
>
>   ev_breturn = evnt_button(ev_bclicks, ev_bmask,
>   ev_bstate, &ev_bmx, &ev_bmy,
>   &ev_button, &ev_bkstate);
>
>   where ev_bmask: the mouse buttons to be taken into account
>   when reading the mouse:
>   01 = left button
>   02 = right button
>   03 = both buttons

My manual doesn't say anything about 03 = both buttons, but I have tried 02
for the right button with no success. I admit that I've been using
evnt_multi, not evnt_button. Could this be why it's never worked for me?
If so, I maintain that the gripe is valid. Most programs are going to have
to wait for keystrokes and menu events as well as button events... If I'm
wrong, I withdraw my remark... (BTW: what does the F stand for in RTFM?)

=-=
If the facts do not conform to the theory, they must be disposed of.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From 1264741769100530545
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6646331355f33394,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 06:59:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!UOGUELPH.BITNET!SOFPJF
From: SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer)
Newsgroups: net.micro.atari16
Subject: :-(It doesn't work. Oh, no!
Message-ID: <8609301347.AA11092@ucbvax.Berkeley.EDU>
Date: Tue, 30-Sep-86 09:59:08 EDT
Article-I.D.: ucbvax.8609301347.AA11092
Posted: Tue Sep 30 09:59:08 1986
Date-Received: Wed, 1-Oct-86 03:11:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 31

From the 'I said it couldn't happen to me' dept:

Turned on my 1040 this morning, the power light went on, the disk select
light went on, the disk made one light 'putt' sound.

No seeks, no screen, no nothing. I think my warranty *just* expired.
I have no idea where to start trouble-shiooting, and besides, although I
can use a multimeter, I've never laid hands on a logic probe.

So this is a last resort before I phone the dealer and way (?) months and
pay (?) dollars to have them fix it.   Does anyone have a quick suggestion
or 2? I'm not ENTIRELY all thumbs with a soldering iron, but that's about
it. Please reply direct, as I'd hate to clutter up the net (unless it's
something you think one and all should know.

I should also mention that we've been experiencing some VERY nasty weather
here, (thunderstorms) BUT:
- I haven't had it powered on during a storm,
- I've had the modem turned off (I read something in earlier postings),
- Everything connected to my computer is plugged into a 'power bar', and I use
  the switch on that to power everything up and down at once, except the CPU,
  which I switch on later/off 1st.

Given the above, what is the likelihood something nasty fried a chip? I expect
that was it *sigh*... Some spike came in over the phone line, right!? In the
future, should I even go as far as to remove the RS232 cable from the modem or
the ST while the system is not in use?   Or wire up some switch, maybe even
solenoid driven, to bypass the modem when I power off the ST. Why doesn't the
modem or the ST come with such a switch? I wonder which of the phone lines the
ugly critter used to carawl into my system? Ring, ground, or ?
 /PJ

From 4044560099511513019

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 07:44:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!elbereth!rutgers!im4u!oakhill!tomj
From: tomj@oakhill.UUCP (Tom Johnson)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <783@oakhill.UUCP>
Date: Tue, 30-Sep-86 10:44:24 EDT
Article-I.D.: oakhill.783
Posted: Tue Sep 30 10:44:24 1986
Date-Received: Wed, 1-Oct-86 06:19:45 EDT
References: <2270@gitpyr.UUCP> <1837@well.UUCP>
Reply-To: tomj@oakhill.UUCP (Tom Johnson)
Distribution: net
Organization: Motorola Inc. Austin, Tx
Lines: 22
Keywords: new motorola chips mmu fast
Xref: watmath net.micro.68k:1894 net.micro.amiga:5041 net.micro.atari16:2259
net.micro.mac:8050
Summary: 40 MB/s <> 25 ns memory

In article <1837@well.UUCP> swalton@well.UUCP (Stephen R. Walton) writes:
>
>>The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>
>Think about this. That's a memory access time of 25 nanoseconds, more than
>4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.
>...
>Unless one of you hot-shot chip designers out there can put together a
>1 MB DRAM with 25 ns access which will sell for less than $100 apiece :->
>
>   Stephen Walton, speaking for myself

Try again, just because there is a 40MB/s bus transfer rate *does not* mean
that there is a 25 ns bus cycle! If the processor transfers 4 bytes/xfer,
then the bus transfer rate will be 40 MB/s on a **100** ns bus cycle time.
If the transfer is 2 bytes/xfer then the bus cycle would be 50ns, etc.
Additionally, your assumption does not take into account capabilities such
as those on the 68030 to support new DRAM technology (page mode, static
column, nibble mode) which allows the transfer of 4 long words (16 bytes)
in as little as 5 clock cycles.

tom johnson   inhp4!ut-sally!oakhill!tomj

From -921698738692377667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5b0c263d2ded119,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 07:58:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!FINHUTC.BITNET!LK-ET
From: LK-ET@FINHUTC.BITNET (Esa Turtiainen)
Newsgroups: net.micro.atari16
Subject: ST file server at BITNET and the game of LARN for ST
Message-ID: <8609301433.AA11676@ucbvax.Berkeley.EDU>
Date: Tue, 30-Sep-86 10:58:19 EDT
Article-I.D.: ucbvax.8609301433.AA11676
Posted: Tue Sep 30 10:58:19 1986
Date-Received: Wed, 1-Oct-86 05:04:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

I'll announce a new bitnet file server at SILMARIL@FINHUTC.BITNET.

For more info try the following command (VM/SP):

```
  TELL SILMARIL AT FINHUTC GET ST PROGRAMS
```

Others: try your favourite //-command.

(Note: File server is located in Finland; so extensive use from US
is not necessarily a great idea).

One of the first programs available from SILMARIL is a port of the
game of LARN. Try:

```
  TELL SILMARIL AT FINHUTC GET LARN PRGUUE
  TELL SILMARIL AT FINHUTC GET LARN HLP
  TELL SILMARIL AT FINHUTC GET LARN FOR
  TELL SILMARIL AT FINHUTC GET LARN MAZ
  TELL SILMARIL AT FINHUTC GET LARN SCR
```

Total size is about 250k.

Author of this port is Pasi Turtiainen (my brother). I'll
forward thanks to him. (Buggestions & suggestions are welcomed,
too).

Feel free to send all your PD programs to me (preferably UUENCODED,
remember one additional character at the end of each line).

Esa Turtiainen
Helsinki Univ. of Technology

LK-ET@FINHUTC.BITNET

From -2980889643883473868
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 08:23:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!qantel!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Re: Multi-tasking
Message-ID: <1693@ptsfa.UUCP>
Date: Tue, 30-Sep-86 11:23:00 EDT
Article-I.D.: ptsfa.1693
Posted: Tue Sep 30 11:23:00 1986
Date-Received: Thu, 2-Oct-86 19:37:06 EDT
References: <109200001@ccvaxa> <791@cbmvax.cbmvax.cbm.UUCP> <15693@mordor.ARPA>
Reply-To: jmc@ptsfa.UUCP (Jerry Carlin)
Organization: Pacific * Bell, San Ramon, CA
Lines: 15

In article <15693@mordor.ARPA> ehj@mordor.UUCP (Eric H Jensen) writes:
>In article <791@cbmvax.cbmvax.cbm.UUCP> higgin@cbmvax.UUCP (Paul
>Higginbottom) writes:
>>... The ST computers are GREAT
>>machines but they need a multi-tasking O/S SOOOOO badly.

Beckmeyer has just started shipping MT-CSHELL for the ST which is
a MULTI-USER and multi-tasking OS that has a UNIX like flavor. It
sits on-top of the TOS file structure and so does not have a 'chown'
and other utilities but it feels a lot like Berkeley UNIX otherwise.
It can run one 'gem' program on the regular screen but other TOS
programs can be run from the serial-port user and the console user.
--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From 7917344063145099276
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 10:13:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
imagen!atari!apratt
From: apratt@atari.UUcp (Allan Pratt)
Newsgroups: net.micro.atari16
Subject: Right mouse button (was Re: a few questions)
Message-ID: <431@atari.UUcp>
Date: Tue, 30-Sep-86 13:13:24 EDT

Article-I.D.: atari.431
Posted: Tue Sep 30 13:13:24 1986
Date-Received: Fri, 3-Oct-86 00:48:26 EDT
References: <233@husc6.HARVARD.EDU> <280@uwmacc.UUCP> <2285@gitpyr.UUCP>
Distribution: na
Organization: Atari Corp., Sunnyvale CA
Lines: 21
Summary: right button is just as good as the left

The fact is, the you can wait for the right mouse button just as well as
the left. What you can't do is wait for "EITHER the right OR the left
button." If you study the semantics of the evnt_button call, you will see
why.

What you CAN do is substitute your own button handler, using the well-defined
GEM interface (rather than mucking with hardware interrupts). See the
VDI call "Exchange button change vector" and Appendix E, "Processor-Specific
Data."

Once you get the hang of that, your control of the mouse buttons can get
as fine as you like! Imagine: long-click vs. short-click, Left followed
by right as different from right followed by left... The possibilities
are endless! :-)

/--\
| Opinions expressed above do not necessarily | -- Allan Pratt, Atari Corp.
| reflect those of Atari Corp. or anyone else. | ...lll-lcc!atari!apratt
\--/

"A man hears what he wants to hear, and disregards the rest."

From 1484976230259847486
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,3a0fadf3908213ca,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,3a0fadf3908213ca,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,3a0fadf3908213ca,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 10:23:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!pt.cs.cmu.edu!cadre!pitt!darth!investor!rbp
From: rbp@investor.UUCP (Bob Peirce)
Newsgroups: net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Computer for an eight year old (and dad)
Message-ID: <811@investor.UUCP>
Date: Tue, 30-Sep-86 13:23:35 EDT
Article-I.D.: investor.811
Posted: Tue Sep 30 13:23:35 1986
Date-Received: Sat, 4-Oct-86 01:35:06 EDT
Distribution: na
Organization: Cookson, Peirce & Co., Pittsburgh, PA

Lines: 32
Xref: mnetor net.micro.amiga:4987 net.micro.atari16:2268 net.micro.mac:7355

At the risk of starting a religious war, I would appreciate any MAIL on
the best system to start an eight year old on which also has enough
power to be useful to me and my older children. I think this boils
down to the Amiga, Atari ST and the Mac.

The user interface should be very intuitive and easy to use. There
should be interesting games and graphics programs as well as powerful
software for editing term papers and other documents. I would want
communications software to call my Unix system at the office and
transfer files or run programs. It goes without saying that a Unix
compatible C compiler would be required eventually and with that there
should be a good development environment. I would really like to see a
debugger like the dbxtools program I recently saw running on a Sun --
Wow! An actual Unix port would be super down the road a bit.

I don't need much to start with, but later we might want a hard disk and
more RAM. I have heard about some neat stuff for digitizing and
manipulating photographs and video signals. Who runs that?

I would most like to hear from people who have experience with two or
all three of these machines rather than just one. I would appreciate
mail since I don't usually read these groups.

Thanks for any help you can send.
--

Bob Peirce, Pittsburgh, PA
uucp: ...!{allegra, bellcore, cadre, idis}
!pitt!darth!investor!rbp
412-471-5320

NOTE: Mail must be < 30K bytes/message

From 6266980093908083108
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 12:24:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rutgers!caip!cbmvax!bpa!burdvax!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: Re: The Motorola 68030

Message-ID: <3698@ism780c.UUCP>
Date: Tue, 30-Sep-86 15:24:54 EDT
Article-I.D.: ism780c.3698
Posted: Tue Sep 30 15:24:54 1986
Date-Received: Fri, 3-Oct-86 00:23:52 EDT
References: <877@Shasta.STANFORD.EDU> <807@cbmvax.cbmvax.cbm.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 13
Xref: mnetor net.micro.68k:1296 net.micro.amiga:4969 net.micro.atari16:2247
net.micro.mac:7342

In article <807@cbmvax.cbmvax.cbm.UUCP> daveh@cbmvax.cbm.UUCP (Dave Haynie)
writes:
>
[Talking about "Turbo" Amiga]
> etc. Still, programs will have to be recompiled with a 68020 compiler to
> take full advantage of the processor, and of course, UN*X could be added.

Does the "Turbo" Amiga have an MMU? If not, then adding UN*X is going
to be very hard. Adding unix to the Compaq 386 box will be very easy.
--
What's the difference between a duck?

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From -8445232169998900146
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 12:38:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!husc4!hadeishi
From: hadeishi@husc4.harvard.edu (mitsuharu hadeishi)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <280@husc6.HARVARD.EDU>
Date: Tue, 30-Sep-86 15:38:12 EDT
Article-I.D.: husc6.280
Posted: Tue Sep 30 15:38:12 1986
Date-Received: Wed, 1-Oct-86 06:14:38 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: hadeishi@husc4.UUCP (mitsuharu hadeishi)
Organization: Harvard Science Center

Lines: 49
Keywords: here we go again...
Xref: watmath net.micro.68k:1893 net.micro.amiga:5040 net.micro.atari16:2257 net.micro.mac:8049
Summary: Motorola's continual announcements

In re: Motorola's continual announcements . . . is it fair to compare the 68030 to the 80386, etc.?

Yes.

Firstly, it is clear that Motorola's architecture is a lot cleaner than Intel's. Certainly their chips may be a year or so behind Intel (i.e. 68020 and 80286, 68010 and 80186, etc.); but their chips are far superior. Even if you insist on comparing the 68010 to the 80286 it is not clear at all that the 80286 wins hands down; the '010 has an architecture more well-suited to implementation of multi-level interrupt multitasking systems. The fact is that for implementation of real systems the 68010 in many cases is a far more appropriate choice than the 80286. (about Unix implementation, see BYTE article last month.) And of course the 68020 is far and away the superior chip compared to the 80286, and the '020 has been available in real computer systems for some time. From this point of view it seems reasonable to compare the '286 to the '020 rather than the '010, and here the comparison is clear. '020s are used (as you all know) in Sun workstations, TurboAmigas, etc. '286s are used in ATs. There is really no comparison between the two classes of machine.

Another important point to make is that operating systems implemented on the 68000 series chips will run fairly well on the higher-grade chips; UNIX, AmigaDos/Intuition, Mac Operating System, ST GEM/TOS, et cetera are all capable of taking advantage of the higher-level chips' capabilities (especially UNIX and AmigaDos/Intuition), although some optimization wouldn't hurt. From the point of view of the Intel chips, the 8088-based MS-DOS is nothing more than a kludge on the 80286 and 80386; for that operating system to take advantage of those chips a complete re-write must be done, and is in the process of being completed as we speak. This new operating system however will most likely be incompatible to a great degree with the old, 8/16-bit MS-DOS and will contain major bugs for some time. AmigaDOS/Intuition has been running on the 68000 for about a year now, and Unix implementations for the 68000/68010 chips have been floating around for at least 3 or more years. To compare the 80386 with the 68020 is absurd; the '020 has been around for some time now and has a lot of debugged software/operating systems running on it; the '030 will inherit that software and blaze with it whereas what will the '386 do? Run character-stream UNIX and 640K MS-DOS?

-Mitsu (hadeihi@husc4.UUCP)

P.S. BTW, have you guys heard about the 78000 (!?) See Nanobytes in the latest BYTE (the //GS issue). This is a RISC uprocessor with a rated speed of 20 (VAX-equivalent?) MIPS . . . this kind of speed totally blows away the RT PC (note: the RT PC performed just a hair

better than an PC AT in benchmarks . . . see PC World or PC magazine
of a month ago. . . not very impressive . . .)

From -4762868474278668750
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5adf9a701b2f45fa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:17:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!bpa!burdvax!psuvax1!psuvm.bitnet!zsr
From: ZSR@PSUVMB.BITNET
Newsgroups: net.micro.atari16
Subject: Re: High-pitched whine
Message-ID: <7621ZSR@PSUVMB>
Date: Tue, 30-Sep-86 16:17:05 EDT
Article-I.D.: PSUVMB.7621ZSR
Posted: Tue Sep 30 16:17:05 1986
Date-Received: Sat, 4-Oct-86 05:30:47 EDT
References: <860925115730.1.TYSON@ELCAPITAN.ARPA> 1114@batcomputer.TN.CORNELL.EDU
Lines: 4

Hmmm...does anyone have any ideas why my Color Monitor whines once and a while?
It only does it about 15-30 minutes after I turn it on and only lasts for about
two minutes, but it is a DEFINITE whine. The picture's great, but the sound
needs work :-)

From -8215970304853926880
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3285def2cae1026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:35:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Re: OS9 mudules to run in GEM
Message-ID: <282@husc6.HARVARD.EDU>
Date: Tue, 30-Sep-86 16:35:57 EDT
Article-I.D.: husc6.282
Posted: Tue Sep 30 16:35:57 1986
Date-Received: Wed, 1-Oct-86 06:16:48 EDT
References: <husc6!endor!olson@rsch.wisc.edu>
<8609300312.AA02344@ucbvax.Berkeley.EDU>
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Organization: Aiken Computation Lab, Harvard University
Lines: 10

I realize that OS/9 is an operating system unto itself. The point is that
GEM and VDI are not: they are acually libraries. It's still not clear

to me whether they are in ROM on the ST or linked in with every application,
but, regardless, OS/9 should be able to talk to these libraries. Theoretically
code linked to access GEM/VDI (if such libraries existed) would still run
if the program were run under TOS. The I/O, on the other hand, is more
troublesome. I wasn't totally serious in asking such a thing, just wishful
thinking.

-Eric

From 1507346843410977462
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:42:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!rutgers!sri-spam!sri-unix!hplabs!sdcrdcf!ism780c!
tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: A few questions
Message-ID: <3701@ism780c.UUCP>
Date: Tue, 30-Sep-86 16:42:52 EDT
Article-I.D.: ism780c.3701
Posted: Tue Sep 30 16:42:52 1986
Date-Received: Sat, 4-Oct-86 05:26:02 EDT
References: <233@husc6.HARVARD.EDU> <280@uwmacc.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Distribution: na
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 24

In article <280@uwmacc.UUCP> oyster@uwmacc.UUCP (Vicarious Oyster) writes:
>
>   Oh, the Mac again, eh? Well, I'll explain a little better. The fine,
>original-thinkers at Apple made the Macintosh in the image of a Xerox
>icon-based OS interface. The folks at DRI did the same. However, one of
>those companies was bigger, and had more money to spend on lawyers, so
>they made the other company make some small yet significant changes to
>their OS interface, so they wouldn't have the same "look and feel" as that
>original Xerox product. Life is strange, no?

Isn't it interesting that Amiga has not had any problems with Apple?
(or have they and I just haven't heard about it?). The point is
that it is possible to make a reasonable user interface for a mouse
based windowing system without copying the "look and feel" of the Mac.
Why couldn't DRI go to the trouble of doing this?

From what I have seen, it looks like Apple looked at the Xerox stuff
as a source of ideas. DRI appears to have looked at Apple and tried
to look as much like them as possible. There's a difference.
--
What's the difference between a duck?

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From 9131896341929755922
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:52:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Multi-tasking
Message-ID: <1077@druhi.UUCP>
Date: Tue, 30-Sep-86 16:52:02 EDT
Article-I.D.: druhi.1077
Posted: Tue Sep 30 16:52:02 1986
Date-Received: Thu, 2-Oct-86 21:34:58 EDT
References: <109200001@ccvaxa> <791@cbmvax.cbmvax.cbm.UUCP> <15693@mordor.ARPA>
Organization: AT&T Information System Labs, Denver, Co
Lines: 43

In article <15693@mordor.ARPA>, ehj@mordor.UUCP writes:
>
> In article <791@cbmvax.cbmvax.cbm.UUCP> higgin@cbmvax.UUCP (Paul
> Higginbottom) writes:
> >...
> >I couldn't resist replying to this one. The ST computers are GREAT
> >machines but they need a multi-tasking O/S SOOOOO badly. The ...
>
> This reminded me of an article that was posted some time ago by Bruce
> Holloway from Digital Reaserch:
>
> |>Date: 20 Feb 86 17:17:36 GMT
> |>...
> |>In article <409@ccivax.UUCP> rb@ccivax.UUCP (Rex Ballard) writes:
> |>>
> |>>VDI and AES are re-entrant right? What about BIOS and XBIOS?
> |>
> |>VDI and AES are reentrant, wrong. We at DRI are currently rewriting both
> |>to be reentrant and multi-tasking; whether or not Atari picks this up
> |>is up to them. Look for a Multi-tasking GEM sometime this year. But bug
> |>Atari to make sure they buy it from us!
>
> Is Atari going to purchase and release this??
>
> --
> eric h. jensen   (S1 Project @ Lawrence Livermore National Laboratory)
> Phone: (415) 423-0229 USMail: LLNL, P.O. Box 5503, L-276, Livermore, Ca., 94550
> ARPA: ehj@angband   UUCP: ...!decvax!decwrl!mordor!angband!ehj

Unfortunately, Bruce then posted a followup article stating that multi-tasking GEM would not be released this year and he should not have mentioned anything about it. Apparently, they are working on it, but have no firm time schedule for its release.

I hope that Atari will purchase it and release it when it becomes available. If not, then DRI would be smart to release it themselves, since the market for it would be HUGE!

Barry Locklear
AT&T Information Systems Labs
Denver, CO
ihnpr!drutx!druhi!lbl
(303) 538-4954

From 3465043276661453868
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b9321c2eb80397f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:53:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!its63b!csan
From: csan@its63b.ed.ac.uk (ECTU74 A Ness CS)
Newsgroups: net.micro.atari16
Subject: Roms for the ST.
Message-ID: <58@its63b.ed.ac.uk>
Date: Tue, 30-Sep-86 16:53:50 EDT
Article-I.D.: its63b.58
Posted: Tue Sep 30 16:53:50 1986
Date-Received: Tue, 7-Oct-86 21:15:20 EDT
References: <8609221236.AA01198@ucbvax.Berkeley.EDU>
Reply-To: csan@its63b.ed.ac.uk
Organization: I.T. School, Univ. of Edinburgh, U.K.
Lines: 12
Keywords: Roms

Sender:csan@its63b.ed.ac.uk

I was thinking about eventually getting some roms for my 520 . Unfortunately, Ive heard that some packages only work with one version and not another . Being in the UK , I would prefer to use the UK version . Is it possible , short of taking the roms out , to disable them so I can load another version from disk ?

Are there any *cheap* ramdisk utilities around ? If you know of any , could you send me details .

Thanks in advance ,

--Andie Ness

From 5972361675058431139
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,341a11995b3b8072,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 13:56:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: SNAPSHOT with EASYDRAW
Message-ID: <8609302056.AA18102@ucbvax.Berkeley.EDU>
Date: Tue, 30-Sep-86 16:56:58 EDT
Article-I.D.: ucbvax.8609302056.AA18102
Posted: Tue Sep 30 16:56:58 1986
Date-Received: Wed, 1-Oct-86 06:08:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

There is a bug in SNAPSHOT.ACC which makes it impossible to take pictures of
a GEMDRAW or EASYDRAW screen.
If you use Snapshot/0.14 with resident GDOS.PRG, you only get "empty" pictures.
This is especially annoying as the double WORDPLUS - EASYDRAW would have been
an excellent documentation system.
Last weekend I found the reason for the "empty" pictures.
It is a call of the VDI copy raster routine (vro_cpyfm) with a handle being
constantly 1. This works if the screen is the only VDI device.
But with GDOS you can have other VDI devices and the physical device handle
number of the screen has changed.
If someone is interested in my modified version of SNAPSHOT, I will post it.

Concerning VDI devices I have a few questions to which someone perhaps has
answers:

1) Is the physical device handle number identical to the device identification
   number used as input for the open workstation call ?

2) How can I see, which workstation is opened ?

3) Who opened the screen workstation first and which device id number is used ?

4) Why does the ASSIGN.SYS for EASYDRAW use 4 device id numbers for the screen ?

Thanks in advance.

  Konrad Hahn @ University Darmstadt
  BITNET: XBR4D76H@DDATHD21

From -8283693467070310742
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,4e640a22d07ed112,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 14:22:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!sri-unix!hplabs!pesnta!amd!amdcad!
decwrl!pulman.dec.com!peters
From: peters@pulman.dec.com (Don Peters, APO-1/F8, 289-1242)
Newsgroups: net.micro.atari16
Subject: Regent Base experience
Message-ID: <5645@decwrl.DEC.COM>
Date: Tue, 30-Sep-86 17:22:58 EDT
Article-I.D.: decwrl.5645
Posted: Tue Sep 30 17:22:58 1986
Date-Received: Fri, 3-Oct-86 00:37:29 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 38

I thought I'd pass along some experience I had with a software package called Regent-Base. I ordered this program about two weeks ago, based upon a recommendation that this software had a good GEM interface and was fairly powerful.

The manual comes with a classy cover, but the internal documentation looks like it was quickly made, with numerous typographical errors scattered throughout the manual. They couldn't have used a spelling checker on it, although I think they have a product called Regent Spell!

After studying the manual for many hours, I wrote my first application. I was able to design a GEM-appearing screen without too much difficulty, and started on the report generation phase. I soon ran into unexpected error messages that didn't apply. In fact, I soon uncovered about about six problems, ones that severly impacted my application.

So, refering to their documentation, they say to contact them from the hours of 10 am to 2 pm for help. But they neglected to list a phone number, and I had to call information for it. On my first try, all I got was a recorded message. On my second try, the next day, someone answered who couldn't help me. In fact, he said, only "Frank" could help me, and Frank wouldn't be back for a few days. Well, several days later I called again. Again, a recorded message. I left my name and phone number. No reply. Three more days I called, all during their service hours, and always getting the same recorded message.

I'm now wondering if they are still in business. If they have a staff, it must be extremely small if only one person in the company is capable of answering technical questions on the product. I'm sorry I bought this product, and can only relate these experiences to others out there who are wondering about purchasing it. My recommendation is to avoid Regent Base until they come out with a less buggy version and until they can muster a staff to answer the phone.

/Don Peters, Digital, 617-689-1242/

...decvax!decwrl!dec-rhea!dec-pulman!peters

From -2201446678986063617
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 15:52:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1134@batcomputer.TN.CORNELL.EDU>
Date: Tue, 30-Sep-86 18:52:41 EDT
Article-I.D.: batcompu.1134
Posted: Tue Sep 30 18:52:41 1986
Date-Received: Sat, 4-Oct-86 01:36:34 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 20
Keywords: here we go again...
Xref: mnetor net.micro.68k:1305 net.micro.amiga:4988 net.micro.atari16:2269
net.micro.mac:7356

[]

Gee, that was to much to ignore...

Can anybody point me to the numerous powerful multi-user super-boxes that
are using the '286 or '386 (AT doesn't count since it is actually used
by single users, and in 8088 emulation mode, primarily)? As far as I can
tell, designers that are not REQUIRED by their employers to use Intel
chips have long used the 68K family for that purpose!

If you want REALLY high-end computing power, you get a CRAY and such.
If you want a real big bang per buck, you get a 68K personal machine.
Unless, of course, you only feel comfortable in the crowd, the crowd
that will use 8080 software forever (they think).

- Moshe Braner

BTW: the ST + 32081 math coprocessor beats (for number crunching) the
portion of the power of the VAX I work on that actually labors for me.

Price? still < $1000

From 5378132176545338471
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2898f3aa78d3a97a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-30 19:26:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!ENEEVAX.UMD.EDU!iarocci
From: iarocci@ENEEVAX.UMD.EDU (John Iarocci)
Newsgroups: net.micro.atari16
Subject: please add me
Message-ID: <8610010226.AA04157@eneevax.umd.edu>
Date: Tue, 30-Sep-86 22:26:16 EDT
Article-I.D.: eneevax.8610010226.AA04157
Posted: Tue Sep 30 22:26:16 1986
Date-Received: Thu, 2-Oct-86 21:43:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

to the mailing list. Thanks.

                        - John Iarocci (iarocci@eneevax.umd.edu)

From -5264730771978794536
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-30 19:51:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!rutgers!caip!pyrnj!mirror!cca!lmi-angel!wsr
From: wsr@lmi-angel.UUCP (Wolfgang Rupprecht)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <82@lmi-angel.UUCP>
Date: Tue, 30-Sep-86 22:51:09 EDT
Article-I.D.: lmi-ange.82
Posted: Tue Sep 30 22:51:09 1986
Date-Received: Fri, 3-Oct-86 00:50:14 EDT
References: <2270@gitpyr.UUCP>
Reply-To: wsr@lmi-angel.UUCP (Wolfgang Rupprecht)
Organization: LISP Machine, Inc (Cambridge Engineering HQ)
Lines: 22
Xref: mnetor net.micro.68k:1298 net.micro.amiga:4974 net.micro.atari16:2251

net.micro.mac:7346

In article <> hadeishi@husc4.UUCP (mitsuharu hadeishi) writes:
>[random discussion about 68030]... Now that Motorola
>has released this chip [well, no, they will release it in a year from
>now.. -wsr], they have in *every category of chip* a far
>superior chip than does Intel. 68030 > 80386, 68020 > 80286, 68010 and
>68000 >> 80186, 8086, 68008 > 8088. The 68000 series chips are in every case
>more orthogonally designed, faster, more compatible with each other,
>and easier to program.

Up to now I have always hated intel chips. In general they are *so*
contorted/poorly thought out, (some would even say buggy). Up to
now that is. I'm ready to to believe in 80386's. Lets face it, the
lack of *usable* memory management for the 68000 is laughable. The
68020 mmu is still vapor-hardware. When it finally arrives, one gets a
chip that has to have *lots* of logic around it just to allow it to
work in the same circuits that the 68020 used to work in. It will run
much slower than the 68020 however.

Remember, the 68020 is in the same generation as the 80386. (lets hear
some applause for intel.)
--
Wolfgang Rupprecht {harvard|decvax!cca|mit-eddie}!lmi-angel!wsr

From 560975306987627405
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-30 20:55:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!hoptoad!farren
From: farren@hoptoad.uucp (Mike Farren)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1165@hoptoad.uucp>
Date: Tue, 30-Sep-86 23:55:57 EDT
Article-I.D.: hoptoad.1165
Posted: Tue Sep 30 23:55:57 1986
Date-Received: Thu, 2-Oct-86 21:11:46 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
<280@husc6.HARVARD.EDU>
Reply-To: farren@hoptoad.UUCP (Mike Farren)
Organization: Nebula Consultants in San Francisco
Lines: 35
Keywords: here we go again...

Xref: mnetor net.micro.68k:1288 net.micro.amiga:4965 net.micro.atari16:2234
net.micro.mac:7336

In article <280@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:
>
>'020s are used (as you all know) in Sun workstations, TurboAmigas, etc.
>'286s are used in ATs. There is really no comparison between the two
>classes of machine.
That's true - there's over 10 times as many '286 machines out there. There
really ISN'T a comparison...
>
>   Another important point to make is that operating systems implemented on
>the 68000 series chips will run fairly well on the higher-grade chips;
>UNIX, AmigaDos/Intuition, Mac Operating System, ST GEM/TOS, et cetera are
>all capable of taking advantage of the higher-level chips' capabilities
Depends entirely on the foresight and ability of the systems programmer (about
whom, in most cases, I have grave doubts). Mac OS dies on anything higher than
a 68000...
>
>'386 do? Run character-stream UNIX and 640K MS-DOS?
You betcha. At the same time. Quickly. With graphics additions as hardware/
software becomes available.

I have said before and I will say again now - religious chip wars are useless
and S*T*U*P*I*D. All of the debate and struggle gains you not one thing.
Personally, I'd rather be aware of and comfortable with as many of the
different architectures/chips/systems available - it makes me that much more
employable (and that much more affluent). When I look at what power I have
sitting on my desk now, IBM *OR* Amiga or whatever, and compare it with the
most powerful computers available when I started in this business, I find it
really hard to bitch too much about a chip - even, god help me, the 6502.

--

                 "... if the church put in half the time on covetousness
Mike Farren   that it does on lust, this would be a better world ..."
hoptoad!farren   Garrison Keillor, "Lake Wobegon Days"

From -6893810772014082328
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,818ef080a8553820
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 00:14:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: HD and Reset Survivable Ram Disk, And MW C review wanted
Message-ID: <8610010714.AA07549@ucbvax.Berkeley.EDU>
Date: Wed, 1-Oct-86 03:14:58 EDT

Article-I.D.: ucbvax.8610010714.AA07549
Posted: Wed Oct 1 03:14:58 1986
Date-Received: Thu, 2-Oct-86 21:05:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 61

> First, after installing an Atari Corp. 20 megger HD on my Atari520st (w/1 meg upgrade), I'm no longer able to acces the RAM disk. I'm using the RAM disk posted some time ago that was in ASCII hex format (640 byte .prg file). The hard disk seems to insist on being drives C: D: (conficts with RAM disk) and E:. I tried patching the hex code to read BSET #5,D0 to provide me with a drive F: ram disk. No go. Drive F: IS recognized but pulling a SHOW INFO says it's got 6meg available (not quite right 8^)). Anyone have this RAM disk living happily with an Atari Hard Disk? If so whats the correct formula? Who should be first in the AUTO folder? Is there a sequence of adding drive icons to the desktop? Maybe that's where I blew it?

No. The problem is that the ramdisk drivers only intercept calls to drive 3 (= D:); simply patching the BSET is not enough. I have disassembled the whole thing and am in the process of rebuilding it in a slightly more general way. (For example, I prefer that it get the ramdisk size from a file.) I'll post it whenever I get around to finishing the job.

> Finally, saw MW C being advertised in this months Dr. Dobbs Journal. Does anyone have the package? A small review would be nice.

I have it. It's a very promising packing, but...

1. The object files are incompatible with the ones used by everybody else (i.e. different from the developer's kit and from OSS Pascal). They provide a utility to convert developer's format to their own but not the other way around. Thus, I can't use MWC to write Pascal-callable utilities.

2. The MW argument passing conventions also seem to be subtly differnt from the standard. I wrote an OSS Pascal program that takes command line arguments and tried to call it from "msh", the micro C-shell that comes with the MW package. No go; the arguments never made it through. However, it works fine called as a .TTP file or from the PD COMMAND2 shell. Going the other way around, I recently got Beckemeyer's Multi-Tasking C-Shell and tried to call the micro emacs editor that came with MW. Also no go. It started up okay but it couldn't find its command line arguments.

3. The symbolic debugger that comes with the package is very nice and seems to work with MWC programs. However, I tried it with a random .PRG file and it refused to load it. I of course didn't expect symbols from such a file, but I did expect to be able to use the disassembler.

4. There are a number of annoying little bugs in the micro C-Shell that are
    not worth going into here and hopefully will be fixed in future releases.

In summary: If MWC will be your ONLY software construction package, the
I recommend it. The book that comes with it is nicely put together and
seems pretty complete and accurate. However, the gratuitous incompatabilities
with the rest of the world make it much less useful in a mixed environment
that it ought to be.

    Do they provide a resource construction set?

No.

--Mike Fischer <fischer@yale.arpa>

From 3682197443481730397
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cbe1adb6dbbd36e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 04:57:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 GARFIELD 20/11/84; site garfield.UUCP
Path: utzoo!utcsri!utai!garfield!hong
From: hong@garfield.UUCP
Newsgroups: net.micro.atari16
Subject: ST Help
Message-ID: <2510@garfield.UUCP>
Date: Wed, 1-Oct-86 07:57:47 EDT
Article-I.D.: garfield.2510
Posted: Wed Oct 1 07:57:47 1986
Date-Received: Thu, 2-Oct-86 21:17:08 EDT
References: CPM emulator Rouge
Sender: perry@garfield.UUCP
Reply-To: hong@garfield.UUCP (Hong Cheng)
Organization: Memorial U. of Nfld. C.S. Dept., St. John's
Lines: 24

I have got a 1040ST, but I have some questions about it.

1. I got the ST, actually called '1040STF' and I don't have the RF Modulator.
Is there any third party making a Modulator for ST ?
2. Months ago, I read from netland and know there is a CPM emulator availiable.
But, when I phoned to a Mail Order company, they told me that it is not out yet.
Does anyone here know where I can buy one?
I just heard from one of the guy in Compusereve Atari16 Forum that it is
put by Atari as public domain. Is that true?
I remembered that I once read a software list by Analog that the Emulator
is from Softronics.
3. I want to get some of PD disks for my ST, especially the HACK. Since I did
not save the messages, I did not have the address of people who offer

copying ST PD programs for someone like me. I am very appreicated if
 can share the PD disks with me. Please send me your mail address, format
of disk I need, also the postage I need to inlcude (I cannot get the US stamps
in Canada). Is there a PD disks pacakage called 'ST Starter Kit'? Whats are the
programs inside?
4. There is a game called ROUGE from EPYX. Has anybody here known that
if I can run it on a monochrome monitor?
5. Anybody here knows a National Wide Atari ST User group which has some
kind of newsletter and welcome the foreign users?

Thanks a lot.

From -3231066138834005189
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-10-01 05:17:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!bpa!burdvax!sdcrdcf!randvax!david
From: david@randvax.UUCP (David Shlapak)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <568@randvax.UUCP>
Date: Wed, 1-Oct-86 08:17:42 EDT
Article-I.D.: randvax.568
Posted: Wed Oct 1 08:17:42 1986
Date-Received: Sat, 4-Oct-86 05:31:00 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp> <729@sauron.UUCP> <200@mipos3.UUCP>
Organization: Rand Corp., Santa Monica
Lines: 19
Xref: watmath net.micro.68k:1911 net.micro.amiga:5076 net.micro.atari16:2296
net.micro.mac:8075

> I can't speak for Intel, and none of this should be taken as the opinion
> of Intel, but...
> followed by a couple pages of Motorola bashing on the part of an Intel
> employee...

    Look, after all the Amiga-vs-Mac stuff we've had around here the last
    thing we need is another "My dog's better than your dog" "debate" on this
    net.

    Maybe we need a net.penis.length to contain these discussions.

--- das

"Let's try to keep our reginalistic emotions under our big, ugly hats, shall we?"

--- Milo Bloom

From 705555893555418615
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6646331355f33394
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-10-01 06:52:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!steele.Henr
From: steele.Henr@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: :-(It doesn't work. Oh, no!
Message-ID: <861001-065236-2389@Xerox>
Date: Wed, 1-Oct-86 09:52:42 EDT
Article-I.D.: Xerox.861001-065236-2389
Posted: Wed Oct 1 09:52:42 1986
Date-Received: Fri, 3-Oct-86 00:47:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

RE:we've been experiencing some VERY nasty weather
here, (thunderstorms) BUT

Although you are using a plug strip ('power bar'),most of these units only switch AC hot and not the neutral line. Lightning strikes can jump the gap in those switches anyway. My suggestion, after you get your machine fixed of course, is to install a different switch so both sides of the AC line are switched and to add transient/surge protection.You can buy plug strips with the transient/surge protection built-in(expensive) or you can add MOV's(metal oxide Varistors-available at Radio Shack) to your existing plug strip. If you add it yourself put one between AC hot and ground;another between AC neutral and ground;and a third between AC hot and AC neutral. MOV's act like a gate and turn on to voltages over their rating (the ones at Radio Shack have a rating of about 130 volts),so they tend to regulate the AC line to somewhat 'normal' conditions and will conduct those nasty high voltage spikes to ground. But non of this is any good if you don't have a good ground at your outlet. If you live in an older home with 2 wire outlets make sure that the plug strip is getting the ground you need. You can buy cheap testers for correct wiring/grounding for $2-$5.

good luck,
John

From 5609060894317068021

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8230cde9736ddf80,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 08:20:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: Re: Action!, FaST BASIC and cartridges
Message-ID: <8609270338.AA29796@ucbvax.Berkeley.EDU>
Date: Fri, 26-Sep-86 11:20:49 EDT
Article-I.D.: ucbvax.8609270338.AA29796
Posted: Fri Sep 26 11:20:49 1986
Date-Received: Tue, 30-Sep-86 03:56:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

>A program in ROM will have bugs left in longer (or forever)...
Writes Moshe Braner.

Well, if OSS is the same distributor for Action! this will not be a problem.
There were no less than 6 different versions of Action! within a years time.
All bugs were documented, and fixes were included in a newsletter, or available
on the Action! BBS run by Clint Parker. The support from OSS is nothing short
of wonderful, and any product which they can come out with would not have bugs
left in for a very long time.

The thing that made Action! so great was the environment which was created. I
would have to say that using Megamax in a 640K ramdisk has the same feel as
Action!, except that Action! code was cleaner. Still, Action! could be
produced effectively with a 128K (?) bank switched cartridge... :-)
Mike

From -5312757981139598389
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b753d398c758c25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 08:23:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-
beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Action!, FaST BASIC and cartridges
Message-ID: <420@ubc-cs.UUCP>
Date: Fri, 26-Sep-86 11:23:06 EDT
Article-I.D.: ubc-cs.420
Posted: Fri Sep 26 11:23:06 1986
Date-Received: Tue, 30-Sep-86 08:15:52 EDT
References: <8609232056.AA06071@ucbvax.Berkeley.EDU>
<1095@batcomputer.TN.CORNELL.EDU>

Reply-To: manis@ubc-cs.UUCP (Vincent Manis)
Organization: UBC Department of Computer Science
Lines: 24

In article <1095@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP
(braner) writes:

>Then of course, if a certain language is your DAILY working environment
>you would like it in ROM. How about an OPTION of getting it on a cartridge,
>in addition to the disk version, which is more appropriate for other buyers?

Well, TDI Modula-2/ST is my DAILY working environment. Including the
compiler, linker, editor, debugger, etc., etc., it adds up to about 800K (of
which about 500K lives on a ramdisk). Any ideas how I fit that onto a 128K
cartridge?

In any case, what do I do when TDI comes out with an upgrade? Throw away
my cartridge? Have a disk with ram patches?

The TOS experience should have demonstrated that getting a frozen program
to live in rom is non-trivial. (Apple did it, and then they realised that
the Mac file system was stupid: so they had to come out with a new operating
system with a file system in ram, and then a new machine with new roms.)

Re co-processors: that would seem to be reasonable, but I still want the
TT box which plugs into the DMA port. The 68000 doesn't coexist well with
co-processors (unlike the 68020), and, although you can do it, the effort
might not be justified.

From 4703559290803748914
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,848ac903cecd5694,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 08:34:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <8609261610.AA17706@ucbvax.Berkeley.EDU>
Date: Fri, 26-Sep-86 11:34:02 EDT
Article-I.D.: ucbvax.8609261610.AA17706
Posted: Fri Sep 26 11:34:02 1986
Date-Received: Tue, 30-Sep-86 03:14:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

In case you don't know, or haven't used Red Ryder much, it says that you can
use Red Ryder for 30 days, then decide if you wish to use the software, in
which case you are asked to send money for documentation and registration.
Otherwise, he asks that you destroy it, or pass it on to someone else.

It would seem to me that, Data Pacific is doing him a favor by providing a larger distribution base. It would also seem that they are not *ripping him off* as I have inferred from your message. They seem to be doing what any other person might do, passing on the software (among other software which was not mentioned by name).

Flame on

It seems that you are looking to start something where nothing is. If you truly care about Mr. Red Ryder losing his fair share, then take your grievance to him. Not by posting an insuating letter on the net.
I am not affiliated with Data Pacific or David Small, but I do not appreciate someone who is looking for an argument. Both companies are doing the ST community a favor.

Flame off

Mike Vederman

From -1060227202063181508
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4debade249d55fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 08:51:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell
Message-ID: <199@molihp.UUCP>
Date: Fri, 26-Sep-86 11:51:19 EDT
Article-I.D.: molihp.199
Posted: Fri Sep 26 11:51:19 1986
Date-Received: Tue, 30-Sep-86 08:16:52 EDT
References: <5803@ut-sally.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 31
Keywords: MT C-Shell multi-user
Summary: Turn off the serial port

In article <5803@ut-sally.UUCP> joe@ut-sally.UUCP (Joe Hitchens) writes:
>A friend of mine who has the Micro C-Shell program is having difficulty
>getting it to operate in the 2(multi) user mode.
>He altered the /etc/passwd file and that allowed him to log-on, but
>immediately after logging on, it brought him back to the login: prompt.
>He is definately getting logged on under the new account name, but for some
>reason the shell prompt never appears.

  First comment - this is the multi-tasking "MT C-Shell", not the Micro

C-Shell, and it's not a bad package. I like what it seems to be capable of, but my hardware is a little too skimpy right now to run it properly.

I have a 520 ST with *no* extra memory - this is the biggest problem. (I also have only one double-sided drive.) The MT C-Shell kernal will try to get logins from the serial (modem) port as well as the console keyboard. Without a full megabyte, it will be unable to do so properly, so you have to change the file "\etc\ttys" to tell it to disable the serial port. Before I did this, I had the same thing, except that my modem was on and the transmit and receive data lights were flashing very steadily as the modem echoed the "login:" back to the Atari and the MT C-Shell would try to log in a user with that ID. I think you change "17tta0" to "07tta0" to disable it (BTW, the "7" means 1200 baud, and the "tta0" is the tty port name.) Once this is done, you should be able to log in as root or as any user you set up in the passwd file.

This is interesting on my system, but to be really useful, I'll need a hard disk. Anybody have a 30 Meg Supra and like it? Any comparisons with the Supra 20 or the Atari 20?

```
#   UUCP : ...!ubc-vision!molihp!robt     Robert Thurlow
          #
#   My thoughts are my own, and are void where prohibited by law.
     #
```

```
From 6027854416784968983
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a3438020f5fd9781,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 09:03:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (ATARI hard disk utility)
Message-ID: <8609261602.AA17569@ucbvax.Berkeley.EDU>
Date: Fri, 26-Sep-86 12:03:05 EDT
Article-I.D.: ucbvax.8609261602.AA17569
Posted: Fri Sep 26 12:03:05 1986
Date-Received: Tue, 30-Sep-86 03:13:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 29

In-Reply-To: XBR4D76H%DDATHD21.BITNET@WISCVM.WISC.EDU, Mon, 22 Sep 86 16:08:31
+0200 (Central

    From Konrad Hahn:
    A quick view onto the partition information block (sector 0 of hard disk)
    showed that HDX created two overlapping partitions.
    Trying different partition sizes I found that HDX was only able to create
```

correct partitions if I selected one of the predefined partitioning schemes of the menu.
Did someone have similar problems with HDX ?

I most certainly did. I was using a non-standard sized middle partition (only 2 MB), and after loading on lots of files and folders to the first and third partitions, the middle one became trashed. However, John Fagins of Atari thinks the trashed middle partition was due to my exceeding the overall limit of 40 folders rather than to a problem with HDX.

I would like to look at the partition information I am currently running with to see if I currently have overlapping partitions. (I repartitioned into an 8-4-8 configuration (still non-standard) in the hopes that whatever caused the earlier problems would go away.) However, I don't know how to read the partition information block on the hard disk. I believe rwabs on sector 0 will give me the boot sector for the partition instead of the partition information block, and I don't know of any hard disk analogs to the BIOS floprd/flopwr calls for the floppies. How did you inspect the partition information block?

--Mike Fischer <fischer@yale.arpa>

From -4182410130726555273
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 09:14:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator (ROM Legality)
Message-ID: <8609261614.AA20837@ames-nas.ARPA>
Date: Fri, 26-Sep-86 12:14:43 EDT
Article-I.D.: ames-nas.8609261614.AA20837
Posted: Fri Sep 26 12:14:43 1986
Date-Received: Tue, 30-Sep-86 03:18:28 EDT
References: <3651@ism780c.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

Magic Sac itself doesn't include any Apple code. Rather, you must buy a set of ROMs from Apple yourself.

Although not yet tested in court, there is precedence in the assumption that Apple cannot restrict sales of the ROMs to people who don't own MacIntoshes, stemming from the observation that mainframe vendors are required to sell their software to customers of plug

compatable machines. (We run MVS and VM on our Amdahls, for example.)

     The same assumption is being applied to the system and finder images which are also required to make Magic Sac work. I bought my system and finder from a licensed Apple developer. His license with Apple allows him to include system and finder images in the software he sells, and (he claims, I haven't read it) does not restrict him to sales only to Apple owners.

     However, Apple will not allow Data Pacific to resell the ROMs, or license Data Pacific for the system and finder images. This is also in accordance with precedence. (We get our MVS from IBM not Amdahl.)

     There are three separate legal issues in the Magic Sac, all of which Data Pacific believes they have correctly handled. The first two are the ROMS and system images mentioned above.

     The third is if Magic itself violates any Apple copyrights or patents. Since Magic is only a translator which intercepts some of the behavior of the Macintosh software and makes it work on the Atari hardware, rather than an emulator, it looks to me as if it doesn't violate any copyrights, etc.

Marty

From -3628144648986531132
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 09:18:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator ($40 for RR?)
Message-ID: <8609261618.AA20870@ames-nas.ARPA>
Date: Fri, 26-Sep-86 12:18:26 EDT
Article-I.D.: ames-nas.8609261618.AA20870
Posted: Fri Sep 26 12:18:26 1986
Date-Received: Tue, 30-Sep-86 03:16:34 EDT
References: <3652@ism780c.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

     I didn't ask, assuming I was paying the $40 to them for their work, and would have to pay seperately for Red Ryder if I was going to keep it.

I have always made the assumption when given a diskette with shareware not written by the distributor on it that whatever I paid the distributor was for the diskette, and that I was still honor bound to pay for whatever shareware I use.

In the case of these diskettes, I assumed I was paying for the System and Finder images, and the cost of getting four diskettes.

(I'll probably keep Red Ryder and pay for it, since I use it on my Mac at work, and it seems reasonable.)

From 4471091791638478718
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 09:39:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rick
From: rick@seismo.CSS.GOV (Rick Adams)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <41786@beno.seismo.CSS.GOV>
Date: Fri, 26-Sep-86 12:39:28 EDT
Article-I.D.: beno.41786
Posted: Fri Sep 26 12:39:28 1986
Date-Received: Fri, 26-Sep-86 20:49:43 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp>
Organization: Center for Seismic Studies, Arlington, VA
Lines: 33
Summary: sun is no better
Xref: mnetor net.micro.68k:1261 net.micro.amiga:4866 net.micro.atari16:2135 net.micro.mac:7235

In article <7637@sun.uucp>, cmcmanis@sun.uucp (Chuck McManis) writes:
> Ah yes another volley in the "Well this stuff is OK but look at what we will
> have next year!" contest. Anyone for starting a "Best Announced but not
> yet available product" award?

Well, we ordered the several Floating Point Accelerators from Sun back in August 1985 (as soon as they were announced). We still haven't seen them, nor heard a ship date.

I've heard that they were shipping 5 or 6 times now.

We have seen great benchmark results from Sun though....

I vote for the sun FPA, it looks great on paper. (The GKS product is
also unobtainable, despite being in the catalog for about a year. However,
it is no where near as impressive as the FPA.)

I talked to someone who actually had his hands on one, so they may
be really shipping them now. He may have had a beta test version though.
I wouldn't call them available until you can actually get one without
waiting a year. (Hmm. A year is about what you are complaining about with
Motorola)

---rick

P.S Aside from the FPA and GKS vaporware, we are happy Sun customers.

(Although I wish they would quit gratuitiously changing the way programs
worked. My latest example is that repquota no longer prints disk usage
for people without quotas UNLESS you specify a flag. It would have been
backwards compatible to have a flag to supress printing disk usage
for people with no quotas. Oh well, it only took me an hour to
figure out way the quota system "wasn't working" anymore. I hate surprises.)

From -5307597542776101698
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,99fdd83663533b16
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 09:57:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Pascal for ST's
Message-ID: <8609261657.AA22038@ames-nas.ARPA>
Date: Fri, 26-Sep-86 12:57:30 EDT
Article-I.D.: ames-nas.8609261657.AA22038
Posted: Fri Sep 26 12:57:30 1986
Date-Received: Tue, 30-Sep-86 03:17:39 EDT
References: <860926-053013-5029@Xerox>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

     Borland is rumored to be doing a Turbo port to the ST, but no one
seems to know when (:-)

     Metacomco (The Lattice C people) have a Pascal, for around $150,
but I haven't used it.

     OSS has Personal Pascal for around $70. It is a reasonable

compiler with a mostly complete ISO implementation, and full access to
ST hardware and software features. I use it a lot on my 1040, and am
reasonably happy with it. There is a relitively good manual which
explains the GEM library which is provided, although it is short on
examples. OSS also maintains a buletin board with examples and
tutorials.

     I don't know of any other Pascals off hand.

From -6336127154070960513
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad090e5ad901aeb9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 10:03:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!pesnta!amd!
amdcad!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: reading IBM disk on the ST and vice versa
Message-ID: <588@imagen.UUCP>
Date: Fri, 26-Sep-86 13:03:04 EDT
Article-I.D.: imagen.588
Posted: Fri Sep 26 13:03:04 1986
Date-Received: Tue, 30-Sep-86 07:16:45 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 24

~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~

i know that this has been answered before but at the time i did not
have a 5 1/4" drive on my ST and i passed the postings by, so please
email answers to me to save net resources. anywho, 2 questions; 1)
can the atari read quad density disks (1.2Mbyte formatted) and 2)
where do you have to format the disks? on the IBM or the ST; does
anyone know why disks formatted on the atari cant be read on the
IBM, as in what is missing and/or needs to be changed in the ST
format program etc.

A t D h V a A n N k C s E

--

          It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
~~~~~~~~~~~~~~~~~~

AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -6564933477289394793
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eaa59cccfad9bd0a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 10:10:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator (Clarification)
Message-ID: <8609261710.AA23377@ames-nas.ARPA>
Date: Fri, 26-Sep-86 13:10:47 EDT
Article-I.D.: ames-nas.8609261710.AA23377
Posted: Fri Sep 26 13:10:47 1986
Date-Received: Tue, 30-Sep-86 03:19:23 EDT
References: <8609261604.AA20685@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

It seems I implied something that isn't true.

I bought the diskette set from Alex Leavens, who was also working out of the Data Pacific Booth. He is not working for Data Pacific, and I did NOT buy the diskettes from Data Pacific.

As I have mentioned before, Apple will not license Data Pacific to distribute the System and Finder images with Magic Sac, so I had to go to a licensed developer to obtain them.

What I received was four diskettes. The first contains the system and finder images. The second contains FreeTerm and Red Ryder. The third and fourth are Boston Macintosh User's Group diskettes in Magic format, although I don't have the distribution numbers handy.

I did not see this as an attempt to cheat any of the authors involved, and the only reason I can't give you a better answer about what the forty bucks was for is that I didn't ask at the show.

I know that I would be pleased to see my shareware distributed by Data Pacific if I were doing Apple Software. I find putting shareware on these disks to be equivalent to making it available through buletin boards.

From -6668569032972379062
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d121f36df3db95a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 10:45:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Antic A-SEKA Assembler Initial Impressions (Trash)
Message-ID: <8609261745.AA06193@ohio-state.ARPA>
Date: Fri, 26-Sep-86 13:45:23 EDT
Article-I.D.: ohio-sta.8609261745.AA06193
Posted: Fri Sep 26 13:45:23 1986
Date-Received: Tue, 30-Sep-86 03:19:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 49

I've had the Antic A-SEKA 68K assembler for a couple of days and I would like to strongly discourage anyone from buying it. The program is expensive (~35.00) for an assembler, and it seems like "standalone" .tos or .prg programs cannot be written with it.

First off the user interface is non-GEM. The editor is a line editor (YUK) but a regular editor can be used instead (I've used the OSS Pascal editor with the assembler successfully).

The most serious problem that I've had with this product is that although assembled programs seem to run from the debugger, it seems that they cannot be saved as .tos or .prg programs and run by themselves. I suspect that the programs produced by the assembler lack the information required by the OS to load and run them correctly. I had this problem with one of the example programs in the documentation - it ran from the debugger but not on its own.

The documentation is on the disk and one must print it on one's own printer. The documentation seems to be fairly complete (~30 pages) but there are almost no examples of programs to type in and run (I think that there are only two or three VERY small example programs).

When syntax errors are discovered in one's source code the assembler writes out an error message and then starts writing all sorts of mysterious characters to the screen for several lines...

On the positive side, the assembler seems to run very fast because all files are memory resident. The program is small enough (~17K) to fit on a RAM disk along with a reasonable editor (that you will have to supply yourself). The assembler has rather primative support for macros.

In summary this assembler seems to be useless since it appears that standalone programs cannot be produced with it (this may be due to my own inexperience -

but I couldn't even get the examples to run by themselves).

The program is not copy protected.

This program is the last program that I'll ever buy without getting a recommendation,
reading a review, or running it in the store first!

Perhaps those of you that are pleased with your assemblers can recommend one.
I AM ESPECIALLY INTERESTED IN GETTING AN ASSEMBLER THAT CAN PRODUCE CODE THAT CAN LINK TO OSS PERSONAL PASCAL!

Hope this helps,

Eric Bergman-Terrell

From 4396583082564912819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95415c4a20fcea12,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 10:51:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: How Does one get the Sexy Characters in 1st Word to Print?
Message-ID: <8609261751.AA06313@ohio-state.ARPA>
Date: Fri, 26-Sep-86 13:51:28 EDT
Article-I.D.: ohio-sta.8609261751.AA06313
Posted: Fri Sep 26 13:51:28 1986
Date-Received: Tue, 30-Sep-86 06:49:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

I have 1st Word version 1.03. I'm going to send away for the current version 1.06.

I'd really like to be able to print out the Hebrew, Greek, and other special letters in the font table. I have a Panasonic 1091 which is an Epson LX80 clone.

Some characters print ok (e.g. e with a "/" accent on top). Other characters cause the printer to overstrike incorrectly (e.g. a with a "/" accent on top).

If anyone could help with this, I'd be eternally gratefull!
grateful!

Eric Bergman-Terrell (CSNET address terrell@ohio-state)

From 3524115061797499872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-26 16:36:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!CORY.BERKELEY.EDU!dillon
From: dillon@CORY.BERKELEY.EDU (Matt Dillon)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <8609262336.AA01693@cory.Berkeley.EDU>
Date: Fri, 26-Sep-86 19:36:36 EDT
Article-I.D.: cory.8609262336.AA01693
Posted: Fri Sep 26 19:36:36 1986
Date-Received: Tue, 30-Sep-86 03:50:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of California at Berkeley
Lines: 18
Xref: watmath net.micro.68k:1873 net.micro.amiga:4950 net.micro.atari16:2174
net.micro.mac:7958

>From: swalton@well.UUCP (Stephen R. Walton)
>>The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>
>Think about this. That's a memory access time of 25 nanoseconds, more than
>4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.

    100ns access time @ 40 Mbytes/sec (remember: 32 bit data bus). I think that the quickest transfer is 64 Mbytes/sec, which would come out to about 62ns access time. This means that your rams actually have to be a bit faster when you take into account bus buffering. It isn't unreasonable, and I think you'd be able to (finally) take advantage of dynamic-ram's block-read ability.

    I especially like the fact that they do MMU address translation in parallel with checking the cache. Anybody know what kind of page-table cache the MMU has?

-Matt

From -4984330275508437
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,62f6c850c77be7c8,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 16:39:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: The 32081 Floating Point Chip on the ST
Message-ID: <1112@batcomputer.TN.CORNELL.EDU>
Date: Fri, 26-Sep-86 19:39:09 EDT
Article-I.D.: batcompu.1112
Posted: Fri Sep 26 19:39:09 1986
Date-Received: Tue, 30-Sep-86 07:15:05 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: The Society for the Liberation of the ST
Lines: 36
Summary: It's up and running!

[]

After a period of planning and experimentation, we have the National Semiconductors 32081 floating-point math coprocessor talking to the ST!

("We", since I have collaborated on this with Andreas Andreou at Hopkins.)

Interested parties please e-mail to <braner@amvax.tn.cornell.edu.ARPA>, or at the address above, or call 607-272-3487, or write me at the address below. If the response is good, we might post some details. (If it is VERY good, we'll keep it a trade secret :-).

We have the 32081 connected to the cartridge port. To do that, the port needed some modifications. We suggest this mod as a "standard", since it is useful for many other purposes and designed to be easy to do and to keep the port usable for ROM cartridges and such too. Here is the mod:

Cut pins 1, 39 and 40 behind the connector. (No trace-cutting needed.)
Connect the CPU R/!W line to pin 1.
Connect the CPU clock to pin 40.
Build an address decoder that senses the address $3xxxxx (x=don't care) and is strobed by the CPU !AS signal. The best way to build this decoder is with one chip, a 74HCT138. The "HCT" stands for high-speed, LSTTL-compatible CMOS. Connect the decoded address strobe line to pin 39.

Since these pins are just redundant Vcc and ground lines, standard cartridge port devices can still be used, provided these lines are cut inside each device (which will then still work on standard ST's).

BTW, if Atari didn't bother to write-protect the ROM area, the decoder wouldn't be neccessary. This scheme will work with 2-Meg ST's too, but not with 4-Meg models, since $3xxxxx is within the fourth Meg. Addresses above $3FFFFF yield a bus error!

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853

From 6572662350262110373
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82e70ad5fe7bf2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 16:46:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: expanding the picture on the monitor
Message-ID: <1113@batcomputer.TN.CORNELL.EDU>
Date: Fri, 26-Sep-86 19:46:07 EDT
Article-I.D.: batcompu.1113
Posted: Fri Sep 26 19:46:07 1986
Date-Received: Tue, 30-Sep-86 07:15:19 EDT
References: <585@imagen.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10
Summary: easy, both H & V, on the mono monitor

[]

After my warranty expired I opened my monochrome monitor (SM124)
and found LABELED adjustment points for BOTH vertical and horizontal
size. I managed to enlarge the picture considerably without noticable
distortion: the margins are now only about 1/2 inch around. Make
sure you use plastic tools for adjustment, and don't touch any high-
voltage wires!!!

- Moshe Braner

From 3315499733623423113
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,645abbb1c4604b86,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 16:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XX.LCS.MIT.EDU!Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: BBS WishList
Message-ID: <MDCG.WAYNE.12242123434.BABYL@MIT-OZ>
Date: Fri, 26-Sep-86 19:52:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12242123434.BABYL
Posted: Fri Sep 26 19:52:00 1986
Date-Received: Tue, 30-Sep-86 03:51:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 28

Wrt to your BBS project for the ST:

The commands for retrieving and manipulating messages on every micro BBS I have ever seen have been hopelessly primitive. With a megabyte of RAM to work with, why shouldn't one be able to scan or read collections of messages by any combination of criteria of sender, receiver, time, text string, etc.? (For example: >Read From Jones To Smith During 1985 Text Qlisp) Why shouldn't an ST BBS (particularly on the forthcoming multimeg machines) be at least as sophisticated as Mark Crispin's MM mail processing program that is popular on the Arpanet, and perhaps, going one step further, include a small-scale natural language interface similar to Q&A?

Better yet, I would like to see a full-scale communications program for the ST that included all the standard BBS functions and the mail processing abilities of MM, Babyl, and Zmail (the last is standard on Symbolics machines, and is the most powerful mail processor I've yet encountered). Such a program would be quite intelligent about automatically downloading and storing the message bases of Compuserve, Delphi, Arpanet hosts, TBBS systems, Fido systems, etc., presenting a unified interface for offline retrieval, reading, and reply-writing, and automatically uploading replies to the appropriate hosts.

I don't actually expect you'll have the time to write such a program for your dissertation, but I wish someone at one of the major software houses would get on the ball.

Wayne McGuire
(wayne@oz.ai.mit.edu)

From 4078770752310246811
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 18:07:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!tlz
From: tlz@drutx.UUCP (ZrustTL)
Newsgroups: net.micro.atari16
Subject: Re: Re: The Motorola 68030
Message-ID: <1442@drutx.UUCP>
Date: Fri, 26-Sep-86 21:07:51 EDT
Article-I.D.: drutx.1442
Posted: Fri Sep 26 21:07:51 1986
Date-Received: Tue, 30-Sep-86 05:51:11 EDT
Organization: AT&T Information Systems Laboratories, Denver
Lines: 10
Keywords: Think again

>>The bus data transfer rate of the 68030 is 40 Mbytes/sec.

>Think about this. That's a memory access time of 25 nanoseconds, more than
>4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.

Think even more. This is a 32 bit bus we're talking about (oops).
--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

From 6022753374689340664
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a57259691a1637b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 18:13:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!uwvax!uwmacc!
demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: SPELL - Executable File and Dictionary
Message-ID: <299@uwmacc.UUCP>
Date: Fri, 26-Sep-86 21:13:35 EDT
Article-I.D.: uwmacc.299
Posted: Fri Sep 26 21:13:35 1986
Date-Received: Tue, 30-Sep-86 05:57:08 EDT
References: <8609251705.AA17698@ohio-state.ARPA>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 19

Yeah...the binary would be great. I have MCC PASCAL at home, and I tried
compiling the source...one problem: there were some routines mentioned
in SPELL.PAS that I never heard of...one apparently was a modification of
some sort to an alert box. The function was, I beleive, called AT_ALERT.
What was that?

--
                          --- Rob DeMillo
                              Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA: demillo@unix.macc.wisc.edu   (now isn't that easier?)

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From -6282715271245009483
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,99fdd83663533b16
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 18:21:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!uwvax!uwmacc!
demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: Pascal for ST's
Message-ID: <300@uwmacc.UUCP>
Date: Fri, 26-Sep-86 21:21:28 EDT
Article-I.D.: uwmacc.300
Posted: Fri Sep 26 21:21:28 1986
Date-Received: Tue, 30-Sep-86 05:57:26 EDT
References: <860926-053013-5029@Xerox> <8609261657.AA22038@ames-nas.ARPA>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 35

In article <8609261657.AA22038@ames-nas.ARPA> fouts@AMES-NAS.ARPA writes:
>
>
>   Metacomco (The Lattice C people) have a Pascal, for around $150,
>but I haven't used it.
>

Actually, the list price is $99.95. (and, of course, you can get it for
cheaper from a mail order house...) It was the first high level language
that I got for the ST, and I quite like it. 32 bit integers, full
AES/VDI interface, etc. It comes with a decent full screen editor, and
a decent programming shell called MENU+. The only problem that I have
with the PASCAL is that it sticks a little *too* closely to the ANSI
standard...it doesn't allow for random access files. However, I also
have a copy of the Metecompco Assembler...so I remedied that problem.

Do I still use the PASCAL? Occassionally...but since I got Lattice
C, I use that for most of my work...

...ok...ok...so I like to stay with one company...;-)

--
                          --- Rob DeMillo
                              Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA: demillo@unix.macc.wisc.edu   (now isn't that easier?)

     "I am not so sure

what you want me for! 'War Games'
Either your machine is a - Crosby, Stills and Nash
fool, or me..."

From 7686431808399411979
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 18:43:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!uwvax!uwmacc!
demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: A few questions
Message-ID: <301@uwmacc.UUCP>
Date: Fri, 26-Sep-86 21:43:26 EDT
Article-I.D.: uwmacc.301
Posted: Fri Sep 26 21:43:26 1986
Date-Received: Tue, 30-Sep-86 05:58:18 EDT
References: <233@husc6.HARVARD.EDU> <280@uwmacc.UUCP> <2285@gitpyr.UUCP>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Distribution: na
Organization: UWisconsin-Madison Academic Comp Center
Lines: 49

In article <2285@gitpyr.UUCP> tynor@gitpyr.UUCP (Steve Tynor) writes:
>>>- Nothing I've seen except NeoChrome (which throws away the user interface
>>>standard altogether) uses the right mouse button. The documentation doesn't
>>>talk about it. In fact, I don't think GEM supports it. Good thing it's
>>>there, huh?
>>
>>   Is this a serious comment? I'll assume so and treat it as such.
>>   First off, there *is* a use for it that you can demonstrate for yourself,
>>in the privacy of your own home. First, open two windows. Now, hold down
>>the right mouse button. OK, double-click (left) on a file in the *non*-active
>>window. Whaddya know! A use for the right mouse button! Even ignoring
>>that small but useful use, do you think there's a possibility that A) people
>>may want to use it in their own applications, and B) there just may be some
>>things in life that you haven't yet encountered?
>
>The fact is that the AES event library calls do *not* allow you to wait for
>a right mouse button event. In order to use the right mouse button, you
>must poll the mouse. Methinks the gentleman has a valid gripe.
>
>   Steve Tynor

Methinks you ought to RTFM...

```
         ev_breturn = evnt_button(ev_bclicks, ev_bmask,
                    ev_bstate, &ev_bmx, &ev_bmy,
                    &ev_button, &ev_bkstate);
```

```
     where ev_bmask: the mouse buttons to be taken into account
               when reading the mouse:
               01 = left button
               02 = right button
               03 = both buttons

I've tried it, it works...I think you should consider point (B) from
the second poster...


--
                            --- Rob DeMillo
                                Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA:   demillo@unix.macc.wisc.edu    (now isn't that easier?)

          ----------------------------------------
     "I am not so sure
      what you want me for!           'War Games'
      Either your machine is a           - Crosby, Stills and Nash
      fool, or me..."


From 6487192588041865651
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,81cf6c7a7f8fe13b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 20:02:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!styx!twg-ap!amdahl!pyramid!
nsc!csi!epimass!oliveb!bene!tolerant!mordor!ehj
From: ehj@mordor.ARPA (Eric H Jensen)
Newsgroups: net.micro.atari16
Subject: dma and rom interfaces on the 1040
Message-ID: <15667@mordor.ARPA>
Date: Fri, 26-Sep-86 23:02:48 EDT
Article-I.D.: mordor.15667
Posted: Fri Sep 26 23:02:48 1986
Date-Received: Tue, 30-Sep-86 06:25:13 EDT
Reply-To: ehj@mordor.UUCP (Eric H Jensen)
Distribution: net
Organization: S-1 Project, LLNL
Lines: 17

Caveat: I do not own an ST and have not seen any of the documentation
that is provided with it.

First the dma port ... can someone tell me what the pin assignments
are and the associated protocol ?

Cartridge port ... can this be written by the 68000 or just read? Are
```

the right lines provided so that an active device can read and write
main memory from the port?

Can someone suggest a fairly reliable document (cheap) that can answer
questions like the above.

--
eric h. jensen (S1 Project @ Lawrence Livermore National Laboratory)
Phone: (415) 423-0229 USMail: LLNL, P.O. Box 5503, L-276, Livermore, Ca., 94550
ARPA: ehj@angband UUCP: ...!decvax!decwrl!mordor!angband!ehj

From -7121408456851893085
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6e7250cb7c6e328e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 22:10:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-beaver!ubc-vision!alberta!sask!long
From: long@sask.UUCP (Warren Long)
Newsgroups: net.micro.atari16
Subject: Need help with standard RGB and 520 ST
Message-ID: <445@sask.UUCP>
Date: Sat, 27-Sep-86 01:10:30 EDT
Article-I.D.: sask.445
Posted: Sat Sep 27 01:10:30 1986
Date-Received: Tue, 30-Sep-86 08:19:13 EDT
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 42

I know this may be old but...

I need help wiring a standard RGB monitor to my ST. When all the
info passed thru the net regarding RGB problems, I was still
waiting for my ST. I now have it, and have consructed a little box
with a switch on it to select mono or colour. As I should have
guessed from the flurry of comments 9 months ago about RGB, I
should have anticipated a few more problems. Basically everything
works well, my little box turns the mono on/off and provides
composite video and audio.

The problem: the RGB output levels are analog 1 volt p-p. It seems
that standard RGB monitors (mine included) require
ttl level signals.

My attempted solution: I have tried breadboarding up an op-amp
circuit to convert the voltage levels to 0-5volts. I
am now able to get blurry images on the RGB monitor.

My request: - any circuit that will solve the problem.

- a definition of what exactly is 'TTL level' inputs
  for an RGB monitor (obviously the brightness is in
  analog form, which is not TTL (= ON/OFF)).
- any other comments or ideas.

I am kind of enjoying solving the problem but it is a little awkward
when I don't really know what my goal is, other than a good picture.

Thanks a whole bunch,
     Warren Long

-=-
Warren Long   78 Carleton Dr.
University of Saskatchewan   Saskatoon
Canada   Saskatchewan, S7H 3N6

@ long!sask!alberta!ihnp4!ucbvax!...
home ph# (306)-955-1237
-=-

From 5935417348704177059
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce4a9a52c449a71c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 23:17:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!mcvax!philmds!
prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (ATARI hard disk utility)
Message-ID: <10@prle2.UUCP>
Date: Sat, 27-Sep-86 02:17:12 EDT
Article-I.D.: prle2.10
Posted: Sat Sep 27 02:17:12 1986
Date-Received: Tue, 30-Sep-86 05:23:03 EDT
References: <8609230641.AA23649@ucbvax.Berkeley.EDU>
Reply-To: slavenbg@prle2.UUCP (Gert Slavenburg)
Organization: Philips Research Laboratories Eindhoven
Lines: 9

>A quick view onto the partition information block (sector 0 of hard disk)
>showed that HDX created two overlapping partitions.
>Trying different partition sizes I found that HDX was only able to create
>correct partitions if I selected one of the predefined partitioning schemes
>of the menu.
>Did someone have similar problems with HDX ?

We encountered exactly the same problem with HDX as released in Holland.
  Gert Slavenburg

From -7389344958084891915
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba457d2a8d000bd7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 00:57:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!
SUMEX-AIM.STANFORD.EDU!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Re: LINK68 doesn't take path names .. Wasn't this fixed?
Message-ID: <12242211645.8.LYNN@PANDA>
Date: Sat, 27-Sep-86 03:57:03 EDT
Article-I.D.: PANDA.12242211645.8.LYNN
Posted: Sat Sep 27 03:57:03 1986
Date-Received: Tue, 30-Sep-86 06:50:51 EDT
References: <1105@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 44

Return-Path: <@SUMEX-AIM,@SU-SCORE.ARPA:info-atari16-request@score.stanford.edu>
Received: from SUMEX-AIM by PANDA with Cafard; Fri 26 Sep 86 20:52:52-PDT
Received: from SU-SCORE.ARPA by SUMEX-AIM.ARPA with TCP; Fri 26 Sep 86 20:34:55-
PDT
Received: from ucbvax.Berkeley.EDU by SU-SCORE.ARPA with TCP; Fri 26 Sep 86
07:43:05-PDT
Received: by ucbvax.Berkeley.EDU (5.53/1.17)
     id AA16309; Fri, 26 Sep 86 07:12:13 PDT
Received: from USENET by ucbvax.Berkeley.EDU with netnews
     for info-atari16@score.stanford.edu (info-atari16@score.stanford.edu)
     (contact usenet@ucbvax.Berkeley.EDU if you have questions)
Date: 26 Sep 86 04:18:51 GMT
From: mqh@tcgould.tn.cornell.edu (Mike Hojnowski)
Organization: Theory Center, Cornell U., Ithaca NY
Subject: LINK68 doesn't take path names .. Wasn't this fixed?
Message-Id: <1105@batcomputer.TN.CORNELL.EDU>
Sender: info-atari16-request@score.stanford.edu
To: info-atari16@score.stanford.edu

Hello,

I have the Developers C, and I'm having trouble with link68. I just
paid $20 for the new release of the C compiler, and I thought that the
"path names" bug was supposed to be fixed in it. Either it isn't, or
I'm doing something wrong. What I want to do is:

     link68 [options] x.68K=a:\lib\gemstart.o,x.o,a:\lib\gemlib...

This doesn't work. Am I doing something wrong, or wasn't it fixed?

I think someone posted a zap to the linker program to fix this bug.
I didn't grab it 'cause my check was in the mail, and I didn't think
I needed it. If link68 really is still busted, can someone please send
me that zap?
--
Mike Hojnowski (Hojo)   {ihnp4,rochester}!cornell!batcomputer!mqh
(607) 257-1389 (h)   mqh@tcgould.tn.cornell.edu
(607) 255-4812 (w)   mqh%batcomputer@crnlcs.bitnet
"..Oh, that's disgusting, isn't it?" - Brundlefly, The Fly
****
The linker reads backslashes as comment characters.

Looks like THAT bug didn't get fixed with this release...

--Lynn

From -1339835422037091643
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b10ca6dd2292772b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 03:50:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: Vi
Message-ID: <837@aum.UUCP>
Date: Sat, 27-Sep-86 06:50:53 EDT
Article-I.D.: aum.837
Posted: Sat Sep 27 06:50:53 1986
Date-Received: Tue, 30-Sep-86 06:35:53 EDT
References: <350@zen.BERKELEY.EDU>
Organization: The Aurora Systems Bunch
Lines: 17

> I currently have a few versions of Micro-Emacs but I haven't used them
> much because I don't want to spend time learning a new set of commands.
> I use vi when I write programs on the Unix. I wonder if there is a version
> of vi for the ST that I can accquire. Comments are welcome and appreciated.
>   Duy
>
>   Duy Le
>   Richmond, Ca
>   UUCP: c160-fk@zooey
  I too as well as a lot of people I know would similarly be interested..

--

                           Erik James Freed
                 Aurora Systems
                 San Francisco, CA

ptsfa!aum!freed

From 5534206212996840219
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2601b706a2a44f5c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 07:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!
HWALHW5.BITNET!FYSKO
From: FYSKO@HWALHW5.BITNET
Newsgroups: net.micro.atari16
Subject: Dictionary for SPELL.PAS
Message-ID: <8609271346.AA05977@ucbvax.Berkeley.EDU>
Date: Sat, 27-Sep-86 10:38:00 EDT
Article-I.D.: ucbvax.8609271346.AA05977
Posted: Sat Sep 27 10:38:00 1986
Date-Received: Tue, 30-Sep-86 06:35:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Anyone interested in a WORDS.TXT file for Eric Terrell's
SPELL.PAS? Check first of all the SPELL utility (if
available) of your local host to see whether you can tear a
dictionary file out of it. For those who can't find such a
file I have a 42297 words dictionary for anyone who asks for
it.

Peter Barneveld.
FYSKO@HWALHW5.bitnet

BTW What is upper limit for a file size to send thru the net
at one time?

From 5575975006603484732
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba457d2a8d000bd7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 10:25:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!
trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: LINK68 doesn't take path names .. Wasn't this fixed?
Message-ID: <8609271725.AA05398@trwrb.UUCP>
Date: Sat, 27-Sep-86 13:25:35 EDT
Article-I.D.: trwrb.8609271725.AA05398
Posted: Sat Sep 27 13:25:35 1986

Date-Received: Tue, 30-Sep-86 06:13:46 EDT
References: <1105@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Here's the "zap" you requested:

>Trying to overcome the problem with LINK68 not accepting pathnames I found
>a scanner control table starting at file-offset 0x8144.
>The command scanner of LINK68 uses a byte entry of this table indexed by an
>input character as a control pattern specifying the character class.
>
>The backslash entry at file-offset 0x81A0 has the value 0x02 which is a
>separator pattern.
>Patching it to value 0x04 puts the backslash into the number class.
>After this fix LINK68 treats the backslash as a normal identifier character
>but GEMDOS still sees a pathname.
>
> Konrad Hahn
> Techn. University Darmstadt
> Dept. of Computer Science (Datentechnik)
> Merckstr. 25, D-6100 Darmstadt, W.-Germany

 _________ ______ ____ _____ ___
/_________//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ____________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 3170075496958355666
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4debade249d55fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 10:58:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell
Message-ID: <1578@cwruecmp.UUCP>
Date: Sat, 27-Sep-86 13:58:47 EDT
Article-I.D.: cwruecmp.1578
Posted: Sat Sep 27 13:58:47 1986
Date-Received: Tue, 30-Sep-86 06:08:03 EDT
References: <5803@ut-sally.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 26
Keywords: Unix Shell

In article <5803@ut-sally.UUCP> joe@ut-sally.UUCP (Joe Hitchens) writes:
>A friend of mine who has the Micro C-Shell program is having difficulty
>getting it to operate in the 2(multi) user mode.
>He altered the /etc/passwd file and that allowed him to log-on, but
>immediately after logging on, it brought him back to the login: prompt.
>He is definately getting logged on under the new account name, but for some
>reason the shell prompt never appears.
>
I ran into exactly the same problem. The problem is caused by ':' being used
as the field seperator in \etc\passwd and also being used by gemdos path names.
What had happened in my case was that i specified my home directory
to be 'E:\bammi'. Now when i login, login reads \etc\passwd and find that my
home directory is 'E' (the ':' in the pathname terminated the passwd field),
which is not a valid path, so it refuses to let me log in. I have informed
David Beckemeyer of this bug. For now the solution is to tell passwd that
your home directory is \usr\foo on the drive on which MT c shell live. In
\usr\foo you put in a profile.sh that send you off to your real home, after
modifying the home variable appropriately.

--
usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 7956756032933282327
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,162e638b501c0846,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 11:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!
ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Terminal lockup update
Message-ID: <8609271901.AA08431@ucbvax.Berkeley.EDU>
Date: Sat, 27-Sep-86 14:46:00 EDT
Article-I.D.: ucbvax.8609271901.AA08431
Posted: Sat Sep 27 14:46:00 1986
Date-Received: Tue, 30-Sep-86 06:14:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 24

About a week ago I posted a request for help with terminal lookup
connected to a Vax via Telenet. Since then I have received a number
of suggestions as to what to do. I have also discovered a workaround
but no real solution. The only way that I can connect up to the

specific remote that causes the problem is to

1. Dial Telenet with Xon/Xoff enabled (no other setting works).
2. Logon to the Vax with Xon/Xoff enabled.
3. Turn Xon/Xoff off and enable CTS/RTS as soon as the login is
   complete.

This is an Atari problem because the IBMPC at work and my Kaypro use
Xon/Xoff and connect with no problem to that Vax. Since the Avatex
does not have CTS connected, step one is necessary to get the modem to
dial, but I think CTS/RTS would work throughout the procedure if the
Avatex had the CTS line (funny why it doesn't balk when I change to
the CTS/RTS handshaking in the middle of things).

"Still awaiting my already paid for dev pack! week four"

Robert Royar

rdroya01@ulkyvx.bitnet

From -1288541509925224917
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5adf9a701b2f45fa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 13:50:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: High-pitched whine
Message-ID: <1114@batcomputer.TN.CORNELL.EDU>
Date: Sat, 27-Sep-86 16:50:10 EDT
Article-I.D.: batcompu.1114
Posted: Sat Sep 27 16:50:10 1986
Date-Received: Tue, 30-Sep-86 07:34:40 EDT
References: <860925115730.1.TYSON@ELCAPITAN.ARPA>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 11

[]

According to Atari (in a memo they sent to dealers), the high-pitched
whine comes from the "inverter" chip, a little DIP on the mother-board
that converts +12V to -12V. It oscillates to do it, ==> whine. The
only (?) load on the -12V line is the RS232 port and related driver chip
(1488). So it is not surprising that whatever is plugged in there affects
the whine. Atari has also sent the dealers instructions on how to eliminate
the whine, which I posted here a while ago.

- Moshe Braner

From 7172182400464814325
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 15:33:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!think!husc6!
husc4!hadeishi
From: hadeishi@husc4.harvard.edu (mitsuharu hadeishi)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <262@husc6.HARVARD.EDU>
Date: Sat, 27-Sep-86 18:33:06 EDT
Article-I.D.: husc6.262
Posted: Sat Sep 27 18:33:06 1986
Date-Received: Tue, 30-Sep-86 06:19:43 EDT
References: <2270@gitpyr.UUCP>
Sender: news@husc6.HARVARD.EDU
Reply-To: hadeishi@husc4.UUCP (mitsuharu hadeishi)
Organization: Harvard Science Center
Lines: 16
Keywords: new motorola chips mmu fast
Xref: watmath net.micro.68k:1878 net.micro.amiga:4976 net.micro.atari16:2212
net.micro.mac:7992
Summary: The 68030 is MUCH faster than that . . .

In article <2270@gitpyr.UUCP> Rodney Ricks writes:
>The chip is said to run software 20% to 30% faster than the 68020.

I believe I read a press release about the 68030 in which it was stated
that the 68030 was capable of 8 MIPS, approximately 8 times that of the
VAX 11/780, and 2 times that of the 80386. This is at a clock rate
of 16-20 Mhz, I'm not sure which. The 68020 is capable of about 1.5
MIPS at a clock rate of 14 Mhz. This puts the 68030 at about 5 times
faster than the 68020 at the same clock rate. Apparently the 68030
uses what is called "Harvard parallel architecture". Now that Motorola
has released this chip, they have in *every category of chip* a far
superior chip than does Intel. 68030 > 80386, 68020 > 80286, 68010 and
68000 >> 80186, 8086, 68008 > 8088. The 68000 series chips are in every case
more orthogonally designed, faster, more compatible with each other,
and easier to program.
                    -Mitsu

From -865821042749048191

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2601b706a2a44f5c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 16:01:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!ut-sally!
nather
From: nather@ut-sally.UUCP (Ed Nather)
Newsgroups: net.micro.atari16
Subject: Re: Dictionary for SPELL.PAS
Message-ID: <5825@ut-sally.UUCP>
Date: Sat, 27-Sep-86 19:01:49 EDT
Article-I.D.: ut-sally.5825
Posted: Sat Sep 27 19:01:49 1986
Date-Received: Tue, 30-Sep-86 06:21:32 EDT
References: <8609271346.AA05977@ucbvax.Berkeley.EDU>
Organization: U. Texas CS Dept., Austin, Texas
Lines: 13
Summary: Netlimit 64K

In article <8609271346.AA05977@ucbvax.Berkeley.EDU>, FYSKO@HWALHW5.BITNET writes:
> BTW What is upper limit for a file size to send thru the net
> at one time?

It is unwise to send any text file as large as 64K bytes. Although many sites
can handle more some cannot, and silently truncate. That's the reason large
postings come in as "Part x of y". Best do it that way to be safe.

--
Ed Nather
Astronomy Dept, U of Texas @ Austin
{allegra,ihnp4}!{noao,ut-sally}!utastro!nather
nather@astro.AS.UTEXAS.EDU

From -6228998493042251419
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0e1ff0aa4a40327,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 17:45:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!nike!ucbcad!ucbvax!
UMass.BITNET!SARGON
From: SARGON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: 68030
Message-ID: <860927204514.0000059A.ACYB.MA@UMass>
Date: Sat, 27-Sep-86 20:45:14 EDT
Article-I.D.: UMass.860927204514.0000059A.ACYB.MA
Posted: Sat Sep 27 20:45:14 1986
Date-Received: Tue, 30-Sep-86 06:23:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 6

I have seen three references to the 68030. Does such a beast actually
exist on paper or otherwise?   If so would someone kindly pass along
some information on it. Thanks in advance.
                                                                -Steve
~~~~~~~~~~
Sargon@Umass.BITNET   Sargon%Umass.BITNET@WiscVM.Wisc.EDU

From -9017834441627755251
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f278e23ab8c325b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-27 20:42:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cgoudeseune
From: cgoudeseune@watnot.UUCP (center of gravity)
Newsgroups: net.micro.atari16
Subject: Re: TeX on the ST?
Message-ID: <12033@watnot.UUCP>
Date: Sat, 27-Sep-86 23:42:09 EDT
Article-I.D.: watnot.12033
Posted: Sat Sep 27 23:42:09 1986
Date-Received: Tue, 30-Sep-86 06:09:19 EDT
References: <8609192303.AA22456@ucbvax.Berkeley.EDU>
<1063@batcomputer.TN.CORNELL.EDU>
Reply-To: cgoudeseune@watnot.UUCP (center of gravity)
Organization: U of Waterloo, Ontario
Lines: 6
Summary:

[this line left intentionally non-blank]

Yes! Imagine TEX on the ST with the rumoured $1K laser printer...
Whoever ports it had better ensure that it works with that!

Camille Goudeseune.

From 3469815962773568885
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ca721f16c4d35d50,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 09:50:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: WWU removed
Message-ID: <12242570942.12.G.ABRAMS@Score.Stanford.EDU>
Date: Sun, 28-Sep-86 12:50:44 EDT
~~~~~~~~~~

Article-I.D.: Score.12242570942.12.G.ABRAMS
Posted: Sun Sep 28 12:50:44 1986
Date-Received: Tue, 30-Sep-86 07:38:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

All messages to WWU@csnet-relay have been rejected for the last
several weeks, including an attempt to reach the Postmaster. Therefore,
I have removed WWU from the lists.

If anyone knows someone at WWU, please advise them of this event.

Thank you.

From 888912978830190595
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0e1ff0aa4a40327
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 10:35:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: 68030
Message-ID: <8609281735.AA15525@ames-nas.ARPA>
Date: Sun, 28-Sep-86 13:35:14 EDT
Article-I.D.: ames-nas.8609281735.AA15525
Posted: Sun Sep 28 13:35:14 1986
Date-Received: Tue, 30-Sep-86 07:38:52 EDT
References: <860927204514.0000059A.ACYB.MA@UMass>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

     I have the following (not verbatim, I've already filed the issue
in the circular file (:-) report on the 68030 from last week's EE-Times
magaizine:

     So many trade publications were writing about the 'impending'
announcement of the 68030 (and 68040) chips that Motorola decided they
had better announce the chip. They won't be shipping sample quantities
until next July.

     I don't remember details, except that it has a 32 bit wide data
and address path to memory and uses higher clock rates than the 68020.

Marty

From 6840313831458260963
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7aa6c51afa2704e3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 10:45:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!JULIET.CALTECH.EDU!ccl
From: ccl@JULIET.CALTECH.EDU (Curtis C. Ling)
Newsgroups: net.micro.atari16
Subject: Mailing list
Message-ID: <860928104513.00j@Juliet.Caltech.Edu>
Date: Sun, 28-Sep-86 13:45:13 EDT
Article-I.D.: Juliet.860928104513.00j
Posted: Sun Sep 28 13:45:13 1986
Date-Received: Tue, 30-Sep-86 07:39:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Hello, please add me to the mailing list. Thanks.

Curtis
CCL@CITROMEO

From 5788207804744958165
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-28 10:52:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!tektronix!
teklds!copper!michaelk
From: michaelk@copper.UUCP (Michael Kersenbrock)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <624@copper.UUCP>
Date: Sun, 28-Sep-86 13:52:33 EDT
Article-I.D.: copper.624
Posted: Sun Sep 28 13:52:33 1986
Date-Received: Tue, 30-Sep-86 13:34:49 EDT
References: <2270@gitpyr.UUCP> <1837@well.UUCP>
Reply-To: michaelk@copper.UUCP (Michael Kersenbrock)
Distribution: net

Organization: Tektronix, Inc., Beaverton, OR.
Lines: 50
Keywords: new motorola chips mmu fastIn article <1837@well.UUCP> swalton@well.UUCP
(Stephen R. Walton) writes:
Xref: watmath net.micro.68k:1881 net.micro.amiga:5004 net.micro.atari16:2233
net.micro.mac:8021

>In article <2270@gitpyr.UUCP> rodney@gitpyr.UUCP (RODNEY RICKS) writes:
>>In the September 18, 1986 issue of Electronic Design magazine, there is an
>>article on page 27 describing the new microprocessor from Motorola, the 68030.
>>The chip is said to run software 20% to 30% faster than the 68020. The chip
>>is supposed to be available in mid-1987, along with an improved math
>>coprocessor, the 68882, which will be up to 25% faster than the 68881.
>>
>
>I hope the '82 is more like twice as fast as the 68881.
>
>>The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>
>Think about this. That's a memory access time of 25 nanoseconds, more than
>4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.
>

Um....your 8-bit uP background is showing. If the 68030 is handling data
at 40 MBytes/sec, that's 100 nS per bus cycle time. The '030, like the
'020 is 32-bit machine -- it does 4-bytes at a time.

>>Now, when will I be able to connect one to my Amiga?
>
>Probably soon. But it won't be noticably faster than a CSA 68020.
>An editorial on the subject of the 68040 (yes, 40) in a recent issue of
>a small PC magazine commented that these chips are so fast that a fair
>amount of high-speed cache memory is absolutely essential to take full
>advantage of them. And that means minicomputer pricing, not micros.
>Unless one of you hot-shot chip designers out there can put together a
>1 MB DRAM with 25 ns access which will sell for less than $100 apiece :->

Well, 1M Drams are normally 100nS, so even with the "normal" chips, it
may get by with only a few wait-states. In any case, one of the reasons
that the '030 is supposed to be faster is that it has a built-in data-cache
in addition to the program-cache that the '020 has.

>
>   Stephen Walton, speaking for myself
>
>Dudley Moore: You must be a nut case!
>Peter Cook: They said that about Galileo! They said that about Einstein!
>Moore: Yeah, well they've said it about a lot of nut cases, too.
>   -from the movie "Bedazzled"

--

Mike Kersenbrock
Tektronix Computer Aided Software Engineering
Aloha, Oregon

From 5013920531420725461
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d121f36df3db95a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 11:10:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!rutgers!caip!cbmvax!amiga!pyramid!decwrl!sun!
saber!imagen!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Antic A-SEKA Assembler Initial Impressions (Trash)
Message-ID: <430@atari.UUcp>
Date: Sun, 28-Sep-86 14:10:39 EDT
Article-I.D.: atari.430
Posted: Sun Sep 28 14:10:39 1986
Date-Received: Wed, 1-Oct-86 01:21:24 EDT
References: <8609261745.AA06193@ohio-state.ARPA>
Organization: Atari Corp., Sunnyvale CA
Lines: 16

Yes, SEKA is absolute garbage. It is one of the *worst* assembler/
editor packages I've ever seen. (It floated into Atari about six
months ago, and I recall using the disk it came on as a blank one,
about an hour after I first tried to use it....)

Don't buy it.

--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,imagen}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From -200165013228617879
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af29a81aedabc9b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 13:04:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16

Subject: Re: MicroMumps for the ST?   )
Message-ID: <8609290839.AA02705@ucbvax.Berkeley.EDU>
Date: Sun, 28-Sep-86 16:04:36 EDT
Article-I.D.: ucbvax.8609290839.AA02705
Posted: Sun Sep 28 16:04:36 1986
Date-Received: Tue, 30-Sep-86 20:23:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 40

> As I can think of, there are 3 possibilities:
>
>   (a) replacing the mouse by a tablet (this demands dedicated hardware).
>   (b) connecting a digitizer to the DMA interface (dedicated hardware).
>   (c) connecting a digitizer to an RS-232 interface (general solution).
>
> Although we prefer solution (c), we want the workstation to be connected to
> the VAX all the time: so we would need a second RS-232 interface for the
> ST in that case.
>
>III -Sampling-
>
> Another problem we have is the tablet sampling frequency. This frequency
> should be adjustable from 100 Hz (min.) to 200 Hz or up. Also, the tablet
> should *not* have any intelligence since we want to make a time record of
> the displacements of the pen tip.

    After a couple of moments of thought, i would say why not use the printer port. Think of the printer port as a parallel Input port with one interrupt input - the strobe. I would put the serial output of the tablet, through a Usart, to the parallel input port. The data ready strobe of the usart would drive the interrupt (strobe) input. The power for the usart can be tapped off the joystick port.
    Then all that is left to do is to write an interrupt routine to handle the strobes. There is interrupt reserved for centronics strobe, that is routed through the MFP and the 68000 see it at IPL6. So your sampling frequency is only limited by how fast you can process the interrupt. By putting the usart, you have effectively a 8 bit buffer, so the sampling rate requirement should go down quite a bit, as now you are going to sample 8 bits at a time. This should work pretty good with tablets like the Summargraphics, which i seem to recall, send out data as 2 4 bit packets in any case (at least that is true in one of the modes), which the usart will latch and pass on.
    I know its easier said than done, but its another idea off the top of my head. Hope it helps some.

usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi
csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From -16408720235745443

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0e1ff0aa4a40327
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 13:49:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!ut-sally!
nather
From: nather@ut-sally.UUCP (Ed Nather)
Newsgroups: net.micro.atari16
Subject: Re: 68030
Message-ID: <5830@ut-sally.UUCP>
Date: Sun, 28-Sep-86 16:49:12 EDT
Article-I.D.: ut-sally.5830
Posted: Sun Sep 28 16:49:12 1986
Date-Received: Tue, 30-Sep-86 08:31:49 EDT
References: <860927204514.0000059A.ACYB.MA@UMass>
Organization: U. Texas CS Dept., Austin, Texas
Lines: 20

In article <860927204514.0000059A.ACYB.MA@UMass>, SARGON@UMass.BITNET writes:
> I have seen three references to the 68030. Does such a beast actually
> exist on paper or otherwise?   If so would someone kindly pass along
> some information on it. Thanks in advance.

It exists, mostly, on paper. All of the details have not yet been decided,
so it isn't even vaporware yet -- it exists only as an announcement by
Motorola to try and keep designers from designing in the 80386 until they
can (quick! hurry!) get something better on the market.

Intel didn't announce the 80386 until they had it (mostly) working, in
real silicon. Motorola should be ashamed.

Disclaimer: these opinions are for sale. Send cash: they could be yours!

--
Ed Nather
Astronomy Dept, U of Texas @ Austin
{allegra,ihnp4}!{noao,ut-sally}!utastro!nather
nather@astro.AS.UTEXAS.EDU

From -53494325370358368
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,79fb38a969deeb2c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 14:32:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!pyramid!voder!kontron!cramer
From: cramer@kontron.UUCP (Clayton Cramer)
Newsgroups: net.micro.atari16
Subject: GEM Write/Draw
Message-ID: <1092@kontron.UUCP>
Date: Sun, 28-Sep-86 17:32:04 EDT

Article-I.D.: kontron.1092
Posted: Sun Sep 28 17:32:04 1986
Date-Received: Tue, 30-Sep-86 19:48:05 EDT
Distribution: net
Organization: Kontron Electronics, Mt. View, CA
Lines: 7

When, oh when, is GEM Write going to come out for the Atari ST? I've
seen pre-release versions for over a year. What's going on?

I don't read this group regularly -- if you have information, please
mail to me.

Clayton E. Cramer

From -4967415040732718507
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0e1ff0aa4a40327
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 14:42:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!hplabs!felix!preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: Re: 68030
Message-ID: <1611@felix.UUCP>
Date: Sun, 28-Sep-86 17:42:42 EDT
Article-I.D.: felix.1611
Posted: Sun Sep 28 17:42:42 1986
Date-Received: Tue, 30-Sep-86 19:07:17 EDT
References: <860927204514.0000059A.ACYB.MA@UMass> <8609281735.AA15525@ames-
nas.ARPA>
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 25

Probably the most significant feature of the 68030 is that the MMU is
on-chip. This is a big win in terms of speed/cost. It also has a data
cache in addition to the code cache. I think there are probably other
little tweaks for more speed.

Maybe Atari should just wait until the 68030 comes out to replace the
ST. :-) On chip MMU means lower cost/simpler board, and should have
fewer wait-states with regular DRAMs.

With microprocessors that are this fast, it starts to make sense to use
Lisp for program development and to forget about "lower-level"
languages like Pascal, C, Ada... :-)

A next generation ST could have a small Lisp interpreter (like XLisp)
in ROM. Lisp compilers are getting quite good. The ORBIT compiler
(for Scheme) generates code that compares favorably with compilers for

more conventional languages (see "ORBIT: An Optimizing Compiler for Scheme" in the "Proceedings of the SIGPLAN '86 Symposium on Compiler Construction", SIGPLAN Notices v21, #7). There are comparible compilers for PSL and Franz Lisp (and possibly others).

==========
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston
BIX: plb

From -3711511437110538362
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1479c38032dc2b0a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 16:01:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: FINANCIAL HEALTH OF ATARI (FINAL !!)
Message-ID: <8609282301.AA22233@ucbvax.Berkeley.EDU>
Date: Sun, 28-Sep-86 19:01:40 EDT
Article-I.D.: ucbvax.8609282301.AA22233
Posted: Sun Sep 28 19:01:40 1986
Date-Received: Tue, 30-Sep-86 19:06:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>
Organization: The ARPA Internet
Lines: 17

I would hate to be accused of being the originator of rumors concerning the financial health (presumably, ill) of Atari. In retrospect, the question in my mind about Atari's finances, generated by a cable TV program that I now believe was over 2 years old, should have remained where it began: in my mind, and NOT on this net. I could, and should, have brought up this question via a medium that does not get such wide dissemination. I am now confident that the cable TV show was discussing the state of affairs of Atari in pre-Tramiel, pre-ST days when they were still owned by Warner Communications (and, AT THAT TIME, in BIG financial trouble). End of rumor.

New rumor: who is porting NASTRAN to the ST?

Bob Menton
MENTON@NRL-ACOUSTICS

From -3672855882866978052
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70

X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 17:40:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!
ubc-vision!alberta!calgary!radford
From: radford@calgary.UUCP (Radford Neal)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <402@vaxb.calgary.UUCP>
Date: Sun, 28-Sep-86 20:40:48 EDT
Article-I.D.: vaxb.402
Posted: Sun Sep 28 20:40:48 1986
Date-Received: Thu, 2-Oct-86 19:34:23 EDT
References: <2270@gitpyr.UUCP> <1837@well.UUCP>
Distribution: net
Organization: U. of Calgary, Calgary, Ab.
Lines: 31
Keywords: new motorola chips mmu fast
Xref: watmath net.micro.68k:1896 net.micro.amiga:5044 net.micro.atari16:2262
net.micro.mac:8054
Summary: Needs 100ns memory, not 25ns

In article <1837@well.UUCP>, swalton@well.UUCP (Stephen R. Walton) writes:

> >The bus data transfer rate of the 68030 is 40 Mbytes/sec.
>
> Think about this. That's a memory access time of 25 nanoseconds, more than
> 4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.

If the 68030 is anything like the 68020, you probably only need 100ns
cycle time memories, since the bus can be four bytes wide. The access time
will have to be less, though, to allow for setting up the address.

> >Now, when will I be able to connect one to my Amiga?
>
> Probably soon. But it won't be noticably faster than a CSA 68020...
> An editorial on the subject of the 68040 (yes, 40) in a recent issue of
> a small PC magazine commented that these chips are so fast that a fair
> amount of high-speed cache memory is absolutely essential to take full
> advantage of them. And that means minicomputer pricing, not micros.
> Unless one of you hot-shot chip designers out there can put together a
> 1 MB DRAM with 25 ns access which will sell for less than $100 apiece :->

I think it should be possible to build a small, fast, cheap machine using
the 68030 at nearly full speed. The trick would be to not use cache memory,
just make it all fast. You only need 16 8KX8 static RAM's to make up 128K
of memory. So a *really* fast 128K Mac ought to be possible.

The question is, does anyone want one? Or would they rather have 2M of
slower memory for the same price?

     Radford Neal
     The University of Calgary

From 728410130440243135
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-28 21:13:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!glacier!Shasta!simoni
From: simoni@Shasta.STANFORD.EDU (Richard Simoni)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <877@Shasta.STANFORD.EDU>
Date: Mon, 29-Sep-86 00:13:15 EDT
Article-I.D.: Shasta.877
Posted: Mon Sep 29 00:13:15 1986
Date-Received: Tue, 30-Sep-86 13:36:33 EDT
References: <2270@gitpyr.UUCP> <262@husc6.HARVARD.EDU>
Reply-To: simoni@Shasta.UUCP (Richard Simoni)
Organization: Stanford University
Lines: 24
Xref: watmath net.micro.68k:1882 net.micro.amiga:5006 net.micro.atari16:2234
net.micro.mac:8022

In article <262@husc6.HARVARD.EDU> hadeishi@husc4.UUCP (mitsuharu hadeishi)
writes:

>Apparently the 68030
>uses what is called "Harvard parallel architecture". Now that Motorola
>has released this chip, they have in *every category of chip* a far
>superior chip than does Intel. 68030 > 80386, 68020 > 80286, 68010 and
>68000 >> 80186, 8086, 68008 > 8088. The 68000 series chips are in every case
>more orthogonally designed, faster, more compatible with each other,
>and easier to program.

I agree that the Motorola chips are nicer in many ways than the Intel chips.
But to say Motorola has "released" the chip is stretching things a bit. Not
only has the 68030 not been formally introduced as a product yet, but the
artciles I've read (e.g., Electronics, September 18, 1986) say volume
production is more than a year away. The 80386 is here now, and actually
has a system available (Compaq) which uses it. In other words, it's not

really fair to compare that which Intel has now with what Motorola will have
in a year. A more fair comparison is between the 68020 and the 80386.

Rich Simoni
Center for Integrated Systems
Stanford University
simoni@sonoma.stanford.edu
...!decwrl!glacier!shasta!simoni

From -6021835004401200083
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58e692b5bd575548,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 21:23:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!
ubc-vision!fornax!chapman
From: chapman@fornax.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: Beckemeyer SCSI board
Message-ID: <10@fornax.uucp>
Date: Mon, 29-Sep-86 00:23:38 EDT
Article-I.D.: fornax.10
Posted: Mon Sep 29 00:23:38 1986
Date-Received: Thu, 2-Oct-86 19:36:19 EDT
Distribution: net
Organization: Computing Science Dept, SFU, Burnaby, B.C. Canada
Lines: 9

.

According to postings earlier this summer Beckemeyer Dev. was to have
released their SCSI interface and clock board in mid August. Does anyone
know if they have done so? oe btter yet, has anyone actually got one and
have anything to say about it?

john chapman

From -8358506198311186 52
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b753d398c758c25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-28 23:44:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Coprocessors
Message-ID: <1115@batcomputer.TN.CORNELL.EDU>
Date: Mon, 29-Sep-86 02:44:34 EDT
Article-I.D.: batcompu.1115

Posted: Mon Sep 29 02:44:34 1986
Date-Received: Wed, 1-Oct-86 01:08:34 EDT
References: <8609232056.AA06071@ucbvax.Berkeley.EDU>
<1095@batcomputer.TN.CORNELL.EDU> <420@ubc-cs.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12

[]

The TT will be a UNIX machine and cost several $K (?).
It is NOT an add-on to the ST - it's just the opposite!

The 32081 chip, 6 MHz version, quantity one, costs <$30.
A working board with it could probably sell commercially
for about $200.

If all you want is fast FP, what would you get?

- Moshe Braner

From -8573258052368249641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c8eb2d12cd6c98e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-29 00:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XX.LCS.MIT.EDU!Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: 68040/80486
Message-ID: <MDCG.WAYNE.12242728308.BABYL@MIT-OZ>
Date: Mon, 29-Sep-86 03:15:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12242728308.BABYL
Posted: Mon Sep 29 03:15:00 1986
Date-Received: Tue, 30-Sep-86 20:22:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 46

> Date: Saturday, 27 September 1986 20:45-EDT
> From: SARGON%UMass.BITNET at WISCVM.WISC.EDU
>
> I have seen three references to the 68030. Does such a beast actually
> exist on paper or otherwise? If so would someone kindly pass along
> some information on it. Thanks in advance.
>
> -Steve

[The following contains pointers to a generation of AI-oriented 68040 and
80486 chips, and is reprinted without the permission of Newsnet or IDB
Daily. -- WHM]

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IDB ONLINE--THE COMPUTING INDUSTRY DAILY
Tuesday August 12, 1986

INTEL AND MOTOROLA JOSTLE FOR DESIGN WINS

Intel and Motorola continue to vie for position in the 32-bit MPU league. Motorola is expected to introduce its 68030 sometime next month, while Intel will see its 80386 moving further into the artificial intelligence market as software suppliers come out in its support at the AAAI symposium opening in Philadelphia today. According to reports from the US, the 68030 tweaks the architecture of the 68020 for increased performance. It is the forerunner to the 68040, Motorola's first 32-bit processor with on board memory management unit. Details of Intel's 80486 are still sparse, but the direction of the 80386 into the AI market suggests that the new part will be optimised for AI applications in knowledge-based systems and natural language interfaces. Key goals for the 80486 are the support of Lisp and Prolog, with all products targetted to support Unix System V. Among the companies reported by US trade paper, Electronic News, to be working on AI languages and development environments are Gold Hill, which will have a System V version of the GCLisp 386 developer with compiler, interpreter and Emacs editor by the first quarter of 1987; and Lucid, with its Common Lisp environment with compiler, interpreter, debugger and foreign function interface. Franz will have its Common Lisp environment and tools ready in the autumn; while Arity is planning a Prolog programming environment plus tool set for early 1987. Companies still expected to make a formal commitment of support are Quintus and Teknowledge.

From 2815554885421403708
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a99a5f5b34ed5ff2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 08:44:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: Re: Editable Fields in Windows
Message-ID: <8609250613.AA06205@ucbvax.Berkeley.EDU>
Date: Wed, 24-Sep-86 11:44:55 EDT
Article-I.D.: ucbvax.8609250613.AA06205
Posted: Wed Sep 24 11:44:55 1986
Date-Received: Thu, 25-Sep-86 05:12:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 12

The way you want to do this is correct. Although it is not easy, you can change the x and y coordinates of the parent object (usually a g-box, probably in this case an invisible box with no border) which would change the relative position of the children on the screen, though they would be positioned the same relative to the parent.

If you can, look at Tim Oren's tutorials on GEM, and the DRI Doodle program, both of these will give you an idea of how to manipulate the x and y coords of an object. The particular algorithm you use, however, must come from your own power.

Mike

From 5515968785736990268
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82e70ad5fe7bf2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 09:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!inuxc!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Comments on MicroEmacs 3.7
Message-ID: <54600109@iuvax>
Date: Wed, 24-Sep-86 12:02:00 EDT
Article-I.D.: iuvax.54600109
Posted: Wed Sep 24 12:02:00 1986
Date-Received: Fri, 26-Sep-86 01:06:22 EDT
References: <442@sask.UUCP>
Lines: 9
Nf-ID: #R:sask.UUCP:-44200:iuvax:54600109:000:236
Nf-From: iuvax.UUCP!franco   Sep 24 11:02:00 1986

Two more comments:

1. Saving to disk is incredibly slow with microemacs 3.7 (I experience "long" waits even saving to a ramdisk)

2. The black border is a nuisance.

Any chance we may be given the sources to correct these problems?

From 8067637717900444353
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 09:17:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator (buying apple ROMs)
Message-ID: <8609241617.AA18349@ames-nas.ARPA>
Date: Wed, 24-Sep-86 12:17:35 EDT
Article-I.D.: ames-nas.8609241617.AA18349
Posted: Wed Sep 24 12:17:35 1986
Date-Received: Thu, 25-Sep-86 06:17:30 EDT
References: <1823@well.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Apple only allows the ROMs to be sold through authorized apple service centers.

There is a fascinating grey area in the law regarding the restrictions Apple may or may not place on who the service center can sell them to, and if the purchaser can then resell. . .

The ROMs were being sold at the B&C computer visions (A Santa Clara Atari only store) booth.

From -6135095949772794836
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 10:16:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!burl!clyde!watmath!looking!brad
From: brad@looking.UUCP (Brad Templeton)
Newsgroups: net.micro.atari16
Subject: Interactive programming environments Re: ACTION and the ST
Message-ID: <671@looking.UUCP>
Date: Wed, 24-Sep-86 13:16:13 EDT
Article-I.D.: looking.671
Posted: Wed Sep 24 13:16:13 1986
Date-Received: Fri, 26-Sep-86 20:52:00 EDT
References: <1050@batcomputer.TN.CORNELL.EDU> <860922-124322-1026@Xerox>
Reply-To: brad@looking.UUCP (Brad Templeton)
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 15

In article <860922-124322-1026@Xerox> Felton.pa@XEROX.COM writes:
>> If there are people reading this and longing for an "easy" language
>> or interactive (but not reverse Polish) environment, let us hear!
>

>
>   You have just described me perfectly. Why can't we have a block
>structured language and an interactive programming environment at the
>same time?! The reason that Turbo Pascal and ACTION! are so popular is
>the integration of the edit/compile/run cycle into one environment.

Fear not. What you want is on the way.
(Stay tuned for further announcements)

--
Brad Templeton, Looking Glass Software Ltd. - Waterloo, Ontario 519/884-7473

From 6668434311561200023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9d5f2201cc1ced0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 11:00:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: Uniterm/Terminal lockup
Message-ID: <8609250649.AA06754@ucbvax.Berkeley.EDU>
Date: Wed, 24-Sep-86 14:00:45 EDT
Article-I.D.: ucbvax.8609250649.AA06754
Posted: Wed Sep 24 14:00:45 1986
Date-Received: Thu, 25-Sep-86 06:17:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Do not despair! The new version of UniTerm will be posted to the whole net
in a few days (it even survives VTTEST quite well now).

Robert Royar writes in one of his postings:
> ...I have been experiencing problems with my terminal locking up on one
> of these VAXES....

Does anybody have an idea why this happens? It is not the terminal program
in my opinion, but the MfP or the bios getting hanged up, is there any fix?
ST-Talk probaly installs it's own interrupt handler.

                        Simon Poole
                        K538915.CZHRZU1A.BITNET

From 8955647207957331
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 13:04:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <3651@ism780c.UUCP>
Date: Wed, 24-Sep-86 16:04:05 EDT
Article-I.D.: ism780c.3651
Posted: Wed Sep 24 16:04:05 1986
Date-Received: Fri, 26-Sep-86 03:15:22 EDT
References: <275@zen.BERKELEY.EDU> <8609230616.AA24405@ames-nas.ARPA>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 6

How did they solve the legal problems with using code from Mac ROMs?
--
What's the difference between a duck?

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From -531511562518842884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 13:31:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <3652@ism780c.UUCP>
Date: Wed, 24-Sep-86 16:31:16 EDT
Article-I.D.: ism780c.3652
Posted: Wed Sep 24 16:31:16 1986
Date-Received: Fri, 26-Sep-86 03:15:35 EDT
References: <275@zen.BERKELEY.EDU> <8609230616.AA24405@ames-nas.ARPA>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 21

In article <8609230616.AA24405@ames-nas.ARPA> fouts@AMES-NAS.ARPA writes:
>
>   However, apparent help was present in the Data Pacific booth, in the
>form of Alex Leavens, who offered to sell me a 'starter set' of diskettes in
>MAGIC format, which would contain a system and finder image, a couple of
>Boston Macintosh users group public domain diskettes, and a diskette
>containing Red Ryder and Free Term. So, for a mere 40 additional dollars, I
>was set -- I thought.
>

Hmmm... $40 is the price for Red Ryder. Does that mean that they are

paying for Red Ryder for you, or is the $40 you payed Alex Leavens in
addition to the $40 that Scott Watson should get for Red Ryder?

If the $40 to Alex Leavens does not go to Scott Watson, do they make
it clear that you haven't bought RR?
--
What's the difference between a duck?

Tim Smith   USENET: sdcrdcf!ism780c!tim   Compuserve: 72257,3706
          Delphi or GEnie: mnementh

From -8208401847021020176
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,991039a9bbe84739,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 13:45:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!zen!zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Get passed the dragon
Message-ID: <325@zen.BERKELEY.EDU>
Date: Wed, 24-Sep-86 16:45:38 EDT
Article-I.D.: zen.325
Posted: Wed Sep 24 16:45:38 1986
Date-Received: Wed, 24-Sep-86 22:24:55 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 12

Hello Phil,

Thanks for answering my message. I couldn't send this message directly to
you (lll-lcc!eckert@cad). I couldn't kill the adventurer to give his body to
the dragon (no weapons). I don't think the dragon wants a dead body because
I killed the princess and gave the body to the dragon and he killed me anyway.
The hint said something about illuminating but I wasn't successful.
     By the way, I have gone down the lava river and seen a drunk man.
                            Duy

                   Duy Le
             Richmond, Ca

From 3301754336420981828
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59088b61119a022e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 14:35:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!SUMEX-AIM.STANFORD.EDU!

Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Re: SH204 Hard disk facts
Message-ID: <12241574153.8.LYNN@PANDA>
Date: Wed, 24-Sep-86 17:35:12 EDT
Article-I.D.: PANDA.12241574153.8.LYNN
Posted: Wed Sep 24 17:35:12 1986
Date-Received: Wed, 24-Sep-86 23:39:35 EDT
References: <1065@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

The reason you'd want to partition your hard disk is that GEMDOS
has problems with a disk size larger than I-forget-what. Perhaps
if Landon Dyer is reading this, he could give more exact details.

--Lynn

From 2970491285712003622
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a238d03ecb14b94
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 14:53:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: uuencode's input file
Message-ID: <1130@hoptoad.uucp>
Date: Wed, 24-Sep-86 17:53:12 EDT
Article-I.D.: hoptoad.1130
Posted: Wed Sep 24 17:53:12 1986
Date-Received: Wed, 24-Sep-86 22:26:59 EDT
References: <8609121915.AA27613@mitre-bedford.ARPA>
Organization: Nebula Consultants in San Francisco
Lines: 29

In article <8609121915.AA27613@mitre-bedford.ARPA>, jhs@MITRE-BEDFORD.ARPA writes:
> I was giving myself fits trying to uuencode a file on the VAX...
>   uuencode apparently takes the first argument
> to be that string and assumes that you meant to type in your binary file at
> the keyboard. (Sounds like a silly assumption to me, but I didn't write
> uuencode.)

Uuencode is assuming that you know about standard input and output.
Since you used standard output redirection, (the > sign), it sounds
like a reasonable assumption. This lets you pipe things to uuencode,
for example.

> To uuencode into a local file, I found the following syntax to be necessary
> (or at any rate sufficient, which is sufficient!):
>
>   uuencode inputfilename anystring >output filename

You could also use:

     uuencode anystring <input >output

I agree that uuencode's command line leaves something to be desired.
It would've been better to make the "destination string" be an option
(eg uuencode -d deststring input >output). I just thought I'd remind
people that "programs that default to reading from the keyboard" are
really "programs that default to reading standard input" -- a good thing.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -7882478115807195981
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 15:23:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: Where is Neil@Atari (vecpyr link)
Message-ID: <1133@hoptoad.uucp>
Date: Wed, 24-Sep-86 18:23:01 EDT
Article-I.D.: hoptoad.1133
Posted: Wed Sep 24 18:23:01 1986
Date-Received: Wed, 24-Sep-86 23:44:24 EDT
References: <8609121534.AA04117@yale-celray.YALE.ARPA>
<734@cbmvax.cbmvax.cbm.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 22

Vecpyr changed their modem phone number and forgot to tell their
neighbors (one of whom is me). That's why mail to atari via vecpyr
has been bouncing. It should be fixed soon.

> From: grr@cbmvax.cbm.UUCP (George Robbins)
> Note that the administrators of lll-lcc and hoptoad are known have a low
> tolerance for mail that they feel is inappropriate or excessive being routed
> through their systems...

I thank George for pointing this out. Actually I suspect that *all* system
administrators have a low tolerance for inappropriate or excessive mail
going through their systems -- they just don't notice as much as we do.
One window on my Sun screen constantly displays the modem/uucp/mail/news
activity going on, so when I'm working I notice who is sending what through,

and I take the time to educate people who are wasting resources. Letting
everybody know what works and what costs what is vital to keeping this
wonderful shared network without accounting or fees going.

     John
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -4519812479365941269
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82e70ad5fe7bf2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 16:30:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!amiga!pyramid!decwrl!sun!saber!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Comments on MicroEmacs 3.7
Message-ID: <585@imagen.UUCP>
Date: Wed, 24-Sep-86 19:30:23 EDT
Article-I.D.: imagen.585
Posted: Wed Sep 24 19:30:23 1986
Date-Received: Fri, 26-Sep-86 03:14:11 EDT
References: <442@sask.UUCP>
Organization: The Houses of the Holy
Lines: 52

>
>
> I am very impressed with the latest version of Emacs that has been
> posted.
>
> A few comments:
>   -if you hit F10 you just exit, no questions asked. I find
>   this a little scary.
only if the file has not been modified, if you have changed anything it
will ask you if you are sure etc.....
>   -When run in colour mode, I only have a colour tv, so it is
>   not worth using, the characters are difficult to read.
>   So, I am using the Hi50 program in monochrome. I would love
>   to modify Emacs 3.7 to use all 50 lines on the screen.
>   Source would be nice...
the new version (3.7i) will support 3 resolutions: low and med for
color-corresponding to 25x40 and 25x80; and med and hi for b/w-
corresponding to 25x80 and 40x80
source will go back to Dan Lawrence to be included into the production
version of MicroEmacs for future releases, please send him or me any
changes that you make so that we can have a single ST port for sanity
>   -I opened my monitor and expanded the vertical resolution.
>   Definately a very good idea. 50 lines was pretty scrunched

> before, and now it seems almost as legible as 25 line mode.
> (Yes, circle generated by graphics programs are a little too
> tall, but I am not complaining... as an aside, can I expand
> the horizontal size too??? I didn't see any obvious way to
> do it.
>
> Thanks
>
>
> -=-
> Warren Long   78 Carleton Dr.
> University of Saskatchewan   Saskatoon
> Canada   Saskatchewan, S7H 3N6
>
>
> @ long!sask!alberta!ihnp4!ucbvax!...
> home ph# (306)-955-1237
> -=-
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7511439315405292135
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a95e764e3177e4e3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 19:58:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: "progress" in operating systems...
Message-ID: <1097@batcomputer.TN.CORNELL.EDU>
Date: Wed, 24-Sep-86 22:58:28 EDT
Article-I.D.: batcompu.1097
Posted: Wed Sep 24 22:58:28 1986
Date-Received: Fri, 26-Sep-86 20:33:29 EDT
References: <8609240330.AA15054@mitre-bedford.ARPA>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 32
Summary: Right on!

[]

I sure agree with John: memory is being squandered uselessly!
That 4K screen-editor for the Apple II I mentioned is rather complete
(no multiple windows, though). I read about a utility for Apple Pascal
(on the Apple II) that reminds one of Sidekick in what it does. It eats
all of about 5K - Sidekick gobbles between 26 and over 100K, depends on
what parts of it are installed. Why? because it was written for a 640K
machine, sloppily. People will tell me that we will want "real" EMACS
and graphic-UNIX on our personal machines when they finally have 2
Megabytes (4 ?). What for? Use the RAM (even part of the 1 Meg space
we have now) for an intelligent, transparent disk caching scheme at
the OS level, and (with one floppy) it will put hard disks to shame!
Instead of silly BASIC environments with 17 windows (edit in one, list
in another, etc.) - let us have an incrementally compiled BASIC (or C,
or Pascal)! An incrementally-compiling environment needs RAM for many
things: source, executable code, variables (that remain intact while
you modify source and continue running!), compiler, editor/lister/decompiler
(or whatever that is), library routines, and (yes) a graphics screen.
THAT'S what RAM is for! (HBASIC actually compiles at edit time and
DECOMPILES at list/re-edit time. So fast, though, that you don't notice.
At run time, it RUNS! 2000 times faster than BASICA (sieve benchmark)!
THAT'S what a 16/32 bit processor is for!   Did you hear of the brand-name
"supermini" that serves many users simultaneously with a famous OS,
but performs floating point operations a lot slower than Applesoft BASIC?
(That's a true story, but the company that made it is so big I'd rather
not mention them by name :-)

- Moshe Braner

Peter's principle of computer engineering:
     Software will expand to fill the memory allotted.

From 7648961928661920808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d065e382883bc378,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 20:08:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!ccvaxa!preece
From: preece@ccvaxa.UUCP
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS (didn't mean to stir up a
Message-ID: <109200002@ccvaxa>
Date: Wed, 24-Sep-86 23:08:00 EDT
Article-I.D.: ccvaxa.109200002
Posted: Wed Sep 24 23:08:00 1986
Date-Received: Fri, 26-Sep-86 01:16:19 EDT
Lines: 9
Nf-ID: #R:<8609221236.AA01198@ucbvax.Berke:-40:ccvaxa:109200002:000:179
Nf-From: ccvaxa.UUCP!preece   Sep 24 22:08:00 1986

I'm curious how long it would take to load an 800K application
into memory on the ST.

--
scott preece
gould/csd - urbana
uucp: ihnp4!uiucdcs!ccvaxa!preece
arpa: preece@gswd-vms

From 7729101558840490328
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae4a84b267f334c2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 20:11:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: A simple VDI interface for XY plotting
Message-ID: <1098@batcomputer.TN.CORNELL.EDU>
Date: Wed, 24-Sep-86 23:11:34 EDT
Article-I.D.: batcompu.1098
Posted: Wed Sep 24 23:11:34 1986
Date-Received: Fri, 26-Sep-86 20:33:47 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 210

[]

For a long time I wanted to create a very simple, easy-to-use system
for plotting functions, data, etc from a C program. I am thinking of
scientific/engineering applications, where quick, one-shot plots are
wanted, not fancy, perfect, art pieces.

Well, I did it after all - it wasn't as hard as I thought, since I have
already done it before in Applesoft BASIC. Happy plotting!

- Moshe Braner

---------- cut here ----------------

```
/*
 * Simple VDI Interface for X-Y Plotting
 *
 *      by Moshe Braner,   860924
 *
 * #include "plotxyz.c" (this file) in your program.
 *
 */
```

```
/* globally define arrays to be used by VDI: */

int contrl[12], intin[128], ptsin[128], intout[128], ptsout[128];

/* our own globals */

static   int  work_in[11], work_out[57];
static   int  xlog, ylog, curx, cury, curvalid;
static   int  plothand=0;
static   double   p, q, r, s;

/*
 * Subroutine to set up graphics
 *
 * Parameters:
 *
 *    xmin = lowest X-value
 *    xmax = highest X-value
 *    xtik = tick interval for X (ratio if log)
 *    ymin = lowest Y-value
 *    ymax = highest Y-value
 *    ytik = tick interval for Y (ratio if log)
 *    xorg, yorg = position of origion
 *    xmode, ymode = 0 for linear, 1 for log-scale
 */
initplot(xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg,xmode,ymode)
     double   xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg;
     int  xmode, ymode;
{
     int  i, pxy[4];
     double   w;

     puts("\033E");              /* clear screen
     */
     puts("\033f");              /* cursor invisible
     */

     /* initialize VDI */

     for(i=0; i<10; i++)         /* init workstation params
     */
          work_in[i]=1;
     work_in[10]= 2;             /* use raster coords
     */
     v_opnvwk( work_in, &plothand, work_out );
     vsf_color(plothand, 1);     /* black           */
     vswr_mode(plothand, 1);     /* "Replace" mode      */

     /* initialize our params */

     xlog = xmode;
     ylog = ymode;
     if (xlog) {
```

```
        xmin = log(xmin);
        xmax = log(xmax);
        xtik = log(xtik);
        xorg = log(xorg);
    }
    if (ylog) {
        ymin = log(ymin);
        ymax = log(ymax);
        ytik = log(ytik);
        yorg = log(yorg);
    }

    r = 599.0/(xmax-xmin);
    s = 399.0/(ymax-ymin);
    p = xmin;
    q = ymin;

    /* draw X-axis */

    pxy[0] = (int)(r * (xmin-p)) + 40;
    pxy[1] = (int)(s * (q-yorg)) + 399;
    pxy[2] = (int)(r * (xmax-p)) + 40;
    pxy[3] = pxy[1];
    v_pline(plothand, 2, pxy);
    w = xorg;
    while (w >= xmin)  w -= xtik;
    pxy[1] = (int)(s * (q-yorg)) + 395;
    pxy[3] = pxy[1] + 3;
    while ((w+=xtik) <= xmax) {
        pxy[0] = (int)(r * (w-p)) + 40;
        pxy[2] = pxy[0];
        v_pline(plothand, 2, pxy);
    }

    /* draw y-axis */

    pxy[0] = (int)(r * (xorg-p)) + 40;
    pxy[1] = (int)(s * (q-ymin)) + 399;
    pxy[2] = pxy[0];
    pxy[3] = (int)(s * (q-ymax)) + 399;
    v_pline(plothand, 2, pxy);
    w = yorg;
    while (w >= ymin)  w -= ytik;
    pxy[0] = (int)(r * (xorg-p)) + 41;
    pxy[2] = pxy[0] + 3;
    while ((w+=ytik) <= ymax) {
        pxy[1] = (int)(s * (q-w)) + 399;
        pxy[3] = pxy[1];
        v_pline(plothand, 2, pxy);
    }

    curvalid = 0;
}
```

```
/*
 * Subroutine to plot a point
 *
 *   (First call initplot() for setup.)
 *
 * Plots with the pen up if z==0, else pen down.
 * Uses the preset p, q, r, s, xlog, ylog for rescaling.
 * Uses the remembered curx, cury if pen down.
 */
plot(x, y, z)
     double   x, y;
     int  z;
{
     int  xi, yi, pxy[4];

     if (plothand == 0) {
          puts("Must call initplot() before plot()!");
          exit(0);
     }
     if (xlog)  x = log(x);
     if (ylog)  y = log(y);
     xi = (int)(r * (x-p)) + 40;
     yi = (int)(s * (q-y)) + 399;
     if (xi<0 || xi>639) {
          /* puts("plot(): x out of range!"); */
          return;
     }
     if (yi<0 || yi>399) {
          /* puts("plot(): y out of range!"); */
          return;
     }
     if (z && curvalid) {
          pxy[0] = curx;
          pxy[1] = cury;
     } else {
          pxy[0] = xi;
          pxy[1] = yi;
     }
     curx = xi;
     cury = yi;
     curvalid = 1;
     pxy[2] = xi;
     pxy[3] = yi;
     v_pline(plothand, 2, pxy);
}

/*
 * clean up when you're done, or else you'll get cherry bombs!
 */
cleanplot()
{
     v_clsvwk(plothand);
```

```
     plothand = 0;
}

------------- example program ------------------

#include <stdio.h>
#include <math.h>
#include "plotxyz.c"

main()
{
     double   x,y,xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg;

     xmin = -2.0;
     xmax = 6.0;
     ymin = -1.3;
     ymax = 1.3;
     xtik = 1.0;
     ytik = 0.25;
     xorg = 0.0;
     yorg = 0.0;

     initplot(xmin,xmax,xtik,ymin,ymax,ytik,xorg,yorg,0,0);

     for (x=xmin; x<xmax; x+=0.05) {
          y = sin(x);
          plot(x,y,1);
     }

     cleanplot();
     getchar();
}


From 3395100980979923843
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4debade249d55fd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 22:48:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!joe
From: joe@ut-sally.UUCP (Joe Hitchens)
Newsgroups: net.micro.atari16
Subject: Micro C-Shell
Message-ID: <5803@ut-sally.UUCP>
Date: Thu, 25-Sep-86 01:48:08 EDT
Article-I.D.: ut-sally.5803
Posted: Thu Sep 25 01:48:08 1986
Date-Received: Thu, 25-Sep-86 03:54:51 EDT
Organization: University of Texas at Austin
Lines: 26
Keywords: Unix Shell
```

A friend of mine who has the Micro C-Shell program is having difficulty
getting it to operate in the 2(multi) user mode.
He altered the /etc/passwd file and that allowed him to log-on, but
immediately after logging on, it brought him back to the login: prompt.
He is definately getting logged on under the new account name, but for some
reason the shell prompt never appears.

It would go something like this:

Login: john
Password:

Welcome to the Micro C-shell Multi tasking .. etc...

Last Login Monday September etc ...

Login:

And that's it. It just goes back to Login: and does the same thing with
all user names.
Does anyone out there have any ideas why this is not working? Has anyone
else had a similar experience with this piece of software?
Thanks in advance.
j.h.

From 3586852047434052132
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 00:39:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <8609241706.AA03213@mitre-bedford.ARPA>
Date: Thu, 25-Sep-86 03:39:31 EDT
Article-I.D.: mitre-be.8609241706.AA03213
Posted: Thu Sep 25 03:39:31 1986
Date-Received: Thu, 25-Sep-86 07:28:00 EDT
References: <1086@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 26

Re: O/S Updates

It is not putting the O/S in ROM that frees up memory space.

It is putting the O/S up at the top of the address space that frees up

RAM space.

Why not use one of the CMOS battery backed up memory chips that is pin for pin compatible with standard ROM (not sure if it's the RIGHT ROM tho) in an ST and load it with the ROM version of TOS? Or any other desired O/S? If you wanna be fancy it could go on a piggyback board, much like the RAMrod board for the 8-bit Atari 800XL, and let you switch the RAM section to

(1) act like RAM just below the normal ROM (or wherever you feel like putting it)

or

(2) replace the standard O/S ROM.

Then you could load it under the control of standard software and then with one magic write to a control address it would replace the standard ROM. With this arrangement it wouldn't even need battery backup unless you wanted to remove the standard ROM for some reason.

-John Sangster
jhs@mitre-bedford.arpa

From -4635659144972986337
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,81a42b8fb452d0cc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 02:45:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HNYKUN53.BITNET!SCHOMAKE
From: SCHOMAKE@HNYKUN53.BITNET
Newsgroups: net.micro.atari16
Subject: MicroMumps for the ST?)
Message-ID: <8609250944.AA08829@ucbvax.Berkeley.EDU>
Date: Thu, 25-Sep-86 05:45:05 EDT
Article-I.D.: ucbvax.8609250944.AA08829
Posted: Thu Sep 25 05:45:05 1986
Date-Received: Thu, 25-Sep-86 18:39:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 46

(BTW, no news on Mumps? My-mail: Tue 2 Sep 86 08:22:52-PDT
Subject: MicroMumps for the ST?)

I -Digitizers for the ST?-

As many may have noticed, a mouse is a very handy instrument for walking through menus, creating rectangular boxes etc. For entering subtle graphics it is awkward. Just try to enter your signature with a mouse (....). The difficulty is caused by the orientation sensitivity and scaling problems of the mouse and the fact that we use the fine musculature of the hand in

normal writing and drawing. Therefore we are searching a digitizer tablet for the ST in our project on handwriting recognition and -simulation.
A 1040 ST could become a graphics workstation, connected to a VAX via the serial interface.

II -Ports-

As I can think of, there are 3 possibilities:

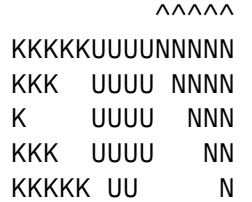
(a) replacing the mouse by a tablet (this demands dedicated hardware).
(b) connecting a digitizer to the DMA interface (dedicated hardware).
(c) connecting a digitizer to an RS-232 interface (general solution).

Although we prefer solution (c), we want the workstation to be connected to the VAX all the time: so we would need a second RS-232 interface for the ST in that case.

III -Sampling-

Another problem we have is the tablet sampling frequency. This frequency should be adjustable from 100 Hz (min.) to 200 Hz or up. Also, the tablet should *not* have any intelligence since we want to make a time record of the displacements of the pen tip.

Any information on this subject (hardware/software) is welcome!
We would like to convince our officialdom that the word *ATARI*
is no Japanese for "Video Freak Toys Only".



Lambert Schomaker
SCHOMAKER@HNYKUN53.BITNET
Nijmegen, The Netherlands.

From 7297381977278000448
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,449ecab748910f5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 05:49:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: 1M upgrades for the 520
Message-ID: <8609251249.AA01027@ncsc.ARPA>
Date: Thu, 25-Sep-86 08:49:59 EDT
Article-I.D.: ncsc.8609251249.AA01027
Posted: Thu Sep 25 08:49:59 1986
Date-Received: Thu, 25-Sep-86 18:45:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 13

Hi,

I know many people have put notes here on successful upgrades of the 520. If you have, or if you can make a recommendation, would you please drop me a note stating cost, vendor, and ***original state*** of your ST (ie., what model 520). Thanks for any comments.

Jim Moore
NCSC
Panama City, FL
moore@ncsc.arpa

From -3756520008145213459
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 06:14:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!gatech!gt-stratus!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: Re: A few questions
Message-ID: <2285@gitpyr.UUCP>
Date: Thu, 25-Sep-86 09:14:06 EDT
Article-I.D.: gitpyr.2285
Posted: Thu Sep 25 09:14:06 1986
Date-Received: Tue, 30-Sep-86 05:34:38 EDT
References: <233@husc6.HARVARD.EDU> <280@uwmacc.UUCP>
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Distribution: na
Organization: Georgia Institute of Technology
Lines: 30

>>- Nothing I've seen except NeoChrome (which throws away the user interface
>>standard altogether) uses the right mouse button. The documentation doesn't
>>talk about it. In fact, I don't think GEM supports it. Good thing it's
>>there, huh?
>
> Is this a serious comment? I'll assume so and treat it as such.
> First off, there *is* a use for it that you can demonstrate for yourself,
>in the privacy of your own home. First, open two windows. Now, hold down
>the right mouse button. OK, double-click (left) on a file in the *non*-active
>window. Whaddya know! A use for the right mouse button! Even ignoring
>that small but useful use, do you think there's a possibility that A) people
>may want to use it in their own applications, and B) there just may be some
>things in life that you haven't yet encountered? Good thing it's there, huh?

>It's sorta like the cigarette lighter and ashtray in my car; I sure as hell
>won't use 'em, but I'm sure there are a few people who would, and I'm not
>going to complain to the dealer that they're there.

The fact is that the AES event library calls do *not* allow you to wait for
a right mouse button event. In order to use the right mouse button, you
must poll the mouse. Methinks the gentleman has a valid gripe.

=-=
Never put off until tomorrow what you can avoid altogether.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From -4584862297890607028
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-25 07:11:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!im4u!oakhill!tomj
From: tomj@oakhill.UUCP (Tom Johnson)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <779@oakhill.UUCP>
Date: Thu, 25-Sep-86 10:11:09 EDT
Article-I.D.: oakhill.779
Posted: Thu Sep 25 10:11:09 1986
Date-Received: Fri, 26-Sep-86 01:06:32 EDT
References: <2270@gitpyr.UUCP>
Reply-To: tomj@oakhill.UUCP (Tom Johnson)
Organization: Motorola Inc. Austin, Tx
Lines: 15
Keywords: new motorola chips mmu fast
Summary: MC68030 is ** 50- 75%** faster than MC68020
Xref: mnetor net.micro.68k:1258 net.micro.amiga:4838 net.micro.atari16:2110
net.micro.mac:7203

In article <2270@gitpyr.UUCP> rodney@gitpyr.UUCP (RODNEY RICKS) writes:
>In the September 18, 1986 issue of Electronic Design magazine, there is an
>article on page 27 describing the new microprocessor from Motorola, the 68030.
>The chip is said to run software 20% to 30% faster than the 68020. The chip

>is supposed to be available in mid-1987, along with an improved math
>coprocessor, the 68882, which will be up to 25% faster than the 68881.
>
>Rodney Ricks

The Electronic Design article you reference contained a misprint. The 68030
is *not* 20-30% faster than the 68020, it *is* 50- 75% faster than the
68020 (at equivalent clock speeds). Also, the 68882 is *not* 25% faster
than the 68881, it *is* 100-300% faster (2x-4x).

tom johnson   ut-sally/oakhill/tomj

From -4256634645872942460
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7063a725d641f4fe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 08:28:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!zen!zooey.Berkeley.EDU!
c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: MS-DOS Emulator.
Message-ID: <337@zen.BERKELEY.EDU>
Date: Thu, 25-Sep-86 11:28:18 EDT
Article-I.D.: zen.337
Posted: Thu Sep 25 11:28:18 1986
Date-Received: Mon, 29-Sep-86 05:40:37 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 8

In the Antic magazine for this month, there is an ad on the MS-DOS emulator.
This emulator is done via software and it costs $150. Does anyone know about
this product? How fast does it emulate? Comments are appreciated.
                                Duy

        Duy Le
        Richmond, Ca
        UUCP: c160-fk@zooey

From 5098285367144517683
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59088b61119a022e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 09:51:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!vrdxhq!verdix!
ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)

Newsgroups: net.micro.atari16
Subject: Re: SH204 Hard disk facts
Message-ID: <391@mntgfx.mntgfx.UUCP>
Date: Thu, 25-Sep-86 12:51:35 EDT
Article-I.D.: mntgfx.391
Posted: Thu Sep 25 12:51:35 1986
Date-Received: Tue, 30-Sep-86 06:37:50 EDT
References: <1065@batcomputer.TN.CORNELL.EDU> <12241574153.8.LYNN@PANDA>
Organization: Mentor Graphics, Beaverton OR
Lines: 13
Summary: info on disk size limits

The ST hard disk format is that same as used on MS-DOS 2.X systems, and has its same limitations. In particular that's where 32MB size limit per disk partition comes from. The only way to make it bigger would be to increase the number of sectors per cluster, which may or may not work under GEMDOS. (And it would depend on whether or not the driver would understand logical sector numbers that didn't fit in a 16-bit word).

The code to create/delete files in GEMDOS is particularly slow (probably because of seeking back and forth between the FAT and where the data is being written much more than it should). This is the reason for the recommendation that partitions have a maximum size of around 10MB.

dgc

From -2011709411681755727
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a57259691a1637b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 10:05:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: SPELL - Executable File and Dictionary
Message-ID: <8609251705.AA17698@ohio-state.ARPA>
Date: Thu, 25-Sep-86 13:05:51 EDT
Article-I.D.: ohio-sta.8609251705.AA17698
Posted: Thu Sep 25 13:05:51 1986
Date-Received: Fri, 26-Sep-86 21:07:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

I will post a uuencoded binary of my SPELL program as soon as I get 'phone service (should be Monday, September 29).

About the dictionary for SPELL: in the user's guide I mentioned that a dictionary file (really a list of words) is built by the program itself. The program starts out knowing no words, and asks about each word in the

file being corrected. After the program has been used for some time, most
of the words that you use will be known to the program, and it will only
ask about new words and misspelled words.

There is no problem with starting out with a big dictionary file. Just name
it words.txt and place it on the same disk with spell.prg. This file should
be an ordinary text file with one word per line.

I don't know where you would get such a file...

Hope this helps. I'll post the binary file as soon as possible.

Eric Bergman-Terrell

From 6792063103039033411
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 10:24:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!vrdxhq!verdix!
ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <392@mntgfx.mntgfx.UUCP>
Date: Thu, 25-Sep-86 13:24:10 EDT
Article-I.D.: mntgfx.392
Posted: Thu Sep 25 13:24:10 1986
Date-Received: Tue, 30-Sep-86 06:38:04 EDT
References: <8609151828.AA03938@ucbvax.Berkeley.EDU> <425@atari.UUcp>
<1086@batcomputer.TN.CORNELL.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 12
Summary: new ST roms -> blitter upgrade

The rumors about a new set of ROMS for the ST might come from the work
being done on the blitter upgrade. As part of installing that upgrade,
a completely new set of ROMS must be inserted to support the blitter.

At the San Jose Atari show, where a couple of 1040's in the Atari booth
were running with the blitter, Sam Tramiel announced that the blitter
chip was done (though I'm not sure whether his announcement implied that
the roms to support the blitter were also complete). To upgrade existing
ST's, a version of the blitter is packaged as a 64-pin DIP. That package
is piggy-backed on top of the 68000.

dgc

From -946951846751278255
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,9d105db27706adb0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 10:30:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!vrdxhq!verdix!
ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: Megamax update?
Message-ID: <393@mntgfx.mntgfx.UUCP>
Date: Thu, 25-Sep-86 13:30:30 EDT
Article-I.D.: mntgfx.393
Posted: Thu Sep 25 13:30:30 1986
Date-Received: Tue, 30-Sep-86 06:38:18 EDT
References: <1087@batcomputer.TN.CORNELL.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 9
Summary: megamax c update info

I talked with the Megamax people at the San Jose Atari show, and they stated
that an upgrade to version 1.1 was available (and in fact if I had had my
master disks with me they would have done the upgrade on the spot).

It was also stated that a future version (a couple of months away???) would
have at least an absolute code generation option, thus removing the 32KB
segment limit.

dgc

From -200640596820967310
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1db237911f2b3878
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 11:22:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!hplabs!pyramid!decwrl!sun!saber!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Editors , GNUEMACS etc
Message-ID: <587@imagen.UUCP>
Date: Thu, 25-Sep-86 14:22:41 EDT
Article-I.D.: imagen.587
Posted: Thu Sep 25 14:22:41 1986
Date-Received: Tue, 30-Sep-86 05:11:55 EDT
References: <8609241321.AA07588@jade.Berkeley.Edu>
Organization: The Houses of the Holy
Lines: 32

> For lack of a better CLI, I need an editor that I can live in. It should
> be able to do more than just compile a program or spawn a CLI, it should
> be able to perform directory editing (DIRED), real macros and simple

> file filtering. Yes, I know..I am power mad..I want to much, overkill, etc..
> but hey, I can't live in the windowing world of GEM anymore. I spend most
> of my time editing, and unless I can fire up a small editor whenever and
> wherever I want in an application (without reloading the file each time).
>
> Any interest in implementing TECO on an ST? Is this a sick idea?
>
> maroC ddoTTodd Coram

using TECO is a sick idea (:-)

seriously i don't think that you are power mad and all of your requests
are very reasonable just harder than blazes to implement, consider for
example that redirection of i/o (dup) doesn't work with code generated
by some compilers and does work with others, and to do most of what you
want (which again i feel is reasonable) you need MocLisp ......

give me a solution and i'll implement it
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -1230417240447577187
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 11:42:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!decwrl!sun!cmcmanis
From: cmcmanis@sun.uucp (Chuck McManis)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <7637@sun.uucp>
Date: Thu, 25-Sep-86 14:42:09 EDT
Article-I.D.: sun.7637
Posted: Thu Sep 25 14:42:09 1986
Date-Received: Fri, 26-Sep-86 20:14:58 EDT
References: <2270@gitpyr.UUCP>

Organization: Sun Microsystems, Inc.
Lines: 11
Xref: mnetor net.micro.68k:1260 net.micro.amiga:4852 net.micro.atari16:2118
net.micro.mac:7223

> In the September 18, 1986 issue of Electronic Design magazine, there is an
> article on page 27 describing the new microprocessor from Motorola, the 68030.
  ... edited out ...

Ah yes another volley in the "Well this stuff is OK but look at what we will
have next year!" contest. Anyone for starting a "Best Announced but not
yet available product" award?
--
--Chuck McManis
uucp: {anywhere}!sun!cmcmanis   BIX: cmcmanis ARPAnet: cmcmanis@sun.com
These opinions are my own and no one elses, but you knew that didn't you.

From -9074594701256257582
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7dac74cdc1cbe590,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 11:45:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!hplabs!pyramid!decwrl!sun!saber!
imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Atari Fair -- San Jose
Message-ID: <428@atari.UUcp>
Date: Thu, 25-Sep-86 14:45:37 EDT
Article-I.D.: atari.428
Posted: Thu Sep 25 14:45:37 1986
Date-Received: Tue, 30-Sep-86 05:12:30 EDT
Organization: Atari Corp/Mktg
Lines: 91

The Northern California Atari Expo this past weekend in San Jose had a few
interesting developments besides the first sales of the Magic Sac (aka Mac
Cartridge). Here's a brief report:
   About 5000 people attended during the two days of the show. Among the
speakers were Atari officials Sam Tramiel, Leonard Tramiel, Shiraz Shivji,
Sig Hartmann, Richard Frick, and evenmyself. Other speakers included
Jerry Pournelle, Tom Hudson, David Beckemeyer, Frank Cohen (of Regent),
and Paul Heckel (Zoomracks).
   Xanth displayed an amazing new ST animated demo, topping their previous
effort of Fujiboink. This one had 4 large "bubbles" moving in and out in an
"eggbeater" pattern. The lower part of the screen was the name Atari and
the Fuji logo, and above the top of the screen was a red-white checkerboard
pattern. Both the lower and upper areas were faithfully reflected on the
bubbles. Xanth also showed an ST version of _Mazewars_ which permitted up

to 15 ST's to be MIDIed together. For the uninitiated, this game is a 3-D 1st-person-perspective game where you wander around in a maze trying to kill the other players. The scrolling was very smooth. No word on a commercial release, and they seemto be leaning toward making it freeware.

Speaking of multi-ST games, the FTL folks had a very pretty dogfight game for 1 computer or for 2 players with 2 ST's and MIDI cables. The graphics were similar to the games from Microprose, and the play action was so good that it was almost impossible to get near the machines all weekend. FTL also showed a later version of the dungeon game demo available here on BIX. The graphics are truly outstanding here. Availability of both games is October.

Antic was showing their 3-D liquid-crystal-shutter glasses again, with some better demos than last time. Still no sign of Jez Sans' Starglider game adapted to the glasses, though. Also from Antic was the 2nd issue of STart magazine, a very good-looking issue and a great improvement over the first one.

Metacomco unveiled 3 new programming tools: Cambridge Lisp, an interpreter and compiler with good GEM support added; BCPL, a C-like language (near as I can tell); and a Make utility. All are available right away.

Regent Software had their Regent Word 2, an upgrade using the normal ST character set (which made jerryp very happy) and full GEM support. They also showed Regent Base.

Michtron had their videodisk controller ready for sale, along with an adventure game driver and the Dragons Lair disk. Since Dragon's Lair is old hat for arcades, it seems like the disks can be had for very little, so the folks at Michtron added a parser so the ST can control the action. Michtron also have their ST Pool game ready to ship, another very nice implementation.

QMI displayed a lot of vapor products that look quite nice. Steve Grimm's BBST is coming along nicely, including support for QMI's forthcoming ST-Net so multiple ST's can be linked to make a larger BBS. The big news from QMI was their Desk Cart, a cartridge-based desk accessory package similar to Cornerman but without all the memory being taken up. They also showed the ST-Talk Professional 2.0, ready to ship Real Soon Now.

Quickview Systems is almost ready to ship their Zoomracks 2, a GEM-based program which seems to have incorporated many user suggestions to make it easier to use and faster.

Haba was showing a few products that seemed a lot better than some of their earlier efforts. In particular, their Haba View data base manager which makes good use of the GEM user interface to create customized databases.

Hippopotamus was selling their ST Sound Digitizer and their Video Digitizer. The sound product was interesting -- more when I've had a chance to play with the one I took home.

Oh yes -- I'd better not forget to tell you what Atari showed. We had 2 ST's with the final working blitter chip. We were able to test this with a few programs, including a nearly final version of Degas Elite, and everything seems to work very well (not to mention much faster). The blitter really helps when large pieces of memory are being moved, since there's more overhead to set it up than the RAM blit but less time actually used in the movement. Looks like a 1st-of-the-year release for the blit upgrade, at about $120. Atari also had ST Star Raiders on display. This one's on sale now. A later version of Microsoft Write was shown, supporting features not seen at the LA Fair, specifically support of GDOS-based proportionally-spaced fonts. Going to be a _nice_ word processor, available late in the year.

(And I accused QMI of vapor???)_
   Supra had their 60-meg hard drive on sale for $1795 (show special, the regular price is $1995). They cooked up a special slide show demo that was really moving -- several feames a second, straight from the hard drive.
   There were several booths showing MIDI software and products. In facrt, one of the highlights of the show was having the ST on stage controlling _all_ the synthesizers at the show, even the ones in the booths on the floor! Talk about surround sound...
   Next stop, Portland OR, October 11-12.
--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 8852297010107238067
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5adf9a701b2f45fa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 11:57:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SRI-STRIPE.ARPA!TYSON
From: TYSON@SRI-STRIPE.ARPA (Mabry Tyson)
Newsgroups: net.micro.atari16
Subject: High-pitched whine
Message-ID: <860925115730.1.TYSON@ELCAPITAN.ARPA>
Date: Thu, 25-Sep-86 14:57:00 EDT
Article-I.D.: ELCAPITA.860925115730.1.TYSON
Posted: Thu Sep 25 14:57:00 1986
Date-Received: Fri, 26-Sep-86 20:57:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

I had no problems with the high-pitched whine described by some people until I plugged a generic null-modem onto the cable attached to my RS232 port. When I removed the null-modem, the whine would stop. It wasn't always there when the null-modem was attached. (I don't think the problem was related to the particular device attached to the other side of the null modem.)

The null modem passed pins 1 and 7 through, swapped 6 with 20, swapped 2 with 3, and tied 4 and 5 (same side) together and fed them to 8 (on the other side).
The null modem was symmetric (ie, it looked the same from both ends).
I'd guess the problem was because 4 and 5 were tied together.

I have since constructed my own null modem that did only the pin switching that I needed. It is connected to the same device as before. The whine is no longer around.

Moral: if you have the high pitched whine, unplug your RS232 cable (if any) and see if it stops.

By the way, I've had my 1040ST since March and have only powered it off about 4 times (mostly because of power failures). I've had no problems with overheating (room temp is usually 65-80 degrees F). I chose to try rarely power cycling my 1040 as a way of minimizing component failures. So far I have had no problems (but this is only one sample!). I do turn off my monitor when it is not in use.

From -6402651910344090446
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,20a50686d9f2bd99,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 14:18:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!zen!zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Proff
Message-ID: <342@zen.BERKELEY.EDU>
Date: Thu, 25-Sep-86 17:18:37 EDT
Article-I.D.: zen.342
Posted: Thu Sep 25 17:18:37 1986
Date-Received: Fri, 26-Sep-86 20:16:00 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 11

I received Uniterm a few weeks ago but I couldn't get the documentation for it because I don't have access to proff. Would anyone please send me a copy of proff, either source code or executable code. Also, Uniterm works fine in vi except when the cursor is moved around (it deleted everything in its way). Can anyone send me another version of Uniterm.
    Thanks.
                            Duy

            Duy Le
          Richmond, Ca
          UUCP: c160-fk@zooey

From 7120174889720367446
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,18e00bdd41d3552,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-25 14:21:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!at
From: at@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Help on The Pawn - (nf)
Message-ID: <96100024@exunido.UUCP>
Date: Thu, 25-Sep-86 17:21:00 EDT
Article-I.D.: exunido.96100024
Posted: Thu Sep 25 17:21:00 1986
Date-Received: Fri, 26-Sep-86 20:34:50 EDT
References: <313@unido.UUCP>
Lines: 7
Nf-ID: #R:unido:-31300:exunido:96100024:000:134
Nf-From: exunido!at   Sep 25 22:21:00 1986

Hi Duy,
i think there's no way to 'tame' the adventurer.
Kill him with the box, you got from Kronos.

     Andreas Toenne
     at@unido.uucp

From 1939136092552476183
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c316e50fdc4a4763,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 15:11:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!teklds!dadla!
bobd
From: bobd@dadla.UUCP (Bob Davies)
Newsgroups: net.micro.atari16
Subject: hard disk
Message-ID: <1073@dadla.UUCP>
Date: Thu, 25-Sep-86 18:11:53 EDT
Article-I.D.: dadla.1073
Posted: Thu Sep 25 18:11:53 1986
Date-Received: Fri, 26-Sep-86 21:04:56 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 14
Keywords: scsi

     Does anyone know what type of interface Atari or Supra uses to
convert the DMA port to a SCSI bus for their hard disk?

     I am particularly interested in what specific ICs are used in the
interface as I am in the process of connecting a Micropolis drive (fast!)

to the Atari ST. Any information is helpful and appreciated.

Robert Davies
Tektronix Logic Analyzer Division
tektronix!dadla!bobd

From 1748130109614526241
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1db237911f2b3878
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 16:21:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!unisoft!dual!ucbvax!ernie.Berkeley.EDU!
phr
From: phr@ernie.Berkeley.EDU (Paul Rubin)
Newsgroups: net.micro.atari16
Subject: Re: Editors , GNUEMACS etc
Message-ID: <15822@ucbvax.BERKELEY.EDU>
Date: Thu, 25-Sep-86 19:21:41 EDT
Article-I.D.: ucbvax.15822
Posted: Thu Sep 25 19:21:41 1986
Date-Received: Fri, 26-Sep-86 18:44:05 EDT
References: <8609241321.AA07588@jade.Berkeley.Edu>
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: phr@ernie.Berkeley.EDU.UUCP (Paul Rubin)
Organization: University of California, Berkeley
Lines: 20

In article <8609241321.AA07588@jade.Berkeley.Edu> ZCSTIN05@UDCVM.BITNET (Todd
Coram) writes:
>So GNUEMACS is too massive for the ST... Is there a REALLY decent editor
>out there for the ST that an EMACS addict can live with?
>Micro-Emacs is nice and powerful, but it ain't EMACS. (Actually, the only
>real EMACS is the original one written in TECO. GNUEMACS is considered an
>EMACS-like editor.)

No, according to the GNU Emacs Manual by Richard M. Stallman, GNU
Emacs is the Unix/GNU incarnation of the advanced, self-documenting,
customizable, extensible real-time display editor Emacs. It is a "real"
Emacs, as opposed to nonextensible editors with Emacs-like command
bindings ("ersatz emacses"). At least, that is the distinction that
RMS makes, and he is the author of both GNU Emacs and the original (Teco)
Emacs.

>Any interest in implementing TECO on an ST? Is this a sick idea?
Yes, it is a sick idea. A TECO with enough stuff to run TECO Emacs,
even if such a thing is possible on an ST, would result in an Emacs
almost as big as GNU Emacs. Porting GNU Emacs is probably a reasonable
idea for a 2MB+ ST, as mentioned here before.

From -2548985630476892249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba457d2a8d000bd7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 21:18:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!mqh
From: mqh@batcomputer.TN.CORNELL.EDU (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: LINK68 doesn't take path names .. Wasn't this fixed?
Message-ID: <1105@batcomputer.TN.CORNELL.EDU>
Date: Fri, 26-Sep-86 00:18:51 EDT
Article-I.D.: batcompu.1105
Posted: Fri Sep 26 00:18:51 1986
Date-Received: Fri, 26-Sep-86 20:59:13 EDT
Organization: Theory Center, Cornell U., Ithaca NY
Lines: 20
Keywords: link68, path

Hello,

I have the Developers C, and I'm having trouble with link68. I just
paid $20 for the new release of the C compiler, and I thought that the
"path names" bug was supposed to be fixed in it. Either it isn't, or
I'm doing something wrong. What I want to do is:

     link68 [options] x.68K=a:\lib\gemstart.o,x.o,a:\lib\gemlib...

This doesn't work. Am I doing something wrong, or wasn't it fixed?

I think someone posted a zap to the linker program to fix this bug.
I didn't grab it 'cause my check was in the mail, and I didn't think
I needed it. If link68 really is still busted, can someone please send
me that zap?
--
Mike Hojnowski (Hojo)   {ihnp4,rochester}!cornell!batcomputer!mqh
(607) 257-1389 (h)   mqh@tcgould.tn.cornell.edu
(607) 255-4812 (w)   mqh%batcomputer@crnlcs.bitnet
"..Oh, that's disgusting, isn't it?" - Brundlefly, The Fly

From -7343200831208687965
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,739a2fb26ff4d65d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 21:29:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!mqh
From: mqh@batcomputer.TN.CORNELL.EDU (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: 40 directory limit per session
Message-ID: <1106@batcomputer.TN.CORNELL.EDU>
Date: Fri, 26-Sep-86 00:29:06 EDT

Article-I.D.: batcompu.1106
Posted: Fri Sep 26 00:29:06 1986
Date-Received: Fri, 26-Sep-86 20:59:25 EDT
Organization: Theory Center, Cornell U., Ithaca NY
Lines: 10
Keywords: 40,directory

[]

Are there plans for a new batch of ROMS to fix that problem with 40
directories per session? I won't even consider buying a hard disk,
(no matter how much I'd like one), with a limitation like that.
--
Mike Hojnowski (Hojo)   {ihnp4,rochester}!cornell!batcomputer!mqh
(607) 257-1389 (h)   mqh@tcgould.tn.cornell.edu
(607) 255-4812 (w)   mqh%batcomputer@crnlcs.bitnet
"..Oh, that's disgusting, isn't it?" - Brundlefly, The Fly

From -7996705836810062795
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 21:30:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!ptsfa!well!swalton
From: swalton@well.UUCP (Stephen R. Walton)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <1837@well.UUCP>
Date: Fri, 26-Sep-86 00:30:06 EDT
Article-I.D.: well.1837
Posted: Fri Sep 26 00:30:06 1986
Date-Received: Tue, 30-Sep-86 02:43:56 EDT
References: <2270@gitpyr.UUCP>
Reply-To: swalton@well.UUCP (Stephen R. Walton)
Distribution: net
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 31
Keywords: new motorola chips mmu fast
Xref: watmath net.micro.68k:1871 net.micro.amiga:4936 net.micro.atari16:2156
net.micro.mac:7951
Summary: It ain't goin' in PC's

In article <2270@gitpyr.UUCP> rodney@gitpyr.UUCP (RODNEY RICKS) writes:
>In the September 18, 1986 issue of Electronic Design magazine, there is an
>article on page 27 describing the new microprocessor from Motorola, the 68030.

>The chip is said to run software 20% to 30% faster than the 68020. The chip
>is supposed to be available in mid-1987, along with an improved math
>coprocessor, the 68882, which will be up to 25% faster than the 68881.
>

I hope the '82 is more like twice as fast as the 68881.

>The bus data transfer rate of the 68030 is 40 Mbytes/sec.

Think about this. That's a memory access time of 25 nanoseconds, more than
4 times as fast as the memory we use in our PC's, Macs, Amigas, and Apples.

>Now, when will I be able to connect one to my Amiga?

Probably soon. But it won't be noticably faster than a CSA 68020.
An editorial on the subject of the 68040 (yes, 40) in a recent issue of
a small PC magazine commented that these chips are so fast that a fair
amount of high-speed cache memory is absolutely essential to take full
advantage of them. And that means minicomputer pricing, not micros.
Unless one of you hot-shot chip designers out there can put together a
1 MB DRAM with 25 ns access which will sell for less than $100 apiece :->

              Stephen Walton, speaking for myself

Dudley Moore: You must be a nut case!
Peter Cook: They said that about Galileo! They said that about Einstein!
Moore: Yeah, well they've said it about a lot of nut cases, too.
                        -from the movie "Bedazzled"

From -8520687224835248801
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,24d271c3a1dfb2da,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 21:56:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!seismo!mcvax!cernvax!
cui!shneider
From: shneider@cui.UUCP (SCHNEIDER Daniel)
Newsgroups: net.micro.atari16
Subject: micro-emacs: foreign characters, monochrome monitors
Message-ID: <16@cui.UUCP>
Date: Fri, 26-Sep-86 00:56:50 EDT
Article-I.D.: cui.16
Posted: Fri Sep 26 00:56:50 1986
Date-Received: Tue, 30-Sep-86 05:23:32 EDT
Reply-To: shneider@cui.UUCP (SCHNEIDER Daniel)
Organization: University of Geneva/Switzerland
Lines: 21
Keywords: micro-emacs

1) Does anybody know whether (unmodified) micro-emacs in general, and the
   ST version just posted - supports the full international ascii set ?

(The version I have right now doesn't, which means that I can't write
big text at home (I'am using LATEX).

2) Is it true that the new ST version bumps out with a monochrome monitor ?

- thanks for a reply / Daniel

::::::: HELP US PEOPLE ::::::: PROMOTE THE INTERNATIONAL ASCII SET ::::::
--

Daniel K.Schneider
Departement de science politique, Universite de Geneve
1211 GENEVE 4 (Switzerland), Tel. (..41) 22 20 93 33 ext. 2357

	to VMS/BITNET:	to UNIX/EAN (preferable):
BITNET:	SCHNEIDER@CGEUGE51	shneider%cui.unige.chunet@CERNVAX
ARPA:	SCHNEIDER%CGEUGE51.BITNET@WISCVM	shneider%cui.unige.chunet@ubc.csnet
uucp:		mcvax!cernvax!cui!shneider
X.400/ean:		shneider@cui.unige.chunet

From 4761067611889654035
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b10ca6dd2292772b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 23:24:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!topaz!ll-xn!nike!ucbcad!zen!zooey.Berkeley.EDU!
c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Vi
Message-ID: <350@zen.BERKELEY.EDU>
Date: Fri, 26-Sep-86 02:24:32 EDT
Article-I.D.: zen.350
Posted: Fri Sep 26 02:24:32 1986
Date-Received: Fri, 26-Sep-86 20:43:38 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 9

I currently have a few versions of Micro-Emacs but I haven't used them
much because I don't want to spend time learning a new set of commands.
I use vi when I write programs on the Unix. I wonder if there is a version
of vi for the ST that I can accquire. Comments are welcome and appreciated.
Duy

Duy Le
Richmond, Ca
UUCP: c160-fk@zooey

From -4538353900880562829
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5a2d04945b275f74,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 23:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XX.LCS.MIT.EDU!Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Atari's Financial Health
Message-ID: <MDCG.WAYNE.12241932969.BABYL@MIT-OZ>
Date: Fri, 26-Sep-86 02:26:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12241932969.BABYL
Posted: Fri Sep 26 02:26:00 1986
Date-Received: Tue, 30-Sep-86 03:18:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 97

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STEWART ALSOP'S P.C. LETTER
September 24, 1986

THE NEW ATARI CORP.: MAKING NEW MONEY AND NEW MACHINES

I love to see Atari proving everybody else wrong, not the least because I was crazy enough in my very first issue to say that I thought Atari would survive and prosper under Jack Tramiel's redoubtable leadership. Now the company has decided to offer its stock to the public in a bid to get out from under the clouds left by its unusual "purchase" of the assets (if you could even call them assets) of the Old Atari Corp. from Warner Communications. If it's successful in selling 4.5 million shares for about $12 a pop, the company will have enough money to pay off Warner, some of its creditors, and still have enough cash to add a few million to the $29 million or so it already has in the bank.

At a minimum, what Jack Tramiel and his sons have managed to do with the carcass of Atari is nothing short of amazing. When they acquired Atari's inventory and name, the company had a video-game machine and two computers that were costing about twice as much to build as they were selling for (if I read the prospectus correctly). The Tramiels have since reduced costs on the old Atari products so the company now pretty much breaks even on them. In the interim, the company redesigned the 2600 game system and 400 and 800XL computers

(now called the 65XE and 130XE) so that they could sell them profitably. And, in what amounts to a remarkably short time (about nine months), Atari has designed and delivered a completely new computer that, despite its low pricing, makes the company a ton of money on each unit. The net result is that Atari went from selling about $7 million worth of old, unprofitable products in the first half of 1985 to selling $89 million worth of new, highly profitable products in the first half of 1986.

Since shipping the 520ST in July 1985 and the 1040ST in about March of this year, Atari has managed to sell more than 150,000 ST computers worldwide. If I was to guess, I would say that about 60,000 of those computers have been sold in the U.S., about 25,000 in West Germany, and the other 75,000 in the rest of the world. That's not too shabby, particularly compared to Commodore's record of selling less than 100,000 Amigas in the last 12 months. But the widespread distribution of STs around the world makes the ST a tough market for software publishers: it's hard to even identify good distribution, much less promote products efficiently. But it's just enough to take the ST seriously as a viable format (particularly given Atari's always vague product plans, detailed below). Remember that everybody was writing off Tramiel's Commodore in 1982 and 1983 when it was selling most of its computers into Europe. It's reasonable to assume that, just as he did with Commodore, Tramiel will use his overseas sales to build up Atari so it's strong enough to take on U.S. mass merchants in earnest.

Atari hasn't been sitting still in the new-product area. The company introduced two and four megabyte versions of the ST at the recent PCW show in London: the 2080ST and 4160ST. From what I saw in Atari's labs yesterday, those computers haven't really been finished. But the company also plans a repackaging of the ST that it will introduce at Comdex, which is when you'll probably see the higher-memory versions of the ST. The new package will be a two-inch-high box with a built-in, 3.5-inch floppy drive, a built-in power supply (finally), a bracket for an internal, half-height hard disk, detached keyboard, and single, in-line memory modules (like those used in the Macintosh). It's unclear to me whether the company will have a different version of the ST that also includes its new blitter chip (which produces very fast, very high resolution graphics) or whether it will make that chip standard. Atari is also working on a Unix box (packaged in the same case described above) that would turn the ST's 68000 processor essentially into a dedicated graphics processor and unload the logic onto its own 68020 or 68030 processor. The proposed pricing for that Unix box would be $1,000, which along with the $1,500 or so for the two-megabyte 2080ST and whatever a reasonable monochrome display might cost, would turn Atari into a pretty

competitive workstation manufacturer.

(Don't take any of this as gospel. Although I've seen
engineering drawings and prototype boards for most of it,
with a Tramiel-run company you can't always tell whether a
computer in the lab will ever reach the marketplace. By the
way, we won't have Sig Hartmann to kick around at the next
SPA meeting: Sig is now working on calling on large
companies to pitch them on buying STs and future products.
From one tough job to another.)

From 5036635036260067271
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c4bb4fe8aaed93
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-25 23:58:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Calling BIOS from interrupt handlers
Message-ID: <1107@batcomputer.TN.CORNELL.EDU>
Date: Fri, 26-Sep-86 02:58:20 EDT
Article-I.D.: batcompu.1107
Posted: Fri Sep 26 02:58:20 1986
Date-Received: Fri, 26-Sep-86 20:59:37 EDT
References: <3032@sdcrdcf.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: world
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10

[]

Yeah, that IS a problem. In my efforts to write a program that will
later, upon an interrupt (say alt-help), stop the running application,
I tried that and still got bombs. Perhaps because I tried to end that
interrupt handler with TERM (GEMDOS #0), so I'd never have the chance
to add the 46 back in. I tried both subtracting (or was it adding?)
and not, and got enough cherries for a pie!

- Moshe Braner

From -8958736155253565314
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ccec0a7c82994bde
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 01:28:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!styx!twg-ap!amdahl!pyramid!
nsc!csi!epimass!oliveb!hplabs!sdcrdcf!usc-oberon!blarson

From: blarson@usc-oberon.UUCP (Bob Larson)
Newsgroups: net.micro.atari16
Subject: Re: A quick OS/9 note
Message-ID: <155@usc-oberon.UUCP>
Date: Fri, 26-Sep-86 04:28:40 EDT
Article-I.D.: usc-ober.155
Posted: Fri Sep 26 04:28:40 1986
Date-Received: Tue, 30-Sep-86 19:49:35 EDT
References: <2072@pur-phy.UUCP>
Reply-To: blarson@usc-oberon.UUCP (Bob Larson)
Distribution: net
Organization: USC Computing Services, Los Angeles, CA
Lines: 12

For os9 communications, you might want to try kermit. It's available from
the normal kermit distribution channels, and from the os9 users group.
(Disk 48) I don't know if anybody has it available on ST 3.5" format.
I'd like to hear confirmation that it works on the ST, but don't know of
any reason it shouln't.

General Os9 discussion probably belongs in mod.os.os9 rather than
net.micro.attari16.
--
Bob Larson
Arpa: Blarson@Usc-Eclb.Arpa or   blarson@usc-oberon.arpa
Uucp: (ihnp4,hplabs,tektronix)!sdcrdcf!usc-oberon!blarson

From 1647283665851770539
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,99fdd83663533b16,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 05:22:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!
XEROX.COM!"Michael_Krause.ROCH"
From: "Michael_Krause.ROCH"@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Pascal for ST's
Message-ID: <860926-053013-5029@Xerox>
Date: Fri, 26-Sep-86 08:22:42 EDT
Article-I.D.: Xerox.860926-053013-5029
Posted: Fri Sep 26 08:22:42 1986
Date-Received: Fri, 26-Sep-86 21:06:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "Michael_Krause.ROCH"@Xerox.COM
Organization: The ARPA Internet
Lines: 9

I am interested in learning about the availability and performance of
(cheap & powerful??) Pascals, preferrably Borlands Turbo, for ST's. Has
anybody got any good suggestions? I know, C is the way to go but I like
the more or less TOTAL programing environment that Borland has glued

together in their packages.

Thanks,

Mike

From -747843763585937078
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 06:39:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!lll-lcc!lll-crg!rutgers!caip!cbmvax!
higgin
From: higgin@cbmvax.cbm.UUCP (Paul Higginbottom)
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS and uEMACS
Message-ID: <791@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 26-Sep-86 09:39:35 EDT
Article-I.D.: cbmvax.791
Posted: Fri Sep 26 09:39:35 1986
Date-Received: Tue, 30-Sep-86 20:33:03 EDT
References: <109200001@ccvaxa>
Reply-To: higgin@cbmvax.UUCP (Paul Higginbottom)
Organization: Commodore Technology, West Chester, PA
Lines: 44

In article <109200001@ccvaxa> preece@ccvaxa.UUCP writes:
>People should realize that some of the nicest features of GNUemacs
>are things that would be lost in a port to the ST: compiling from
>inside an edit session, shell windows, and filtering regions
>through commands are obviously not going to work without
>Unix multitasking. It's still a nice editor, and without those
>features it might be small enough to fit...
>
>--
>scott preece
>gould/csd - urbana
>uucp: ihnp4!uiucdcs!ccvaxa!preece
>arpa: preece@gswd-vms

I couldn't resist replying to this one. The ST computers are GREAT machines
but they need a multi-tasking O/S SOOOOO badly. The features mentioned
above would port fine to the Amiga. My uEmacs on the Amiga can spawn off
shells, execute a make or a cc while I'm still editing, etc. That saves
me TONS of time (forget it if you're using floppies - i.e., doing mulitple
floppy operations, but with a hard disk... it's usable).

The trouble is... if Atari chose UNIX (which I highly doubt they will)
they'll have support nightmares, and the reason I highly doubt they will
is that UNIX is HUGE. Sure you MIGHT get a kernel and a few bits and
pieces to run on a 1040ST, but all the utilities? I remember laughing

when I played with an ATT7300 (UNIX box) which had 4% available disk
space upon powering up for the FIRST time! What use is that?

PLEASE don't construe this message as another "this machine [AMIGA] is
better than that machine [ST]", my point was that multi-tasking is
incredibly useful, not only for developing, but for application users
too, e.g: boot the word processor, then boot the spreadsheet as well!
With inter-process communication, you can have real time integration.

So what are the options for the ST? I read about O/S-9 - sounds good,
but is it reliable, efficient, etc? Anyone know what Atari's plans
might be? I mean TOS/GEM/etc doesn't cut the mustard right now I don't
think. Fixed limits on accessed directories!?!!? Fixed #'s accessories
and/or windows? Geeez... guess they use fixed arrays inside. Can you
say "lists"?

     Paul.

Disclaimer: I do not work for anyone, and my opinions are my own.

From 8587769100704467085
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2fdc1183bc659731,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 06:42:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!pyramid!ucat!
pesnta!amd!amdcad!cae780!leadsv!trimble
From: trimble@leadsv.UUCP (Gary Trimble)
Newsgroups: net.micro.atari16
Subject: MicroEMACS 3.7 wierdness
Message-ID: <1111@leadsv.UUCP>
Date: Fri, 26-Sep-86 09:42:59 EDT
Article-I.D.: leadsv.1111
Posted: Fri Sep 26 09:42:59 1986
Date-Received: Tue, 30-Sep-86 04:47:10 EDT
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 22
Keywords: Bugs, uudecode, really odd

I have been trying to get a correctly functioning version of MicroEMACS
3.7 for about a month now. The latest experience is worth passing along.

I tried the download and uudecode on the ST with three different (posted)
decoders, and had a variety of failures, and not getting a functioning
ME3.7. Finally, after uudecoding on our VAX (bsd 4.2) I was able to
download a binary version and (taa-daa!) it came up fully functional.

However (here's the good part), while it runs beautifully, it expands
EVERY space to a tab character (Believe it!) I'm not sure what the
probabilities of this happening are but they certainly help one believe
he or she can win a state lottery.

Bottom line...could somone repost the encoded and (please..on my knees..)
sources?

Gary Trimble
Lockheed Advanced Marine Systems
--

UUCP: {(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!trimble
      {{allegra ihnp4 dual}!fortune!decvax!decwrl}!amdcad!cae780!leadsv!trimble

From 3416524258160257340
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,20a50686d9f2bd99
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 07:20:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM
Message-ID: <293@uwmacc.UUCP>
Date: Fri, 26-Sep-86 10:20:08 EDT
Article-I.D.: uwmacc.293
Posted: Fri Sep 26 10:20:08 1986
Date-Received: Fri, 26-Sep-86 21:08:02 EDT
References: <342@zen.BERKELEY.EDU>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 16

Just a quick question...sorry if it was asked before. Will the
new release of UNITERM support color monitors?

--
                          --- Rob DeMillo
                              Madison Academic Computer Center

     usenet: {ihnp4,harvard,seismo,topaz,decvax}!uwvax!uwmacc!demillo
     ARPA: demillo@unix.macc.wisc.edu   (now isn't that easier?)

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From 2202256095476196580
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,449ecab748910f5

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 07:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!ccvaxa!jchiu
From: jchiu@ccvaxa.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1M upgrades for the 520
Message-ID: <109200003@ccvaxa>
Date: Fri, 26-Sep-86 10:29:00 EDT
Article-I.D.: ccvaxa.109200003
Posted: Fri Sep 26 10:29:00 1986
Date-Received: Tue, 30-Sep-86 04:47:54 EDT
References: <8609251249.AA01027@ncsc.ARPA>
Lines: 11
Nf-ID: #R:<8609251249.AA01027@ncsc.ARPA>:-30:ccvaxa:109200003:000:128
Nf-From: ccvaxa.UUCP!jchiu   Sep 26 09:29:00 1986

RE: 1 Meg update places

A summary list will be appreciated by me and probably many others.

Jeff J.P. Chiu
jchiu@gswd-vms

From 8911031426898600390
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-26 07:35:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!qantel!intelca!oliveb!hplabs!hp-sdd!ncr-sd!
ncrcae!sauron!campbell
From: campbell@sauron.UUCP (Mark Campbell)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Re: The Motorola 68030
Message-ID: <729@sauron.UUCP>
Date: Fri, 26-Sep-86 10:35:59 EDT
Article-I.D.: sauron.729
Posted: Fri Sep 26 10:35:59 1986
Date-Received: Tue, 30-Sep-86 06:47:26 EDT
References: <2270@gitpyr.UUCP> <7637@sun.uucp>

Reply-To: campbell@sauron.UUCP (Mark Campbell)
Organization: NCR Corp., Advanced System Development, Columbia, SC
Lines: 13
Keywords: Throwing rocks while living in a glass house...
Xref: watmath net.micro.68k:1877 net.micro.amiga:4963 net.micro.atari16:2199
net.micro.mac:7980

In article <7637@sun.uucp> cmcmanis@sun.uucp (Chuck McManis) writes:
>> In the September 18, 1986 issue of Electronic Design magazine, there is an
>> article on page 27 describing the new microprocessor from Motorola, the 68030.
> ... edited out ...
>
>Ah yes another volley in the "Well this stuff is OK but look at what we will
>have next year!" contest. Anyone for starting a "Best Announced but not
>yet available product" award?

Okay...the Sun 3/200. (or did you not mean *generally* available?)
--

Mark Campbell   Phone: (803)-791-6697   E-Mail: !ncsu!ncrcae!sauron!campbell

From -3387506079419217645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,684b3a787c2d1340,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-26 07:47:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!BRL.ARPA!geoffs
From: geoffs@BRL.ARPA (Geoffrey Sauerborn, TANK)
Newsgroups: net.micro.atari16
Subject: Re: SPELL - Executable File and Dictionary
Message-ID: <8609270418.AA00350@ucbvax.Berkeley.EDU>
Date: Fri, 26-Sep-86 10:47:31 EDT
Article-I.D.: ucbvax.8609270418.AA00350
Posted: Fri Sep 26 10:47:31 1986
Date-Received: Tue, 30-Sep-86 03:58:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

>There is no problem with starting out with a big dictionary file. Just name
>it words.txt and place it on the same disk with spell.prg. This file should
>be an ordinary text file with one word per line.
>
>I don't know where you would get such a file...
>
     Just take a big documemt with no spelling errors. (Your lastest
doctoral thesis should do nicely). Then run it through a program along
these lines:
%%%

```
     WHILE NOT End Of line
          ( for each character in the line )
          IF character is white space THEN
               print a new line.
          ELSE
               output that character
     ENDWHILE
ENDWHILE
```

%%%

some of the objects since then....

Before I start building the resource file again, does anybody know what the limits of RCS are?

II A list of bugs!?
What about somebody starting a list of bugs in commercial products (including TOS and GEM)? This would save a lot of people a lot of trouble since you could inform yourself about problems, limitations etc, before you started a project (or even before you bought the program). Maybe this could even motivate some firms to get off the list.

Simon Poole
K538915@CZHRZU1A.BITNET

P.S. Now you know why UniTerm 1.3 is so late!

From -8555864099979885013
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 10:01:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!husc6!endor!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: A few questions
Message-ID: <233@husc6.HARVARD.EDU>
Date: Mon, 22-Sep-86 13:01:29 EDT
Article-I.D.: husc6.233
Posted: Mon Sep 22 13:01:29 1986
Date-Received: Mon, 22-Sep-86 21:13:32 EDT
Sender: news@husc6.HARVARD.EDU
Reply-To: olson@endor.UUCP (Eric Olson)
Distribution: world
Organization: Aiken Computation Lab, Harvard University
Lines: 76

References:

OK, guys, I have a few questions for anyone to try to field about the ST:

- Why "lazy" menus? I am constantly going for the top of a window and ending up in the menu bar. This causes a menu pull, and I have to go far away from where I'm trying to click just to get the thing to go away. Is there a way to turn this off (i.e., make it like the Mac?).

- When I try to (for instance) grow a window, sometimes the ST doesn't realize I've pressed the mouse button until the pointer is no longer on the grow box. I pressed the button while it was on the grow box, though (I'm quite sure). It seems like the button is checked only about 4 times

a second. Is there any way to speed this up?

- If I edit the DESKTOP.INF file so that one of the windows displays only *.PRG files, it works until the window is closed and reopened. But the window display remains d:\. This isn't that important, but is there a way to fix it?

- When I grow a window, the corner of the frame immediately jumps to the tip of the pointer, rather than tracking on the point where I pressed the mouse button. Is this avoidable?

- The Resource Construction Set allows creation of Alerts, but there is no call to run them. The form_alert call creates the alert from a text string instead. Do I need to write my own routine to run an alert from a .RSC file? (Incidentally, the RCS has a bunch of Alerts in its .RSC file, but doesn't use them, and apparently uses form_alert).

- Holding down the arrow in a scroll bar doesn't cause continuous scrolling (like on the Mac). WHY NOT? This seems like a very obvious thing to do.

- Nothing I've seen except NeoChrome (which throws away the user interface standard altogether) uses the right mouse button. The documentation doesn't talk about it. In fact, I don't think GEM supports it. Good thing it's there, huh?

- A large number of programs (for instance, GEM KERMIT) seem to look for their resource files (or something) on A:\. Since I have a hard disk, I'd really prefer they look on the current default drive. Also, everything seems to want to be at root. Subdirectories are virually useless on this machine. And don't create more than 40 of them (well, don't access more than 40 of them between boots). As far as I can tell, there's no way to tell the linker to look anywhere else for the .O files besides root. You can't append drive or directory specs to the files in the command line, and there's no option like -I in the preprocessor (CP68), which tells it to look "at a different drive" (but a directory spec worked there) for the #include files. Something tells me Atari didn't develop the software for this machine on itself.

- Since the desktop is sooooo difficult to use (compared to, say, a Mac), it would be nice if there were a reasonable CLI. Is there? The one I have (version 0.1) doesn't have a single error message, and no documentation. So far I can change the directory, ls, and run programs. Is there a copy command? Pipes? I/O Redirection? If I had a good CLI I could just pretend I've gone back in time and I'm working on a PDP-8 again. How about a CLI that launches GEM applications in GEM mode?

In case you're wondering, I'm not too happy with the software on the ST. It seems like a PC running GEM, not a small Mac. But, of course, it's not a PC (although why not, marketingwise, I'll never understand), it has a 68000. Running CP/M-68K (essentially). And GEM/VDI. And GEM/AES.

MicroEmacs, of course, is great. But doen't use the mouse (it's not supposed

to). Why isn't there an editor like Edit (for the Mac) available?

I'm slightly sorry to vent all these complaints, but I see very little to praise. What is this machine good for?

Anxiously awaiting any reply,

I remain,

Very annoyed at Atari.

-Eric

From -8350792726139853556
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d80842a4d333ec37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 10:15:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Malloc & malloc
Message-ID: <1059@batcomputer.TN.CORNELL.EDU>
Date: Mon, 22-Sep-86 13:15:49 EDT
Article-I.D.: batcompu.1059
Posted: Mon Sep 22 13:15:49 1986
Date-Received: Wed, 24-Sep-86 05:20:16 EDT
References: <8609182007.AA11533@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 30
Summary: use malloc(), in Megamax or uCShell

[]

So there's one more reason NOT to use the GEMDOS Malloc() for intensive dynamic allocation. It evidently was NOT designed for that!!! (It was designed for the progressive installing of accessories & applications into memory, along with their workspaces, during a typical work session.)

If your program does many malloc() calls for small pieces of RAM, and then free()s them up (e.g. microEMACS stores each line of text that way, and makes a new copy if it gets longer!), then you should use your own malloc() that gets a BIG piece of RAM from GEMDOS and then manages it itself. One such routine is part of the Megamax library. Another is shipped with Micro C-Shell. DO NOT USE Malloc()!!!!!

A question: when a C program exit()s, does it clean up the malloc()ed space? This relates to the following:

Challenge: can anybody devise a way to stop a running program that does

not do any I/O (i.e. does not respond to ctrl-C), but WITHOUT rebooting!?
(I currently embed calls to keybrk() here and there in my loops, where
keybrk() is just a call to GEMDOS to see if ctrl-C was pressed, and an exit()
if it was... - that works but is ugly!) - I would like some program that
responds to an interrupt (say the alt-Help) and stops the currently running
application, in a clean way (no crashes or reboots, ability to do it
repeatedly in a session). I would like this ditty to be a separate program
that you run once and then it sits resident in RAM. I have tried such
a thing, with the interrupt handler doing an RTE to itself and then calling
gemdos(0) - but I get mysterious crashes after a few uses! Any ideas?

- Moshe Braner

From 7813683886054535050
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,26232e402b641b99
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 10:19:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: THUNDER! and WTERM work
Message-ID: <1060@batcomputer.TN.CORNELL.EDU>
Date: Mon, 22-Sep-86 13:19:49 EDT
Article-I.D.: batcompu.1060
Posted: Mon Sep 22 13:19:49 1986
Date-Received: Wed, 24-Sep-86 05:20:42 EDT
References: <4696@pur-ee.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 6
Summary: WTERM? or do you mean UNITERM?

[]

WTWERM? Did I miss something? What IS that?
(I did get UNITERM recently, posted by Simon Poole. Did you mean that?)

- Moshe

From 5030378196225968273
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 10:41:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: ue 3.7 (from Turner*Imagen) and disk speed

Message-ID: <1062@batcomputer.TN.CORNELL.EDU>
Date: Mon, 22-Sep-86 13:41:03 EDT
Article-I.D.: batcompu.1062
Posted: Mon Sep 22 13:41:03 1986
Date-Received: Wed, 24-Sep-86 05:21:07 EDT
References: <8609060233.AA26238@ucbvax.Berkeley.EDU> <267@myrias.UUCP>
<1296@trwrb.UUCP> <567@imagen.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 17

[]

In my version of microEMACS I left the old putc/getc stuff in for other
systems but #if AtST conditionally compile an alternative faster disk I/O
system. It uses an 18K RAM buffer, and reads/writes it using the GEMDOS
READ/WRITE functions ($3F/40). (On reading, I first call SFIRST to find
out the length of the file, then I ask READ to read that much or 18K, which-
ever is less.) That speeded things up tremendously! I chose 18K because
it is 4 SS tracks or 2 DS tracks, evenly, and the DMA controller can
read whole tracks in one revolution of the disk. Of course, files start
in middle of tracks so I actually read about half a track at a time.
I guess that's why 36K proved not significantly faster, and even 9K is
quite good! (A better way would be to read the FAT, find out where the
track boundaries are, and read a full track at a time!)
For more details look at the file "files.c" on my umacs disk.

- Moshe Braner

From -5813765540679342037
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f278e23ab8c325b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 10:53:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: TeX on the ST?
Message-ID: <1063@batcomputer.TN.CORNELL.EDU>
Date: Mon, 22-Sep-86 13:53:08 EDT
Article-I.D.: batcompu.1063
Posted: Mon Sep 22 13:53:08 1986
Date-Received: Wed, 24-Sep-86 05:21:34 EDT
References: <8609192303.AA22456@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 8
Summary: I would love it!

[]

To put my vote in (for the silent group that would say so too):
I need technical/mathematical word processing on my ST!!!
TEX would be first choice. It already exists on IBM micros.
Please someone: port it!

- Moshe Braner

From -5310844800133621744
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59088b61119a022e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 11:12:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: SH204 Hard disk facts
Message-ID: <1065@batcomputer.TN.CORNELL.EDU>
Date: Mon, 22-Sep-86 14:12:08 EDT
Article-I.D.: batcompu.1065
Posted: Mon Sep 22 14:12:08 1986
Date-Received: Wed, 24-Sep-86 05:22:00 EDT
References: <9@prle2.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 18

[]

7 seconds to write an empty file?????

To repeat: It takes about 15 seconds to compile and link a typical C program
(and handle all those intermediate files, of course) with Megamax C on a...

                  RAM DISK!!

BTW: Partitions??? Why would you want THAT? (assuming you are the sole user
of the machine, as it should be) Can you have 10 (20, 30, 40) Megs in ONE
partition? Will Atari ever fix the %$@#&@ 40-directory limit (and the other
bugs in GEM/TOS)?

- Moshe Braner

"One user, at least one CPU!"   (let's see: one in my watch, one in my modem,
one in the printer, 2 (or 3?) in the ST (not counting the ACIAs, MFP...)...)

From -9214030165165079846
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 12:25:47 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: ACTION and the ST
Message-ID: <860922-124322-1026@Xerox>
Date: Mon, 22-Sep-86 15:25:47 EDT
Article-I.D.: Xerox.860922-124322-1026
Posted: Mon Sep 22 15:25:47 1986
Date-Received: Mon, 22-Sep-86 22:00:26 EDT
References: <1050@batcomputer.TN.CORNELL.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 28

> If there are people reading this and longing for an "easy" language
> or interactive (but not reverse Polish) environment, let us hear!

You have just described me perfectly. Why can't we have a block structured language and an interactive programming environment at the same time?! The reason that Turbo Pascal and ACTION! are so popular is the integration of the edit/compile/run cycle into one environment. This could be taken a step further by creating an interpreter for development and a compiler for generating the finished object code. Right now I'm using Pascal and Modula II (I can't stand C's syntax). But, as soon as there is a block structured language available that allows memory to memory compiles (or better yet incremental compilation), I am going to switch to it.

HBASIC sounds like it could be good, but, I don't know if I would be willing to give up local variables, and complex data structures (does it support these?). It has been my experience that 90% of the execution time that a program uses is due to 10% of the code. Often this code is simple and highly repetitve (moving a block of memory for example). It makes since to implement this part of the program in assembly and the rest in a highly interactive (though possibly slower) language. HBasic just might do the trick.

John

p.s. Hurry up Clint. I'll buy ACTION! the second that it comes out.

From -7228285880937230011
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f93efde1d49826a9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 12:39:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!fluke!
ssc-vax!dickey

From: dickey@ssc-vax.UUCP (Frederick J Dickey)
Newsgroups: net.micro.atari16
Subject: OSS Prolog and Cambridge Pascal
Message-ID: <882@ssc-vax.UUCP>
Date: Mon, 22-Sep-86 15:39:23 EDT
Article-I.D.: ssc-vax.882
Posted: Mon Sep 22 15:39:23 1986
Date-Received: Wed, 24-Sep-86 07:14:43 EDT
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 3

Has anyone seen OSS Prolog? Is it out yet? Is it any good?

I recently saw an ad for Cambridge Lisp.

From -1525521586297016092
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77da0a88a66278f4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 12:44:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!fluke!
ssc-vax!dickey
From: dickey@ssc-vax.UUCP (Frederick J Dickey)
Newsgroups: net.micro.atari16
Subject: OSS Prolog and Cambridge Lisp
Message-ID: <883@ssc-vax.UUCP>
Date: Mon, 22-Sep-86 15:44:12 EDT
Article-I.D.: ssc-vax.883
Posted: Mon Sep 22 15:44:12 1986
Date-Received: Wed, 24-Sep-86 07:15:04 EDT
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 8

Is OSS Prolog out yet for the ST? Has anybody seen it? Is it any good?

I saw an ad for Cambridge Lisp recently. Has anybody seen this? I understand
that Cambridge Lisp is a fairly oddball dialect. Does anybody know anything
about Cambridge Lisp?

Fred Dickey

From 5049725190287315905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c4bb4fe8aaed93,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 13:40:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!nbires!hao!hplabs!sdcrdcf!glenn
From: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Newsgroups: net.micro.atari16
Subject: Calling BIOS from interrupt handlers
Message-ID: <3032@sdcrdcf.UUCP>
Date: Mon, 22-Sep-86 16:40:41 EDT
Article-I.D.: sdcrdcf.3032
Posted: Mon Sep 22 16:40:41 1986
Date-Received: Wed, 24-Sep-86 23:39:50 EDT
Reply-To: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Distribution: world
Organization: System Development Corporation R&D, Santa Monica
Lines: 22

  Has anyone been able to successfully call BIOS/XBIOS functions from interrupt handlers ? There was some discussion on this couple of months ago in the BIX section of BYTE and the final message said you should subtract 46 from "savptr" before calling the BIOS function and restoring the previous value of savptr before returning. The interrupt handler is supposed to ensure its own atomicity. Unfortunatly this doesn't work.

  I've also tried assigning savptr to my own buffer and making BIOS calls which doesn't work either.

  My application for this is to have Xbtimer() set up an interrupt handler which, at certain times, sends a byte (or two) out the MIDI port. But the usefulness of calling BIOS from interrupt routines is, I'm sure, pretty wide.

Please help !!

Glenn

Glenn C. Scott
System Development Corporation, 2525 Colorado Ave, Santa Monica, CA. 90406
213-820-4111 X5653 UUCP: glenn@sdcrdcf.UUCP   ARPA: Scott@DOCKMASTER.ARPA

From -4669609098911165142
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ccec0a7c82994bde,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 15:02:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!inuxc!pur-ee!
j.cc.purdue.edu!h.cc.purdue.edu!pur-phy!piner
From: piner@pur-phy.UUCP (Richard Piner)
Newsgroups: net.micro.atari16
Subject: A quick OS/9 note
Message-ID: <2072@pur-phy.UUCP>
Date: Mon, 22-Sep-86 18:02:47 EDT
Article-I.D.: pur-phy.2072
Posted: Mon Sep 22 18:02:47 1986

Date-Received: Tue, 23-Sep-86 22:52:17 EDT
Distribution: net
Organization: Purdue Univ. Physics Dept., IN
Lines: 15

Just a quick note on some OS/9 stuff. I just got off the phone with
the nice folks at Microware and have a little news. They say that
FORTRAN for OS/9-68k (full 77 standard) goes to beta test in October.
Expected release date is Nov. 1. They said a couple of big FORTRAN users
have been after them for months, so now, said users have been tapped to
be beta testers. It's only fair.
I asked about the "COM" package, it cost $125 and does include a
terminal emulator. I will post a short review when ever I get it.
They also claim to be working on windows and some niffty graphics
software. Look for it at the next COMDEX.
Also of note, TLM (porters for Atari) say they will have the VDI
interface ready sometime the last quarter this year. That's all
the news for now.
                        Richard Piner
                        piner@galileo.UUCP

From 4407611966732406371
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a45f2a9578ccc8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 15:04:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!amiga!pyramid!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI ??
Message-ID: <578@imagen.UUCP>
Date: Mon, 22-Sep-86 18:04:39 EDT
Article-I.D.: imagen.578
Posted: Mon Sep 22 18:04:39 1986
Date-Received: Tue, 23-Sep-86 22:58:46 EDT
References: <8609201633.AA06324@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 24

>
> Did I hear right, on the cable TV show "Computer Chronicles" on 9/20/86?
> Atari is laying off people, down from 7,000 not long ago, to 1,000 in the
> near future? Because they LOST $500 million (!) last year ??
>   Bob Menton
>   MENTON@NRL-ACOUSTICS
>
> ------
I think you've been doing the time warp once too often, first which atari ?
games or corp ? and second both atari's (to the best of my knowledge) have
been well below the 1,000 employee mark for years now.
for further reading, you might want to check out the posting on atari corp

going public....
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 2285679716171564205
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 15:08:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!amiga!pyramid!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: Re: Where is Neil@Atari
Message-ID: <579@imagen.UUCP>
Date: Mon, 22-Sep-86 18:08:40 EDT
Article-I.D.: imagen.579
Posted: Mon Sep 22 18:08:40 1986
Date-Received: Tue, 23-Sep-86 22:59:56 EDT
References: <2704@mit-hermes.ARPA>
Organization: The Houses of the Holy
Lines: 35

>
>> >The addresss that used to work is
>> >   vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
>> >but it seems to be no longer valid, as indicated by the bounced
>> >--Mike Fischer <fischer@yale.arpa>
>>
>> Based on information in the uucp network maps, I offer the following
>> suggestions...
>> ...!pyramid!atari!neil
>> ...!lll-lcc!atari!neil
>> ...!hoptoad!atari!neil
>> atari!neil@lll-lcc.ARPA
>> --
>> George Robbins - now working for, uucp: {ihnp4|seismo|caip}!cbmvax!grr
>> but no way officially representing arpa: cbmvax!grr@seismo.css.GOV
>> Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)
>
> Macy's may not talk to Gimbel's, but Commodore seems to know how
> to talk to Atari! (What messages for Jack@Atari, guys?)

or

{decwrl|sun|saber}!imagen!atari

--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 3756550015209685955
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 15:11:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!amiga!pyramid!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: Lattice C and UUDECODE
Message-ID: <580@imagen.UUCP>
Date: Mon, 22-Sep-86 18:11:32 EDT
Article-I.D.: imagen.580
Posted: Mon Sep 22 18:11:32 1986
Date-Received: Tue, 23-Sep-86 23:00:31 EDT
References: <12240490431.8.LYNN@PANDA>
Organization: The Houses of the Holy
Lines: 31

>
> In a nutshell, GNUemacs is much more robust than uEmacs is.
> In GNUemacs, you can write your own functions and rework every
> command and function to your taste without modifying the actual
> editor.
>
> GNUemacs also has a wonderful C editing mode which essentially
> formats your code for you, keeps track of braces and parentheses
> (how many times have you had a program fail because you left out
> a brace or parenthesis?), allows you to compile the program from
> within the editor, and if the compile fails, will place the cursor
> at the point of the first bug in your program. (Phwew! LOVE those
> run-on sentences!)
>
> 'Nuff said?
>
> --Lynn :-)

> -------
ain't nuttin' there that microemacs 3.7 for the atari doesn't or
won't have when im done (adding the make capabilities is fun)
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -2577844879783597180
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c0b9d0ac658577d9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 16:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!convex!mic!gary
From: gary@mic.UUCP
Newsgroups: net.micro.atari16
Subject: ST Communication - Uucp?
Message-ID: <48700001@mic>
Date: Mon, 22-Sep-86 19:25:00 EDT
Article-I.D.: mic.48700001
Posted: Mon Sep 22 19:25:00 1986
Date-Received: Tue, 30-Sep-86 02:01:26 EDT
Lines: 26
Nf-ID: #N:mic:48700001:000:1091
Nf-From: mic.UUCP!gary   Sep 22 18:25:00 1986

We just purchased an Atari 520ST. What a machine! There are many things
about it that are excellent, bordering on incredible. However, regarding
communications, the ST has several difficulties, which may well be due
to my lack of knowledge (hence this posting). In addition to the ST, we
have several UNIX systems which can transmit data among themselves at
9600 baud via uucp with no problems. The ST can be tied into this network
as a terminal with no difficulty, but (BUT), transfering files and
,preferably, whole directories of data to and from the ST is VERY time
consuming.

1) Does someone have a method available to allow the ST to use a uucp
protocal?
2) Does anyone have any local networking suggestions that would assist us
in using the Atari ST as a part of our local network?

Kermit and Xmodem are fine as far as they go....but what about local

networks at a reasonable cost?

Ideas/suggestions that could be useful to everyone should be posted.

Thank you,

Flames and VERY specific suggestions should be mailed to:
Gary Lewin {texsun!rrm, convex!mcomp}!mic!gary

From 1564550060123617502
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 17:49:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!topaz!ll-xn!nike!ucbcad!zen!buddy.Berkeley.EDU!
c9c-bg
From: c9c-bg@buddy.Berkeley.EDU (James Landay)
Newsgroups: net.micro.atari16
Subject: MAC emulator
Message-ID: <275@zen.BERKELEY.EDU>
Date: Mon, 22-Sep-86 20:49:48 EDT
Article-I.D.: zen.275
Posted: Mon Sep 22 20:49:48 1986
Date-Received: Tue, 23-Sep-86 03:46:49 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c9c-bg@buddy.Berkeley.EDU (James Landay)
Organization: University of California, Berkeley
Lines: 14
Keywords: Mac, ST

Data Pacific (David Small) has finally started to sell the Mac emulator for
the Atari ST. It is called (Magic sack). They were selling it this
weekend at the Atari Expo in San Jose (9/20-9/21). They sold out the initial
supply of 200 in 4 hours and thereafter took orders to be shipped in 2-3 weeks.
Show price $100. They will sale them later for (~$130). They plan on
coming out with a drive modification that will read mac disks.

James Landay

I have no affiliation with Data Pacific.

"Everyone has to believe in something, I believe I'll have another beer!"

From 6967671830009317569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,248f372ae5398c3f,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-22 20:36:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!RYERSON.BITNET!ACPS5589
From: ACPS5589@RYERSON.BITNET (GEORGE BORGES)
Newsgroups: net.micro.atari16
Subject: BBS WishList
Message-ID: <8609230817.AA25184@ucbvax.Berkeley.EDU>
Date: Mon, 22-Sep-86 23:36:08 EDT
Article-I.D.: ucbvax.8609230817.AA25184
Posted: Mon Sep 22 23:36:08 1986
Date-Received: Tue, 23-Sep-86 06:07:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

(Sorry if this already got thru but I doubt it ... so here I go again.)

Hi there.
I have decided (after much mental debate and anguish) on a thesis topic
to complete my degree. Seeing as there is an incredible void in the
area of GOOD ST BBS programs, I have made that my goal. What I
desperately require of my fellow net-atarians are original and/or
good ideas/features that I could implement into the BBS. Any worthwhile
suggestion will be considered and, since I will be releasing the program
into the public domain, the more replies I receive, the potentially
better product you as a user will receive (for free even).

I have several ideas kicking around including (but not limited to)
kermit, x+ymodem, FidoNet compatible, VT52/100 fullscreen editor for
callers, and so on. It will be written mainly in Modula-2.
Thx again for any help,   George.

BTW the tentative title is OPUS. If anyone can come up with anything better
I'll be glad to hear from you.

From 1459133131067297261
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8a4497b6e097a8a0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 20:40:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!umcp-cs!eneevax!iarocci
From: iarocci@eneevax.UUCP (John Iarocci)
Newsgroups: net.micro.atari16
Subject: Repostings
Message-ID: <192@eneevax.UUCP>
Date: Mon, 22-Sep-86 23:40:24 EDT
Article-I.D.: eneevax.192
Posted: Mon Sep 22 23:40:24 1986
Date-Received: Tue, 23-Sep-86 03:49:09 EDT
Distribution: net

Organization: Univ of Md, Aerospace Engineering Department
Lines: 16

<< gulp >>

I just recently acquired access to the net and heard about
micro-emacs 3.7 and Hack for the ST. Could someone please
e-mail or repost them? Or, failing that, tell me where I can
rcp them from? Thanks.
--

| John Iarocci 301-454-3204 |
| Center for Rotorcraft Education and Research 301-454-2922 |
| Aerospace Engineering Department |
| University of Maryland, College Park, MD 20742 |
| |
| ARPA : iarocci@eneevax.umd.edu -----|
| UUCP : [seismo,allegra,rlgvax]!umcp-cs!eneevax!iarocci |crer|

From -3256068810693030259
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,daf68be5652ae972
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 21:29:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: TeX for AtariST
Message-ID: <1072@batcomputer.TN.CORNELL.EDU>
Date: Tue, 23-Sep-86 00:29:17 EDT
Article-I.D.: batcompu.1072
Posted: Tue Sep 23 00:29:17 1986
Date-Received: Wed, 24-Sep-86 05:23:45 EDT
References: <8609221112.AA00513@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 3

[]

What about printer drivers (for TeX)? Dot matrix? Laser?

From 2442729617183962007
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c24319702bca35dd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 23:12:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!NOCMI.BITNET!TAYLOR

From: TAYLOR@NOCMI.BITNET
Newsgroups: net.micro.atari16
Subject: SUBJECT
Message-ID: <8609230612.AA23368@ucbvax.Berkeley.EDU>
Date: Tue, 23-Sep-86 02:12:56 EDT
Article-I.D.: ucbvax.8609230612.AA23368
Posted: Tue Sep 23 02:12:56 1986
Date-Received: Tue, 23-Sep-86 06:04:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

All those calls for a "faster" development language may be answered
by a new english product - FaST Basic, a good structured basic which
comes complete with a macro assembler, and Pascalish (anyone come across
BBC basic ??) Basic. It is supplied as a cartridge (answer to questions about
whether cartridges ever worked) and a couple of discs with demos, libraries
etc.. A multi window editor/run environment is included, and you can get
to gem in either a very high level way, or at the standard gem interface.

It is pretty damn fast : benchmarks (pcw - English mags std bmrks)

average -	PC AT (8Mhz)	6.8 secs
	Commodore 128	40.1 secs
	520 ST	1.9 secs

all sorts of fancy debugging facilities are available, and it has double precis
maths for anyone who needs it.

all in all it is a pretty good product. (and I dont have anything to do with
the company)

available from Computer Concepts
Gaddesden Place
Hemel Hempstead HP2 7EH
England

tel : 0442 63937 (inside england)

I believe they take orders by phone as well, educational discounts
may be arranged. Price is ninety pounds (english) .

Richard "build a better mousetrap and apple
will sue you"
Taylor

From -3953652006827772053
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 23:16:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts

From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <8609230616.AA24405@ames-nas.ARPA>
Date: Tue, 23-Sep-86 02:16:50 EDT
Article-I.D.: ames-nas.8609230616.AA24405
Posted: Tue Sep 23 02:16:50 1986
Date-Received: Tue, 23-Sep-86 06:04:15 EDT
References: <275@zen.BERKELEY.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 92

I bought one of the Mac emulators, which is called a Magic Sac. (TM)

My experience so far has not been good, although I am probably the exception that proves the rule. (Don't draw a negative conclusion until you've read at least the last paragraph of this tale)

I bought the MS on Saturday (before they sold out) and also got some rom chips at the show. I took the whole contraption, as well as my 1040ST in to where I work and tried to use the supplied download program to download some software from my MacLisa.

(The package comes with a Macintosh program which, in cooperation with a GEM program on the ST will download an image of a Macintosh disk using the RS232 port. One of the misfeatures of Magic Sac, resulting from Apple and Atari using incompatible disk formats is that it requires its own diskette format, and none of GEM, Magic Sac, or the Macintosh can read each other's disks.)

After considerable effort, I was unable to copy the diskette, packed up and went home. Sunday, I returned to the show (costing me the price of another admission,) in the hopes of finding a solution. Dave agreed that the code won't work on a Lisa, leaving me no way to download a system diskette, and thereby no way to use the cartridge.

However, apparent help was present in the Data Pacific booth, in the form of Alex Leavens, who offered to sell me a 'starter set' of diskettes in MAGIC format, which would contain a system and finder image, a couple of Boston Macintosh users group public domain diskettes, and a diskette containing Red Ryder and Free Term. So, for a mere 40 additional dollars, I was set -- I thought.

I drove home, inserted the boot disk in the ST, booted magic, inserted the MAGIC disk with the finder and got a Macintosh bomb. I drove back to the AtariFest, and convinced someone at the booth that I had bad diskettes. I set down with one of the other Data Pacific people and used their ST to make sure I had a complete set of working disks. (Two of the four diskettes I had been given were bad)

I rushed home (Milpitas, by the way is about 30 minutes from the show site)

rebooted and sure enough got a 'welcome to macintosh' prompt. As soon as I saw the finder, I decided to make backup copies of my four hard won diskettes, so I went back to gem and formatted six magic diskettes. (You can't use the Mac's format routines, because they make hardware assumptions about the controler which aren't true. . .)

I rebooted Magic, got a finder, tried to copy, and discovered that there is a bug in magic which makes it impossible to copy files from one diskette to another on a single diskette system. (I haven't bought an external drive for my 1040, because I'm saving up for a hard disk :-)

Back in the car for the third time, and back to the show, where I talked to Dave Small again. Showed him the bug, which he said he would get fixed as soon as he got back home, and asked him if I could use his two diskette systems to make my copies, since I would still be OK as long as I had backups and working terminal programs to download with.

While making the backups, someone in the crowd asked if I had tried the terminal programs yet. So, we tried the various terminal programs that were on the starter disk, and sure enough, NONE of them worked!

My situation at this point: I can't download diskette images because the downloader doesn't work with a Lisa, I can't backup with a single drive system, and I can't download at all because the terminal programs don't work. I pointed this out to Dave Small, and he offered to return my money. I told him I would like to give him a chance to fix the problems that we had identified, and that if he could get me started, I would rather have the Magic Sac than the money.

Alex, who had been having trouble with other diskette sets also offered to return my money for the starter set, and I said I would also like to have a working starter set, rather than the money.

So, Alex is going to get me diskettes within a week, and Dave has four bugs I discovered (1: No single disk copy under GEM; 2: No single disk copy under MAGIC; 3: Broken terminal emulators under Magic; 3: No way to download diskettes from a Lisa) which he has promised to fix. And I'm going to borrow a 'real' mac to try diskette downloading from.

If Dave Small can fix bugs 2 and 3, I'm going to keep the Magic Sac just because of the amount of PD software for the MAC I'm going to be able to run.

(Data Pacific claims that if it runs on a LISA, it will run on Magic Sac, and I've got a lot of stuff on my MacLisa.)

Even though my weekend was shot, and the thing still isn't working for me, I have faith in the people that I talked with, and expect to be hearing positive things back soon.

I'll keep you posted.

Marty

From 3761722654903459018
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce4a9a52c449a71c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 23:42:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Bug in HDX (ATARI hard disk utility)
Message-ID: <8609230641.AA23649@ucbvax.Berkeley.EDU>
Date: Tue, 23-Sep-86 02:42:19 EDT
Article-I.D.: ucbvax.8609230641.AA23649
Posted: Tue Sep 23 02:42:19 1986
Date-Received: Tue, 23-Sep-86 06:04:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

A few weeks ago I bought a SH204 harddisk. After formatting and partitioning
into 2 logical drives with the HDX program I started to transfer lots of
stuff from floppys to the harddisk.
After some Megs' I realized that the desktop directory listing of the 2nd
drive was scrambled. Looking into the directory with a diskeditor I found
text (Grrrrrrrr). This text looked terribly like a file I transferred to
the 1st drive last.
To make things short, it was the file.
A quick view onto the partition information block (sector 0 of hard disk)
showed that HDX created two overlapping partitions.
Trying different partition sizes I found that HDX was only able to create
correct partitions if I selected one of the predefined partitioning schemes
of the menu.
Did someone have similar problems with HDX ?

  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany
  BITNET: XBR4D76H@DDATHD21

From -1774467611637028576
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8991e0d5ac1bcde0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 04:04:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: Re: C VS. PASCAL
Message-ID: <8609230913.AA25817@ucbvax.Berkeley.EDU>

Date: Tue, 23-Sep-86 07:04:29 EDT
Article-I.D.: ucbvax.8609230913.AA25817
Posted: Tue Sep 23 07:04:29 1986
Date-Received: Tue, 23-Sep-86 07:52:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Hi Marty,
  thanks for your response to my C-flaming.
You are quite correct in saying : on machine X to do job Y I use language Z,
where Z is hopefully the best langauge for the job. I agree with practically
all your statements, BUT WE WERE DISCUSSING LANGUAGES FOR THE ST and NOT
which language I would use on a PDP-11,IBM 30XX, Cray, CDC, VAX, uVAX,
Pro-380, Apple, ZX80, QL, IBM-PC ....

>   Further, C does have strong type checking, but it is voluntary
> (through the use of Lint,) rather than mandatory.

This is the standard answer of every C-programmer, the problem is: nobody
I know has a Lint for the ST.

> ...That is, C with a good debugger is easier to debug than Pascal with no
> more than compiler diagnostics.

Which good debugger on the ST?

C probaly is the best language in a UNIX environment, but we don't have UNIX
on the ST (yet?).

Simon Poole
K538915@CZHRZU1A.BITNET

From 6052715916474690084
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5a72c39c35698c62,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 06:07:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NADC.ARPA!kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: AUTO VS MONO
Message-ID: <8609231318.AA29076@ucbvax.Berkeley.EDU>
Date: Tue, 23-Sep-86 09:07:21 EDT
Article-I.D.: ucbvax.8609231318.AA29076
Posted: Tue Sep 23 09:07:21 1986
Date-Received: Tue, 23-Sep-86 22:13:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

I had read that the AUTO folder and the Monoc
rome monitor do not get along
together.. I found this to be true when I downloaded BICLOCK.PRG from CIS
and tried to run it. By the way, the program is called BICLOC.PRG in the
ATARI16 forum under utilities. This is the program that is featured in this
month's ANALOG magazine.

Anyway, the program seemed to work fine until I tried to escape from it. There
was no way to do this. Does anyone have a work around? Perhaps tricking the
computer into thinking that it is in a different resolution...

Thanks in advance,
Ron Kushnier
kushnier@nadc.arpa

From -2844630531167004977
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a99a5f5b34ed5ff2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 06:58:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!houxm!houxj!wkk
From: wkk@houxj.UUCP (W.KAPLOW)
Newsgroups: net.micro.atari16
Subject: Editable Fields in Windows
Message-ID: <684@houxj.UUCP>
Date: Tue, 23-Sep-86 09:58:02 EDT
Article-I.D.: houxj.684
Posted: Tue Sep 23 09:58:02 1986
Date-Received: Wed, 24-Sep-86 00:02:43 EDT
Organization: AT&T Information Systems, Holmdel NJ
Lines: 24

I am working on a database system for my 1040ST, and I have a question
about how to have TEDINFO fields inside a window. It is clear that
they can be placed in Dialog boxes, but how does one get that to appear
in a window.

The only way I can currently think of is to create a window with the
hight and width of a dialog box containing the Object tree, and
placing the Dialog box directly inside the window. Well, I would at least
have the window contain the dialog box completely. Is this the way to do
this?. Would the window created then not be able to move?.

Thanks for any help or hints you can give me.

Wesley K. Kaplow
AT&T-IS
HO2L-325

Holmdel, NJ 07733

AT&T: (201)949-0065

USENET: houxj!wkk

ARPANET: wesley@NYU-ALAYA.ARPA

From 631073570804555962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7902765d135960
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 07:17:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16
Subject: Re: A few questions
Message-ID: <280@uwmacc.UUCP>
Date: Tue, 23-Sep-86 10:17:11 EDT
Article-I.D.: uwmacc.280
Posted: Tue Sep 23 10:17:11 1986
Date-Received: Tue, 23-Sep-86 22:13:48 EDT
References: <233@husc6.HARVARD.EDU>
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Distribution: na
Organization: UWisconsin-Madison Academic Comp Center
Lines: 106

In article <233@husc6.HARVARD.EDU> olson@endor.UUCP (Eric Olson) writes:
>OK, guys, I have a few questions for anyone to try to field about the ST:
>
>- Why "lazy" menus? ... (i.e., make it like the Mac?).

   Ask the lawyers at Apple, Corp. (Weren't you around for the Apple vs. DRI discussion?) Anyway, there is a utility in the latest issue of STart magazine which claims to be able to make the ST do stuff "like the Mac".

>- Holding down the arrow in a scroll bar doesn't cause continuous scrolling
>(like on the Mac). WHY NOT? This seems like a very obvious thing to do.

(See above answer)

>- Nothing I've seen except NeoChrome (which throws away the user interface
>standard altogether) uses the right mouse button. The documentation doesn't
>talk about it. In fact, I don't think GEM supports it. Good thing it's
>there, huh?

   Is this a serious comment? I'll assume so and treat it as such.
   First off, there *is* a use for it that you can demonstrate for yourself, in the privacy of your own home. First, open two windows. Now, hold down the right mouse button. OK, double-click (left) on a file in the *non*-active

window. Whaddya know! A use for the right mouse button! Even ignoring that small but useful use, do you think there's a possibility that A) people may want to use it in their own applications, and B) there just may be some things in life that you haven't yet encountered? Good thing it's there, huh? It's sorta like the cigarette lighter and ashtray in my car; I sure as hell won't use 'em, but I'm sure there are a few people who would, and I'm not going to complain to the dealer that they're there.

>- A large number of programs (for instance, GEM KERMIT) seem to look for
>their resource files (or something) on A:\. Since I have a hard disk,
>I'd really prefer they look on the current default drive. Also, everything
>seems to want to be at root. Subdirectories are virually useless on this
>machine. And don't create more than 40 of them (well, don't access more
>than 40 of them between boots). As far as I can tell, there's no way
>to tell the linker to look anywhere else for the .O files besides root.
>You can't append drive or directory specs to the files in the command line,
>and there's no option like -I in the preprocessor (CP68), which tells
>it to look "at a different drive" (but a directory spec worked there) for
>the #include files. Something tells me Atari didn't develop the software
>for this machine on itself.

   The above points are all good; they are either programming bugs or laziness, or the result of short-sighted operating system design. The linker and compiler I use are fairly good about allowing me to specify different directories for include files, source and object files, and library files. If you're the legitimate owner of a piece of software which you believe needs enhancements, write a letter to the company. I'm sure they'd be happy to make their product more attractive. Complaining to me won't get you far.
  The only thing I'd disagree with is the RSC files on the A:\ drive problem. All the programs I've seen, including GEM kermit, seem to look for the RSC file on the drive/folder from which the program is executing.

>
>- Since the desktop is sooooo difficult to use (compared to, say, a Mac),
>it would be nice if there were a reasonable CLI. Is there? The one I have
>(version 0.1) doesn't have a single error message, and no documentation.
>So far I can change the directory, ls, and run programs. Is there a copy
>command? Pipes? I/O Redirection? If I had a good CLI I could just pretend
>I've gone back in time and I'm working on a PDP-8 again. How about a CLI
>that launches GEM applications in GEM mode?

   Oh, the Mac again, eh? Well, I'll explain a little better. The fine, original-thinkers at Apple made the Macintosh in the image of a Xerox icon-based OS interface. The folks at DRI did the same. However, one of those companies was bigger, and had more money to spend on lawyers, so they made the other company make some small yet significant changes to their OS interface, so they wouldn't have the same "look and feel" as that original Xerox product. Life is strange, no?
   As far as CLI's go, are you complaining about a PD (i.e. free) program? If not, are you complaining to *us* because *you* wasted money on a product that doesn't deliver what *you* think it should? Anyway, Michael Beckmeyer's (sp?) Micro C Shell seems like a good, Unix-like CLI, complete with pipes,

I/O redirection, a copy command, and a host of other Unix-like commands.
Look into it, unless you don't want to have to pay a nominal fee (~$30)
for a very useful program.
   And as for PDP 8's, go back in time and see how much your PDP 8 costs.
I think too many detractors of reasonably-priced personal computers expect
them to be MicroVaxen, not pc's. If you want the capabilities of a Vax
buy a Vax. But don't complain when you buy a $500 machine and it can't
outperform a Vax.

>In case you're wondering, I'm not too happy with the software on the ST.
>It seems like a PC running GEM, not a small Mac. But, of course, it's
>not a PC (although why not, marketingwise, I'll never understand), it has
>a 68000. Running CP/M-68K (essentially). And GEM/VDI. And GEM/AES.

   The ST is maturing, in both hardware and software. The Macintosh has
a good 2-year lead on it. If you need a monochrome machine that has
software now, and a user interface you like, why didn't you buy a Macintosh?

>I'm slightly sorry to vent all these complaints, but I see very little to
>praise. What is this machine good for?

  I dunno. Who would be dumb enough to buy a useless machine?
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: oyster@unix.macc.wisc.edu

Warning: The above constitutes a large amount of opinion, with a smattering
of fact thrown in for good measure.

From 4867107847399243342
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,248f372ae5398c3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 08:06:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: BBS WishList
Message-ID: <8609231458.AA26875@mitre-bedford.ARPA>
Date: Tue, 23-Sep-86 11:06:09 EDT
Article-I.D.: mitre-be.8609231458.AA26875
Posted: Tue Sep 23 11:06:09 1986
Date-Received: Tue, 23-Sep-86 22:54:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

How about public-key cryptography to allow secure private message transfers on
the BBS. That should wow your advisor!

-John Sangster
jhs@mitre-bedford.arpa

From -1537509930633595273
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b9321c2eb80397f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 08:11:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS (didn't mean to stir up a hornets' nest)
Message-ID: <1682@ptsfa.UUCP>
Date: Tue, 23-Sep-86 11:11:54 EDT
Article-I.D.: ptsfa.1682
Posted: Tue Sep 23 11:11:54 1986
Date-Received: Tue, 23-Sep-86 22:54:16 EDT
References: <8609221236.AA01198@ucbvax.Berkeley.EDU>
Reply-To: jmc@ptsfa.UUCP (Jerry Carlin)
Organization: Pacific * Bell, San Ramon, CA
Lines: 15

In article <8609221236.AA01198@ucbvax.Berkeley.EDU> RDROYA01@ULKYVX.BITNET (Robert Royar) writes:

>...Try loading a 600k application, up to 100K of source files, and
>then expect the ST to let you compile and link those modules without
>exiting.

Since Atari now has a FOUR meg machine (in Europe) what's the problem :-)
Also, someone at the recent San Jose Atari Show had a prototype 2 meg
upgrade for the 1040, so in a few months we'll all have the extra meg
of memory that we could not think of a use for before and now can't live
without!

--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From -2592810047360076391
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,950918d08c6b2686,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 10:33:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: Re: Proff source offerings (thanks)

Message-ID: <2274@gitpyr.UUCP>
Date: Tue, 23-Sep-86 13:33:07 EDT
Article-I.D.: gitpyr.2274
Posted: Tue Sep 23 13:33:07 1986
Date-Received: Wed, 24-Sep-86 22:30:36 EDT
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology
Lines: 18

I've been trying to send mail to robt@molihp with no success, so I'm posting
this to the public at large:

   Re: proff sources.
      Thanks for the offer, but I've already recieved proff from another
      kind person on the net.

Thanks to all who responded!

=-=
If the facts do not conform to the theory, they must be disposed of.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From -5622669850866525142
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,daf68be5652ae972
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 12:13:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!ubc-
vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: TeX for AtariST
Message-ID: <418@ubc-cs.UUCP>
Date: Tue, 23-Sep-86 15:13:10 EDT
Article-I.D.: ubc-cs.418
Posted: Tue Sep 23 15:13:10 1986
Date-Received: Fri, 26-Sep-86 21:02:16 EDT
References: <8609221112.AA00513@ucbvax.Berkeley.EDU>
Reply-To: manis@ubc-cs.UUCP (Vincent Manis)
Organization: UBC Department of Computer Science
Lines: 3

It's nice to know that TeX/ST is available. It would be much nicer
to know whether there's a North American representative from whom
one could get pricing information, etc.

From -423817629770903317
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0989c91c3989b24,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 16:52:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609232352.AA07021@ames-nas.ARPA>
Date: Tue, 23-Sep-86 19:52:12 EDT
Article-I.D.: ames-nas.8609232352.AA07021
Posted: Tue Sep 23 19:52:12 1986
Date-Received: Tue, 23-Sep-86 23:28:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

Dave Small of Data Pacific just called about my problems with Magic Sac (see my earlier text for details) and has indicated that:

1) The bug which roached the terminal driver was the result of a last minute attempt to improve something, and has been fixed.

2) The bug in copying files between diskettes on a single drive system is a problem in the Mac OS, but they will be doing a workaround in the near future.

3) He is going to do a 'copyaa' program to allow backup of diskettes under GEM on a single disk system, and that will be done soon.

4) The bug in the LISA version of the code will take a little longer, but they are getting a LISA sometime this week, and will fix it.

He promised to send me diskettes with the updates as soon as he can get them, and is going to make arrangements with local dealers to get updates out in general.

Meanwhile, I should be able to borrow a Mac this weekend and test out the rest of the system.

Marty

From 4508583353081116432
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a45f2a9578ccc8c

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 18:30:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI ??
Message-ID: <427@atari.UUcp>
Date: Tue, 23-Sep-86 21:30:00 EDT
Article-I.D.: atari.427
Posted: Tue Sep 23 21:30:00 1986
Date-Received: Thu, 25-Sep-86 03:43:06 EDT
References: <8609201633.AA06324@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 21

In article <8609201633.AA06324@ucbvax.Berkeley.EDU>, menton@v5130b.DECnet
("V5130B::MENTON") writes:
> Did I hear right, on the cable TV show "Computer Chronicles" on 9/20/86?
> Atari is laying off people, down from 7,000 not long ago, to 1,000 in the
> near future? Because they LOST $500 million (!) last year ??

OLD NEWS! This is the story from 1984! Did you pick up a time warped
TV signal? We have about 1,000 employees worldwide at the moment, and
our financial performance is available from any PaineWebber office.
--
--->Neil @ Atari

...{hoptoad, lll-lcc, pyramid, imagen, sun}!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -7675504296313112894
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b9321c2eb80397f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 20:15:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS
Message-ID: <1085@batcomputer.TN.CORNELL.EDU>
Date: Tue, 23-Sep-86 23:15:18 EDT

Article-I.D.: batcompu.1085
Posted: Tue Sep 23 23:15:18 1986
Date-Received: Wed, 24-Sep-86 05:24:11 EDT
References: <8609221236.AA01198@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 22
Summary: The editor should be SMALL!

[]

When I use Megamax C on a 1040ST, I set up a 576K RAM disk which nicely
holds the compiler, linker, libraries, and a bunch of source and object
files. I hate waiting for the disk, so I also have a communication
program in the RAM disk. The RAM disk cannot be much smaller for serious use.
In what's left (about 200K after GEMDOS and Micro-C-Shell take their tax)
I can run the compiler OR the linker OR the editor, one at a time.
Using microEMACS I can edit 2 or 3 source files simultaneously (about 20K
each) before I run out of memory.

     Everything just fits and I DON'T WANT A BIGGER EDITOR!

I want a smaller one! My version of microEMACS, which includes decent
word wrap/fill and bracket-balance check, and RESIDENT help screens,
is about 42K. Small for "real" editors, but a lot bigger than, say,
the 4K RAM-resident screen editor I wrote for the Apple II - in machine
language. The communication program I usually use on the ST is the PD
"XMOTER(M)", because it has just the features I usually need, and is less
than 5K long!

- Moshe Braner

From 171219053858395652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,381e3cb132104f27,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 20:21:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!voder!kevin
From: kevin@voder.UUCP (The Last Bugfighter)
Newsgroups: net.micro.atari16
Subject: Report on Northern California Atari Expo
Message-ID: <2358@voder.UUCP>
Date: Tue, 23-Sep-86 23:21:17 EDT
Article-I.D.: voder.2358
Posted: Tue Sep 23 23:21:17 1986
Date-Received: Wed, 24-Sep-86 03:03:57 EDT
Reply-To: kevin@voder.UUCP (The Last Bugfighter)
Organization: National Semiconductor, Santa Clara
Lines: 12

The Northern California Atari Expo was held in San Jose over the weekend of September 20-21, there is a short report on what all went on there in net.micro.atair8 as I didn't wish to post it twice.

Look for news about the blit chip and the Mac Cartridge as well as other good stuff!

Kevin Thompson {ucbvax,pyramid,nsc}!voder!kevin

"It's a sort of threat, you see. I've never been very good at them myself but I'm told they can be very effective."

From -1546257636586232231
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 20:32:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <1086@batcomputer.TN.CORNELL.EDU>
Date: Tue, 23-Sep-86 23:32:07 EDT
Article-I.D.: batcompu.1086
Posted: Tue Sep 23 23:32:07 1986
Date-Received: Wed, 24-Sep-86 05:24:23 EDT
References: <8609151828.AA03938@ucbvax.Berkeley.EDU> <425@atari.UUcp> <3272@watmath.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10

> Are you saying there is no fix short of new ROMs?

- does that imply that new ROMs will never come? I sure hope they will! The price of putting the OS in ROM is harder - but still inevitable - updating. The benefits are quick booting and more free RAM. Good deal, as long as the updates do come! WILL THEY?

- Moshe Braner

(Even Apple redid the Mac ROMs... :-)

From -6306223366225920542
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a95e764e3177e4e3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 20:41:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs

From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: "progress" in operating systems...
Message-ID: <8609240330.AA15054@mitre-bedford.ARPA>
Date: Tue, 23-Sep-86 23:41:23 EDT
Article-I.D.: mitre-be.8609240330.AA15054
Posted: Tue Sep 23 23:41:23 1986
Date-Received: Wed, 24-Sep-86 05:11:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 19

Whatever happened to the kind of operating systems that used to run in 6 or 8 K bytes in a PDP-11? Things like RSX-11M? We used to do wondrous things in 32 K bytes including EVERYTHING. When we went to 65 K it was sheer Heaven (especially after DEC found and fixed those silly BPLs that should have been BHSs and caused a lot of their own software to crash when the addresses went negative all of a sudden).

What I'm trying to say is: megabytes are nice, but why not USE THEM for something USEFUL rather than squandering them in overgrown operating systems and inefficient applications programs? Reminds me of IBM's universal answer for all problems: buy more memory. Buy a faster processor.

Just think what you could accomplish with a 68000 and even 512K of memory if you programmed the way they HAD TO when 65K was a BIG machine!

-John Sangster
jhs@mitre-bedford.arpa

"Paper Tape Forever!!!!"

From -1082926271448010044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d105db27706adb0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 20:47:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Megamax update?
Message-ID: <1087@batcomputer.TN.CORNELL.EDU>
Date: Tue, 23-Sep-86 23:47:22 EDT
Article-I.D.: batcompu.1087
Posted: Tue Sep 23 23:47:22 1986
Date-Received: Wed, 24-Sep-86 05:25:27 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12
Summary: Apparently not

[]

Somebody from Megamax posted here a while ago a notice that a free update of the Megamax C Development System is available. I finally decided it might be time, and called Megamax. The person who answered the phone never heard of such a thing. It was a phone-answering/sales person, though, and nobody else was around (it was rather late Friday afternoon).

IS there a Megamax update? What is fixed in it? Any voices from the mount?

- Moshe Braner <Corson Hall, Cornell U, Ithaca NY 14853> <607-272-3487>

From 6507646723629961277
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a95e764e3177e4e3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 21:35:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.STANFORD.EDU!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.STANFORD.EDU (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Re: "progress" in operating systems...
Message-ID: <12241388549.8.LYNN@PANDA>
Date: Wed, 24-Sep-86 00:35:39 EDT
Article-I.D.: PANDA.12241388549.8.LYNN
Posted: Wed Sep 24 00:35:39 1986
Date-Received: Wed, 24-Sep-86 05:14:27 EDT
References: <8609240330.AA15054@mitre-bedford.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

David Beckmeyer was demonstrating a Unix-like environment, complete with multi-tasking and multiple logins on an ST this weekend. Granted, you needed a hard disk and 1k memory to run it without things dragging, but at least someone has done it.

Beckmeyer's multi-tasking C shell retails for $99.

--Lynn

From 6835723385832123660
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35571df04d8f6f79,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 21:47:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AFIT-AB.ARPA!rswem

From: rswem@AFIT-AB.ARPA (Robert E. Swem)
Newsgroups: net.micro.atari16
Subject: Personal Pascal for CLI's
Message-ID: <8609240459.AA13748@ucbvax.Berkeley.EDU>
Date: Wed, 24-Sep-86 00:47:29 EDT
Article-I.D.: ucbvax.8609240459.AA13748
Posted: Wed Sep 24 00:47:29 1986
Date-Received: Wed, 24-Sep-86 05:14:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I never could stand that manager, so I tried to use the compiler and linker from PP with Micro C shell. Worked like a champ! One question for all you experts out therte in Netland...The pascal compiler calls itself ST Pascal, and it allows options from the command line. Anyone know what those options might be?

Oh, yea, one other disgusting thing. It expects to see PASGEM and PASLIB in root. Well, can't win them all.

From -5283708880057620488
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c16b53f83204531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 22:37:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!nike!lll-crg!lll-lcc!well!espen
From: espen@well.UUCP (Peter Espen)
Newsgroups: net.micro.atari16
Subject: Re: MAC emulator
Message-ID: <1823@well.UUCP>
Date: Wed, 24-Sep-86 01:37:02 EDT
Article-I.D.: well.1823
Posted: Wed Sep 24 01:37:02 1986
Date-Received: Wed, 24-Sep-86 09:07:19 EDT
References: <275@zen.BERKELEY.EDU>
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 18
Keywords: Mac, ST
Summary: Mac ROMs and where to get them??

In article <275@zen.BERKELEY.EDU>, c9c-bg@buddy.Berkeley.EDU (James Landay) writes:
>
> Data Pacific (David Small) has finally started to sell the Mac emulator for
> the Atari ST. It is called (Magic sack). They were selling it this
> weekend at the Atari Expo in San Jose (9/20-9/21). They sold out the initial
> supply of 200 in 4 hours and thereafter took orders to be shipped in 2-3 weeks.
> Show price $100. They will sale them later for (~$130). They plan on
> coming out with a drive modification that will read mac disks.

>

     I read several other messages on another net from people who said they bought the Mac Emulator box at the Atari Expo in S.J. They also mentioned that they went to another booth and purchased the Mac ROMS. Is this possible? I don't recall hearing about Apple authorizing the third party sale of their ROMs. Could someone fill me in on this?

     Peter Espen

From -7037859265565839661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b26d52f2e1efae63,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-23 23:27:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!zen!zooey.Berkeley.EDU!c160-fk
From: c160-fk@zooey.Berkeley.EDU (Duy Le)
Newsgroups: net.micro.atari16
Subject: Help on The Pawn
Message-ID: <313@zen.BERKELEY.EDU>
Date: Wed, 24-Sep-86 02:27:05 EDT
Article-I.D.: zen.313
Posted: Wed Sep 24 02:27:05 1986
Date-Received: Wed, 24-Sep-86 07:00:57 EDT
Sender: news@zen.BERKELEY.EDU
Reply-To: c160-fk@zooey.Berkeley.EDU (Duy Le)
Organization: University of California, Berkeley
Lines: 3

I wonder if anyone can help me getting passed the Dragon. I wasn't able to make the adventurer to go with me. Any hint is appreciated.
                          Duy

From 2055997131217447010
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce4a9a52c449a71c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 00:28:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Re: Bug in HDX (ATARI hard disk utility)
Message-ID: <207@nikhefh.UUCP>
Date: Wed, 24-Sep-86 03:28:22 EDT
Article-I.D.: nikhefh.207
Posted: Wed Sep 24 03:28:22 1986
Date-Received: Wed, 24-Sep-86 22:18:34 EDT
References: <8609230641.AA23649@ucbvax.Berkeley.EDU>

Reply-To: gert@nikhefh.uucp (Gert Poletiek)
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 34
Apparently-To: rnews@mcvax

In article <8609230641.AA23649@ucbvax.Berkeley.EDU> XBR4D76H@DDATHD21.BITNET writes:
>A few weeks ago I bought a SH204 harddisk. After formatting and partitioning
>into 2 logical drives with the HDX program I started to transfer lots of
>stuff from floppys to the harddisk.
>After some Megs' I realized that the desktop directory listing of the 2nd
>drive was scrambled. Looking into the directory with a diskeditor I found
>text (Grrrrrrrr). This text looked terribly like a file I transferred to
>the 1st drive last.
>To make things short, it was the file.
>A quick view onto the partition information block (sector 0 of hard disk)
>showed that HDX created two overlapping partitions.
>Trying different partition sizes I found that HDX was only able to create
>correct partitions if I selected one of the predefined partitioning schemes
>of the menu.
>Did someone have similar problems with HDX ?
>
> Konrad Hahn
> Techn. University Darmstadt
> Dept. of Computer Science (Datentechnik)
> Merckstr. 25, D-6100 Darmstadt, W.-Germany
> BITNET: XBR4D76H@DDATHD21

Yep, had the same problems you mentioned. I had to reformat twice, but
I still have a nonstandard partitioning. I recommend you use the bad block
option as soon you have formatted you disk. This will find something about .2
percent of the disk to be bad.
I'm running for 1.5 months now without any trouble.

Gert Poletiek
Dutch National Institute for High Energy Physics
Amsterdam
The Netherlands

From 1478422547031670502
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,72639d0de2c9a224,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 02:36:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Archive update

Message-ID: <12241443354.11.G.ABRAMS@Score.Stanford.EDU>
Date: Wed, 24-Sep-86 05:36:42 EDT
Article-I.D.: Score.12241443354.11.G.ABRAMS
Posted: Wed Sep 24 05:36:42 1986
Date-Received: Wed, 24-Sep-86 20:04:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 90

With the old archives being moved off line, I thought that the list membership might like to have an update on what is available. The following files are in directory <info-atari> on SCORE. They can be FTPed from ARPANET, etc. Unfortunately, they are not available to bitnet. I am trying once again to find a bitnet host that will put at least part on line.

PS:<INFO-ATARI>

	Bytes(SZ)	Write
ALBUG.BIN.1	749(36)	17-Oct-83
.CRF.1	25907(36)	17-Oct-83
.M65.1	41475(7)	22-Sep-82
ATARI.8601A.1	626234(7)	31-Jan-86
.8601B.1	742933(7)	31-Jan-86
.8602A.1	302412(7)	20-Feb-86
.8602B.2	229801(7)	7-Mar-86
.8603.1	1100908(7)	2-Apr-86
.8604.1	765394(7)	3-May-86
.8605.1	996447(7)	1-Jun-86
.8606.1	929482(7)	7-Jul-86
.8607.1	562261(7)	7-Sep-86
.8608A.1	409620(7)	7-Sep-86
.8608B.1	407961(7)	7-Sep-86
.TXT.1	621233(7)	24-Sep-86
DIR.DIR.2	1524(7)	24-Sep-86
DOS.ASM.1	20663(7)	18-May-83
.SRC.1	28393(7)	18-May-83
KCOM1030.ACT.1	2713(7)	9-Jan-84
KCOM850.ACT.1	4750(7)	9-Jan-84
KDIAL.ACT.1	5060(7)	5-Nov-83
KERMIT.ACT.1	1691(7)	1-Jan-84
.DOC.1	2019(7)	1-Jan-84
.PNS.1	53(7)	1-Jan-84
KFUNC.ACT.1	6260(7)	1-Jan-84
KIO.ACT.1	3187(7)	1-Jan-84
KMAIN.ACT.1	7481(7)	5-Nov-83
KMENU.ACT.1	10143(7)	1-Jan-84
KPRO.ACT.1	9826(7)	1-Jan-84
KTTY.ACT.1	5180(7)	1-Jan-84
SCORE_MAIL.FORMAT.1	1151(7)	27-Mar-86
SYSMAC.SML.1	20364(7)	22-Sep-82

Total of 3142 pages in 32 files

While I'm updating your status information, I thought it would be
helpful if everyone re-read the welcoming message which sets the
ground rules for info-atari:

Welcome to info-atari{8,16}. You may send messages to all
"subscribers" by addressing it to either or both addresses at
SU-SCORE. Administrative messages should be sent to
info-atari{8,16}-request.

All messages should be in good taste. Commercial messages and
advertisements are not permitted. When answering a question, please
consider carefully whether the answer should go to the whole list, or
just to the person who asked the question.

All messages are in the archives. In addition, some contributed
programs are also there. The archives are in [SU-SCORE]<info-atari>.
The archives are stored in TOPS-20 message format (MM is the mail
handler used). After you have obtained a copy (see below) your mailer
may be able to read these files. Probably not! I would suggest using
an editor to search for "Subject:" or whatever you are interested
in. See the file MM.FORMAT in the archives for a description
of how the file is organized.

If you are on ARPANET or MILNET you can FTP from the archive. I don't
know how you can get the files otherwise.

    The following ground rules should make the use of this (or
of any other) mailing list much easier:
 . never send a message that a totally irrelevant to the mailing
   list's purpose to a mailing list. This especially includes
   any expressions of irritation at another list member.
 . never forward a message that is totally irrelevant to the
   mailing list's purpose to a mailing list.
 . when replying to a message on a mailing list, reply only to
   the sender of the message unless the reply is of interest to
   the entire mailing list.
 . avoid inserting the message being replied to in a reply,
   especially in a message going to a mailing list. The
   context of the reply should be clear from *your* reply and
   from various mailer functionalities such as Message-ID.
 . when replying to an earlier reply that violates the previous
   rule, ABSOLUTELY DO NOT make matters worse by adding your own
   violation.

From -3885422099280845550
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e3145872878ada3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 02:40:00 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!uh
From: uh@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: CHKDSK for ST? - (nf)
Message-ID: <96100023@exunido.UUCP>
Date: Wed, 24-Sep-86 05:40:00 EDT
Article-I.D.: exunido.96100023
Posted: Wed Sep 24 05:40:00 1986
Date-Received: Fri, 26-Sep-86 20:34:37 EDT
References: <19277552@unido.UUCP>
Lines: 7
Nf-ID: #R:unido:19277552:exunido:96100023:000:260
Nf-From: exunido!uh   Sep 24 10:40:00 1986

Is there any chance to post the program to USENET? We are very interested in
it.

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@exunido.uucp, uh@exunido.bitnet

From -6376555855793385434
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,75026bb03d9fd92f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 03:02:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1YD22
From: XBR1YD22@DDATHD21.BITNET (Ralf Bayer {Herz-Baerchi})
Newsgroups: net.micro.atari16
Subject: Pro GEM issues 13 & 14
Message-ID: <8609241001.AA18024@ucbvax.Berkeley.EDU>
Date: Wed, 24-Sep-86 06:02:05 EDT
Article-I.D.: ucbvax.8609241001.AA18024
Posted: Wed Sep 24 06:02:05 1986
Date-Received: Wed, 24-Sep-86 20:04:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Would anybody volunteer to send me the articles #13 and #14 of
Pro GEM (and the matching appendixes)?

I do already have #1 thru #12, and I would send these to anyone who
wants them (on BITNET/Europe)

Thanx

Ralf Bayer (The Care-Baer)
Computing Center @ the Technical University of Darmstadt, West Germany

Arpanet: xbr1yd22%ddathd21.BITNET@wiscvm.wisc.EDU
BITNET: xbr1yd22@ddathd21

> REAL programmers use FORTRAN <

From 8234996026438400276
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f83937bb98156914,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 04:04:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: termcap/terminfo for Uniterm wanted
Message-ID: <2020@dalcs.UUCP>
Date: Wed, 24-Sep-86 07:04:34 EDT
Article-I.D.: dalcs.2020
Posted: Wed Sep 24 07:04:34 1986
Date-Received: Thu, 25-Sep-86 01:46:51 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 9

Uniterm is a great program, and it is a great relief to have my ST
working as a terminal with graphics emulation. However, I need to
rewrite the termcap and terminfo files, if only to take out the unused
initialization strings -- if anyone has already set up the necessary
files, I would appreciate copies (or you may want to post them).

One problem I have run into is that Uniterm does graphics plots just
fine, but the labels do not appear -- they only come out when I return
to the text screen. Any solutions? (I am using a colour monitor.)

From -9162270581282216465
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc55a4a4c5db03ed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 05:37:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!unisoft!dual!ptsfa!qantel!ihnp4!cbatt!
cbdkc1!dugan
From: dugan@cbdkc1.UUCP (Dave R. Beck CB 3S313W X3847 WSB)
Newsgroups: net.micro.atari16
Subject: 1st Word NLQ on Star SG-10
Message-ID: <1585@cbdkc1.UUCP>
Date: Wed, 24-Sep-86 08:37:24 EDT
Article-I.D.: cbdkc1.1585

Posted: Wed Sep 24 08:37:24 1986
Date-Received: Thu, 25-Sep-86 07:49:48 EDT
Reply-To: dugan@cbdkc1.UUCP (Dave R. Beck CB 3S313W X3847 WSB)
Organization: AT&T Bell Laboratories, Columbus
Lines: 18

About four weeks ago I "accidentally" bought an ST. A local store
had a grand opening of their second location, and they had 20
Mono/SS systems at $399. No way could I pass that up! Even at this
ridiculously low price, it took all my spare cash and then some, so
I'm stuck with PD and the bundled software. Now to the point, 1st
Word seems to be a reasonable low level word processor, but I've got
a problem with it talking to my SG-10. I re-worked the driver,
installed it, moved it to root and almost everything works.
What doesn't work is the NLQ select at print time, no matter what I select
when it asks me, I always get draft quality. I can't find anything
in the driver that allows me to set the NLQ escape sequence by itself,
it works ok when I switch to NLQ in the document, but that's not
what I'm looking for.
I suspect this has already been covered, but I wasn't really paying
attention. I hadn't really planned on buying an ST yet, but it
couldn't be helped :-) If anyone knows of a fix, I and about six
others in our local ST user group will be very happy to know what it
is.

From 2039369079265633349
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1db237911f2b3878,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 06:23:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16
Subject: Editors , GNUEMACS etc
Message-ID: <8609241321.AA07588@jade.Berkeley.Edu>
Date: Wed, 24-Sep-86 09:23:34 EDT
Article-I.D.: jade.8609241321.AA07588
Posted: Wed Sep 24 09:23:34 1986
Date-Received: Wed, 24-Sep-86 22:03:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

So GNUEMACS is too massive for the ST... Is there a REALLY decent editor
out there for the ST that an EMACS addict can live with?
Micro-Emacs is nice and powerful, but it ain't EMACS. (Actually, the only
real EMACS is the original one written in TECO. GNUEMACS is considered an
EMACS-like editor.)

For lack of a better CLI, I need an editor that I can live in. It should
be able to do more than just compile a program or spawn a CLI, it should

be able to perform directory editing (DIRED), real macros and simple
file filtering. Yes, I know..I am power mad..I want to much, overkill, etc..
but hey, I can't live in the windowing world of GEM anymore. I spend most
of my time editing, and unless I can fire up a small editor whenever and
wherever I want in an application (without reloading the file each time).

Any interest in implementing TECO on an ST? Is this a sick idea?

maroC ddoTTodd Coram

From 3476438887047898971
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 07:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!inuxc!pur-ee!uiucdcs!
uiucuxc!ccvaxa!preece
From: preece@ccvaxa.UUCP
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS and uEMACS
Message-ID: <109200001@ccvaxa>
Date: Wed, 24-Sep-86 10:47:00 EDT
Article-I.D.: ccvaxa.109200001
Posted: Wed Sep 24 10:47:00 1986
Date-Received: Fri, 26-Sep-86 01:16:06 EDT
Lines: 13
Nf-ID: #R:<8609201259.AA04886@ucbvax.Berke:-40:ccvaxa:109200001:000:452
Nf-From: ccvaxa.UUCP!preece   Sep 24 09:47:00 1986

People should realize that some of the nicest features of GNUemacs
are things that would be lost in a port to the ST: compiling from
inside an edit session, shell windows, and filtering regions
through commands are obviously not going to work without
Unix multitasking. It's still a nice editor, and without those
features it might be small enough to fit...

--
scott preece
gould/csd - urbana
uucp: ihnp4!uiucdcs!ccvaxa!preece
arpa: preece@gswd-vms

From 6020099568483073546
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b753d398c758c25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-24 08:01:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner

From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Action!, FaST BASIC and cartridges
Message-ID: <1095@batcomputer.TN.CORNELL.EDU>
Date: Wed, 24-Sep-86 11:01:09 EDT
Article-I.D.: batcompu.1095
Posted: Wed Sep 24 11:01:09 1986
Date-Received: Thu, 25-Sep-86 05:03:12 EDT
References: <8609232056.AA06071@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 27
Summary: Please let's have a disk version too!

[]

Putting a language on a cartridge seems popular to some. It is certainly
a potent version of copy protection, which doesn't really need a back-up.
My gripe is that it is not as easy to swap cartridges as disks, so I'd
rather put something in the cartridge port that would be universally
useful and will be left there all the time. Sort of like that clock
board, although luckily we can (?) now put a clock inside the box.
My own favorite candidate is a floating-point coprocessor board.
In any case, hardware, not software. (Never mind what Atari thought
it made that connector for - and damn the stupid write-protection of
the cartridge address space!)

A program in ROM will also have bugs left in longer (or forever) - e.g.
Applesoft BASIC. (Hopefully not TOS...) Also, some people like to modify
their software! (I, for one, have modified the Apple II monitor ROM
and will probably redo TOS eventually if Atari doesn't.) Disk versions
(unprotected) are a lot easier to modify = user friendly.

Then of course, if a certain language is your DAILY working environment
you would like it in ROM. How about an OPTION of getting it on a cartridge,
in addition to the disk version, which is more appropriate for other buyers?

BTW, FaST BASIC sounds sort of like HBASIC. Is it incrementally compiled?
It would be interesting to compare them, when HBASIC comes out.

- Moshe Braner

From -3473854724427755510
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ccb17cf216edce00
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 14:33:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!clark.UUCP!peter.l
From: peter.l@clark.UUCP
Newsgroups: net.micro.atari16
Subject: address corrections

Message-ID: <8609132133.AA03043@gvax.cs.cornell.edu>
Date: Sat, 13-Sep-86 17:33:05 EDT
Article-I.D.: gvax.8609132133.AA03043
Posted: Sat Sep 13 17:33:05 1986
Date-Received: Sun, 14-Sep-86 04:01:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Please delete qbzj@cornella.bitnet from your distribution list if
you have not done so already. Please add in its place the new address
mscbtc!clark!peter.l@gvax.cs.cornell.edu on the atari 16 bit distribution list
               thanks,
                     peter lorraine
                     mscbtc!clark!peter.l@gvax.cs.cornell.edu

From -5141028946349964822
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 15:09:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Where is Neil@Atari
Message-ID: <734@cbmvax.cbmvax.cbm.UUCP>
Date: Sat, 13-Sep-86 18:09:39 EDT
Article-I.D.: cbmvax.734
Posted: Sat Sep 13 18:09:39 1986
Date-Received: Tue, 16-Sep-86 05:52:34 EDT
References: <8609121534.AA04117@yale-celray.YALE.ARPA>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 32

In article <8609121534.AA04117@yale-celray.YALE.ARPA> fischer-michael@YALE.ARPA
(Michael Fischer) writes:
>Does anyone know how to get electronic mail to Neil Harris at Atari?
>The addresss that used to work is
>   vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
>but it seems to be no longer valid, as indicated by the bounced
>mail message I received:
>
>--Mike Fischer <fischer@yale.arpa>

According to some postings in other groups, the site 'vecpyr' went off the
air one day and has not been heard from since:

Based on information in the uucp network maps, I offer the following
suggestions...

UUCP:

...!pyramid!atari!neil
...!lll-lcc!atari!neil
...!hoptoad!atari!neil

ARPAnet:

atari!neil@lll-lcc.ARPA

Note that the administrators of lll-lcc and hoptoad are known have a low
tolerance for mail that they feel is inappropriate or excessive being routed
through their systems...
--
George Robbins - now working for,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -3158002156436650624
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29c996069996f230,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 16:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!LLL-MFE.ARPA!JMCCAULEY%PPC.MFENET
From: JMCCAULEY%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: uudecode suggestion (include CRC)
Message-ID: <8609140006.AA10982@ucbvax.Berkeley.EDU>
Date: Sat, 13-Sep-86 19:53:00 EDT
Article-I.D.: ucbvax.8609140006.AA10982
Posted: Sat Sep 13 19:53:00 1986
Date-Received: Sun, 14-Sep-86 07:29:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

One thing that might help with uudecode problems is to have the following
included in every uuencoded file (before the begin line of course!) or
posted in another message:

1) Size in bytes
2) CRC and/or linear checksum of binary (uuencode has no checksums!)
3) systems tested on (color/mono, tos-in-rom/tos-in-ram)

This way we can determine if uudecode worked correctly.
Some problems may not lie entirely with uudecode. I think uEMACS 3.4
did not work on mono systems (3.7 does with hres50).

Btw, this is assuming there *are* CRC programs already written. I haven't seen one and have no C-compiler (yet). Perhaps a good topic to discuss on this mailinglist is what public-domain crc checkers are out there and how interchangeable they are.

Hope this helps,

Scott McCauley
jmccauley%ppc.MFENET@lll-mfe.ARPA
jsm@borax.lcs.mit.edu

From -1100450534938150293
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a238d03ecb14b94,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 17:26:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: uuencode
Message-ID: <8609121915.AA27613@mitre-bedford.ARPA>
Date: Sat, 13-Sep-86 20:26:18 EDT
Article-I.D.: mitre-be.8609121915.AA27613
Posted: Sat Sep 13 20:26:18 1986
Date-Received: Sun, 14-Sep-86 07:29:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 24

I was giving myself fits trying to uuencode a file on the VAX with output into another local file until I finally figured out that the argument called 'destfile' in the uuencode manual is just the string to put as destination file name in the 'begin' line.

If you leave out this string, uuencode apparently takes the first argument to be that string and assumes that you meant to type in your binary file at the keyboard. (Sounds like a silly assumption to me, but I didn't write uuencode.)

To uuencode into a local file, I found the following syntax to be necessary (or at any rate sufficient, which is sufficient!):

```
uuencode inputfilename anystring >output filename
```

It is useful to use for the string the filename you want to put the thing in when it gets to the final destination. For the local output filename, I have settled on .uue as an extionsion.

I thought some of the other people currently preoccupied with uuencode might have run into the same problem so I hope this helps.

-John Sangster
jhs@mitre-bedford.arpa

From -1128573172276894070
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 17:48:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: SWISS DATA/MAIL ON IBM/C VS. PASCAL/UNITERM TEK MODE
Message-ID: <8609140048.AA11425@ucbvax.Berkeley.EDU>
Date: Sat, 13-Sep-86 20:48:35 EDT
Article-I.D.: ucbvax.8609140048.AA11425
Posted: Sat Sep 13 20:48:35 1986
Date-Received: Sun, 14-Sep-86 07:30:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 73

Swiss Data - Rumours

This morning I visited the local computer exhibition Swiss Data in Basel.
What I actually saw on the stand of the ATARI general distributor SAMA was
- a sign announcing the 2080 STf (I'm not quite sure about the STf bit) with 2 MByte RAM,
- a sign announcing the 4160 STf with 4 MByte RAM,
- a demonstration of a 1040 with blitter chip against a 1040 without,
- a prototype of the MS-DOS/IBM-PC emulator running Multiplan.

Being rather suprised seeing all this and ATARI USA being rather quite about future products I got hold of the senior salesman there and asked him a few questions (this is not a quote, just a summary of our talk!):

When will the 2080/4160 be avaiable? End of the year/next spring together with a laser printer. Packet price < 10000 SFr.

(The idea seems to be that the laser printer will not have its own controller but will use the ST -> that's the reason for all that memory).

When will the blitter chip be avaiable? Real soon now.

(It seems the first batch of blitters had a design fault and the chip had to be redesigned, the one I saw was supposedly a new one, it worked ok as far as I could see)

Will old 520/1040 ST's be upgradeable somehow? Perhaps.

I couldn't check the MS-DOS emulator out, since the only program they had was MulitPlan and that looked ok. The blitter chip did seem to speed up graphics quite a lot, but I didn't see any demonstration of plain text or a real commercial program.

II Receiving Mail on IBM mainframes - Moshe Braner's letter

Moshe is quite right about receivng mail on IBM mainframes, I always get a personal copy of any mail from a SIG on my virtual card reader (this is using VM/CMS, I get nightmares thinking about getting mail with MVS).The only resonable way to read mail is to use a fullscreen terminal and RLIST, but all operations (discarding, receiving etc.) on any files are very very permanent (see next part III of this letter).

III Pascal vs. C

I'm sorry I don't know who actually wrote the original letter (I accidently discarded it , see part II of this letter), but in one of the last postings somebody claimed that Pascal is more restricting than C. Sorry but that is called in German "Aepfel mit Birnen vergleichen", C is NOT a high level language, Pascal is! A high level language with strong typing and no access to low level facilities will always be more 'restricting' than an assembler or C. Choose the correct language for the job you want to do (this doesn't mean I would choose C to do ANYTHING) and don't forget the time you gain thru not being 'restricted' by Pascal will be lost debugging your

C program.
If you wan't to compare C to an other language compare it to Modula II.
I'm sure there are not many things you can do in C you can't do in Modula II and you have the advantages of a low level language combined with a high level one.

IV UniTerm - Problems with Tek mode

All those people which have trouble with the Tek mode of UniTerm, try starting out from the Tek4010 mode (I've changed the switching logic in the new version), if the problems are still there, use filecapture to collect the sequence which is causing trouble and send it to me.

Simon Poole
K538915@CZHRZU1A.BITNET

From 1926248593544046337
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,301833e2877a76a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 18:26:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!K538915

From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM
Message-ID: <8609140126.AA11875@ucbvax.Berkeley.EDU>
Date: Sat, 13-Sep-86 21:26:31 EDT
Article-I.D.: ucbvax.8609140126.AA11875
Posted: Sat Sep 13 21:26:31 1986
Date-Received: Sun, 14-Sep-86 07:32:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 36

I've finished the updated Version of Uniterm, bug fixes include:
- VT102 insert line and delete line work correctly now
- shifted function keys work (this was due to a mistake in ST Internals Data Becker / Abacus, the shifted function keys generate different key codes than the non shifted ones)
- GIN mode really works now
- Tek command decoding has been fixed, probably nobody noticed it anyway
- repeated use of RESET TERMINAL doesn't cause a Stack overruns Heap message anymore (this was due to a bug in the Delete_ Dialog call of CCD/OSS Pascal)
- Tab works correctly now

changes from Version 1.2 include
- SLE buffer now 20 lines large
- GS received in VT102/VT100 mode sets the mode to tek alpha mode and UniTerm stays in Tek mode until switched manually back

enhancments include:
- VT52 mode
- a bit of Pericom compatability

I've just got one problem: shall I post it to the whole net or not? Consider following facts:
- I probaly already made the UUCP top 25 poster's list last time and I hate thinking of all those large telphone bills
- I've got something like 40-50 requests for the updated version
- I have a lot of trouble sending anything to sites which are not on BITNET or arpanet, typically I can't get through to the site I want to on 9 out of ten trys (maybe someone could tell me what I doing wrong?)

Any comments? Could someone give a estimate on how many people get this mail? How much does it cost?

Simon Poole
K538915@CZHRZU1A.BITNET

From -6947644252066096023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 19:41:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!ihnp4!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: SWISS DATA/MAIL ON IBM/C VS. PASCAL/UNITERM TEK MODE
Message-ID: <8609140229.AA21054@mitre-bedford.ARPA>
Date: Sat, 13-Sep-86 22:41:08 EDT
Article-I.D.: mitre-be.8609140229.AA21054
Posted: Sat Sep 13 22:41:08 1986
Date-Received: Sun, 14-Sep-86 19:59:13 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 15

I would love to see the reaction of some of you language experts to OSS's ACTION! for the Atari 8-bitters. It is structured, but reputedly so close to as fast as Assembly language as makes the difference not terribly significant. And it compiles faster than anything else known to Man (or Woman, for those who choose not to topologically identify the two lexical items for this purpose).

If we are REALLY lucky, maybe OSS will come out with an ACTION! compiler for the ST. Then maybe the DoD will select it to replace ADA!!!

(P.S. - in English the idiom is "comparing Apples and Oranges", but personally the pears sound tastier anyway.)

-John Sangster
jhs@mitre-bedford.arpa

From 8138481216295426681
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5e24c74471221ef4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 06:40:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxt!mhuxv!
mhuxf!mhuxm!mhuxn!ihnp4!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: 1st word spacing
Message-ID: <8609150202.AA23665@ucbvax.Berkeley.EDU>
Date: Sun, 14-Sep-86 09:40:00 EDT
Article-I.D.: ucbvax.8609150202.AA23665
Posted: Sun Sep 14 09:40:00 1986
Date-Received: Mon, 15-Sep-86 20:45:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 34

I have version 1.03 of the program. Look under the style menu and choose spacing. If you have the text mode turned on (wrap and wp), then the doc will auto double space when it wraps but not when you type a <CR> yourself. In fact, about printers, I can't get my printer's on-board switches to do anything for spacing and pitch. 1st Word initializes the printer at startup and makes it space the way the program wants. I edited the configure file. But the codes for the minimum move strings (horiz and vert) were confusing. The last number in the string, the parameter, seemed off, but when I changed it to values closer to what WordStar uses for the same printer, the printing really looked strange. Does anyone know what HMI string to use to set a Brother-HR15 to 12 pitch?

Another question: Is there a scribe type text formatter for the ST. example: @quotation{This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more.}

becomes

> This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more. This is a sample nothing more.

I'd really rather use uEmacs for all of my writing and let a batch formatter take care of the drudgery.

rdroya01@ulkyvx.bitnet

"You're probably wondering why I'm here. So am I. So am I."
F. Zappa

From -6536185919194993710
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f9d9ff22635ca65
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 08:45:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: RECENT ST PRICEs
Message-ID: <1014@batcomputer.TN.CORNELL.EDU>
Date: Sun, 14-Sep-86 11:45:35 EDT
Article-I.D.: batcompu.1014
Posted: Sun Sep 14 11:45:35 1986
Date-Received: Tue, 16-Sep-86 22:14:39 EDT
References: <8609111838.AA03797@ucbvax.Berkeley.EDU>

Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 20
Summary: Any 1040 or DS discounts?

[]

All the great discounts seem to be for 520ST+monochr+SSdisk. Anybody
knows about a cheap source for the basic 1040ST package (it is $850
right here at the local dealer - when he can get any...), or for the 520ST
with a double sided drive INSTEAD of the SS, or for DS add-ons?

(I personally cannot stand the thought of being limited to half the disk
capacity. I waited long to get my 1040!)

Generic (i.e. not specifically for the ST) double-sided 3.5" drives are
now available for about $100 some places. Can anybody tell us how to
connect them to the ST? Is it just a matter of finding the $%#@& connector,
and the pinout on the back of the drive? (And getting a power-supply for
the drive - or can we run it off the 1040ST assuming we don't turn more
than one drive at a time?) Or is there more to this black art? Is the
$200 to $300 otherwise charged reasonable? (If the cable is $30 and the
PS/box is $30 then $250 for the finished thing may be OK...)

- Moshe Braner

From -3866549996615123624
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7848e271e1a5e8e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 12:18:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!mhuxr!mhuxn!ihnp4!cbatt!
cbosgd!ucbvax!ucbcad!dumper
From: dumper@ucbcad.BERKELEY.EDU (Cathy Luo)
Newsgroups: net.micro.atari16
Subject: Questions on Drivers and Laser Printer
Message-ID: <1024@ucbcad.BERKELEY.EDU>
Date: Sun, 14-Sep-86 15:18:37 EDT
Article-I.D.: ucbcad.1024
Posted: Sun Sep 14 15:18:37 1986
Date-Received: Mon, 15-Sep-86 20:38:29 EDT
Reply-To: dumper@cad.UUCP (Cathy Luo)
Organization: UC Berkeley, CAD group
Lines: 21

I have two questions to pose to the net:

1) A friend of mine has a Panasonic T40 Electronic Typewriter with a K100
   interface. He's trying to get it to print from First Word, first
   trying both the daisy wheel drivers that come with the program.

Unfortunately, neither of them worked. Does anyone know of any printer driver or modification of one that could be used with this electronic typewriter?

2) Is there any way to make files from, say First Word, compatible with Mac files so one can print the result to a laser printer? Has anyone tried such a file transfer?

BTW, Atari claims that they will be bringing the laser printer out around 2nd quarter next year...

Thanks in advance,

Cathy

From -219917806274175378
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 14:07:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <5793@topaz.RUTGERS.EDU>
Date: Sun, 14-Sep-86 17:07:09 EDT
Article-I.D.: topaz.5793
Posted: Sun Sep 14 17:07:09 1986
Date-Received: Sun, 14-Sep-86 20:23:58 EDT
References: <5756@topaz.RUTGERS.EDU> <860912-112949-4257@Xerox>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 7
Cc: appelbau

Both the Sept. & Oct. issue's of ANALOG include a user group list, also a recent issue of ATARI EXPLORER had a list. You can also send a SASE to Atari's user group coordinator and they'll send you a list.
--
Marc L. Appelbaum
Arpa: appelbau@topaz.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!appelbau

From -7661535950414389024
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public

X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 19:33:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!pesnta!peora!ucf-cs!
usfvax2!jc3b21!fgd3
From: fgd3@jc3b21.UUCP (Fabbian G. Dufoe)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <462@jc3b21.UUCP>
Date: Sun, 14-Sep-86 22:33:45 EDT
Article-I.D.: jc3b21.462
Posted: Sun Sep 14 22:33:45 1986
Date-Received: Fri, 19-Sep-86 23:06:17 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<79@mtxinu.UUCP>
Organization: St. Petersburg Jr. College, St. Petersburg FL
Lines: 35
Summary: I thought patents could only be granted for specific, working devices or
processes.
Xref: mnetor net.micro.atari16:1983 net.micro.amiga:4709 net.micro.68k:1236

In article <79@mtxinu.UUCP>, ed@mtxinu.UUCP writes:
> >> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> >> (applied for and granted) on using the untranslated addresses as the
> >> RAS addresses and doing the MMU address translation before the column
> >> addresses are needed for CAS.
> >
> >How the hell can the patent office grant patents like this? It's sort
> >of like patenting the idea of grounding DTACK on a 68000 or putting
> >chocolate ice cream in root beer; the idea is too obvious. To coin a
> >phrase, it's patently ridiculous.
>
> ...
> The person who first put chocolate ice cream into root beer probably
> didn't realize what they'd done. They should have patented it, too!
> (Unless, of course, someone had already done the same thing with
> vanilla ice cream. Then *they* should have pattented it.)

Using the untranslated addresses as the RAS addresses and doing the MMU
address translation before the column addresses are needed for CAS sounds
pretty general to me. I am sure the process Andy Bechtolsheim patented is
quite a bit more specific. A patent cannot be granted for a general idea.
It requires a specific implementation of an idea, either in a device or
process. Think about it. Without that provision patents would stifle
development. They are intended to do just the opposite. A patent is
supposed to protect the inventor of a process from those who would use his
work as their own. But it is not supposed to prevent people from using a
concept the inventor has brought to light in their own inventions, so long
as they don't plaigiarize from the original work.

Fabbian Dufoe
  350 Ling-A-Mor Terrace South

  St. Petersburg, Florida 33705
  813-823-2350

UUCP: ...akgua!akguc!codas!peora!ucf-cs!usfvax2!jc3b21!fgd3

From -2042811704484396993
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8e6bc46770fe42,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-14 19:35:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxt!mhuxv!
mhuxf!mhuxm!mhuxn!ihnp4!ucbvax!mitre-bedford.ARPA!jhs
From: jhs@mitre-bedford.ARPA
Newsgroups: net.micro.atari16
Subject: avatex modems 1200, 1200hc
Message-ID: <8609142115.AA00797@mitre-bedford.ARPA>
Date: Sun, 14-Sep-86 22:35:01 EDT
Article-I.D.: mitre-be.8609142115.AA00797
Posted: Sun Sep 14 22:35:01 1986
Date-Received: Mon, 15-Sep-86 20:46:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 17

I just saw a note on a local BBS that NITE LITE Systems, who sells a
well-known BBS for the Atari computers, is selling the new fully Hayes
compatible 1200-baud modem (Model 1200HC) for $149.95 for a limited time.
The offer expires this Friday, Sept. 19. They also have the older Model 1200
(partly Hayes compatible) unit for $84.95.

Their address is NITE LITE SYSTEMS, P.O. Drawer "R", Billerica MA 01821.
They also run one of their own home grown BBS systems, now on an ST, by the
way, at (617) 663-4221. The SYSOP and proprietor of NLS is Paul Swanson.

The NITE LITE BBS has been around awhile for the 8-bit Ataris, but ST owners
may be interested to know that an ST version is available. Info on this
product is available on the BBS mentioned above, also. In particular, callers
get to try it out from the remote end!

-John Sangster
jhs@mitre-bedford.arpa

From 4361485573027111664
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5df54d91c35bd166,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 05:21:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!ncsc.ARPA!moore
From: moore@ncsc.ARPA (Moore)

Newsgroups: net.micro.atari16
Subject: 1ST_WORD and Thunder
Message-ID: <8609151221.AA00433@ncsc.ARPA>
Date: Mon, 15-Sep-86 08:21:16 EDT
Article-I.D.: ncsc.8609151221.AA00433
Posted: Mon Sep 15 08:21:16 1986
Date-Received: Tue, 16-Sep-86 02:09:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

I can't quote the passage, but somewhere in the latest (Fall) STart mag, BI fellow mentions that there is some kind of problem with the backspace key in 1ST WORD and Thunder; he said that there is an option in Thunder you can disable...oops, found it: page 95, "Developer's Notepook: Transportable GEM (IBM to ST)," Mark Skapinker.

> "The newer versions of 1ST Word do not allow the Backspace key
> to buffer characters....This caused problems in the speed that
> Thunder! deleted characters..."

I swear somewhere in the article he mentions an option to toggle. In case you need BI's address,

30 Mural Street
Richmod Hill, Ontario L4B 1B5, Canada
(416) 881-9941

From 544244908443851828
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bacef0bf329d5874,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 07:02:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!NADC!kushnier
From: kushnier@NADC
Newsgroups: net.micro.atari16
Subject: ATARI BBS
Message-ID: <8609151422.AA00244@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 10:02:49 EDT
Article-I.D.: ucbvax.8609151422.AA00244
Posted: Mon Sep 15 10:02:49 1986
Date-Received: Tue, 16-Sep-86 02:09:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Is there some kind of trick to log onto the ATARI BBS? I can CONNECT, but then there is no response. I've tried RETURN and several Control characters

without success.

ATARI BBS 408-745-4758

Ron KUshnier
kushnier@nadc.arpa

From 6200018738634092884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 08:13:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16
Subject: Lattice C and UUDECODE
Message-ID: <8609160140.AA10538@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 11:13:44 EDT
Article-I.D.: ucbvax.8609160140.AA10538
Posted: Mon Sep 15 11:13:44 1986
Date-Received: Tue, 16-Sep-86 09:17:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Has anyone been able to compile a desk accessory program using Lattice C?
I have tried simple tests, and conversions of programs from Alcyon, but no
luck. Is there something I am missing?

Also, I have a copy of UUDECODE written in Lattice C that I got with a GEM
Kermit. THE THING JUST WON'T WORK.... I get the messages: Short File and
No End Line . (Yes the files do really have 'end' lines.) The resulting
executables that are produced simply return me back to the desktop. If anyone
can respond to this problem, or have a UUDECODE that they know works...I
would appreciate your mail.

P.S.
    Micro-Emacs is fine..But when is some brave soul with a ST and hard disk
    gonna tackle Richard Stallman's GNUEmacs? It ONLY consists of 1 Meg of
    source code in C, (not counting the xtra Lisp functions).

From -1271104888648748667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 08:13:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UDCVM.BITNET!ZCSTIN05
From: ZCSTIN05@UDCVM.BITNET (Todd Coram)
Newsgroups: net.micro.atari16

Subject: Lattice C and UUDECODE
Message-ID: <8609160444.AA12864@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 11:13:44 EDT
Article-I.D.: ucbvax.8609160444.AA12864
Posted: Mon Sep 15 11:13:44 1986
Date-Received: Tue, 16-Sep-86 09:23:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

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Kermit. THE THING JUST WON'T WORK.... I get the messages: Short File and
No End Line . (Yes the files do really have 'end' lines.) The resulting
executables that are produced simply return me back to the desktop. If anyone
can respond to this problem, or have a UUDECODE that they know works...I
would appreciate your mail.

P.S.
    Micro-Emacs is fine..But when is some brave soul with a ST and hard disk
    gonna tackle Richard Stallman's GNUEmacs? It ONLY consists of 1 Meg of
    source code in C, (not counting the xtra Lisp functions).

From 7019881540815478145
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,398adca3a2f2ab40,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 09:57:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: C VS. PASCAL
Message-ID: <8609151657.AA16222@ames-nas.ARPA>
Date: Mon, 15-Sep-86 12:57:23 EDT
Article-I.D.: ames-nas.8609151657.AA16222
Posted: Mon Sep 15 12:57:23 1986
Date-Received: Mon, 22-Sep-86 23:37:18 EDT
References: <8609131323.AA19994@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 106

Hi,

     I'm the original author of the 'Pascal is more restrictive than C'
comment, and I would like to reply to your response to my comment.

The standard definition of a high level language is that it is one in which a single source statement typically translates into multiple assembly statements, as opposed to a low level language in which the translation is usually one to one.

By this definition, C is a high level language.

If you chose to be more pendantic, you can claim that the level of a language is dependent on its degree of data abstraction and strong typing, in which case neither C nor Pascal qualify as high level, since Ada has a considerably higher level of abstraction and typing than either language.

Also, C is very similar to Pascal in its ability to handle data abstraction, having all of the facilities Pascal has, except for the set data type, which is replaced by the ability to perform seperate compilation.

Further, C does have strong type checking, but it is voluntary (through the use of Lint,) rather than mandatory. Also, it is relitively straightforward, although painful, to avoid strong type checking in pascal by using variant record types. It just makes for cumbersome code.

Also, correct use of C produces more portable code, since there are far more dialects of Pascal then there are of C. (Although the people producing microcomputer C compilers are trying to remedy this :-)

As to your comment about speed of debugging, I would disagree for empirical reasons. I have been using Pascal since I ported the ETH compiler to RSTS/E on an 11/70 nearly a decade ago, and have used it for some fairly large applications, including an APL interpretter, a Pascal compiler, and a Chess program, as well as the required language in the compiler and operating system courses I have taken, and the language of choice on both of my own personal computers.

On the other hand, I have been using C since I ported 6th edition Unix to an 11/23 at about the same time, and have used it for some fairly sophisticated applications, including C compilers, graphics packages, performance measurement and network software on computers ranging from 68000 machines to Cray 2 supercomputers.

And, (to make the picture even more complex) I have been using Fortran since 1973, when I first learned it on an IBM 1620, and have used it in various engineering applications ranging to a mine design package which runs on large CDC systems.

It has been my experience with these (and other) languages, that the amount of time required to debug a problem in a real system is relitively independent of the source language, but highly dependent on the support environment. That is, C with a good debugger is easier to debug than Pascal with no more than compiler diagnostics.

Modula-2's disadvantage is that it is far too sophisticated to use on many small problems. Using M2 to write a typical unix filter is a lot like trying to whittle with a machete - the amount of work you do is far greater than what you would have had to with a carving knife.

As long as you are bringing new languages into the picture, why don't you program in COBOL? (:-) It is certainly high level, it has data abstraction, and it has strong typing that is even more difficult to subvert than Pascal's.

Chosing the 'one right' language is a religious decision; most people being brought up to believe in the first one they learned or its more popular successors.

I have been fortunate enough to have been forced to use a large number of languages, and am truely agnostic in this area. If I want to do a toy expert system, I use LISP. If I were going to write a real one, I would use one of the expert system writing languages. There are a whole family of related languages for things like algebraic manipulation and symbolic calculation.

If I want to do almost anything on a Unix system, I do it in C, since C is well supported and integrated in most Unix environments.

If I want to do fast vector calculations on a supercomputer, I will use Fortran, or if it's not fast enough, the machine's assembly language (and get help from local experts in tuning the code.)

If I had to do a payroll on an IBM system, I would do it in COBOL.

If I had to manage a very large project (more than 1 million lines of code) and there was a good implementation available, I would try Modula 2, unless it was for the department of defense and ADA was available.

If I want to program my MS-DOS pc, I use Turbo Pascal, because it is reasonably good, and very cheap.

If I want to program my Atari ST, I also use Pascal, for the same reason.

However, Pascal will fall on both of these systems, because I will eventually have to buy a C compiler to support all of the public domain software I can obtain in C for each system.

Marty

From -8084134932537742872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bacef0bf329d5874
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-15 09:59:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: Re: ATARI BBS
Message-ID: <8609160547.AA13543@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 12:59:04 EDT
Article-I.D.: ucbvax.8609160547.AA13543
Posted: Mon Sep 15 12:59:04 1986
Date-Received: Tue, 16-Sep-86 09:31:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 15

Date: 15 September 86 09:56-PST
From: KJBSF@SLACVM
To: INFO-ATARI16@SCORE
Subject: Re: ATARI BBS

Date: 15 September 1986, 09:54:36 PST
From: Kevin J. Burnett x3330 <KJBSF@SLACVM>
To: <Info-Atari16@SCORE.STANFORD>
Subject: Re: ATARI BBS

In-Reply-To: KUSHNIER AT NADC -- 09/15/86, 07:26

I have managed to connect to the Atari BBS at 745-5308 great; Last night I had a problem though, which was due to the board having crashed. Maybe that was the problem?

From 6317204249954748736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 10:01:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: SWISS DATA/MAIL ON IBM/C VS. PASCAL/UNITERM TEK MODE
Message-ID: <860915-100210-5772@Xerox>
Date: Mon, 15-Sep-86 13:01:51 EDT
Article-I.D.: Xerox.860915-100210-5772
Posted: Mon Sep 15 13:01:51 1986
Date-Received: Tue, 16-Sep-86 18:46:41 EDT
References: <8609140229.AA21054@mitre-bedford.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

> If we are REALLY lucky, maybe OSS will come out with an ACTION!
compiler
> for the ST.

Six months to a year ago I sent a message to Clint Parker (the author of ACTION!) complementing him on his execellent language. He replied that he was working on a version for the ST. Let's hope that he actually finishes it.

John

From 3614002564066056526
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c00372b7d9f60756
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 11:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!LLL-MFE.ARPA!
PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Fear not, would be UUDECODERS.
Message-ID: <8609160654.AA14474@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 14:07:00 EDT
Article-I.D.: ucbvax.8609160654.AA14474
Posted: Mon Sep 15 14:07:00 1986
Date-Received: Tue, 16-Sep-86 18:49:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

This is a follow up to the UUDECODE program in ST BASIC I posted to this BBS.

Additional notes:

1. The UUDECODE program does append spaces to the end of the line if it thinks they were removed in transit.

2. The file length (in bytes) is always a multiple of 45. The extra bytes are filled with garbage and hopefully ignored. (This is not standard UUDECODE.)

3. This being a BASIC program, it is slow. Typical time, about 1 sec per line of coded info (using a ram disk). [about 40 minutes for UNITERM, which was 135,000+ bytes before decoding.]

4. I had trouble UUDECODING the MONST program posted recently here. It turns out there were 2 carriage returns at the end of each line. Editting with either UEMACS or 1ST WORD fixed the problem (enter editor, make no changes except to save the file). The problem was probably caused initially by me using KERMIT incorrectly.

I have received several messages from network servers warning me that my original message was not delivered. If anyone needs a copy, let me know. Also, if anyone finds any bugs and or helpful fixes, let me know.

Thanks, and good luck!
---Patrick Simon
PSIMON%PPC.MFENET@LLL-MFE.ARPA
9-15-86

From -814070931261181217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,90b4f002cab2a38f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 11:08:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Accessories
Message-ID: <195@molihp.UUCP>
Date: Mon, 15-Sep-86 14:08:59 EDT
Article-I.D.: molihp.195
Posted: Mon Sep 15 14:08:59 1986
Date-Received: Fri, 19-Sep-86 22:04:47 EDT
References: <8609101512.AA12173@ucbvax.Berkeley.EDU>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 30

In article <8609101512.AA12173@ucbvax.Berkeley.EDU> SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer) writes:
>
>In Message-Id: <8609091627.AA21723@ames-nas.ARPA>
>on 09 Sep 86 09:27:35 PDT (Tue), fouts@AMES-NAS.ARPA writes:
>> There also appears to be no way to unload a loaded desk accessory,
>> other than changing the .ACC to something and rebooting.
>
>This has been a sore point with me for some time. ExcUuUse me, but
>WHY NOT!? It seems to me that someone asked this several months ago
>and the reply was something like "it's too difficult" or something.

The difficulties ARE great. Code on the ST is relocatable at load time, not position-independant. Most reasonably long jumps will be expressed as absolute jumps once the code has been loaded, and

accessories have also had a chance to run once until their 'event_multi' call, and here they are free to look at their location in memory and do other rude stuff. So sure you can boot out accessories, but you can't move and pack the others to use the memory for very much. The best solution is one which can reset the memory pointers, clear the menu register, and then allow you to selectively re-install the desk accessories you want. This is just short of a reboot, and it may be very awkward to not go the whole way. I'm not sure how I would go about the re-install at all, since the best way would be to read the BIOS and GEM source code and be able to mimic what happens on a reboot with accessories, and *that* information is likely proprietary.

```
#   UUCP : ...!ubc_vision!molihp!robt     Robert Thurlow
          #
#   My thoughts are my own, and are void where prohibited by law.
     #
#   "There was something fishy about the butler.  I think he was a
     #
#    Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #
```

From 2850555980148178413
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,be0eada43387f16c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 11:14:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!spdcc!dyer
From: dyer@spdcc.UUCP (Steve Dyer)
Newsgroups: net.micro.atari16
Subject: Supra 30meg disk for ST
Message-ID: <400@spdcc.UUCP>
Date: Mon, 15-Sep-86 14:14:20 EDT
Article-I.D.: spdcc.400
Posted: Mon Sep 15 14:14:20 1986
Date-Received: Mon, 15-Sep-86 21:12:58 EDT
Organization: S.P. Dyer Computer Consulting, Cambridge MA
Lines: 11
Keywords: finally available

It looks like the much-awaited Supra 30 meg disks are finally here, since the unit I had ordered from Computer Mail Order arrived today. It comes pre-formatted and partitioned as 3 10-meg drives, C:-E:, although you can change the partitions to suit your needs. Interestingly, when running the partitioning/formatting program, the type of disk is NOT "Supra 30meg" but a Seagate unit with an Adaptec controller. I suspect (but am not yet sure) that the unit is a 20meg stretched via Adaptec's RLL SCSI controller.
--
Steve Dyer
dyer@harvard.HARVARD.EDU
{linus,wanginst,bbnccv,harvard,ima,ihnp4}!spdcc!dyer

From 621976583229102929
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 11:30:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <8609151828.AA03938@ucbvax.Berkeley.EDU>
Date: Mon, 15-Sep-86 14:30:23 EDT
Article-I.D.: ucbvax.8609151828.AA03938
Posted: Mon Sep 15 14:30:23 1986
Date-Received: Tue, 16-Sep-86 09:06:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 46

> 1) Hard disks: I'm interested in getting a 20Mb hard disk. I've heard that the Supra hard disk is superior to the Atari hard disk, but I do not know any more. How do the two disks compare in terms of
>
> 1) Speed
> 2) Convenience, ie. size, installation.

I have the Atari SH204 20 meg hard disk. The speed is wonderful (though I don't know how it compares with the Supra). Overall, I have been quite pleased with its operation except for the following:

(1) The cable is too short to permit the disk to be placed at the back of the table and still have the front panel face forward. So I have the disk sideways with its back end (where the connector is) close to the 1040. But of course, there isn't much to see on a hard disk anyway.

(2) Much more serious are limitations mentioned in the owners manual; in particular, that you should not have more than 40 directories total in all partitions and all devices attached to the ST. Apparently this restriction is due to some sort of bug in TOS. I don't really understand why or how the ST even knows how many folders I have several levels down in the directory tree, and indeed, one can apparently exceed the 40 number for some period of time without any trouble. But the bug, whatever it is, is real, and the result is a trashed partition on the hard disk. I rebuilt my disk 3 times over the weekend before finally taking that restriction seriously. (I had been using it for a month without problems; the trouble only started when I added some new software that caused several new folders to be created.) I would really appreciate hearing from anyone who has any better information about this bug and what to do to prevent it and/or recover from it.

(3) The software that comes with the hard disk does not permit booting from it. Instead, one puts the driver on a floppy in the AUTO folder and then boots from the floppy. Desk accessories are loaded from the hard disk, but any AUTO folder on the hard disk is ignored. Neil Harris announced a few weeks ago that TOS will in fact boot from the hard disk if the appropriate boot sector is written on it. He indicated at the time that Atari had software to write the boot sector and was currently using it in-house and that they would release it if no problems developed. (Neil, are you still listening, and is it soon to become available?)

--Mike Fischer
<fischer@yale.arpa>

From -3463420345917168457
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f960da5751dc60dc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 12:41:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.ARPA!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.ARPA (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Supra vs. Atari hard disk
Message-ID: <12239194110.8.LYNN@PANDA>
Date: Mon, 15-Sep-86 15:41:14 EDT
Article-I.D.: PANDA.12239194110.8.LYNN
Posted: Mon Sep 15 15:41:14 1986
Date-Received: Tue, 16-Sep-86 09:12:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

This month's "Antic" magazine has a short review of the hard disks which you may want to read.

--Lynn

From -8665479760228302907
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bacef0bf329d5874
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 12:55:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: RE: ATARI BBS
Message-ID: <860915155506.0000037B.AYZC.MA@UMass>

Date: Mon, 15-Sep-86 15:55:06 EDT
Article-I.D.: UMass.860915155506.0000037B.AYZC.MA
Posted: Mon Sep 15 15:55:06 1986
Date-Received: Tue, 16-Sep-86 09:11:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

> Is there some kind of trick to log onto the ATARI BBS? I can CONNECT, but
> then there is no response.

   I've gotten on it with no trouble, most of the time. However, on quite a few occasions, I've had the problem you describe-- a connect, then nothing. It happens maybe 1/4 of the time. It's gotta be a problem at Atari's end, since I call all sorts of other BBS's with no problems.

Michael P. Cohan   MCOHAN@UMASS.BITNET

From -9183993523714332089
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b91cda8a4fef752,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 18:02:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!RNEWTON
From: RNEWTON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: BROTHER HR-15: 12 PITCH
Message-ID: <860915210216.000003DA.BAXI.MA@UMass>
Date: Mon, 15-Sep-86 21:02:16 EDT
Article-I.D.: UMass.860915210216.000003DA.BAXI.MA
Posted: Mon Sep 15 21:02:16 1986
Date-Received: Tue, 16-Sep-86 09:17:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

If the HR-15 is like the HR-35 all you need to change is one character under "Misc. Configurable Variables". Change the second "C" to an "A". The row should read "1, C, 28, 1, 0". It's the hex numerator of the fraction n/120. Whatever, it works. HMI doesn't need to be changed.

From 4867538974726930826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e9bfd565f36470b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 18:20:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16

Subject: Re: upside-down DA
Message-ID: <1026@batcomputer.TN.CORNELL.EDU>
Date: Mon, 15-Sep-86 21:20:26 EDT
Article-I.D.: batcompu.1026
Posted: Mon Sep 15 21:20:26 1986
Date-Received: Wed, 17-Sep-86 06:15:40 EDT
References: <3114@watmath.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 7

Heck, if all you want to do is turn a screen upside down, pick it up and
turn it upside down! (And if you want a right-to-left text editor, rotate
the screen 45 degrees sideways and look at it through a mirror... :-)

- Moshe Braner

(- Hey, can't I post something non-serious for once?)

From 2767712237299385807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5e24c74471221ef4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 19:54:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!princeton!allegra!ulysses!bellcore!whuxcc!
lcuxlm!akgua!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1st word spacing (request for PROFF)
Message-ID: <2258@gitpyr.UUCP>
Date: Mon, 15-Sep-86 22:54:59 EDT
Article-I.D.: gitpyr.2258
Posted: Mon Sep 15 22:54:59 1986
Date-Received: Wed, 17-Sep-86 08:16:06 EDT
References: <8609150202.AA23665@ucbvax.Berkeley.EDU>
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology
Lines: 17

In article <8609150202.AA23665@ucbvax.Berkeley.EDU> RDROYA01@ULKYVX.BITNET (Robert
Royar) writes:
>Another question: Is there a scribe type text formatter for the ST.
>example: @quotation{This is a sample nothing more. This is a sample

     Long ago, I remember a roff varient called PROFF posted. does
     anyone have a copy he/she could send to me? sources or UUENCODEed
     executable are fine.

=-=
Progress means replacing something wrong with something more subtly wrong.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From -3309367358118850208
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1b7f1478dc17d8d4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-15 22:20:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!clark.UUCP!peter.l
From: peter.l@clark.UUCP
Newsgroups: net.micro.atari16
Subject: immediate deletion request and okimate question
Message-ID: <8609160520.AA22949@gvax.cs.cornell.edu>
Date: Tue, 16-Sep-86 01:20:01 EDT
Article-I.D.: gvax.8609160520.AA22949
Posted: Tue Sep 16 01:20:01 1986
Date-Received: Tue, 16-Sep-86 20:42:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Please delete immediately mscbtc!clark!peter.l@gvax.cs.cornell.edu
on the atari 16 bit distribution list. Our system has been flooded with
mail (according to the postmaster literally gigabytes of stuff) that all
appears to be originating with this distribution list. Most appears to
be associated with uucp requests and arrives at our site with distorted
addresses and winds up in lost mail. Until we can resolve this problem
I'll have to stay off the list. Sorry about the bother. By the way,
if anyone responded to my request for information on the okimate 20 printer
could they please e-mail to me directly the information?
               thanks,
                     peter lorraine
                     mscbtc!clark!peter.l@gvax.cs.cornell.edu

From -5780195051926992519
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1457ac84e82d4e3e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 06:36:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: 520 purchase questions
Message-ID: <8609161336.AA01823@ncsc.ARPA>
Date: Tue, 16-Sep-86 09:36:42 EDT

Article-I.D.: ncsc.8609161336.AA01823
Posted: Tue Sep 16 09:36:42 1986
Date-Received: Tue, 16-Sep-86 21:39:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

I've finally decided to buy a 520ST, but first I'd like someone to assuage (whoa!) my doubts about one thing: what is the likelihood that, with the widespread availability of the 1040 and the imminent release of a TT (or whatever you want to call it), the poor little 520 will be left by the wayside? I've already run across a couple of programs that say "1Meg recommended." Will that soon become "1 Meg required"?

Ditto about the single-side drive: I'm buying the cheapest system I can (the monochrome, 1SS drive from 47th St Photo), because it's all I can afford. Will software continue to be available on SS disks? (When was the last time you got a disk for an IBM PC that was single sided?) And, about the price, does anyone have comments about the $495 package from 47th?

Thanks for letting me ask these questions. I appreciate any comments.

Jim
NCSC

From -7376976576704806713
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,517d0334df51a22b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 08:48:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!trwspp!
spp2!rroux
From: rroux@spp2.UUCP (Ray Roux)
Newsgroups: net.micro.atari16
Subject: Re: 1st_word and prices...
Message-ID: <953@spp2.UUCP>
Date: Tue, 16-Sep-86 11:48:22 EDT
Article-I.D.: spp2.953
Posted: Tue Sep 16 11:48:22 1986
Date-Received: Fri, 19-Sep-86 21:14:09 EDT
References: <8609111546.AA03083@ncsc.ARPA>
Reply-To: rroux@spp2.UUCP (Ray Roux)
Organization: TRW, Redondo Beach CA
Lines: 24

In article <8609111546.AA03083@ncsc.ARPA> moore@NCSC.ARPA (Moore) writes:
>
>A couple more questions....
>

>Recent reviews have mentioned that 1ST_WORD limits you to only single spaced
>documents. Is there a work around for this, other than by adjusting stuff on
>the printer? Also, rumor (around here, anyway) has it that Atari is about to
>***raise*** its prices on the ST. Has anyone else heard the same? (I don't
>imagine Neil@Atari can comment on this one).
>
>
All you have to do is to change your printer driver to send 2 linefeeds
instead of one. If you bounce between single and double spacing alot you'll
probably want to have two printer drivers and swap in the one you want.

Sorry, can't help you with the price rumor.

--

   Ray Roux
     {ucbvax|decvax}!trwrb!trwspp!spp3!rroux

From 3779464157283852185
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,172c909f2c883b5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 08:55:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!trwspp!
spp2!rroux
From: rroux@spp2.UUCP (Ray Roux)
Newsgroups: net.micro.atari16
Subject: Re: PC/Intercom copy problem
Message-ID: <954@spp2.UUCP>
Date: Tue, 16-Sep-86 11:55:56 EDT
Article-I.D.: spp2.954
Posted: Tue Sep 16 11:55:56 1986
Date-Received: Fri, 19-Sep-86 21:14:33 EDT
References: <33@nvpna1.UUCP>
Reply-To: rroux@spp2.UUCP (Ray Roux)
Distribution: net.micro.atari16
Organization: TRW, Redondo Beach CA
Lines: 24

In article <33@nvpna1.UUCP> dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
writes:
>PC/Intercom does an excellent job in emulating a VT102 type terminal.
>I received PC/Intercom on a single sided floppy disk. However I want to move
>it to a different double sided floppy, where I keep all my utility programs.
>Copying the files seems to be successful, but if you double click on the new
>file, PC/Intercom insist you insert the original disk. The same holds even
>if you only disk-to-disk copy to a new single sided floppy.
>

>The question: How do you get round the copy protection?
>   ======================================
>
You can copy the .prg and setup files to any disk (even ram), the trick is
that you need the original disk in drive A when it loads - even if you boot
from another disk.

I use PC/Intercom alot, my beef is that there's no way to do any local disk
utility stuff (like getting a directory listing).

--

   Ray Roux
     {ucbvax|decvax}!trwrb!trwspp!spp3!rroux

From 7930589724500762868
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bacef0bf329d5874
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 09:36:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: ATARI BBS
Message-ID: <424@atari.UUcp>
Date: Tue, 16-Sep-86 12:36:23 EDT
Article-I.D.: atari.424
Posted: Tue Sep 16 12:36:23 1986
Date-Received: Fri, 19-Sep-86 22:47:09 EDT
References: <8609151422.AA00244@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 29

In article <8609151422.AA00244@ucbvax.Berkeley.EDU>, kushnier@NADC writes:
>
> Is there some kind of trick to log onto the ATARI BBS? I can CONNECT, but
> then there is no response. I've tried RETURN and several Control characters
> without success.
>
>   ATARI BBS 408-745-4758

Occasionally we have a glitch and you won't be able to get through. We check
the BBS at least once per business day, so the answer is to try again the
next day and you ought to get through.

By the way, the main number for the Atari Base BBS is 408-745-5308. The
number you listed is the 3rd of 5 lines. When the board is busy, calling
the main number gives you 5 chances to get through. The 3rd number will

ignore the first two so you only have 3 chances.
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 7222155158713741127
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 09:41:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <425@atari.UUcp>
Date: Tue, 16-Sep-86 12:41:00 EDT
Article-I.D.: atari.425
Posted: Tue Sep 16 12:41:00 1986
Date-Received: Fri, 19-Sep-86 22:47:26 EDT
References: <8609151828.AA03938@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 50

In article <8609151828.AA03938@ucbvax.Berkeley.EDU>, FISCHER-MICHAEL@YALE.ARPA
writes:

> (2) Much more serious are limitations mentioned in the owners manual;
> in particular, that you should not have more than 40 directories total
> in all partitions and all devices attached to the ST. Apparently this
> restriction is due to some sort of bug in TOS. I don't really understand
> why or how the ST even knows how many folders I have several levels down
> in the directory tree, and indeed, one can apparently exceed the 40 number
> for some period of time without any trouble. But the bug, whatever it is,
> is real, and the result is a trashed partition on the hard disk. I rebuilt
> my disk 3 times over the weekend before finally taking that restriction
> seriously. (I had been using it for a month without problems; the trouble
> only started when I added some new software that caused several new folders
> to be created.) I would really appreciate hearing from anyone who has
> any better information about this bug and what to do to prevent it
> and/or recover from it.

The 40 folder limit is inherent in GEMDOS. The problem will manifest itself when the system has actually looked at more than 40 folders in one session (session=between power on and power off). So you can be safe even if there are many folders, as long as you power off before traversing 40 directory folders. This is known as the "Russian roulette" technique and is NOT recommended.

> (3) The software that comes with the hard disk does not permit booting
> from it. Instead, one puts the driver on a floppy in the AUTO folder
> and then boots from the floppy. Desk accessories are loaded from the
> hard disk, but any AUTO folder on the hard disk is ignored. Neil Harris
> announced a few weeks ago that TOS will in fact boot from the hard disk
> if the appropriate boot sector is written on it. He indicated at the
> time that Atari had software to write the boot sector and was currently
> using it in-house and that they would release it if no problems
> developed.

The auto boot program is still in test until we feel confident that it won't lead to other problems.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 8877752942494049833
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e59deb2afff07f92,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 10:41:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!sri-spam!parcvax!hplabs!sdcrdcf!burdvax!
bpa!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Memory Upgrade Plea
Message-ID: <742@cbmvax.cbmvax.cbm.UUCP>
Date: Tue, 16-Sep-86 13:41:17 EDT
Article-I.D.: cbmvax.742
Posted: Tue Sep 16 13:41:17 1986
Date-Received: Sat, 20-Sep-86 00:08:40 EDT
References: <905@sunybcs.UUCP>

Reply-To: grr@cbmvax.UUCP (George Robbins)
Distribution: world
Organization: Commodore Technology, West Chester, PA
Lines: 16

In article <905@sunybcs.UUCP> leo@sunybcs.UUCP (Leo Wilson) writes:
>
>The problem is that my ST doesn't seem to recognize bank 1 as being there,
>though it does still boot & recognize bank 0 . A little added info: I
>used Hitachi HM50256 chips & wire wound 68k resistors. My board is a rev. B
>board. (I should say "boards" as I also did the machine at work with
>an identical lack of results.)

68K? K, who said K? Off the top of my head, these resistors are more likely
to be 68 OHMS. Any any case, wire-wound would be no advantage - ordinary
carbon composition or carbon-film is preferable for this sort of thing...

--
George Robbins - now working for,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -6916377399530501228
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d80686cd81edfa50,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 11:03:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UTARLVM1.BITNET!C020CB
From: C020CB@UTARLVM1.BITNET (Chris Burns)
Newsgroups: net.micro.atari16
Subject: 520ST price
Message-ID: <8609181645.AA09278@ucbvax.Berkeley.EDU>
Date: Tue, 16-Sep-86 14:03:51 EDT
Article-I.D.: ucbvax.8609181645.AA09278
Posted: Tue Sep 16 14:03:51 1986
Date-Received: Sat, 20-Sep-86 00:37:06 EDT
Sender: woutput@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

  I bought my 520 at Dillard's on sale for $695 (monochrome package).
In advertisements I haven't found much better. The 47th St. price of
$595 is the best I've seen yet.

From 7103186350476867324
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 14:55:23 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Where is Neil@Atari
Message-ID: <566@imagen.UUCP>
Date: Tue, 16-Sep-86 17:55:23 EDT
Article-I.D.: imagen.566
Posted: Tue Sep 16 17:55:23 1986
Date-Received: Fri, 19-Sep-86 22:47:40 EDT
References: <8609121534.AA04117@yale-celray.YALE.ARPA> <533@imagen.UUCP>
Organization: The Houses of the Holy
Lines: 36

> Does anyone know how to get electronic mail to Neil Harris at Atari?
> The addresss that used to work is
>   vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
> but it seems to be no longer valid, as indicated by the bounced

{[{[{[{this may be a repost, the poster spit up on the first}]}]}]}]}]}]

unfortunately vecpyr has gone south (for good i believe) the new
address is:

{decwrl|saber|sun}!imagen!atari

--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7517790582164556557
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 15:05:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <567@imagen.UUCP>
Date: Tue, 16-Sep-86 18:05:52 EDT
Article-I.D.: imagen.567
Posted: Tue Sep 16 18:05:52 1986
Date-Received: Fri, 19-Sep-86 22:47:55 EDT
References: <8609060233.AA26238@ucbvax.Berkeley.EDU> <267@myrias.UUCP>
<1296@trwrb.UUCP>
Organization: The Houses of the Holy
Lines: 34

> monitors for several weeks now. By the way, the color version looks great!
> My only complaint about uE3.7 is the SSLLOOWW disk access time (blame it
> on "gemdog" ;-).
>
>
>
>
>
> --
> __________ ______ ____ _____ ___
> /__________//___ ||__|/____|/__/   Richard E. Sansom
>   ___   ____/ / ____________   TRW Electronics & Defense Sector
>   / /   / /\ < | /| /   One Space Park Drive, R3/1028
> / /   / / \ \ | / | /   Redondo Beach, CA 90278
> /__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
The problem is further complicated by the need to keep file i/o as
genereic as possible so that it works on the max number of systems
and that tends to limit you to getc, putc, scanf, printf etc.
yeeechhh!!!! i tried buffering the i/o manually but the speed
advantage gained is lost in the access time for the floppy so all
the fancy (read hacked) code came out a wash. sorry
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner

CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 3687010820245070487
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f312ef3a510fe95b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 15:20:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Future of GEM
Message-ID: <568@imagen.UUCP>
Date: Tue, 16-Sep-86 18:20:48 EDT
Article-I.D.: imagen.568
Posted: Tue Sep 16 18:20:48 1986
Date-Received: Fri, 19-Sep-86 22:48:11 EDT
References: <MDCG.WAYNE.12238471664.BABYL@MIT-OZ>
Organization: The Houses of the Holy
Lines: 21

> Does anyone have any hard information or informed speculations about the
> future of GEM? Specifically, is there a multitasking GEM in the works which
> will fully exploit the resources of 68020 machines? I am sure most of us

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

i doubt it severly, what is more likely is a port of system V with
a windowing system on top of it, there is a company that sells a
multi-processing OS for the ST but with no memory protection and
thats kinda like driving without a seatbelt.
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6995267626860054285
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8e6bc46770fe42
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 17:46:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: avatex modems 1200, 1200hc
Message-ID: <2802@islenet.UUCP>
Date: Tue, 16-Sep-86 20:46:17 EDT
Article-I.D.: islenet.2802
Posted: Tue Sep 16 20:46:17 1986
Date-Received: Sat, 20-Sep-86 01:45:14 EDT
References: <8609142115.AA00797@mitre-bedford.ARPA>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 22

On the subject of Avatex modems, I had the oppurtunity to try the 1200hc
modem. It is a far better modem in my estimation as it:
     1) Has a speaker
     2) Is Hayes compatible.

The one thing I noticed is that it seems slower than other modems. I also
have access to the Everex Evercom II internal 300/1200 baud modem, which seems
noticably faster than the external Avatex.

Can anyone confirm this? Is it possible to have two modems that are 1200 baud
operate at DIFFERENT speeds?

Is the answer to this going to be like 200 cps printers (most of which are
about 130-150 cps printers)?

Also, anyone tried the 2400-baud Leading Edge modem that sells here (on the
beach) for $289?

Hang loose,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From 4249774756042628829
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1457ac84e82d4e3e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-16 18:00:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: 520 purchase questions
Message-ID: <8609161900.AA05446@mitre-bedford.ARPA>
Date: Tue, 16-Sep-86 21:00:26 EDT
Article-I.D.: mitre-be.8609161900.AA05446
Posted: Tue Sep 16 21:00:26 1986
Date-Received: Wed, 17-Sep-86 06:20:22 EDT

References: <8609161336.AA01823@ncsc.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 15

Jim:

$495 for a 520ST is a heck of a bargain! I'm glad to know that at least one place is still offering the price.

Re: 1M - You can have your 520ST upgraded to 1Mbyte of memory for around $140 to $150 by several places. The upgrade appears to work fine if done carefully except that some power supply units don't work right with the added drain and require replacement of the power supply or a choke in series with it on the board. Professional upgrades usually involve changing the choke also.

Good luck. You can't go wrong for $495 and you can upgrade later.

-John Sangster
jhs@mitre-bedford.arpa

From -6670458854189578160
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,26232e402b641b99,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 07:12:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: THUNDER! and WTERM work
Message-ID: <4696@pur-ee.UUCP>
Date: Wed, 17-Sep-86 10:12:53 EDT
Article-I.D.: pur-ee.4696
Posted: Wed Sep 17 10:12:53 1986
Date-Received: Fri, 19-Sep-86 23:38:00 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 27
Keywords: THUNDER! WTERM they work together

<<<<<>>>>>

To all those that are interested:
  I found out a few days ago when I down loaded WTERM by (I am so sorry, I have forgotten your name but you know who you are) and tried to use THUNDER! with it. Well they work together perfectly! I never thought that the solution to my problem would be in the form of a free program off the net - but I guess that's what makes the net so wonderful.
  WTERM's vt102 terminal emulation is oneof the best I have ever seen for the GEM interface. The Tektronix is a bit less than

perfect for Monochrome, as the lines at the top of the screen
are lost due to improper mapping. No problem, the Tektronix
emulator that I wrote does the emulation perfectly. By the way -
I will be posting BT (the nice Tek 4010, multi-graphics window,
interface to unix terminal emulator) as soon as I can get a
better scrolling routine worked out. Oh well...
  ANYWAY... I just wanted all to know that the facts are that
THUNDER! works well with WTERM (and WTERM is free). Thanks to all
that helped and even those that didn't.

                  Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From -1065158375523088640
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,17f5a6b9d3adb38a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 07:48:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!sri-spam!nike!ucbcad!ucbvax!YALE.ARPA!
FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Lattice C and UUDECODE
Message-ID: <8609171445.AA10314@ucbvax.Berkeley.EDU>
Date: Wed, 17-Sep-86 10:48:07 EDT
Article-I.D.: ucbvax.8609171445.AA10314
Posted: Wed Sep 17 10:48:07 1986
Date-Received: Fri, 19-Sep-86 21:44:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 12

>   Also, I have a copy of UUDECODE written in Lattice C that I got with a GEM
>   Kermit. THE THING JUST WON'T WORK.... I get the messages: Short File and
>   No End Line . (Yes the files do really have 'end' lines.)

For the Alcyon compiler, you have to change the calls on "fopen" that open
binary files to use "fopenb" instead. Thus, 'fopen(in, "rb")' becomes
'fopenb(in, "r")', etc. With that change, I was able to get them to work.

--Mike Fischer
  <fischer@yale.arpa>

From 5447334270794935693
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 10:47:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!dual!ptsfa!qantel!hplabs!pyramid!decwrl!
sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Lattice C and UUDECODE
Message-ID: <569@imagen.UUCP>
Date: Wed, 17-Sep-86 13:47:44 EDT
Article-I.D.: imagen.569
Posted: Wed Sep 17 13:47:44 1986
Date-Received: Sat, 20-Sep-86 00:40:10 EDT
References: <8609160444.AA12864@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 22

>
> P.S.
>   Micro-Emacs is fine..But when is some brave soul with a ST and hard disk
>   gonna tackle Richard Stallman's GNUEmacs? It ONLY consists of 1 Meg of
>   source code in C, (not counting the xtra Lisp functions).

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

why? with the exception of moc-lisp what does GNUemacs have, im not
being saracastic ive just never used GNUemacs and was wondering what
the advantages over uEmacs were ?
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 8016572803050820865
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34ada60be558c5c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 21:00:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!bnr-vpa!bnr-di!shnider
From: shnider@bnr-di.UUCP
Newsgroups: net.micro.atari16

Subject: Accessing GEM font data structures...
Message-ID: <119@bnr-di.UUCP>
Date: Thu, 18-Sep-86 00:00:23 EDT
Article-I.D.: bnr-di.119
Posted: Thu Sep 18 00:00:23 1986
Date-Received: Thu, 18-Sep-86 03:28:01 EDT
Organization: DI, Bell-Northern Research, Ottawa, Ontario
Lines: 8

Does anyone know of a way to access the data structure of a font after
it has been loaded in by VDI? Thanks in advance.

Charles R. Shnider
Bell-Northern Research Limited
Ottawa, Ontario Canada
!utzoo!utcs!bnr-vpa!bnr-di!shnider

From 126295885238817640
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,40a8119676c13cbe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 21:05:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!bnr-vpa!bnr-di!shnider
From: shnider@bnr-di.UUCP
Newsgroups: net.micro.atari16
Subject: Font Editors for GEM
Message-ID: <120@bnr-di.UUCP>
Date: Thu, 18-Sep-86 00:05:44 EDT
Article-I.D.: bnr-di.120
Posted: Thu Sep 18 00:05:44 1986
Date-Received: Thu, 18-Sep-86 03:28:22 EDT
Organization: DI, Bell-Northern Research, Ottawa, Ontario
Lines: 10

Does anyone know of a commercially available font editor for GEM? Bonus
points if it runs on the IBM PC. Thanks in advance.

--
Charles R. Shnider
Bell-Northern Research Limited
Ottawa, Ontario Canada
!utsoo!utcs!bnr-vpa!bnr-di!shnider

From 2610051429418810442
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6aded1d21390b6df,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-17 21:52:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: DELPHI Atari news
Message-ID: <860918005249.000003F6.AOAO.MA@UMass>
Date: Thu, 18-Sep-86 00:52:49 EDT
Article-I.D.: UMass.860918005249.000003F6.AOAO.MA
Posted: Thu Sep 18 00:52:49 1986
Date-Received: Sat, 20-Sep-86 00:43:51 EDT
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

I downloaded the following from DELPHI tonight. Should be of
interest, and I'd REALLY like to get some comment from someone at
Atari.

8581 16-SEP 15:09 ST Programs
     New ST Products!
     From: MATRAT   To: ALL

According to Ron Robinson in St Louis:

Atari in London

--- News from the PCWS London ---

Atari announced the 2080ATF, an ST with 2meg of RAM, 4160ATF, with 4meg of RAM,
and the Blitter hardware. Kuma announced an expansion box to give the ST 15
MIPS (Million Instructions PER Second!) parallel computing performance. A VME
(Virtual Memory Expansion) box was demoed running several multiuser operating
systems. A storage OSCILLOSCOPE adapter box, weather satellite receiver,
several video digitizers, Pascal, Lisp, BCPL, and Fortran Compilers were also
shown.

Look Out APPLE, your //gs is in deep ..... well, you fill in the blank.

Mat*Rat

From -5992054103074058628
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,351154ce6214517b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 05:46:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!dual!ptsfa!qantel!hplabs!pyramid!decwrl!
pulman.dec.com!peters
From: peters@pulman.dec.com (Don Peters, APO-1/F8, 289-1242)
Newsgroups: net.micro.atari16
Subject: Summary of ST club meeting
Message-ID: <5423@decwrl.DEC.COM>
Date: Thu, 18-Sep-86 08:46:58 EDT

Article-I.D.: decwrl.5423
Posted: Thu Sep 18 08:46:58 1986
Date-Received: Sat, 20-Sep-86 00:40:29 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 105

(I sent this to the net about a week ago, but never saw it come back, so
 it may have fallen into the bit bucket. In case it has, I'm resending it.
 Sorry if it DID go out and you've already seen it.)

I posted this on our internal Atari ST notes file. Since a lot of the info may be of general interest, I thought I'd include it here. Hope I haven't omitted anything of real significance.

Last nite I attended the meeting of the ST group of the Boston Computer Society (JBUG). There were about 40 in attendance, less than usual probably because some may not have realized the location is now MIT rather than BU. The following is a summary of my notes, so info may be lacking where I was distracted by literature being passed around, couldn't hear something clear, got bored, etc.

Allan Glick, the president(?), said the club would be putting on an Atarifest next sprint. He also wants reviews for the club JBUG newsletter.

VIP is going to $250. It is going to GEM on Sep 20, and those already owning it can get the upgrade for free.

TWIN, Atari's "Lotus" spreadsheet for the ST, will cost $99.

The final version of Joust is out (I saw it demoed - looks great!).

During the first part of the meeting, a TINYVIEW graphics demo was running, showing a bouncing ball reflected in several glass objects - the effect was startling.

A nice chess demo was shown - the product will be out Nov 1.

Degas Elite should be out in a few weeks.

No one had any info to offer on the release or availability of GDOS.

Tom Louzon(sp?) from Apex demoed a few of their products:

   Deep Space (from maker of Bratacus) appeared similar to the forthcoming version of Star Raiders from Atari. The graphics were really nice. You play with the mouse, keyboard, and joystick. It will be available in about 2 weeks for about $45.

   ST Karate was also shown, and looked arcade quality. Tom appeared to have a hard time manipulating his character and was quickly wiped out.

   Space Station, a game where you collect space crystals while navigating

about a space station, also appeared to have excellent graphics with nice panning scenery.

Next he showed a word processor that ran as a desk accessory. It appeared to be similar to 1stWord in function. Its main advantage was that it could be run while you were running another application which just happened to need some file edits.

First Mail also was briefly was shown. Its a mail merge program intended to be used with 1stWord.

Finally, he demoed Star Fleet 1 from Cygnus, another Star Trek like program (don't people ever get tired of blasting aliens?). The game featured an interesting twist on copy protection. It isn't copy protected, but in order to run it, you need to answer questions whose answers are scattered throughout the manual. Two BIG manuals come with it, so it would be quite a job to copy them. This may set a trend, but I wonder about the nuisance factor to the legal user.

Al Rizzo, the regional Atari rep, next got up and gave us some information he gathered from a phone call to Neil Harris at Atari:

- A CPM emulator is to go on the Atari BBS tomorrow or so

- We are about two months away from the new Atari 1200 baud modem

- The CPM hardware emulator will be demoed at the upcoming San Jose computer fair, Sep 20-21.

- Microsoft Write will be in beta test in October, and shipping in late Fall, for $130, from Atari.

- The "blitter" chip will be out in January. It needs a new set of ROM chips, and the package will be sold for $120

- ST versions of Millipede, Battlezone, and NeoChrome are still being developed (version 0.9 of NeoChrome was demoed during the meeting).

- ST Star Raiders is shipping this week

Erik Bryan demoed his TRUTIME clock module. It plugs into a ROM socket and the ROM plugs into it. Its lithium battery keeps the time for 10 years, and it comes with a program to set the ST clock upon bootup. This is the one Neil Harris of Atari likes and has commented on in USENET. It costs about $45 and comes with a 30 day guarantee. You can reach No Solder Required at (617) 547-2408. Its at 351 Massachusetts Ave., Cambridge, MA 02139.

Syntronics then spoke about the ST EZ Track MIDI software from Hybrid Arts. Its like a tape recorder that holds 20 tracks, and holds 40,000 on-off events. You enter your music via the MIDI keyboard. It has a GEM interface and looked pretty good.

After the formal part of the meeting ended, I saw Joust demoed and picked

up 7 new disks for our ABUG library.

/Don Peters, Digital, 617-689-1242/

...decvax!decwrl!dec-rhea!dec-pulman!peters

From 9008297107688921707
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 05:47:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: ACTION and the ST
Message-ID: <526@elmgate.UUCP>
Date: Thu, 18-Sep-86 08:47:47 EDT
Article-I.D.: elmgate.526
Posted: Thu Sep 18 08:47:47 1986
Date-Received: Fri, 19-Sep-86 22:46:18 EDT
References: <8609140229.AA21054@mitre-bedford.ARPA>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 33
Summary: ACTION *may* be coming for the ST but NOT from OSS

> I would love to see the reaction of some of you language experts to OSS's
> ACTION! for the Atari 8-bitters. It is structured, but reputedly so close to
> ....
> If we are REALLY lucky, maybe OSS will come out with an ACTION! compiler for
> the ST. Then maybe the DoD will select it to replace ADA!!!
>
> -John Sangster
> jhs@mitre-bedford.arpa

Finally! A subject *I* know about.... 8^)

ACTION! is owned by ACTION COMPUTER Services, not OSS. OSS merely has the 8 bit rights to sell ACTION!. Clint Parker, the author of ACTION!, is working with Quantum MicroSystems Inc. of Syracuse NY now (under contract?) from his home in Delaware. If I understand the owner of QMI (John DeMar), Clint *MAY* be working on ACTION! for the ST. However it's not even close to being finished and the original will be extended to dispell some short comings of the original language.

Personally I think, this late in the game ACTION! may have missed any 'window of opportunity' it might have had.

The first paragraph is basically correct as I met with Mr. DeMar only a couple of weeks ago and my brother is presently writing for QMI. The second is pure conjecture on my part.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -2960775913789448511
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,48be65570be2f211,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 11:56:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE.ARPA!gpowell
From: gpowell@MITRE.ARPA (Gordon Powell)
Newsgroups: net.micro.atari16
Subject: malloc and sbrk
Message-ID: <8609181856.AA03018@mitre.ARPA>
Date: Thu, 18-Sep-86 14:56:33 EDT
Article-I.D.: mitre.8609181856.AA03018
Posted: Thu Sep 18 14:56:33 1986
Date-Received: Sat, 20-Sep-86 03:50:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Washington, D.C.
Lines: 5

If you are having problems with the DRI malloc, first call sbrk at the
beginning of your program. Call it with an argument equal to the total
number of bytes you anticipate needing. It allocates space to the heap
where the dynamic memory management is done. See also brk. Both
are documented under brk in the DRI C manual.

From 7272814603240249642
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,517d0334df51a22b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 15:42:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!intelca!oliveb!glacier!decwrl!
sun!saber!imagen!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: 1st_word and prices...
Message-ID: <426@atari.UUcp>
Date: Thu, 18-Sep-86 18:42:32 EDT
Article-I.D.: atari.426
Posted: Thu Sep 18 18:42:32 1986
Date-Received: Sat, 20-Sep-86 20:40:56 EDT
References: <8609111546.AA03083@ncsc.ARPA> <248@uwmacc.UUCP>

Organization: Atari Corp/Mktg
Lines: 32

1st Word is up to version 1.06. The new version will either single or
double space, and there also corrections for bugs in prior versions.

To receive the update, send $9.95 plus $2.50 for shipping and handling to:

Atari Customer Relations
PO Box 61657
San Jose, CA 94088
Attn: 1st Word

You MUST send your ORIGINAL 1st Word disk to receive the update, which
includes a disk and a manual.

PS: I will update the signature for the correct address, but do use:

{decwrl|saber|sun}!imagen!atari!neil

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -2752607061715681367
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 17:03:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!intelca!oliveb!glacier!decwrl!
sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: Where is Neil@Atari
Message-ID: <576@imagen.UUCP>
Date: Thu, 18-Sep-86 20:03:45 EDT
Article-I.D.: imagen.576
Posted: Thu Sep 18 20:03:45 1986
Date-Received: Sat, 20-Sep-86 20:41:14 EDT

References: <734@cbmvax.cbmvax.cbm.UUCP>
Organization: The Houses of the Holy
Lines: 27

>
> In article <8609121534.AA04117@yale-celray.YALE.ARPA> fischer-michael@YALE.ARPA
(Michael Fischer) writes:
>>Does anyone know how to get electronic mail to Neil Harris at Atari?
>>The addresss that used to work is
>>   vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
>>but it seems to be no longer valid, as indicated by the bounced
>>mail message I received:
>>
>>--Mike Fischer <fischer@yale.arpa>

you can get atari thru us:

{decwrl|sun}!imagen!atari

hope that helps

--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 9211043917212029291
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 19:09:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!aicchi!rns
From: rns@aicchi.UUCP (Schreiner)
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <805@aicchi.UUCP>
Date: Thu, 18-Sep-86 22:09:04 EDT
Article-I.D.: aicchi.805
Posted: Thu Sep 18 22:09:04 1986
Date-Received: Sat, 20-Sep-86 20:56:57 EDT
References: <5756@topaz.RUTGERS.EDU> <860912-112949-4257@Xerox>
<5793@topaz.RUTGERS.EDU>
Reply-To: rns@aicchi.UUCP (Schreiner)
Organization: RS Consulting

Lines: 15

In article <5793@topaz.RUTGERS.EDU> appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum) writes:

>Both the Sept. & Oct. issue's of ANALOG include a user group list,

The premier issue of "COMPUTE!'s Atari ST" has a user group list on the disk that comes with it.

--


```
     Ron Schreiner       ******       RS Consulting
     ...ihnp4!ronsat!rns    ******** ___  P.O.  Box 594
     CSI 76515,3152         ****\   (__   Mundelein, Il
     (312) 949-4719          *** \_____)     60060-0594
```


From 8406977402808635423
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e768e78b12265a52
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 20:02:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: LQ1000 printer driver
Message-ID: <1049@batcomputer.TN.CORNELL.EDU>
Date: Thu, 18-Sep-86 23:02:24 EDT
Article-I.D.: batcompu.1049
Posted: Thu Sep 18 23:02:24 1986
Date-Received: Sat, 20-Sep-86 00:16:22 EDT
References: <372@vaxb.calgary.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 12

I thought the LQ printers were compatible with older 9-pin printers!
Of course the 24 or 28 pin printers are capable of much higher resolution,
but the screen pixels are the resolution limit in a screen dump.

(I havn't tried one on an ST but I have tried MX80 graphics-printing
software on an Apple II with an LQ1500 and it worked fine.)

My vision of the near future, though, is nice fonts printed from ST software
on both 24-pin and laser printers. Any GDOS wizards out there working
on it? (Well, they wouldn't tell us yet, would they?)

- Moshe Braner

From -3574609580426116367
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,816891072013ba31
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 20:05:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Help on Grafikon Ltd.?
Message-ID: <8609181432.AA24990@mitre-bedford.ARPA>
Date: Thu, 18-Sep-86 23:05:11 EDT
Article-I.D.: mitre-be.8609181432.AA24990
Posted: Thu Sep 18 23:05:11 1986
Date-Received: Sat, 20-Sep-86 00:07:26 EDT
References: <2060@pur-phy.UUCP>
Sender: philip@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

Sounds more like one of those 50-lb blocks of salt you put in water softeners
is what is needed.

-John S.

From 743504749270361814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d80842a4d333ec37,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 20:05:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc ....
Message-ID: <8609181744.AA10051@ucbvax.Berkeley.EDU>
Date: Thu, 18-Sep-86 23:05:55 EDT
Article-I.D.: ucbvax.8609181744.AA10051
Posted: Thu Sep 18 23:05:55 1986
Date-Received: Sat, 20-Sep-86 00:08:03 EDT
Sender: philip@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

Maybe I found a reason for some system crashs.
GEMDOS uses a 3000 word memory area starting at 0x29dc for system purposes
(memory descriptors, root process descriptor, directory entries, ...).
Memory of this area is allocated in blocks sized in multiples of 8 words.
Released blocks are collected in free lists for each blocksize.
Now it comes:

A block once created with a particular size has this size forever !!!!
I could'nt find any routine to split or combine blocks.
The blocks for directory entries and memory descriptors differ in size.
If your first program after boot extensively uses Malloc() and Mfree() the system memory will be fragmented into 8 word blocks (actually 9 words because of 1 additional word for blocksize information). After that any request for blocks of other size will fail.

I have no idea, why system memory is limited to such a small area, nor why this management scheme is used.
Any comments on that ?

  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany
  BITNET: XBR4D76H@DDATHD21

..... a voice from good old Germany .....

From 1848996041254386026
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,318e6cc7c54616d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 20:19:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: ACTION and the ST
Message-ID: <1050@batcomputer.TN.CORNELL.EDU>
Date: Thu, 18-Sep-86 23:19:45 EDT
Article-I.D.: batcompu.1050
Posted: Thu Sep 18 23:19:45 1986
Date-Received: Sat, 20-Sep-86 00:16:38 EDT
References: <8609140229.AA21054@mitre-bedford.ARPA> <526@elmgate.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 19
Summary: Demand for "BASIC-like" languages?

[]

I have a feeling that there are some people out there who are afraid of C or hate edit-compile-link cycles or whatever, use their computer for word-processing and such and keep waiting for a programming language they feel like using. (ST-BASIC doesn't count as a language as far as I'm concerned, and LOGO may be too wierd for many.) I don't know anything about ACTION, but if it is not too low-level maybe it DOES have a market!
I posted a while ago that HBASIC, an incrementally compiled BASIC-like language for the ST, is about to come out (beta test version supposedly out now but I havn't got one yet). Its emphasis is on SPEED (including

floating-point) and on access to assembly.

If there are people reading this and longing for an "easy" language
or interactive (but not reverse Polish) environment, let us hear!
(Personally I'll stick to C for now, thanks to the 15 sec compile-and-
link time with Megamax on a RAM disk - just wish they'd fix those bugs...)

- Moshe Braner

From -4818387894733511623
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d80842a4d333ec37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-18 20:33:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc ....
Message-ID: <8609182007.AA11533@ucbvax.Berkeley.EDU>
Date: Thu, 18-Sep-86 23:33:47 EDT
Article-I.D.: ucbvax.8609182007.AA11533
Posted: Thu Sep 18 23:33:47 1986
Date-Received: Sat, 20-Sep-86 00:36:00 EDT
Sender: philip@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

Maybe I found a reason for some system crashs.
GEMDOS uses a 3000 word memory area starting at 0x29dc for system purposes
(memory descriptors, root process descriptor, directory entries, ...).
Memory of this area is allocated in blocks sized in multiples of 8 words.
Released blocks are collected in free lists for each blocksize.
Now it comes:
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I could'nt find any routine to split or combine blocks.
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system memory will be fragmented into 8 word blocks (actually 9 words because
of 1 additional word for blocksize information). After that any request for
blocks of other size will fail.

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this management scheme is used.
Any comments on that ?

  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany
  BITNET: XBR4D76H@DDATHD21

..... a voice from good old Germany .....

From -5450996108092060782
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-18 23:20:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <751@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 19-Sep-86 02:20:43 EDT
Article-I.D.: cbmvax.751
Posted: Fri Sep 19 02:20:43 1986
Date-Received: Sat, 20-Sep-86 00:41:17 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<79@mtxinu.UUCP> <462@jc3b21.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 32
Xref: mnetor net.micro.atari16:2004 net.micro.amiga:4730 net.micro.68k:1238

In article <462@jc3b21.UUCP> fgd3@jc3b21.UUCP (Fabbian G. Dufoe) writes:
>Using the untranslated addresses as the RAS addresses and doing the MMU
>address translation before the column addresses are needed for CAS sounds
>pretty general to me. I am sure the process Andy Bechtolsheim patented is
>quite a bit more specific. A patent cannot be granted for a general idea.
>It requires a specific implementation of an idea, either in a device or
>process. Think about it. Without that provision patents would stifle
>development. They are intended to do just the opposite. A patent is
>supposed to protect the inventor of a process from those who would use his
>work as their own. But it is not supposed to prevent people from using a
>concept the inventor has brought to light in their own inventions, so long
>as they don't plaigiarize from the original work.
>
> Fabbian Dufoe
> UUCP: ...akgua!akguc!codas!peora!ucf-cs!usfvax2!jc3b21!fgd3

On the other hand, it is normal for a person filing a patent application
to make as broad a claim as he thinks reasonable. The are a number of
highly irritating patents covering things like mice, pull down windows,
and character generator ROM's. If you read the patent applications, you
immediately say 'this guy has got to be kidding', but unfortunatly, they
are for real.

It is up to a manufacturer to make sure that they do not use ideas that

are patented. If Sun chooses to enforce their patent, they could cause
a small operation a lot of pain. The patent may not seem reaonable, but
it was granted, and until someone invests the neccessary legal time and
money to contest it, it is legally enforcable.
--
George Robbins - now working for,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -6210958958826111851
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd758d22cd78f4e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 09:55:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!ubc-
vision!alberta!sask!long
From: long@sask.UUCP (Warren Long)
Newsgroups: net.micro.atari16
Subject: PROFF and my PROWRITER???
Message-ID: <438@sask.UUCP>
Date: Fri, 19-Sep-86 12:55:25 EDT
Article-I.D.: sask.438
Posted: Fri Sep 19 12:55:25 1986
Date-Received: Wed, 24-Sep-86 00:08:36 EDT
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 26

When I tried to print out the proff manual, I discovered the my
printer did bizarre things with underline and boldface. (underline
came out like 't_h_e_' and boldface became 'tthhee'. I realized
that my printer did not recognize the backspace commands. (which
is alright cuz it isn't meant to in logic seek mode.)
   So, I said 'No problem, I'll just load in the printer driver
from my START disk.' Discovery number 2: The driver in START
only replaces the screen dump utility, not the regular driver.
   So, I said 'No problem, I'll just load in a driver from my
First Word disk'. There isn't one for a Prowriter and no info on
how to make one.

  Any body have any spare Prowriter drivers lying around, or any kind
of information that I could use to make my own???

-=-
Warren Long   78 Carleton Dr.
University of Saskatchewan   Saskatoon
Canada   Saskatchewan, S7H 3N6

@ long!sask!alberta!ihnp4!ucbvax!...
home ph# (306)-955-1237
-=-

From -9144406890390183022
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 10:52:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!husc6!panda!genrad!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Re: Where is Neil@Atari
Message-ID: <2704@mit-hermes.ARPA>
Date: Fri, 19-Sep-86 13:52:45 EDT
Article-I.D.: mit-herm.2704
Posted: Fri Sep 19 13:52:45 1986
Date-Received: Sat, 20-Sep-86 03:54:52 EDT
References: <8609121534.AA04117@yale-celray.YALE.ARPA>
<734@cbmvax.cbmvax.cbm.UUCP>
Organization: The MIT AI Lab, Cambridge, MA
Lines: 17

> >The addresss that used to work is
> >   vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
> >but it seems to be no longer valid, as indicated by the bounced
> >--Mike Fischer <fischer@yale.arpa>
>
> Based on information in the uucp network maps, I offer the following
> suggestions...
> ...!pyramid!atari!neil
> ...!lll-lcc!atari!neil
> ...!hoptoad!atari!neil
> atari!neil@lll-lcc.ARPA
> --
> George Robbins - now working for, uucp: {ihnp4|seismo|caip}!cbmvax!grr
> but no way officially representing arpa: cbmvax!grr@seismo.css.GOV
> Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)

Macy's may not talk to Gimbel's, but Commodore seems to know how
to talk to Atari! (What messages for Jack@Atari, guys?)

From -3262468194635912893
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4fbb43364702dfa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 10:58:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)

Newsgroups: net.micro.atari16
Subject: 520ST with PAL output?
Message-ID: <860919135813.000001DA.AJRQ.MA@UMass>
Date: Fri, 19-Sep-86 13:58:13 EDT
Article-I.D.: UMass.860919135813.000001DA.AJRQ.MA
Posted: Fri Sep 19 13:58:13 1986
Date-Received: Mon, 22-Sep-86 05:38:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Hi,
    I know someone who is very interested in purchasing a 520ST, but he
wants it with PAL video output instead of NTSC because he is planning to
take it with him to England. Is there any way to get an ST in the USA
with PAL?
    thanks,
       Mike Cohan
  MCOHAN@UMASS.BITNET   (or wiscvm.arpa)

From -7069847993471127569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f278e23ab8c325b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 12:09:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: TeX on the ST?
Message-ID: <8609192303.AA22456@ucbvax.Berkeley.EDU>
Date: Fri, 19-Sep-86 15:09:05 EDT
Article-I.D.: ucbvax.8609192303.AA22456
Posted: Fri Sep 19 15:09:05 1986
Date-Received: Sat, 20-Sep-86 01:59:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 12

Date: 19 September 86 11:12-PST
From: KJBSF@SLACVM
To: INFO-ATARI16@SCORE
Subject: TeX on the ST?

Date: 19 September 1986, 11:10:53 PST
From: Kevin J. Burnett   x3330   <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD>
Subject: TeX on the ST?

I'd be interested in knowing if there is a version of TeX available for the ST
yet, and if there isn't, what kind of demand there would be for it..

From 9219580145531408057
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 13:06:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!panda!genrad!decvax!tektronix!tekcrl!
vice!tekfdi!videovax!stever
From: stever@videovax.UUCP (Steven E. Rice)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Patentability
Message-ID: <1950@videovax.UUCP>
Date: Fri, 19-Sep-86 16:06:00 EDT
Article-I.D.: videovax.1950
Posted: Fri Sep 19 16:06:00 1986
Date-Received: Sat, 20-Sep-86 20:47:57 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<79@mtxinu.UUCP> <462@jc3b21.UUCP>
Reply-To: stever@videovax.UUCP (Steven E. Rice)
Organization: Tektronix, Comm Group, TV R&D
Lines: 65
Xref: mnetor net.micro.atari16:2020 net.micro.amiga:4744 net.micro.68k:1244

In article <462@jc3b21.UUCP>, Fabbian G. Dufoe (fgd3@jc3b21.UUCP) writes:

> . . .

>>>> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
>>>> (applied for and granted) on using the untranslated addresses as the
>>>> RAS addresses and doing the MMU address translation before the column
>>>> addresses are needed for CAS.

> . . .

> Using the untranslated addresses as the RAS addresses and doing the MMU
> address translation before the column addresses are needed for CAS sounds
> pretty general to me. I am sure the process Andy Bechtolsheim patented is
> quite a bit more specific. A patent cannot be granted for a general idea.
> It requires a specific implementation of an idea, either in a device or
> process. Think about it. Without that provision patents would stifle
> development. They are intended to do just the opposite. A patent is
> supposed to protect the inventor of a process from those who would use his
> work as their own. But it is not supposed to prevent people from using a
> concept the inventor has brought to light in their own inventions, so long
> as they don't plaigiarize from the original work.

I'm afraid the "general idea" concept is no bar to a patent! Many years

ago, Western Electric (I think. . .) obtained a patent protecting their interests in NPN-to-PNP transistor connections! Not too long after both varieties of transistor were circulating in their lab, someone saw that the collector of one type could be connected to the base of the other type (you can't do that with tubes!). Pretty general idea, eh? My employer paid royalties on this invention until the patent expired.

As another example, there has been a long battle over who first invented the laser. Recently (the last year or so), a winner was declared and a number of patents issued. Can you think of a more general idea than the laser?

Whether or not Andy's invention ultimately proves patentable (because of details having to do with the dates of the first public announcement and filing of the patent disclosure, prior art, and so forth), the idea is quite clearly patentable! Further, if the claims are drawn up broadly (lawyers are hired for this purpose. . .), the patent should cover any realization of the idea as used in memory mapping systems. Remember, though, that the patent could be invalidated merely by proving prior art! (Does anyone have an example of an equivalent, but earlier, implementation of this idea? To invalidate the patent, the prior art would probably have to involve dynamic RAMs. . .)

A patent does not just "protect the inventor of a process from those who would use his work as their own." The idea is protected in all realizations that are covered by the claims made in the patent, as long as there is no reason (such as prior art) that they should be invalidated. For a period of seventeen years, the inventor is allowed to control the use of his invention, and charge for the privilege. In return, he makes the invention public and relinquishes all control of the invention at the end of the patent's lifetime.

If there were no patents, the only protection people would have is to keep everything secret (so-called "trade secrets"). This would impede the flow of information much more than not being able to use an invention without compensation to the inventor!

Steve Rice

{decvax | hplabs | ihnp4 | uw-beaver}!tektronix!videovax!stever

From -8005324588591880808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,771bc9bd01c1f2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 13:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Terminal lockup on ST

Message-ID: <8609192053.AA20368@ucbvax.Berkeley.EDU>
Date: Fri, 19-Sep-86 16:25:00 EDT
Article-I.D.: ucbvax.8609192053.AA20368
Posted: Fri Sep 19 16:25:00 1986
Date-Received: Sat, 20-Sep-86 01:58:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

I use three different terminal programs to connect to bulletin boards
and two different VAX computers. I have been experiencing problems
with my terminal locking up on one of these VAXES. The lockup always
occurs at the same place in the login procedure and happens when using
the uniterm (v1.2) program or the VT52 emulator accesory. The only
program that avoids this lockup is STTALK. After the serial line
locks up, neither the emulator.acc nor uniterm will communicate with
it any more. However, STTALK will work even after the other programs
have locked the line, without hitting the reset button. The other two
programs will no longer communicate with the serial line without a
reset.

The problem with STTALK is that it eats up the screen (I lose four
lines) and it does not support KERMIT (of course neither does
uniterm).

Details:
1040ST(f)
Avatex 1200
Color Monitor

From -3812997815488429712
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 15:50:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!mhuxn!mhuxr!ulysses!burl!
clyde!watmath!jsgray
From: jsgray@watmath.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: Questions re. hard disks, clocks, and neil harris.
Message-ID: <3272@watmath.UUCP>
Date: Fri, 19-Sep-86 18:50:32 EDT
Article-I.D.: watmath.3272
Posted: Fri Sep 19 18:50:32 1986
Date-Received: Tue, 23-Sep-86 04:24:26 EDT
References: <8609151828.AA03938@ucbvax.Berkeley.EDU> <425@atari.UUcp>
Reply-To: jsgray@watmath.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 17

In article <8609151828.AA03938@ucbvax.Berkeley.EDU>, FISCHER-MICHAEL@YALE.ARPA

writes:
>> (2) Much more serious are limitations mentioned in the owners manual;
>> in particular, that you should not have more than 40 directories total
>> in all partitions and all devices attached to the ST.

In article <425@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>The 40 folder limit is inherent in GEMDOS.

This is totally unacceptable. In these enlightened times there are no
reasons to have stupid arbitrary limits like 6 desk accessories or 40
folders.

Are you saying there is no fix short of new ROMs?

"Bogus as Hell!"

Jan Gray   jsgray@watmath   University of Waterloo   519-885-5921

From 4367846379796086086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85ce3777b16f6c2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 17:03:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUSHI.STANFORD.EDU!ROKICKI
From: ROKICKI@SUSHI.STANFORD.EDU (Tomas G. Rokicki)
Newsgroups: net.micro.atari16
Subject: TeX on the Atari
Message-ID: <12240290509.14.ROKICKI@Sushi.Stanford.EDU>
Date: Fri, 19-Sep-86 20:03:56 EDT
Article-I.D.: Sushi.12240290509.14.ROKICKI
Posted: Fri Sep 19 20:03:56 1986
Date-Received: Sat, 20-Sep-86 02:01:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Now that TeX on the Amiga is complete and available, I will be turning
my sights to the Atari. Actually, the port is almost complete; it is
the previewer which will occupy my time.

-tom

From 2105699585747464350
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f278e23ab8c325b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 18:14:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!sri-spam!nike!ucbcad!ucbvax!MITRE-

BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: TeX on the ST?
Message-ID: <8609200101.AA11031@mitre-bedford.ARPA>
Date: Fri, 19-Sep-86 21:14:29 EDT
Article-I.D.: mitre-be.8609200101.AA11031
Posted: Fri Sep 19 21:14:29 1986
Date-Received: Sat, 20-Sep-86 03:44:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 18

There certainly should be a LOT of demand for it. You ought to bring that to the attention of Addison-Wesley Publishing, which I believe is the marketing agent for it. They are located in Reading, MA and their phone number is (617) 944-3700. Point out the cost of the 520ST and how many have been sold so far. (Neil???) I think it is well over a quarter million units. Many of them to students and computer scientists interested in publishing technical papers.

The only point of contact I know at A-W is Keith Wollman, who is at another office, (617) 246-5100. He is an "Acquisition Editor" for undergraduate computer science texts. He may well know Knuth and be interested in the TeX product.

-John Sangster
jhs@mitre-bedford.arpa

P.S. - If YOU are interested in porting TeX to the ST, A-W probably would supply the ST!

From -5266263697391239282
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,57b1d2c3fdab3bbe,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,57b1d2c3fdab3bbe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 18:59:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!lsuc!jimomura
From: jimomura@lsuc.UUCP
Newsgroups: net.micro.68k,net.micro.atari16
Subject: OS-9 68K for the Atari ST's
Message-ID: <1336@lsuc.UUCP>
Date: Fri, 19-Sep-86 21:59:43 EDT
Article-I.D.: lsuc.1336
Posted: Fri Sep 19 21:59:43 1986
Date-Received: Sat, 20-Sep-86 00:24:12 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: world
Organization: Barrister & Solicitor, Toronto

Lines: 13
Xref: utcs net.micro.68k:1831 net.micro.atari16:1976
Summary: Receiving OS-9 68K for Atari ST Monday

I just heard from Customs in Windsor and I'll be receiving my OS-9 port for the Atari ST on Monday or Tuesday (most likely Monday).

I have heard already from other OS-9 users who report that it seems to be very fast for Floppy Disk access. I'll say more later when it arrives.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 1892546125971250299
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85fb9f3486dee6c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-19 21:05:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!MSCC13
From: MSCC13@UHUPVM1.BITNET (Richard L. Coggins)
Newsgroups: net.micro.atari16
Subject: test
Message-ID: <8609200414.AA27595@ucbvax.Berkeley.EDU>
Date: Sat, 20-Sep-86 00:05:21 EDT
Article-I.D.: ucbvax.8609200414.AA27595
Posted: Sat Sep 20 00:05:21 1986
Date-Received: Sat, 20-Sep-86 05:20:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

this is a test, please ignore.

thank you.

From 8434849569272480353
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-19 21:42:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!tenney
From: tenney@well.UUCP (Glenn S. Tenney)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <1811@well.UUCP>
Date: Sat, 20-Sep-86 00:42:37 EDT
Article-I.D.: well.1811
Posted: Sat Sep 20 00:42:37 1986
Date-Received: Sat, 20-Sep-86 05:46:11 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<79@mtxinu.UUCP> <462@jc3b21.UUCP> <751@cbmvax.cbmvax.cbm.UUCP>
Reply-To: tenney@well.UUCP (Glenn S. Tenney)
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 17
Xref: mnetor net.micro.atari16:2014 net.micro.amiga:4738 net.micro.68k:1241

In article <751@cbmvax.cbmvax.cbm.UUCP> grr@cbmvax.UUCP (George Robbins) writes:
> ...
>It is up to a manufacturer to make sure that they do not use ideas that
>are patented. If Sun chooses to enforce their patent, they could cause
>a small operation a lot of pain. The patent may not seem reaonable, but
>it was granted, and until someone invests the neccessary legal time and
>money to contest it, it is legally enforcable.

I believe that the patent law allows a special challenge that costs only
$1500. This is something fairly recent, but I believe anyone can do it
with enough proof and then the Patent office takes over.

-- Glenn Tenney
UUCP: {hplabs,glacier,lll-crg,ihnp4!ptsfa}!well!tenney
ARPA: well!tenney@LLL-CRG.ARPA   Delphi and MCI Mail: TENNEY
As Alphonso Bodoya would say... (tnx boulton)
Disclaimers? DISCLAIMERS!? I don' gotta show you no stinking DISCLAIMERS!

From 5066783439612349756
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5571cd6287ebe858,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 00:03:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: Atari Corp. goes public
Message-ID: <860920030348.00001501.ANMO.MA@UMass>
Date: Sat, 20-Sep-86 03:03:48 EDT
Article-I.D.: UMass.860920030348.00001501.ANMO.MA
Posted: Sat Sep 20 03:03:48 1986
Date-Received: Sat, 20-Sep-86 07:11:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 30

ATARI CORP. PRESS RELEASE, Sept. 18, 1986

(Sunnyvale, CA) Atari Corporation announced today that it has filed a Registration Statement with the Securities and Exchange Commission for an initial public offering by the Company of 4,500,000 shares of Common Stock (and up to an additional 675,000 shares that may be purchased by the Underwriters from the Company to cover over-allotments) through an Underwriting group to be managed by PaineWebber, Incorporated. The price range is anticipated to be between $11.50 and $13.50 per share, and the offering is scheduled for mid- to late October. A written prospectus with respect to the offering will be available from PaineWebber, Incorporated.

Atari Corporation develops, manufactures, and markets microcomputer systems and software as well as video game systems, designed to offer advanced technology at low prices. The Company's product line consists of the 16/32-bit ST computers, the 8-bit XE computers, and the 2600 and 7800 video game systems, with associated software and accessories.

A registration statement relating to these securities has been filed with the Securities and Exchange Commission but has not yet become effective. These securities may not be sold, nor may offers to buy be accepted prior to the time the registration statement becomes effective. This (communication) shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under securities laws of any such State.

For more information, please contact Greg Pratt, Chief Financial Officer of Atari Corp. at (408) 745-2349.

From -1181655596051176494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d7762ae44e17cd4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 03:39:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!RITVAXC.BITNET!PLJ3740
From: PLJ3740@RITVAXC.BITNET
Newsgroups: net.micro.atari16
Subject: Application for mailing list.
Message-ID: <8609201039.AA02908@ucbvax.Berkeley.EDU>
Date: Sat, 20-Sep-86 06:39:52 EDT
Article-I.D.: ucbvax.8609201039.AA02908
Posted: Sat Sep 20 06:39:52 1986
Date-Received: Sat, 20-Sep-86 09:59:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Hello,

My name is Paul Jeran. I would be interested in being put on your mailing list. My username is: PLJ3740
Node : RITVAXA
Net : Bitnet

Thank You
Paul Jeran

From -5763142430115210399
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 05:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: GNU_EMACS and uEMACS
Message-ID: <8609201259.AA04886@ucbvax.Berkeley.EDU>
Date: Sat, 20-Sep-86 08:53:00 EDT
Article-I.D.: ucbvax.8609201259.AA04886
Posted: Sat Sep 20 08:53:00 1986
Date-Received: Sat, 20-Sep-86 20:47:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 24

I use uEmacs on the ST for everything (v3.7). I hacked on version 27 for a year with CP/M-68. And I use GNU_EMACS on a VAX. While the commands are similar between the two programs, GNU is chock-full-o usefull features that the current micro version just can't handle. But from looking at some of the GNU sources I would say "if you want to port it without Mock Lisp, forget it." Mock Lisp is an integral part of the package. In fact many of the mode specific and "extra" features of the GNU program seem to depend on Mock Lisp.

I suggest if anyone wants GNU on an Atari, she check out the program carefully and the sources; then compare those to uEmacs and its sources with the goal of expanding the micro version to include some of the features. But just think how fast your disk space will dissappear with 100K info files lying around, and how will you handle all those real un*x functions that rely on concurrency?

One idea I had, but which seems beyond me now, is to merge uEmacs with Xlisp. With a bit of tweeking, the Xlisp interpreter can be made to read and evaluate mock-lisp files. BTW a new version of GNU has been announced and might be out by the time you read this.

Robert Royar
rdroya01@ulkyvx.bitnet

From 8032411304666295306
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,90b4f002cab2a38f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 08:41:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Accessories
Message-ID: <1054@batcomputer.TN.CORNELL.EDU>
Date: Sat, 20-Sep-86 11:41:11 EDT
Article-I.D.: batcompu.1054
Posted: Sat Sep 20 11:41:11 1986
Date-Received: Tue, 23-Sep-86 05:55:05 EDT
References: <8609101512.AA12173@ucbvax.Berkeley.EDU> <195@molihp.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 8

[]

How about calling your accessories xxx.ac2, so they won't boot, and have ONE
accessory that lets you install those by name. That way you can install
them one by one as the session proceeds and you know what you actually
need, and you never have to deal with the problem of reclaiming memory!

- Moshe Braner

From 3844511143499461749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a45f2a9578ccc8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 09:34:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: FINANCIAL HEALTH OF ATARI ??
Message-ID: <8609201633.AA06324@ucbvax.Berkeley.EDU>
Date: Sat, 20-Sep-86 12:34:23 EDT
Article-I.D.: ucbvax.8609201633.AA06324
Posted: Sat Sep 20 12:34:23 1986
Date-Received: Sat, 20-Sep-86 20:55:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>
Organization: The ARPA Internet
Lines: 7

Did I hear right, on the cable TV show "Computer Chronicles" on 9/20/86?
Atari is laying off people, down from 7,000 not long ago, to 1,000 in the

near future? Because they LOST $500 million (!) last year ??
                            Bob Menton
                            MENTON@NRL-ACOUSTICS

From 1263957635972598182
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ece56a7fcf54789
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 11:22:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.ARPA!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.ARPA (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: Re: Lattice C and UUDECODE
Message-ID: <12240490431.8.LYNN@PANDA>
Date: Sat, 20-Sep-86 14:22:09 EDT
Article-I.D.: PANDA.12240490431.8.LYNN
Posted: Sat Sep 20 14:22:09 1986
Date-Received: Sat, 20-Sep-86 21:00:05 EDT
References: <569@imagen.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

In a nutshell, GNUemacs is much more robust than uEmacs is.
In GNUemacs, you can write your own functions and rework every
command and function to your taste without modifying the actual
editor.

GNUemacs also has a wonderful C editing mode which essentially
formats your code for you, keeps track of braces and parentheses
(how many times have you had a program fail because you left out
a brace or parenthesis?), allows you to compile the program from
within the editor, and if the compile fails, will place the cursor
at the point of the first bug in your program. (Phwew! LOVE those
run-on sentences!)

'Nuff said?

--Lynn :-)

From -6273817311585741387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a45f2a9578ccc8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 14:52:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs

From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI ??
Message-ID: <8609202145.AA22385@mitre-bedford.ARPA>
Date: Sat, 20-Sep-86 17:52:30 EDT
Article-I.D.: mitre-be.8609202145.AA22385
Posted: Sat Sep 20 17:52:30 1986
Date-Received: Sat, 20-Sep-86 21:05:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 3

Could they have gotten them mixed up with Commodore Business Machines?

-John S.

From -2005910224128975807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,772f5f0b414f5e70,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,772f5f0b414f5e70,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,772f5f0b414f5e70,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,772f5f0b414f5e70,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-09-20 17:30:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!rodney
From: rodney@gitpyr.UUCP (RODNEY RICKS)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: The Motorola 68030
Message-ID: <2270@gitpyr.UUCP>
Date: Sat, 20-Sep-86 20:30:27 EDT
Article-I.D.: gitpyr.2270
Posted: Sat Sep 20 20:30:27 1986
Date-Received: Wed, 24-Sep-86 22:30:05 EDT
Organization: Georgia Institute of Technology, Atlanta, Ga.
Lines: 26
Keywords: new motorola chips mmu fast
Xref: mnetor net.micro.68k:1254 net.micro.amiga:4823 net.micro.atari16:2093
net.micro.mac:7176

In the September 18, 1986 issue of Electronic Design magazine, there is an
article on page 27 describing the new microprocessor from Motorola, the 68030.
The chip is said to run software 20% to 30% faster than the 68020. The chip
is supposed to be available in mid-1987, along with an improved math
coprocessor, the 68882, which will be up to 25% faster than the 68881.

Oh yeah, by the way, the chip will have a built-in, paged memory-management
unit (in case anybody cares :-)). The MMU is a subset of the 68551 PMMU.

The chips have several other interesting features, which I will leave to the article, so that I won't be accused of plagaurism (sp?).

The bus data transfer rate of the 68030 is 40 Mbytes/sec.

Hopefully, now we won't have to put up with the Intel fans (short for fanatics? :-)) telling us that Intel has the best microprocessor.

Now, when will I be able to connect one to my Amiga?

Rodney Ricks,
   (Not officially respresenting...)   The 64 Store. Atlanta, Georgia 30339

UUCP: ...!{akgua,allegra,amd,hplabs,ihnp4,seismo,ut-ngp}!gatech!gitpyr!rodney
 or :   !gatech!gt-oscar!rodney
Mail: 4265 Hidden Valley Dr. College Park, Ga. 30349

From 201693167487266217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da5107572efac356
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 18:59:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ernie.Berkeley.EDU!phr
From: phr@ernie.Berkeley.EDU (Paul Rubin)
Newsgroups: net.micro.atari16
Subject: Re: GNU_EMACS and uEMACS
Message-ID: <15737@ucbvax.BERKELEY.EDU>
Date: Sat, 20-Sep-86 21:59:45 EDT
Article-I.D.: ucbvax.15737
Posted: Sat Sep 20 21:59:45 1986
Date-Received: Sun, 21-Sep-86 18:17:04 EDT
References: <8609201259.AA04886@ucbvax.Berkeley.EDU>
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: phr@ernie.Berkeley.EDU.UUCP (Paul Rubin)
Organization: University of California, Berkeley
Lines: 23

A few people have mentioned Mock Lisp in GNU Emacs. I'd like to correct this: Mock Lisp simple Lisp-like language used in Gosling Emacs which is now sold by Unipress Corp. It is called "Mock" Lisp because among other things it doesn't have a CONS function. GNU Emacs Lisp is a real Lisp (including CONS) which some pretty substantial programs have been written in. Most of GNU Emacs's editing commands are written in Lisp.

In my opinion, trying to merge Xlisp with MicroEmacs would result in a horrible kludge and trying to make it able to run GNU Emacs Lisp functions would, if it is feasible at all, give you a program as big as GNU Emacs. It would be simpler to just port GNU Emacs to the ST. This is not a completely crazy thing to contemplate doing on a 1 megabyte machine and

is a completely reasonable idea with 2 or 4 megabytes. (The program text segment of GNU Emacs is about 600k on a VAX, which includes a lot of sharable Lisp code as well as a lot of code for things like Unix asynchronous process control which would have to be flushed on an ST).

Someone (Bradley Mitchell?) has made an extensible MicroEmacs by combining it with a FORTH system. That seems like a more sensible approach than writing a Lisp system if the goal is to keep the program small; however, writing very complicated macros is probably more difficult. I've never used FORTH so I don't know for sure.

From 5016201248881251129
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a82e70ad5fe7bf2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-20 19:57:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!ubc-vision!alberta!sask!long
From: long@sask.UUCP (Warren Long)
Newsgroups: net.micro.atari16
Subject: Comments on MicroEmacs 3.7
Message-ID: <442@sask.UUCP>
Date: Sat, 20-Sep-86 22:57:30 EDT
Article-I.D.: sask.442
Posted: Sat Sep 20 22:57:30 1986
Date-Received: Wed, 24-Sep-86 00:10:56 EDT
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 32

I am very impressed with the latest version of Emacs that has been posted.

A few comments:
  -if you hit F10 you just exit, no questions asked. I find this a little scary.
  -When run in colour mode, I only have a colour tv, so it is not worth using, the characters are difficult to read. So, I am using the Hi50 program in monochrome. I would love to modify Emacs 3.7 to use all 50 lines on the screen. Source would be nice...
  -I opened my monitor and expanded the vertical resolution. Definately a very good idea. 50 lines was pretty scrunched before, and now it seems almost as legible as 25 line mode. (Yes, circle generated by graphics programs are a little too tall, but I am not complaining... as an aside, can I expand the horizontal size too??? I didn't see any obvious way to do it.

Thanks

-=-=-=

them resident so one could use them anytime.

Could these be done? You bet, and they would be far more useful than unloading an acc. All it takes is an enterprising individual. And if one isn't out there, then wait, I'll get to it after my current project (read in a year or so).

Mike

From 1041972513005609827
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b753d398c758c25,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 12:05:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike Vederman)
Newsgroups: net.micro.atari16
Subject: Action!
Message-ID: <8609232056.AA06071@ucbvax.Berkeley.EDU>
Date: Sun, 21-Sep-86 15:05:01 EDT
Article-I.D.: ucbvax.8609232056.AA06071
Posted: Sun Sep 21 15:05:01 1986
Date-Received: Tue, 23-Sep-86 23:18:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Yea raHHHHH!!!!!

Action would be a welcome addition to any programming environment. The language is similar to C (yet limited on the 8bit version) but lacks the awkwardness of C syntax, and is very structured.

I could not say enough about Action! if it were implemented to allow as much flexibility as C. It would be my #1 choice, although I like C a lot. Clint Parker who developed Action! knows exactly how to write an excellent programming environment. And if it were on cartridge to boot!!! Look out!!

Mike

From -1707527871649203396
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,efdebac64479e5d3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 12:21:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!hmm
From: hmm@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SH204 Hard disk facts - (nf)

Message-ID: <96100022@exunido.UUCP>
Date: Sun, 21-Sep-86 15:21:00 EDT
Article-I.D.: exunido.96100022
Posted: Sun Sep 21 15:21:00 1986
Date-Received: Mon, 22-Sep-86 01:46:57 EDT
References: <9@unido.UUCP>
Lines: 18
Nf-ID: #R:unido:-900:exunido:96100022:000:949
Nf-From: exunido!hmm   Sep 21 20:21:00 1986

Our experience has been that the best way to use the harddisk for compiling is:
1. partitioning it into 4 partitions first.
   This way creating files takes not too much time.
2. using a ramdisk for every temporary file. This speeds up a lot !

However, the whole slowness of the GEMDOS filesystem handling is a pain
in the *** ! Maybe the following would help:
Implement a track buffer for reading. Useful for floppies only, I think.
But it would help considerably.
Do some write-behind if possible. It gets a bit complicated, and I don't
know if it would fit into the bios well.
!! Beat those bugs out of GEMDOS !!
The slowness of file creation is a real bug. As far as I know the file
system layout, it should not depend on the filling grade of the partition.
When you watch the activity light on the harddisk during file creation
you see that there is something realy weird going on.

     Hans-Martin Mosner (hmm@unido.uucp, hmm@unido.bitnet)

From 997374583735502089
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cabd79ea3916bb52,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 12:38:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: CHKDSK for ST?
Message-ID: <8609212144.AA20979@ucbvax.Berkeley.EDU>
Date: Sun, 21-Sep-86 15:38:41 EDT
Article-I.D.: ucbvax.8609212144.AA20979
Posted: Sun Sep 21 15:38:41 1986
Date-Received: Sun, 21-Sep-86 22:24:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

There is a chkdsk available for the ST's and it is called precisly that-
'CHKDSK.TTP'. I Dl'ed from compuserve. It is probably on othher BBS's too.

usenet: .....!decvax!cwruecmp!bammi   jwahar r. bammi

csnet: bammi@case
arpa: bammi%case@csnet-relay
compuServe: 71515,155

From 2222413627145367118
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,100f4d64bb7a5331,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 13:31:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: FINANCIAL HEALTH OF ATARI
Message-ID: <8609212031.AA20135@ucbvax.Berkeley.EDU>
Date: Sun, 21-Sep-86 16:31:52 EDT
Article-I.D.: ucbvax.8609212031.AA20135
Posted: Sun Sep 21 16:31:52 1986
Date-Received: Sun, 21-Sep-86 22:23:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>
Organization: The ARPA Internet
Lines: 10

     Re my earlier posting, mentioning a "Computer Chronicles" cable TV
show in which the financial health of Atari was seriously questioned:
either they meant 'Commodore', as my friend John Sangster suggested, or
as C-3PO would put it, "Old data" (I hope - I only caught the last few
minutes of the show, and it may have been 1 1/2 years old!
                              Bob Menton
                              MENTON@NRL-ACOUSTICS

From -3540715721419732964
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59088b61119a022e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 14:12:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!philmds!prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.atari16
Subject: SH204 Hard disk facts
Message-ID: <9@prle2.UUCP>
Date: Sun, 21-Sep-86 17:12:47 EDT
Article-I.D.: prle2.9
Posted: Sun Sep 21 17:12:47 1986
Date-Received: Sun, 21-Sep-86 18:46:47 EDT
Organization: Philips Research Laboratories Eindhoven

Lines: 49

References:
Sender:
Reply-To: slavenbg@prle2.UUCP (Gert Slavenburg and Joost Janse)
Followup-To:
Distribution:
Organization: Philips Research Laboratories Eindhoven
Keywords: SH204 HARDDISK

We recently aquired the European SH204. Since we found several problems
with the previous prototype harddisk, we were eager to compare them :

- The noise level seems to be down by a factor of two (subjective).
  Where the prototype produced a steady hum, the commercial SH204
  produces mostly fan-noise, which to us is much less distracting.

- The cablelength is now 60 cm, which allows placing the drive next
  to the ST with the indicator light facing towards you.

- Partitioning of up to 4 partitions (max. 16 M per partition) is now
  possible.

- The major problem with the prototype is the slow speed of writing on
  a substantantially filled hard disk. This problem appears NOT solved
  in the commercial SH204.
  The measurements below show that overhead on file writing depends
  on the usage of a partition. For a partition containing 7.5 MByte,
  allocation for an empty file takes approx. 7 seconds ! (on a floppy,
  this takes 4 seconds.....)

  Copying time for 4 folders totalling 55 items (1.5 MByte)
  from harddisk into another partition (of size 10M) :
    destination partition empty   : 2:06 minutes
    destination 1.5 M filled   : 3:27
    destination 3.0 M filled   : 4:38
    destination 4.5 M filled   : 5:52
    destination 6.0 M filled   : 7:03
  With the partition containing 7.5 M, writing an empty file takes
  approx 7 seconds and a 32kByte file 7.5 seconds. Writing the same
  file on floppy takes 10.5 seconds.

The above measurements were done using a AHDI.PRG version 1.4 (dyer).

As long as this problem is not fixed, you should consider if this is
a device you want :

  File reading and program loading is fast.
  Applications allocating many small files (compilers...) run slow,
  sometimes slower than a floppy drive.

From 8692052811445683234

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,100f4d64bb7a5331
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-21 16:55:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI
Message-ID: <8609212345.AA07043@mitre-bedford.ARPA>
Date: Sun, 21-Sep-86 19:55:06 EDT
Article-I.D.: mitre-be.8609212345.AA07043
Posted: Sun Sep 21 19:55:06 1986
Date-Received: Sun, 21-Sep-86 23:39:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 7

I have heard from a "usually reliable source" -- one with fairly good sources
inside Atari -- that the information in that show is probably about 2 years
out of date. Atari has for a couple of years had only around 1000 employees,
and they have NOT recently laid off 6000 of that 1000.

-John Sangster
jhs@mitre-bedford.arpa

From 5168437026795027461
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f837b33ce793aaab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 02:36:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!inuxc!pur-ee!
j.cc.purdue.edu!h.cc.purdue.edu!pur-phy!piner
From: piner@pur-phy.UUCP (Richard Piner)
Newsgroups: net.micro.atari16
Subject: Which hard disk?
Message-ID: <2071@pur-phy.UUCP>
Date: Mon, 22-Sep-86 05:36:15 EDT
Article-I.D.: pur-phy.2071
Posted: Mon Sep 22 05:36:15 1986
Date-Received: Tue, 23-Sep-86 22:23:58 EDT
Distribution: net
Organization: Purdue Univ. Physics Dept., IN
Lines: 20

Ok, I have a question for the net. I've just got in my copy of OS/9
for the Atari. It seems to be a fairly complete operating system
and everything works. I will post a short review in the next week or
so. But, OS/9 is not a small system. The directory runs to four
pages and this is sans languages. In short, it's time to buy a

hard disk. This particular port of OS/9 supports disk made by
two companies, Atari & Supra. So sports fans, which do you think
is the better disk? Please mail or post replies. Of course, in a week
or two, I will summarize to the net.

Richard Piner
piner@galileo.UUCP
(was piner@pur-phy.UUCP)

BTW, the hard disk implimentation is a little strange. It seems that
a small portion of the disk must be left for GEM. The partition can
be very small, but it has to be there in order to boot the system.
I thought the industry learned not to use ROM when Radio Shack stopped
making the Model III. Oh, well.

From -8962978480816311170
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54154f725c8feda9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 03:06:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: ST-BASIC EOF() Function
Message-ID: <37@nvpna1.UUCP>
Date: Mon, 22-Sep-86 06:06:16 EDT
Article-I.D.: nvpna1.37
Posted: Mon Sep 22 06:06:16 1986
Date-Received: Mon, 22-Sep-86 01:46:19 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Distribution: net.micro.atari16
Organization: Philips Research Laboratories Eindhoven
Lines: 24
Keywords: BASIC EOF BUG
Summary: Is there any use for EOF()-function?

Am I missing something, or is the ST-BASIC EOF function totally useless?

I tried to read a file upto the end and I wanted to detect eof by means of the
eof function. If I don't include the "on error" statement I get a "You reached
end-of-file" error at line 170, but if I do include the "on error" statement,
then I end up in an infinite loop.

Here is my ST BASIC program:

```
100   on error goto 210
110   line%=0
120   open "I",#1,"file.ext"
130   line input #1,buf$
140   while not eof(1)
```

```
150       line%=line%+1
160       print line%,buf$
170       line input #1,buf$
180   wend
190   close #1
200   end
210   print "Error";err;"at line";erl        <--- just to see what is going on
220   resume next
```

Frans Dorrestein.

From 5761666786226108336
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,daf68be5652ae972,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 04:13:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!DBNUAMA1.BITNET!HSTL
From: HSTL@DBNUAMA1.BITNET
Newsgroups: net.micro.atari16
Subject: TeX for AtariST
Message-ID: <8609221112.AA00513@ucbvax.Berkeley.EDU>
Date: Mon, 22-Sep-86 07:13:11 EDT
Article-I.D.: ucbvax.8609221112.AA00513
Posted: Mon Sep 22 07:13:11 1986
Date-Received: Mon, 22-Sep-86 21:00:16 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

TeX for ATARI-ST is available! It is sold by
 Tools GmbH
 Kaiserstr. 48
 D 5300 Bonn 1
 W. Germany
 Tel. (Bonn) 229791
The implementation comprises LaTeX and preview driver using GEM.
The price seems reasonable. About speed or bugs: I have not heard
of any complaints. (Ususal disclaimer, ... no affiliation ...).
Horst Stenzel, Univ.Bonn, Angew.Math., HSTL@DBNUAMA1.BITNET

From 375226253364185246
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b9321c2eb80397f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 05:24:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: GNU_EMACS (didn't mean to stir up a hornets' nest)

Message-ID: <8609221236.AA01198@ucbvax.Berkeley.EDU>
Date: Mon, 22-Sep-86 08:24:00 EDT
Article-I.D.: ucbvax.8609221236.AA01198
Posted: Mon Sep 22 08:24:00 1986
Date-Received: Mon, 22-Sep-86 21:07:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 30

Re: an earlier posting about why Gnu *probably* wouldn't work on an ST.

What I was really trying to say was GNU_EMACS needs the Lisp functions to remain such a wonderful package. I was responding to a question about when someone was planning to port GNU, without lisp, to the ST. I don't think that port would be worth it. It would be a step backwards for GNU. As for porting it to the ST. My 1040 only has about 896K left when it loads without DAs. Sounds like a lot doesn't it? Try loading a 600k application, up to 100K of source files, and then expect the ST to let you compile and link those modules without exiting. The linker can run in 128K, but with large compilations it needs 256K. Let's see 896 - 600 - 256 = 40. Given the problems with malloc and free on the ST, that 40K is gone in no time.

BTW I have been using uEmacs 37 which includes a Cmode, a non-braindamaged word wrap and fill (i.e. it understands that a word includes punctuation marks when it wraps and that sentences are terminated with two spaces when it fills). This version also supports the store macro function which allows you to write routines that are a little more useful than the record keyboard macro can be but still no conditionals or loops.

Now for the other side. Unipress has a Gosling EMACS that works on an IBM-PC (full memory I believe) and needs a hard drive. But like someone said, it doesn't support the full lisp that GNU has. And I use that lisp code and Info for my students who write essays with GNU_EMACS. Perhaps with some anti-C maneuvering (overlays on the hard drive), GNU_EMACS could be ported complete with "peaches en regalia" (F.Z.). *8^}

From -1757885136416514173
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,771bc9bd01c1f2a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 07:45:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!decwrl!
amdcad!cae780!leadsv!lefko
From: lefko@leadsv.UUCP (Martin Lefkowitz)
Newsgroups: net.micro.atari16
Subject: Re: Terminal lockup on ST
Message-ID: <1104@leadsv.UUCP>

Date: Mon, 22-Sep-86 10:45:04 EDT
Article-I.D.: leadsv.1104
Posted: Mon Sep 22 10:45:04 1986
Date-Received: Tue, 23-Sep-86 03:59:53 EDT
References: <8609192053.AA20368@ucbvax.Berkeley.EDU>
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 6

I have experienced terminal lockup 3 times with my 520 mono and Avatex.
Insted of reseting the machine, you can try reseting the terminal. --

{(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!lefko
{{allegra ihnp4 dual}!fortune decvax!decwrl}!amdcad!cae780!leadsv!lefko

From 6199778212166306307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a45f2a9578ccc8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 08:35:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI ??
Message-ID: <387@cci632.UUCP>
Date: Mon, 22-Sep-86 11:35:23 EDT
Article-I.D.: cci632.387
Posted: Mon Sep 22 11:35:23 1986
Date-Received: Mon, 22-Sep-86 21:26:19 EDT
References: <8609201633.AA06324@ucbvax.Berkeley.EDU>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 27
Summary: When??

In article <8609201633.AA06324@ucbvax.Berkeley.EDU> "V5130B::MENTON"
<menton@v5130b.decnet> writes:
>Did I hear right, on the cable TV show "Computer Chronicles" on 9/20/86?
>Atari is laying off people, down from 7,000 not long ago, to 1,000 in the
>near future? Because they LOST $500 million (!) last year ??
>   Bob Menton
>   MENTON@NRL-ACOUSTICS

These numbers do sound familiar. They sound like what occurred when Mr.
Tramael took over ATARI from Warner. When he took over, there were about
7000, many of them in marketing. Within a few months, there were only a
hand full of marketing people, a core engineering staff (mostly working on
the ST), and the manufacturing facilities were all put under automation.

Atari did lose $500 million the year it was sold to Mr. T., in fact that
was one of it's better years. Since the sale, Atari has not only been

doing well in the sales, but it may be showing a profit for the first time since the release of the 800.

Is it possible that this show was a repeat?

Ironically, Atari has been one of the few PC companies that has shown improvement this year (1986). Even grand old IBM has been feeling the Atari bite of the market.

Just out of curiosity, what is the ticker symbol for Atari? It used to be part of Warner Communications, but appears to be a separate company now?

From 2401167980994313193
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,100f4d64bb7a5331
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 08:39:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!vrdxhq!verdix!ogcvax!omssw2!reed!tektronix!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI
Message-ID: <416@ubc-cs.UUCP>
Date: Mon, 22-Sep-86 11:39:43 EDT
Article-I.D.: ubc-cs.416
Posted: Mon Sep 22 11:39:43 1986
Date-Received: Fri, 26-Sep-86 01:12:27 EDT
References: <8609212345.AA07043@mitre-bedford.ARPA>
Reply-To: manis@ubc-cs.UUCP (Vincent Manis)
Organization: UBC Department of Computer Science
Lines: 14

It's fairly hard to reconcile the rumours of Atari's financial problems with their announcement that they are going public. One goes public to attract capital, which might suggest that they're cash-short, but it's rather hard to find investors who would propose to sink money into a company on the verge of going down the drain.

Since financial information on Atari is hard to obtain, it's hard to know what's going on without looking at the prospectus. However, I suspect that the accounts I've seen in places like INFOWORLD and BYTE are more likely than most: Atari has been selling all the ST's they can make, but they can't make enough. In that light, an IPO seems reasonable, in that it might help them to afford more production equipment, warehousing, and inventory.

From 4419678835086723450
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e25e5d42a7570a98,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-22 09:04:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Keyboard reconfiguration
Message-ID: <373@cernvax.UUCP>
Date: Mon, 22-Sep-86 12:04:55 EDT
Article-I.D.: cernvax.373
Posted: Mon Sep 22 12:04:55 1986
Date-Received: Wed, 24-Sep-86 22:17:50 EDT
Reply-To: jmg@cernvax.UUCP ()
Distribution: world
Organization: CERN, Geneva/Switzerland
Lines: 12

Preliminary remark: my own 1040 has the UK keyboard, but various other
keyboards exist around Europe. Usually, they allow the extra accented
characters by use of the alternate key. Of course, the normal keys are
moved around (QWERZY, AZERTY, etc.). My own word processing needs are
mainly english, but sometimes I need german or french. 1st word will deal
with this, but in a clumsy way.
Question, therefore. Are there keyboard reconfiguration programs which
allow not only changing keys, but also adding them via the alternate key
(my own has no reaction to use of this key). Of course, any reconfiguration
should be compatible with whatever word processing package I decide to
use, and I don't know yet which that will be.
A biento<backspace>^t.

From -3723520836222472531
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,100f4d64bb7a5331
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 09:12:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!qantel!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: FINANCIAL HEALTH OF ATARI
Message-ID: <1037@druhi.UUCP>
Date: Mon, 22-Sep-86 12:12:41 EDT
Article-I.D.: druhi.1037
Posted: Mon Sep 22 12:12:41 1986
Date-Received: Tue, 23-Sep-86 22:22:41 EDT
References: <8609212031.AA20135@ucbvax.Berkeley.EDU>
Organization: AT&T Information System Labs, Denver, Co
Lines: 18

In article <8609212031.AA20135@ucbvax.Berkeley.EDU>, menton@v5130b.DECnet.UUCP
writes:
>
>   Re my earlier posting, mentioning a "Computer Chronicles" cable TV

> show in which the financial health of Atari was seriously questioned:
> either they meant 'Commodore', as my friend John Sangster suggested, or
> as C-3PO would put it, "Old data" (I hope - I only caught the last few
> minutes of the show, and it may have been 1 1/2 years old!
>   Bob Menton
>   MENTON@NRL-ACOUSTICS
>
> ------

I am pretty sure that this was old data. Atari layed off many of their workers when they were owned by Warner. This was due to shifting much of the production of their video games to offshore facilities. I haven't heard of any layoffs since Jack has owned the company.

Barry Locklear

From 7499542928480126672
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,37b9b83641a4cb11,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 09:25:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NADC.ARPA!kushnier
From: kushnier@NADC.ARPA
Newsgroups: net.micro.atari16
Subject: ST Video Connectors
Message-ID: <8609221646.AA04288@ucbvax.Berkeley.EDU>
Date: Mon, 22-Sep-86 12:25:04 EDT
Article-I.D.: ucbvax.8609221646.AA04288
Posted: Mon Sep 22 12:25:04 1986
Date-Received: Mon, 22-Sep-86 21:30:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

I read somewhere that the 13 pin video connectors for the ST are now available from ATARI as spare parts. Does anyone have a part number so I can order a few??

Ron Kushnier
kushnier@nadc.arpa

From -9021007981460353039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fabe4d1558c4ee7b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-22 09:30:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET

Newsgroups: net.micro.atari16
Subject: Public-Domain software on BITNIC
Message-ID: <8609221630.AA04005@ucbvax.Berkeley.EDU>
Date: Mon, 22-Sep-86 12:30:32 EDT
Article-I.D.: ucbvax.8609221630.AA04005
Posted: Mon Sep 22 12:30:32 1986
Date-Received: Mon, 22-Sep-86 21:30:08 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Hello,

For Bitnetters it is extremly difficult to get files from
the arpanet. I recently discovered that on the fileserver
SILMARIL@FINHUTC.BITNET someone is collecting public domain
software for the ATARI-ST. However, the collection is not
growing very fast, probably because almost no one knows it exists.
So, whoever has public domain software for the ST and knows how
to transfer files on BITNET, please send it to LK-ET@FINHUTC.

By the way, what is left of the initiativ of what's his name
to setup a "net.atari16.sources" and how can I benefit of
this?

Greetings, Berend F. de Vries.

From 3616342686903669901
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-10 14:36:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <7107@utzoo.UUCP>
Date: Wed, 10-Sep-86 17:36:17 EDT
Article-I.D.: utzoo.7107
Posted: Wed Sep 10 17:36:17 1986
Date-Received: Wed, 10-Sep-86 17:36:17 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp>, <823@navajo.STANFORD.EDU>
Organization: U of Toronto Zoology
Lines: 34

> > I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> > (applied for and granted) on using the untranslated addresses as the
> > RAS addresses and doing the MMU address translation before the column
> > addresses are needed for CAS. Sooner or later, it's going to cost some
> > competitors a WHOLE lot of money.
>
> How the hell can the patent office grant patents like this? ...
> ... the idea is too obvious.

The patent office is not omniscient, and the idea certainly wasn't as
widely known five years ago as it is today. It's fairly likely that
somebody *somewhere* had the idea earlier, and can prove it -- for
example, I'm fairly sure at least one blurb for some early MMU chip
mentioned the notion -- but it's asking a bit much to expect the Patent
Office to know this.

Ignoring for the moment the question of whether Andy's then-current
employer has some say in the matter, what will happen is that Andy will
be able to go out and ask assorted competitors for royalties. There's
a fair chance that most of them will pay rather than fight, if he's
reasonable about amounts. If he's not, or if somebody decides to balk,
there will be a court battle, which Andy probably will lose. The idea
is too simple; my guess would be that a vigorous literature search will
turn up either prior publication of the idea or something close enough
to make the final step "obvious to one skilled in the art", either of
which invalidates the patent. In recent years, as I recall, most court
challenges to patents have succeeded: it's too hard to come up with
something that is really and totally new. Andy's best tactic would be
to ask for a modest royalty that's not worth fighting. The chances of
successfully gouging someone for a "WHOLE lot" of money aren't good
unless he deliberately picks an ailing victim who can't afford a fight.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -1962309065358579686
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 15:14:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!panda!genrad!decvax!bellcore!ulysses!burl!clyde!
watmath!csc
From: csc@watmath.UUCP (Jan Gray)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <3077@watmath.UUCP>
Date: Wed, 10-Sep-86 18:14:44 EDT

Article-I.D.: watmath.3077
Posted: Wed Sep 10 18:14:44 1986
Date-Received: Thu, 11-Sep-86 07:34:22 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU> <79@mtxinu.UUCP>
Reply-To: csc@watmath.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 25
Xref: mnetor net.micro.atari16:1885 net.micro.amiga:4611 net.micro.68k:1204

In article <79@mtxinu.UUCP> ed@mtxinu.UUCP (Ed Gould) writes:
>>> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
>>> (applied for and granted) on using the untranslated addresses as the
>>> RAS addresses and doing the MMU address translation before the column
>>> addresses are needed for CAS.
>>
>>How the hell can the patent office grant patents like this? It's sort
>>of like patenting the idea of grounding DTACK on a 68000 or putting
>>chocolate ice cream in root beer; the idea is too obvious. To coin a
>>phrase, it's patently ridiculous.
>
>If it's so obvious, why didn't anyone think of it before Andy did?

I did; it's the obvious way of building an MMU that doesn't introduce extra
wait states, and applies to the 68K family because the other common
16/32 bit CPUs don't require custom MMUs.

>Is the Set-UID bit (also patented) any less obvious? Not to me,
>now that I've seen them both. But I never thought of them; neither
>did anyone else, evidently, before their respective inventors.

Like the guy who patented the xor cursor, or Apple's pull-down menu
patent, I'll believe it when it holds up in court.

Jan Gray   Northern Software and University of Waterloo   885-5921

From -832524048067741182
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c55853c4a20e477,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 16:03:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: [FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU: sources-request for lex and/or
yacc]
Message-ID: <12237920147.33.G.ABRAMS@Score.Stanford.EDU>
Date: Wed, 10-Sep-86 19:03:09 EDT
Article-I.D.: Score.12237920147.33.G.ABRAMS
Posted: Wed Sep 10 19:03:09 1986
Date-Received: Thu, 11-Sep-86 08:43:53 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

Return-Path: <FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU>
Received: from WISCVM.WISC.EDU by SU-SCORE.ARPA with TCP; Wed 10 Sep 86 03:47:42-PDT
Received: from (FGCBA10)BLEKUL11.BITNET by WISCVM.WISC.EDU on 09/10/86
  at 05:06:11 CDT
Date: Wed, 10 Sep 86 12:07:18 SET
To: INFO-ATARI16-REQUEST@SU-SCORE.ARPA
From: FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU
Subject: sources-request for lex and/or yacc

HI THERE IN COMPUTERLAND,

I WAS WONDERING IF SOMEBODY HAS A (C-) SOURCE OF LEX AND/OR YACC.
LEX AND YACC ARE TWO UNIX UTILITIES TO GENERATE LEXICAL
ANALYZERS AND SIMPLE AUTOMATONS. I EVEN WOULD BE VERY GRATEFULL
IF SOMEBODY COULD TELL ME HOW TO PRODUCE A NEW LEX WITH A LEX
(I HAVE ACCESS TOO A WORKING LEX IN A UNIX SYSTEM).

PETER VERBEKE
KUL-LEUVEN

From -380170825443937965
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 17:16:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdcsu.UUCP
Path: utzoo!watmath!watnot!watdcsu!magore
From: magore@watdcsu.UUCP (M.A.Gore - ICR)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <2535@watdcsu.UUCP>
Date: Wed, 10-Sep-86 20:16:08 EDT
Article-I.D.: watdcsu.2535
Posted: Wed Sep 10 20:16:08 1986
Date-Received: Thu, 11-Sep-86 09:21:11 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU> <79@mtxinu.UUCP>
Reply-To: magore@watdcsu.UUCP (M.A.Gore - ICR)
Organization: U of Waterloo, Ontario
Lines: 56

Xref: watmath net.micro.atari16:1915 net.micro.amiga:4678 net.micro.68k:1808
Summary:

In article <79@mtxinu.UUCP> ed@mtxinu.UUCP (Ed Gould) writes:
>>> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
>>> (applied for and granted) on using the untranslated addresses as the
>>> RAS addresses and doing the MMU address translation before the column
>>> addresses are needed for CAS.
>>
>>How the hell can the patent office grant patents like this? It's sort
>>of like patenting the idea of grounding DTACK on a 68000 or putting
>>chocolate ice cream in root beer; the idea is too obvious. To coin a
>>phrase, it's patently ridiculous.
>
>If it's so obvious, why didn't anyone think of it before Andy did?
>Is the Set-UID bit (also patented) any less obvious? Not to me,
>now that I've seen them both. But I never thought of them; neither
>did anyone else, evidently, before their respective inventors.
>
>The person who first put chocolate ice cream into root beer probably
>didn't realize what they'd done. They should have patented it, too!
>(Unless, of course, someone had already done the same thing with
>vanilla ice cream. Then *they* should have pattented it.)
>
>The real question, to me, is (since the original poster suggested that
>Sun's competitors would have to start paying for this idea) Who really
>owns the patent? The idea was developed while Andy was at Stanford,
>possibly (I have no idea, one way or the other) with public money.
>If it was developed with Federal money, then policy says that there
>will be no fees for use of the patent. If Sun owns it, then there
>probably will be fees.
>
>--

The problem is that the idea IS old... Many companies have used
the idea for paged MMU's. The idea would be obvious to people who design
high speed memory systems. High speed memory that uses RAS/MULTIPLE CAS
to cut down on access. When you think of one event followed by another
you *try* to do things in parallel while waiting. The question
and point I am making is two fold (OLD IDEA) and OBVIOUS) *in the circles
of memory design*. I'm really worried more about the *general case* of having
our common thinking patented. Or THEFT of ideas that are in current use
for profit. Some simple ideas don't have patents for similar reasons that
not all people use locks. Here the theif can make you pay... The later
comment should in no way be implied with SUN, it is an echo of general
concern that effects many of us. If someone comes up with something *new*
and our knowledge is extended then great, give a patent!

I would like to say that I understand Sun uses the method of RAS/CAS
delay decode. Perhaps they were the *first* and had the idea shortly after
DRAM's came out. Then my idea of OLD would be out..... > 10 years.
In any case I am quite interested in why they think they can get a patent.
Because if such simple ideas can be patented then it would be a good education

for all of us.

Mike Gore
Institute for Computer Research.
These ideas/concepts *do not* imply views held by the University of Waterloo.

From 2476348465675135083
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 18:26:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <5756@topaz.RUTGERS.EDU>
Date: Wed, 10-Sep-86 21:26:45 EDT
Article-I.D.: topaz.5756
Posted: Wed Sep 10 21:26:45 1986
Date-Received: Wed, 10-Sep-86 23:58:15 EDT
References: <8609091534.AA03565@ncsc.ARPA> <8609091627.AA21723@ames-nas.ARPA>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 7
Cc: appelbau

Both 1st word and the updated version should be available from your
local ATARI user group From what I understand both are free and
considered to be in the public domain.
--
Marc L. Appelbaum
Arpa: appelbau@topaz.RUTGERS.EDU
Uucp: ...{allegra| harvard| seismo| sri-iu| ut-sally}!topaz!appelbau

From 6522492621446890845
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f57dc58dfbb22200
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 06:54:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihlpf!rtb
From: rtb@ihlpf.UUCP (Todd)
Newsgroups: net.micro.atari16
Subject: Re: Followup to Terminal + THUNDER!
Message-ID: <710@ihlpf.UUCP>
Date: Thu, 11-Sep-86 09:54:32 EDT
Article-I.D.: ihlpf.710
Posted: Thu Sep 11 09:54:32 1986
Date-Received: Fri, 12-Sep-86 05:25:02 EDT

References: <4643@pur-ee.UUCP>
Organization: AT&T Bell Laboratories
Lines: 11

***

I think ANSIGRAF by Grafikon Ltd. is the program for you.
It emulates a VT102 and also does a really good job of
emulating a Tektronix 4014. It uses GEM, so THUNDER should
work although I haven't tried that combination. You might
want to find a store that sells it, bring in you copy
of THUNDER and ask to try it out.

R.T. Bradstrum

From -8765833737752211776
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aaa90efa1a3a48de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 07:28:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: LARN
Message-ID: <150@druxu.UUCP>
Date: Thu, 11-Sep-86 10:28:55 EDT
Article-I.D.: druxu.150
Posted: Thu Sep 11 10:28:55 1986
Date-Received: Fri, 12-Sep-86 05:25:15 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 22
Keywords: games for ST

I have ported LARN version 12.0 to the ST and am ready to distribute it.
Because the .ttp file is 170K plus another 30K or so for support files, I
am going to avoid posting it to the net (however, if someone else wants to
risk the wrath of irate administrators and people who don't have uudecode,
compress, sq, or whatever, I won't object). So, here is how I'll handle
it. Send me a disk and return address and I'll copy it for you. If you
want the sources (compiles under Lattice C) send another disk (or if you
have a double sided drive and I can convince my office partner to copy
it, a double sided disk will hold both the compiled and source files).

LARN is an adventure game (much like HACK, but different). It easily
fits in a 512K ST with one single sided drive. Since it doesn't create
intermediate files (like HACK), one doesn't need a RAMdisk or anything
special to play.

I also have HACK and can distribute it, but have not done any changes
for several months.

Rodney Black
149 South Carter Court
Louisville, CO 80027
..!ihnp4!druxu!rwb

From -684699341347720392
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d4434454a58378ef,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 08:05:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ritvaxa.BITNET!mas2743
From: mas2743@ritvaxa.BITNET (Mike Stepansky)
Newsgroups: net.micro.atari16
Subject: add me to maillist
Message-ID: <8609111504.AA29378@ucbvax.Berkeley.EDU>
Date: Thu, 11-Sep-86 11:05:27 EDT
Article-I.D.: ucbvax.8609111504.AA29378
Posted: Thu Sep 11 11:05:27 1986
Date-Received: Thu, 11-Sep-86 21:39:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 6

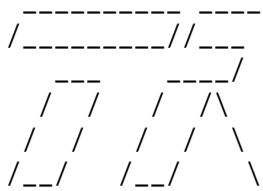
Hello,
        Please add me to your 16bits mail listing in this
bitnet. Thanks...
                        Mike Stepansky
                        Rochester, Ny.
                        Proundly Owner of 520ST.

From 1489117783314177020
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 08:37:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <1296@trwrb.UUCP>
Date: Thu, 11-Sep-86 11:37:05 EDT
Article-I.D.: trwrb.1296
Posted: Thu Sep 11 11:37:05 1986
Date-Received: Fri, 12-Sep-86 19:48:00 EDT
References: <8609060233.AA26238@ucbvax.Berkeley.EDU> <267@myrias.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Organization: TRW EDS, Redondo Beach, CA
Lines: 32

In article <267@myrias.UUCP> mj@myrias.UUCP (Michal Jaegermann) writes:
>Most of binaries I undecoded from net postings work on my ST. Even
>'cadenza' :-). Some of them I even managed to decode on VAX and
>transfer as image files to ST. This depends on a phase of the moon and
>good humour of 'kermit' programs on BOTH ends.
>Not so good luck with emacs3.7.   I checked uudecoded files on VAX and
>ST. They are exactly of the same length. Neverthless the program bombs
>out with "#4 - Illegal instrunction trap". Is it cuased by a fact that
>I tried to run it on a color monitor?

Until I ported uuencode/uudecode (about a month ago), every
uuencoded program I got from the net was successfully downloaded
to my ST in 8-bit "image" mode after having been decoded on our
VAX (old) or Pyramid (new). People having problems with uuencoded
files can probably blame non-UN*X sites for munging the files somewhere
along the way. As far as blaming your color monitor for trashing uE3.7,
you can forget it - I've been using it with both monochrome and color
monitors for several weeks now. By the way, the color version looks great!
My only complaint about uE3.7 is the SSLLOOWW disk access time (blame it
on "gemdog" ;-).

--



Richard E. Sansom
TRW Electronics & Defense Sector
One Space Park Drive, R3/1028
Redondo Beach, CA 90278
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From -7167257239552731991
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,517d0334df51a22b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 08:46:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: 1st_word and prices...
Message-ID: <8609111546.AA03083@ncsc.ARPA>
Date: Thu, 11-Sep-86 11:46:36 EDT
Article-I.D.: ncsc.8609111546.AA03083
Posted: Thu Sep 11 11:46:36 1986
Date-Received: Thu, 11-Sep-86 21:40:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

A couple more questions....

Recent reviews have mentioned that 1ST_WORD limits you to only single spaced documents. Is there a work around for this, other than by adjusting stuff on the printer? Also, rumor (around here, anyway) has it that Atari is about to ***raise*** its prices on the ST. Has anyone else heard the same? (I don't imagine Neil@Atari can comment on this one).

thanks for any replies.

jim moore
ncsc

From -908433808332108611
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 09:47:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ptsfa!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <215@vlsvax1.UUCP>
Date: Thu, 11-Sep-86 12:47:23 EDT
Article-I.D.: vlsvax1.215
Posted: Thu Sep 11 12:47:23 1986
Date-Received: Fri, 12-Sep-86 22:19:06 EDT
References: <8609091534.AA03565@ncsc.ARPA> <8609091627.AA21723@ames-nas.ARPA>
<5756@topaz.RUTGERS.EDU>
Reply-To: cms@vlsvax1.UUCP (Michael Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 19

In article <5756@topaz.RUTGERS.EDU> appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
writes:
>Both 1st word and the updated version should be available from your
>local ATARI user group From what I understand both are free and
>considered to be in the public domain.
                  ^^ ^^^ ^^^^^^ ^^^^^^

WRONG!

GST owns First Word. Atari has (had) distribution rights to it and paid GST for every copy that went out with a system and every copy that a dealer gave away (every one with a label on it, anyway). It is *NOT* in the public domain. Notice the copyright notices on it and on the documentation when you print it. Neil Harris (Atari Marketing type) just

spoke at our user's group meeting last Monday and discussed this issue,
so this information is straight from the horse's mouth (so to speak -
no offense, Neil). If you have further doubts, call Atari. Better
yet, call GST, that'll cost more.

Sweeney

From -579124304529097733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 09:59:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: Re: 68000 Memory Managment
Message-ID: <724@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 11-Sep-86 12:59:22 EDT
Article-I.D.: cbmvax.724
Posted: Thu Sep 11 12:59:22 1986
Date-Received: Fri, 12-Sep-86 19:44:27 EDT
References: <79@mtxinu.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 20
Xref: mnetor net.micro.atari16:1910 net.micro.amiga:4630 net.micro.68k:1211

> Xref: cbmvax net.micro.atari16:1841 net.micro.amiga:2519 net.micro.68k:260
>
> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> (applied for and granted) on using the untranslated addresses as the
> RAS addresses and doing the MMU address translation before the column
> addresses are needed for CAS.

Any idea of when he patented this? This is a very common idea, doesn't
sound like something you could patent.

--
/\
Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     "I gained nothing at all from Supreme Enlightenment, and
      for that very reason it is called Supreme Enlightenment."
                                -Gotama Buddha

     These opinions are my own, though for a small fee they be yours too.
\/\

From 8603860444793502313
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,205673c48233fd4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 10:55:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!intelca!mipos3!acharnas
From: acharnas@mipos3.UUCP (Andy Charnas ~)
Newsgroups: net.micro.atari16
Subject: Resource Construction Set
Message-ID: <184@mipos3.UUCP>
Date: Thu, 11-Sep-86 13:55:13 EDT
Article-I.D.: mipos3.184
Posted: Thu Sep 11 13:55:13 1986
Date-Received: Thu, 11-Sep-86 21:53:15 EDT
Organization: Intel, Santa Clara, CA
Lines: 15
Keywords: RCS Resource MWC

I just got Mark Williams C (for $139, BTW, from San Jose Computer),
which is a real complete package for the price: it includes uemacs,
make, ushell, an assembler, and a slow-but-seems-ok c compiler.
But it doesn't include a Resource Construction Set.

Does anyone know if an RCS (source or object) exists in the public
domain, or if it is available for sale separate from the Developers' Kit?

Thanks in advance.
--

....

Andy Charnas, Microprocessor Division, Intel Corp, Santa Clara, Ca.

From 3641845043219241012
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f9d9ff22635ca65,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 12:19:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: RECENT ST PRICE IN D.C. AREA
Message-ID: <8609111838.AA03797@ucbvax.Berkeley.EDU>
Date: Thu, 11-Sep-86 15:19:21 EDT
Article-I.D.: ucbvax.8609111838.AA03797
Posted: Thu Sep 11 15:19:21 1986
Date-Received: Thu, 11-Sep-86 21:52:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Reply-To: "V5130B::MENTON" <menton@v5130b.decnet> This may not be new info to many, but@L&Y.Electronics.in.Wood-
Organization: The ARPA Internet
Lines: 10

bridge, VA, the basic 520ST, monochrome monitor, one SS disk drive is going for $549. This is the same system that sold for $495 (on sale) not long ago. I didn't think that dealers would raise the 'sale' price. This (and any further possible price increases) could be a set-up for a big price CUT several weeks before Christmas. Or, has supply and demand worked its magic? Can the ST be selling **THAT** well ??
Bob Menton
MENTON@NRL-ACOUSTICS

From -8245844683722121446
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 12:46:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!glacier!navajo!rokicki
From: rokicki@navajo.STANFORD.EDU (Tomas Rokicki)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <828@navajo.STANFORD.EDU>
Date: Thu, 11-Sep-86 15:46:34 EDT
Article-I.D.: navajo.828
Posted: Thu Sep 11 15:46:34 1986
Date-Received: Fri, 12-Sep-86 22:12:37 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP> <79@mtxinu.UUCP>
Organization: Stanford University
Lines: 35
Xref: mnetor net.micro.atari16:1916 net.micro.amiga:4635 net.micro.68k:1212

In article <79@mtxinu.UUCP>, ed@mtxinu.UUCP (Ed Gould) writes:
> >> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> >> (applied for and granted) on using the untranslated addresses as the
> >> RAS addresses and doing the MMU address translation before the column
> >> addresses are needed for CAS.
> >
> >How the hell can the patent office grant patents like this? It's sort
> >of like patenting the idea of grounding DTACK on a 68000 or putting
> >chocolate ice cream in root beer; the idea is too obvious. To coin a
> >phrase, it's patently ridiculous.
>

> If it's so obvious, why didn't anyone think of it before Andy did?

Let's look at this for a minute. You have the following problem:

) you want virtual to physical address mapping
) standard practice is to map only the high order bits
    (this predates Andy by a good long time)
) virtual to physical mapping takes some time
) you want to use dynamic rams
) dynamic rams require half of the address, and then, some
    delay later, the other half
) Gee, Wally, what do we do now?

It's not that nobody thought of it before, but nobody patented it.
It's not a clever idea; it's the only reasonable solution.
I had a design like this for the 6809 and dynamic memory before the
68000 even came out; I just never built it.

It bothers me that such ideas can be patentable. When you design
a new machine, these patents can restrict your design space; if they
start patenting all the good solutions to common problems, what do
we have left to design with?

-tom

From 2028630684673350419
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ccb17cf216edce00,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 13:35:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!clark.UUCP!peter.l
From: peter.l@clark.UUCP
Newsgroups: net.micro.atari16
Subject: address corrections
Message-ID: <8609112035.AA18554@gvax.cs.cornell.edu>
Date: Thu, 11-Sep-86 16:35:17 EDT
Article-I.D.: gvax.8609112035.AA18554
Posted: Thu Sep 11 16:35:17 1986
Date-Received: Thu, 11-Sep-86 21:54:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Please delete qbzj@cornella.bitnet from your distribution list if
you have not done so already. Please add in its place the new address
mscbtc!clark!peter.l@gvax.cs.cornell.edu on the atari 16 bit distribution list
               thanks,
                     peter lorraine
                     mscbtc!clark!peter.l@gvax.cs.cornell.edu

From -6374059869171885764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,873e1fb878a94b60,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 13:53:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!esfraga
From: esfraga@water.UUCP (Eric S Fraga)
Newsgroups: net.micro.atari16
Subject: WTerm posted, finally... (whew)
Message-ID: <504@water.UUCP>
Date: Thu, 11-Sep-86 16:53:53 EDT
Article-I.D.: water.504
Posted: Thu Sep 11 16:53:53 1986
Date-Received: Fri, 12-Sep-86 05:59:21 EDT
Reply-To: esfraga@water.UUCP (Eric S Fraga)
Organization: U of Waterloo, Ontario
Lines: 11

WTerm, latest version, has been posted to net.sources. Please
do NOT send me any mail about this (either because you can't get
net.sources or because something else is wrong) because I am
leaving the country tomorrow... Enjoy.

--

Eric S Fraga || esfraga@water.uucp
Dept of Computer Science || esfraga@water.Waterloo.edu
U of Waterloo || esfraga%water@waterloo.csnet

From 5988943514802556213
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,172c909f2c883b5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 15:02:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: PC/Intercom copy problem
Message-ID: <33@nvpna1.UUCP>
Date: Thu, 11-Sep-86 18:02:45 EDT
Article-I.D.: nvpna1.33
Posted: Thu Sep 11 18:02:45 1986
Date-Received: Thu, 11-Sep-86 21:46:04 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Distribution: net.micro.atari16
Organization: Philips Research Laboratories Eindhoven
Lines: 13

Summary: How to copy PC/Intercom

PC/Intercom does an excellent job in emulating a VT102 type terminal.
I received PC/Intercom on a single sided floppy disk. However I want to move
it to a different double sided floppy, where I keep all my utility programs.
Copying the files seems to be successful, but if you double click on the new
file, PC/Intercom insist you insert the original disk. The same holds even
if you only disk-to-disk copy to a new single sided floppy.

The question: How do you get round the copy protection?
              ======================================

(After all, the copy protection is not completely effective, because I can
make a disk-to-disk copy using a tool called SUPRCOPY)

Frans Dorrestein

From -1754198210687923908
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-09-11 15:06:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!fortune!wall
From: wall@fortune.UUCP (Jim Wall)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <6033@fortune.UUCP>
Date: Thu, 11-Sep-86 18:06:52 EDT
Article-I.D.: fortune.6033
Posted: Thu Sep 11 18:06:52 1986
Date-Received: Fri, 12-Sep-86 07:36:21 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU>
Reply-To: wall@fortune.UUCP (Jim wall)
Organization: Fortune Systems, Belmont, CA
Lines: 18
Xref: watmath net.micro.atari16:1938 net.micro.amiga:4701 net.micro.68k:1814

   The Sun patent is only valid until it holds up in a patent
court. I believe that it can be argued on any of several fronts.
One is that it is obvious using the existing technology of the
times, which is grounds for not granting (or voiding) patents.
THe other would be that it was done and documented prior to the
patent. Personally, I have documentation that it was discussed
here at Fortune five years ago, and I haven't even tried to
look any harder than that. Does anyone know when the patent

disclosure was filed for the Sun MMU patent?

    Aw well, I knew I should have filed for those ideas I had,
using PALs to decode address spaces, using ROMs as clocked state
machines, using memory to store information in.....

                          -Jim Wall
                    ...amd!fortune!wall

From 7880975739727223601
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,82d1b9c5cff6a583
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 18:32:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!j.cc.purdue.edu!
h.cc.purdue.edu!pur-phy!clayton
From: clayton@pur-phy.UUCP (Clayton P. Handleman)
Newsgroups: net.micro.atari16
Subject: Re: Cartridge port connector - query
Message-ID: <2058@pur-phy.UUCP>
Date: Thu, 11-Sep-86 21:32:35 EDT
Article-I.D.: pur-phy.2058
Posted: Thu Sep 11 21:32:35 1986
Date-Received: Sat, 13-Sep-86 04:23:36 EDT
References: <977@batcomputer.TN.CORNELL.EDU>
Organization: Purdue Univ. Physics Dept., IN
Lines: 16

>
> Does anybody know of some plug available for the ST cartridge port?
> I am thinking of something like a board with the right fingers on an edge,
> expanded to a more standard width on the other edge, or even with an edge
> connector on the other edge. I DON'T need any traces for PROMS.
>

I couldn't find one either, it being some kind of non-standard.
I did however manage to kludge up an adapter to a .1" centers edge connector by
sticking copper tape on an appropriatly trimmed piece of pc board using the
cartridge artwork included with developers kit as a guide. It's ugly but it
worked like a dream.
If your not in the hurry I was I suggest you draw up and etch your own.

                                          -clayton

"If it works, don't fix it"

From 7201176656479722619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c00372b7d9f60756,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 18:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!LLL-MFE.ARPA!PSIMON%PPC.MFENET
From: PSIMON%PPC.MFENET@LLL-MFE.ARPA
Newsgroups: net.micro.atari16
Subject: Fear not, would be UUDECODERS.
Message-ID: <8609120159.AA11773@ucbvax.Berkeley.EDU>
Date: Thu, 11-Sep-86 21:48:00 EDT
Article-I.D.: ucbvax.8609120159.AA11773
Posted: Thu Sep 11 21:48:00 1986
Date-Received: Fri, 12-Sep-86 07:32:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 168

No more tears out there in NETLAND for all those inaccessible uuencoded programs. I have written a version of UUDECODE in ST BASIC. The program is included below.

How to use -- Simply run this like any other BASIC program. It will prompt for the input file name (the uuencoded file), and the output file name.

I have successfully decoded three programs (four files) on my ATARI 1040ST using this program, including UNITERM and microEMACS, which were posted on this BBS. I haven't had any failures yet.

Caveats:

1. I had to work around several ST BASIC bugs, some of which are mentioned in the comments to the program. This means that if ST BASIC is updated, or if the bugs are somehow specific to my system, you may have to edit this program to get it to work.

2. The output file name must be specified by the user at the appropriate point. This is unlike "standard" UUDECODE, where the output file name is read from the "begin..." line of the input filename. This is due to problems with the BASIC statement LINE INPUT #. These problems only seem to occur after opening a file.

3. The first line of the UUENCODED file should be the "begin..." line. This first line is ignored. Encoded binary is assumed to begin on the second line. (Also not standard UUDECODE, and also due to the LINE INPUT # bugs.)

4. If your UUENCODED file does not contain exactly 45 encoded bytes per line, then this program will not operate correctly as is. There is no problem here if every line in your encoded file begins with M. Only special case: last line of encoded binary can begin with any character between ! and M (refer to an ascii table). (While this is not "standard", I have run across no

exceptions as yet.)

5. The program assumes it has completed if it reads in a line
   -- which reads "end"; or
   -- which begins with a space; or
   -- which is blank.
   (Only the first of these is standard, but as before, I haven't found any problems yet.)

Despite the caveats, I have not had any trouble UUDECODING anything yet.

(But, I regret that I cannot assume legal responsibility for any losses incurred by the user.)

As far as I know, UUDECODE is public domain. Presumeably, then, this program is also. (Could I really find anyone who'd pay for ThiS?)

GOOD LUCK! and let me know how things turn out.

-- Patrick Simon
September 11, 1986
PSIMON%PPC.MFENET@LLL-MFE.ARPA

**********ACKNOWLEDGEMENTS**********

I have to thank John Sangster (jhs@mitre-bedford.ARPA) for providing me with the functional specs of UUDECODE.

**********STANDARD DISCLAIMERS, ETC.**********

If this program fails to operate as specified, return for a full refund.

As with any test(y) program, please exercise appropriate caution in the use of this decode program. In particular, I suggest that if the disk you are using contains the only copy of anything important, you aren't using appropriate caution.

Princeton University bears no responsibility for any part of this bulletin. (Is it legal for me to say the same for me?)

---------- cut here ----------

```
10    ' UUDECODE PROGRAM
11    ' /*
12    '  * Uudecode -- decode a uuencoded file back to binary form
13    '  *
14    '  * Slightly modified from a version posted to net.sources once;
15    '  * suitable for compilation on an IBM PC.
16    '  *
17    '  * modified for Lattice C on the ST - 11.05.86 by MSD
18    '  *
19    '  * rewritten for ST BASIC on the Atari ST - September 9, 1986,
20    '  *   by Patrick Simon
21    '  *
```

```
22    '  */

23    ' Initializations.
24    DIM I(4)
25    FULLW 2 : CLEARW 2 ' Use full output window, clear it.
26    MASK = 63 : SP = ASC(" ")

30    ' Get input filename and open file.
40    INPUT "Enter name of uuencoded file > ", IFILEN$
50    OPEN "I", #1, IFILEN$

60    ' Get output filename, open, and set up pointers.
70    INPUT "Enter name of output file > ", OFILEN$
80    OPEN "R", #2, OFILEN$, 45
90    FIELD #2, 45 AS CBUF$

110   ' Input and ignore first line of input file (original filename).
120   LINE INPUT #1, INLINE$ ' Due to a bug in ST BASIC, LINE INPUT #
130   LINE INPUT #1, INLINE$ '  must be called 2x, just to get first
140                          '  line. Even then we lose the 1st character.

150   ' Now set up screen for user.
160   CLEARW 2
170   GOTOXY 1,2 : PRINT "Decoding "; IFILEN$; " to "; OFILEN$
180   GOTOXY 1,4 : PRINT "# lines read in: "
190   GOTOXY 1,5 : PRINT "# bytes output: "

200   ' Initialize some variables for main body of program.
210   NUML = 0 : BYTEOUT = 0

220   LINELOOP: ' Now loop for as long as there are input lines.
230      LINE INPUT #1, INLINE$           ' LINE INPUT should work OK by now!
231      IF INLINE$ = "end" THEN GOTO 500 ' All done
232      NUML = NUML + 1

240   ' For each line, must "decode" each byte.
241   ' First byte contains # bytes to ***output*** from this line.
242   ' Then, after decoding, each set of 4 input bytes contains 6*4 = 24
243   '  bits of information to output, 8 bits per output byte, thus
244   '  3 output bytes.

250   ' Set up string position pointer for INLINE$
260      SPTR = 1

270   ' Get first byte = # bytes to output; exit if line has zero to output
280      GOSUB DECODE : NN = C : N = NN : IF NN = 0 THEN GOTO 500

285   ' Process one line of input
290      MPTR = 1
300      WHILE N > 0          ' Decode set of 4 input bytes.
310         FOR J = 1 TO 4
320            GOSUB DECODE : I(J) = C
330         NEXT J
```

```
340         C1 = ((I(1) *  4) MOD 256) + INT(I(2) / 16)
350         C2 = ((I(2) * 16) MOD 256) + INT(I(3) /  4)
360         C3 = ((I(3) * 64) MOD 256) + I(4)
370         IF N>0 THEN MID$(CBUF$,MPTR,1)=CHR$(C1) : MPTR = MPTR + 1
380         IF N>1 THEN MID$(CBUF$,MPTR,1)=CHR$(C2) : MPTR = MPTR + 1
390         IF N>2 THEN MID$(CBUF$,MPTR,1)=CHR$(C3) : MPTR = MPTR + 1
400         N = N - 3
410      WEND                ' If more in this line, go back again.

415   ' Finished processing line.
420      PUT #2, NUML               ' Send decoded stuff to output file.
430      BYTEOUT = BYTEOUT + NN     ' Show status to user.
440      GOTOXY 20,4 : PRINT NUML
445      GOTOXY 20,5 : PRINT BYTEOUT
450   GOTO LINELOOP                 ' Get next line ...

500   ' Hopefully, we have now decoded the input file.
510   CLOSE #1 : CLOSE #2
520   END

1000  DECODE: ' Subroutine to decode a single character
1010     IF LEN(MID$(INLINE$,SPTR)) = 0 THEN INLINE$ = INLINE$ + " "
1020     CH$ = MID$(INLINE$, SPTR, 1) : SPTR = SPTR + 1
1030     C = (ASC(CH$) - SP) AND MASK
1040  RETURN
```

```
From -8534593056214264714
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,90b4f002cab2a38f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 19:45:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Accessories
Message-ID: <8609120244.AA12469@ucbvax.Berkeley.EDU>
Date: Thu, 11-Sep-86 22:45:39 EDT
Article-I.D.: ucbvax.8609120244.AA12469
Posted: Thu Sep 11 22:45:39 1986
Date-Received: Fri, 12-Sep-86 07:33:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 24
```

> This has been a sore point with me for some time. ExcUuUse me, but
> WHY NOT!? It seems to me that someone asked this several months ago
> and the reply was something like "it's too difficult" or something.

Yes, there's something called "memory fragmentation". There shouldn't

in principle be any difficulty in zapping an accessory, but what is the point except to recover the memory it was occupying? But that memory is a little block somewhere that is most likely not contiguous with the rest of free memory since there are likely other desk accessories in the way. To make effective use of that memory, you either need address mapping hardware (which the ST does not have) or you need a memory allocation strategy that is able to make use of fragmented memory or you need a way to move active processes so that you can coalesce the unused blocks of memory. Moving processes is dangerous, for they might have a copy of their own or other processes' base page address tucked away in storage somewhere. One MIGHT be able to get DOS to know about the block of memory freed up by a removed desk accessory so that at least Malloc could use it, but that probably would not help most programs. Your best bet would be to load another smaller desk accessory into the same slot.

--Mike Fischer
  <fischer@yale.arpa>

From -6416993717529584171
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,992b46db790c1369,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 23:35:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: A Public Domain Spelling Checker for the ST
Message-ID: <8609120635.AA25001@ohio-state.ARPA>
Date: Fri, 12-Sep-86 02:35:06 EDT
Article-I.D.: ohio-sta.8609120635.AA25001
Posted: Fri Sep 12 02:35:06 1986
Date-Received: Fri, 12-Sep-86 19:48:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

The next two I am sending are:

1. SPELL.DOC - User's Guide for SPELL.PRG - A spelling checking program that
               I have written
2. SPELL.PAS - OSS Personal Pascal source code for SPELL.PRG

I regret that I am presently unable to send the uuencoded executable code.

Eric Bergman-Terrell CSNET ADDRESS terrell@ohio-state

From -7674366525891157649

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9fc93c978c1747d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 23:35:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ohio-state.ARPA!terrell
From: terrell@ohio-state.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609120635.AA25007@ohio-state.ARPA>
Date: Fri, 12-Sep-86 02:35:32 EDT
Article-I.D.: ohio-sta.8609120635.AA25007
Posted: Fri Sep 12 02:35:32 1986
Date-Received: Fri, 12-Sep-86 19:49:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 88

SPELL 1.0 User's Guide

HOW TO USE THE SPELL PROGRAM:

SPELL is a program that allows you to detect and correct spelling mistakes in disk files. SPELL should work with files produced by just about any word processor. SPELL has been tested on files produced by the 1ST WORD word processor.

THE WORD LIST:

SPELL uses a disk file named "words.txt". This file contains all words that SPELL recognizes as being correctly spelled. When you start using SPELL, this file will be empty, and SPELL will wonder if every word in your document is misspelled. As you check the spelling of more and more files, SPELL will know about more and more words. Eventually SPELL will have a dictionary containing most of the words that you use, and will only ask you if misspelled and unfamiliar words are misspelled.

RUNNING THE PROGRAM:

When the program is first run, the file "words.txt" is created on the default disk. Make sure that SPELL has write access to the disk on which SPELL is stored.

Then all words stored in the file "words.txt" are loaded into memory. If SPELL is being run for the first time, no words will be loaded.

Now you are asked for the name of the file for which the spelling is to be

corrected. Enter the filename that you want checked. SPELL must have write access to this file.

After the file to be spelled is specified, whenever SPELL encounters a word that is not in the file words.txt, you may:

  (1) correct the spelling of the word
  (2) add the word to the dictionary

To correct the spelling of the word, type in the word as you would like it to appear in the document being checked.

If the word is correctly spelled, or if you've just corrected it, then you may want to insert it into the dictionary. To add the word to the dictionary, place the mouse in the appropriate box and press the left mouse button. When you add a word to the dictionary, whenever SPELL sees that word again, it will know that it is correctly spelled, and will not ask you about it.

UPDATING THE DICTIONARY:

Why do you need to update the dictionary? Well, every time you start the program, the dictionary contains all the words that were in the file "words.txt". As you insert new words into the dictionary they are stored in your computer's main memory, and are NOT placed in the disk file "words.txt".

If you choose to update the dictionary by pressing the left mouse button in the "yes" box, the new words in main memory will be inserted into the file "words.txt". When the program is done, "words.txt" will contain all the words it had before running SPELL, and also the new ones you inserted. When you run SPELL again, it will know that the new words are correct, and and will not ask you about them when it encounters them.

If you choose not to update the dictionary by pressing the left mouse button in the "no" box, the file "words.txt" will not be changed - it will have the same words that it had when you started running SPELL, and will not have the new words that you inserted when SPELL was running.

FOR MORE INFORMATION:

If you would like more information about SPELL, please send a stamped, self-addressed envelope to the following address:

Eric Bergman-Terrell
Cadenza Software, Ltd.
1704 Imperial Ridge
Las Cruces, NM 88001
USA

If you are outside the United States, please enclose sufficient international reply coupons (available at post offices throughout the world).

From -4383068565460656806
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9fc93c978c1747d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-11 23:35:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609120635.AA25012@ohio-state.ARPA>
Date: Fri, 12-Sep-86 02:35:53 EDT
Article-I.D.: ohio-sta.8609120635.AA25012
Posted: Fri Sep 12 02:35:53 1986
Date-Received: Fri, 12-Sep-86 19:53:40 EDT
Sender: uucp@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 937

```
program spell;

const
  {$i gemconst}

  { length of largest possible word }
  max_word_length    =             30;

  { number of entries in the hash table }
  table_size         =            1000;

  small_length       =               4;
  medium_length      =               8;
  large_length       =              10;
  largest_length     = max_word_length;
  name_of_dictionary =     'words.txt';
  temp_dict_name     =     'words.xxx';

  { Color of text }
  color              =           $1180;

type
  {$i gemtype}

  word_string      = string[max_word_length];
  string_index     = 1..max_word_length;
  hash_index       = 1..table_size;

  length_type      = (small, medium, large, largest);

  small_string     = string[small_length];
  medium_string    = string[medium_length];
```

```
  large_string     = string[large_length];
  largest_string   = string[largest_length];

  { pointer to a small, medium, large, or largest string }
  word_pointer     = record

                       case tag_field : length_type of

                         small   : (small_ptr   : ^small_string);
                         medium  : (medium_ptr  : ^medium_string);
                         large   : (large_ptr   : ^large_string);
                         largest : (largest_ptr : ^largest_string);

                     end;

  list             = ^cell;

  cell             = record

                         word : word_pointer;
                         next : list;

                       end;

  hash_table       = array[hash_index] of list;

  word_list        = record

                       words   : hash_table;
                       changed : boolean;

                     end;

  char_file        = packed file of char;

var
  dictionary       : word_list;
  cancel,
  out_of_memory    : boolean;
  word             : word_string;
  in_file_name,
  out_file_name,
  in_file_type     : string;
  spell_file,
  spelled_file,
  new_spelled_file : char_file;
  next_char        : char;
  button           : integer;


{$i gemsubs}
```

```
procedure io_check(switch : boolean); external;
function io_result : integer; external;


function file_exists(filename : string) : boolean;

{
Return true if the file specified by filename exists on the default disk.
}

const
  { File operation was successfull }
  no_error = 0;

var
  input_file : char_file;

begin

  { Turn off i/o checking. }
  io_check(false);

  { Attempt to open the named file. }
  reset(input_file, filename);

  { If there was no error opening the file, it is assumed to exist. }
  file_exists := io_result = no_error;

  close(input_file);

  { Turn i/o checking back on. }
  io_check(true);

end;


procedure remove_white(var str : string);

{
Remove all whitespace characters from a character string.  Whitespace
characters are assumed to have character codes less than or equal to
the code for space (' ').
}

var
  new_string : string;
  index      : integer;

begin

  new_string := '';

  for index := 1 to length(str) do
```

```
    if str[index] > ' '
      then new_string := concat(new_string, str[index]);

  str := new_string;

end;


procedure read_char(var input_file : char_file; var ch : char);

{
Read a character from a file.
}

begin

  ch := input_file^;
  get(input_file);

end;


procedure write_char(var output_file : char_file; ch : char);

{
Write a character to a file.
}

begin

  output_file^ := ch;
  put(output_file);

end;


procedure write_word(var output_file : char_file; word : word_string);

{
Write a character string to a file.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    write_char(output_file, word[index]);

end;
```

```
procedure get_word(var input_file, output_file : char_file;
            var word : word_string; var next_char : char);

{
Retrieve the next word from the input file.  When the file is completely read,
(word) will be the empty string.
}

var
  ch         : char;
  letters,
  apostrophe : set of char;

begin

  word := '';

  letters := ['a'..'z', 'A'..'Z'];
  apostrophe := [''''];

  if not eof(input_file)
    then begin

      { Get the initial letter of the word. }
      repeat

        read_char(input_file, ch);

        { Send all letters not in the word to the output file. }
        if not (ch in letters)
          then write_char(output_file, ch);

      until (ch in letters) or eof(input_file);

      { If the initial letter of the word was found, get the other letters. }
      if ch in letters
        then begin

          word := ch;

          repeat

            read_char(input_file, ch);

            if ch in letters + apostrophe
              then word := concat(word, ch)
              else { Save character following word to write to output file. }
                next_char := ch;

          until (not (ch in letters + apostrophe)) or eof(input_file) or
                (length(word) = max_word_length);

        end;
```

```
    end;

end;


function min(a, b : integer) : integer;

{
Return the smaller of a and b.
}

begin

  if a < b
    then min := a
    else min := b;

end;


function capital(ch : char) : char;

{
Return the capital of a lowercase letter.  Return the original
letter otherwise.
}

begin

  if ch in ['a'..'z']
    then capital := chr(ord(ch) - (ord('a') - ord('A')))
    else capital := ch;

end;


function hash(word : word_string) : hash_index;

{
Return an index into the hash table based on a key (word).
}

var
  index       : string_index;
  number      : long_integer;
  power_of_10 : integer;

begin

  { Convert the key to a number. }
  number := 0;
  power_of_10 := 1;
```

```
  for index := min(4, length(word)) downto 1 do begin

    number := number + power_of_10 * ord(capital(word[index]));
    power_of_10 := power_of_10 * 10;

  end;

  { Compute a valid hash index. }
  hash := int(number mod table_size) + 1;

end;


procedure get_word_from_dictionary(var word : word_string;
                                       word_cell : list);

{
Retrieve a word from a cell of the hash table.
}

begin

  case word_cell^.word.tag_field of

    small   : word := word_cell^.word.small_ptr^;
    medium  : word := word_cell^.word.medium_ptr^;
    large   : word := word_cell^.word.large_ptr^;
    largest : word := word_cell^.word.largest_ptr^;

  end;

end;


procedure word_capitalize(var word : word_string);

{
Make all alphabetic characters of a word upper-case.
}

var
  index : string_index;

begin

  for index := 1 to length(word) do
    word[index] := capital(word[index]);

end;


function words_equal(word_1, word_2 : word_string) : boolean;
```

```
{
Return true if two words are equal (alphabetic case of characters is
ignored.
}

begin

  if length(word_1) <> length(word_2)
    then words_equal := false
    else begin

      word_capitalize(word_1);
      word_capitalize(word_2);

      words_equal := word_1 = word_2;

    end;

end;


function word_in_dictionary(word : word_string; dictionary : word_list) :
                                                                    boolean;

{
Return true when a word is found in the dictionary.
}

var
  index          : hash_index;
  retrieved_word : word_string;
  word_found     : boolean;

begin

  index := hash(word);

  { Single letters will be considered valid words. }
  word_found := length(word) = 1;

  { Search for the word in the hash table. }
  while (dictionary.words[index] <> nil) and (not word_found) do begin

    get_word_from_dictionary(retrieved_word, dictionary.words[index]);
    word_found := words_equal(word, retrieved_word);

    dictionary.words[index] := dictionary.words[index]^.next;

  end;

  word_in_dictionary := word_found;
```

```
end;


procedure insert_word(word : word_string; var dictionary : word_list;
                                          var out_of_memory : boolean);

{
Insert a word into the dictionary if it is not already there.
}

const
  min_free_memory = 1024;

var
  index     : hash_index;
  word_cell : word_pointer;
  new_cell  : list;


  procedure get_word_cell(word : word_string; var word_cell : word_pointer);

  {
  Return a pointer to a word.
  }

  begin

    {
    Depending on the length of the word, allocate the proper amount of
    memory.
    }

    if length(word) in [1..small_length]
      then begin

        word_cell.tag_field := small;
        new(word_cell.small_ptr);
        word_cell.small_ptr^ := word;

      end;

    if length(word) in [small_length + 1 .. medium_length]
      then begin

        word_cell.tag_field := medium;
        new(word_cell.medium_ptr);
        word_cell.medium_ptr^ := word;

      end;

    if length(word) in [medium_length + 1 .. large_length]
      then begin
```

```
        word_cell.tag_field := large;
        new(word_cell.large_ptr);
        word_cell.large_ptr^ := word;

      end;

    if length(word) in [large_length + 1 .. largest_length]
      then begin

        word_cell.tag_field := largest;
        new(word_cell.largest_ptr);
        word_cell.largest_ptr^ := word;

      end;

  end;


begin

  { Find out if memory is getting low. }
  out_of_memory := memavail < min_free_memory;

  if (not out_of_memory) and (not word_in_dictionary(word, dictionary)) and
     (length(word) in [1..largest_length])
    then begin

      { Get a pointer to a cell containing the word. }
      get_word_cell(word, word_cell);

      { Insert the word into the hash table. }
      new(new_cell);
      new_cell^.word := word_cell;

      index := hash(word);

      new_cell^.next := dictionary.words[index];
      dictionary.words[index] := new_cell;

    end;

end;


procedure load_dictionary(var dictionary : word_list;
                          var out_of_memory : boolean);

{
Load the dictionary with words from a disk file.
}

var
  word_file : text;
```

```
  word      : word_string;


  procedure clear_dictionary(var dictionary : word_list);

  {
  Initialize the dictionary to empty.
  }

  var
    index : hash_index;

  begin

    for index := 1 to table_size do
      dictionary.words[index] := nil;

    dictionary.changed := false;

  end;


begin

  { Make mouse a "busy bee". }
  set_mouse(m_bee);

  { Load the dictionary into memory. }

  { Make the dictionary empty. }
  clear_dictionary(dictionary);

  { If the dictionary disk file does not exist, create a new (empty) one. }
  if not file_exists(name_of_dictionary)
    then begin

      rewrite(word_file, name_of_dictionary);
      close(word_file);

    end;

  { Prepare to read words from the disk file. }
  reset(word_file, name_of_dictionary);

  out_of_memory := false;

  { Insert each word in the disk file into the dictionary. }

  while (not eof(word_file)) and (not out_of_memory) do begin

    readln(word_file, word);
    insert_word(word, dictionary, out_of_memory);
```

```
  end;

  { Make the mouse an arrow again. }
  set_mouse(m_arrow);

end;


procedure update_dictionary(dictionary : word_list);

{
Save all dictionary words in a disk file if the dictionary has changed.
}

var
  index         : hash_index;
  word          : word_string;
  word_file,
  new_word_file : text;
  button        : integer;

begin

  if dictionary.changed
    then begin

      { Find out if user wants to update the dictionary stored on disk. }
      button := do_alert('[0][Update Dictionary?][YES|NO]', 1);

      if button = 1
        then begin

          { Make the mouse a "busy bee." }
          set_mouse(m_bee);

          { Save dictionary with a temporary filename. }
          rewrite(word_file, temp_dict_name);

          { Save all words stored in each list of the hash table. }
          for index := 1 to table_size do begin

            { Save all words stored in current list of the hash table. }
            while dictionary.words[index] <> nil do begin

              get_word_from_dictionary(word, dictionary.words[index]);
              writeln(word_file, word);

              { Advance to next cell of current list. }
              dictionary.words[index] := dictionary.words[index]^.next;

            end;

          end;
```

```
          { Replace old dictionary with new dictionary. }
          rewrite(new_word_file, name_of_dictionary);
          rename(word_file, new_word_file);

          { Return mouse to arrow shape. }
          set_mouse(m_arrow);

        end;

    end;

end;


procedure process_word(var word : word_string; var dictionary : word_list;
                                                 var out_of_memory : boolean);

{
Process a misspelled word: either

i.   place word in dictionary
ii.  change spelling of word
iii. don't change word
}

var
  insert_wd : boolean;


  procedure get_option(var word : word_string; var insert_wd : boolean);

  {
  Allow user to correct the spelling of a possibly misspelled word and insert
  it into the dictionary.
  }

  const
    not_in_dict  = 'is not in the dictionary.';
    question     = 'Add this word to dictionary?';

    { Width (in characters) of dialog box }
    box_width    = 40;

  var
    word_line,
    line_2,
    line_3,
    button_pushed,
    no_button,
    yes_button     : integer;
    option_box     : dialog_ptr;
    word_string    : str255;
```

```
  begin

    { Get a dialog box. }
    option_box := new_dialog(5, 0, 0, box_width, 7);

    { Place possibly misspelled word in the dialog box. }
    word_line := add_ditem(option_box, g_ftext, editable, 1, 1, 30, 1, 0,
                                                                  color);

    line_2 := add_ditem(option_box, g_text, none, 1, 2, length(not_in_dict),
                                                          1, 0, color);

    line_3 := add_ditem(option_box, g_text, none, 1, 3, length(question),
                                                        1, 0, color);

    { Place YES and NO buttons in the dialog box. }
    yes_button := add_ditem(option_box, g_button, exit_btn | selectable, 10, 5,
                                                 length('YES'), 1, 0, color);

    no_button := add_ditem(option_box, g_button, exit_btn | selectable,
                                    28, 5, length('NO'), 1, 0, color);

    { Prepare to allow user to correct the spelling of the word. }
    set_dedit(option_box, word_line, '_______________________________',
                                    'aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa',
                                         word, system_font, te_left);

    set_dtext(option_box, line_2, not_in_dict, system_font, te_center);
    set_dtext(option_box, line_3, question, system_font, te_center);

    { Prepare to have the YES or NO buttons pressed. }
    set_dtext(option_box, yes_button, 'YES', system_font, te_center);
    set_dtext(option_box, no_button, 'NO', system_font, te_center);

    center_dialog(option_box);

    { Get user input from dialog box. }
    button_pushed := do_dialog(option_box, word_line);

    { Retrieve the possibly edited word. }
    get_dedit(option_box, word_line, word_string);
    word := word_string;

    insert_wd := button_pushed = yes_button;

    end_dialog(option_box);
    delete_dialog(option_box);

  end;


begin
```

```
  {
  Allow user to correct spelling of word, and have him decide if it
  will be inserted into the dictionary.
  }

  get_option(word, insert_wd);

  if insert_wd
    then begin

      insert_word(word, dictionary, out_of_memory);
      dictionary.changed := true;

    end;

end;


procedure get_input_filename(var in_file_name, in_file_type : string;
                                                 var cancel : boolean);

{
Get the name the file to be corrected.  If cancel is true after this
procedure is called, the program is exited.
}

const
  fl_type_length = 3;

var
  button   : integer;
  path,
  filename : string;

begin

  { Default path for filename selection }
  path := 'A:\*.DOC';

  {
  Place file selection box on screen and allow user to choose a file or
  to press the cancel button.  Repeat until user enters a valid filename
  or presses the cancel button.
  }

  repeat

    cancel := not get_in_file(path, filename);

    {
    If the requested file does not exist, have the user choose an existing
    file or quit the program.
```

```
    }

    if (not cancel) and (not file_exists(filename))
      then begin

        button := do_alert('[2][Not found-Try again?][YES|NO]', 1);
        cancel := button = 2;

      end;

  until cancel or file_exists(filename);

  {
  If the filename of an existing filename has been given, extract
  the name and type of the file.
  }

  if not cancel
    then begin

      in_file_type := copy(filename, pos('.', filename) + 1, fl_type_length);
      in_file_name := copy(filename, 1, pos('.', filename) - 1);
      remove_white(in_file_name);

    end;

end;


procedure introduce_program;

{
Introduce the program with a dialog box.
}

const
  { Width (in characters) of dialog box }
  box_width = 64;

  { Strings that will be inserted into dialog box. }
  str_1     = 'Spell 1.0 - A Spelling Correction Program';
  str_2     = 'Written by Eric Bergman-Terrell';
  str_3     = 'of Cadenza Software, Ltd.';
  str_4     = '1704 Imperial Ridge, Las Cruces, NM  88001, USA';
  str_5     = 'Portions of this product are copyright (c) 1986, OSS and CCD';
  str_6     = 'Used by Permission of OSS';
  str_7     = 'This software has been placed in the public domain.';
  start_str = 'BEGIN';

var
  intro_box     : dialog_ptr;
  line_1,
  line_2,
```

```
  line_3,
  line_4,
  line_5,
  line_6,
  line_7,
  start_button,
  button_pushed : integer;
  start_item    : tree_index;

begin

  { Set up the mouse the be an arrow. }
  init_mouse;
  set_mouse(m_arrow);

  { Get a dialog box. }
  intro_box := new_dialog(8, 0, 0, box_width, 16);

  { Insert strings into dialog box. }
  line_1 := add_ditem(intro_box, g_text, none, 1, 1, box_width, 1, 0, color);
  line_2 := add_ditem(intro_box, g_text, none, 1, 3, box_width, 1, 0, color);
  line_3 := add_ditem(intro_box, g_text, none, 1, 4, box_width, 1, 0, color);
  line_4 := add_ditem(intro_box, g_text, none, 1, 5, box_width, 1, 0, color);
  line_5 := add_ditem(intro_box, g_text, none, 1, 7, box_width, 1, 0, color);
  line_6 := add_ditem(intro_box, g_text, none, 1, 8, box_width, 1, 0, color);
  line_7 := add_ditem(intro_box, g_text, none, 1, 11, box_width, 1, 0, color);
  start_button := add_ditem(intro_box, g_button,
                            exit_btn | selectable | default,
                            30, 14, length(start_str), 1, 0, color);

  { Adjust the strings in the dialog box. }
  set_dtext(intro_box, line_1, str_1, system_font, te_center);
  set_dtext(intro_box, line_2, str_2, system_font, te_center);
  set_dtext(intro_box, line_3, str_3, system_font, te_center);
  set_dtext(intro_box, line_4, str_4, system_font, te_center);
  set_dtext(intro_box, line_5, str_5, system_font, te_center);
  set_dtext(intro_box, line_6, str_6, system_font, te_center);
  set_dtext(intro_box, line_7, str_7, system_font, te_center);
  set_dtext(intro_box, start_button, start_str, system_font, te_center);

  center_dialog(intro_box);

  { Introduce the program. }
  button_pushed := do_dialog(intro_box, start_item);

  end_dialog(intro_box);
  delete_dialog(intro_box);

end;


begin
```

```
if init_gem >= 0
  then begin

    introduce_program;

    load_dictionary(dictionary, out_of_memory);

    if not out_of_memory
      then begin

        get_input_filename(in_file_name, in_file_type, cancel);

        if not cancel
          then begin

            out_file_name := concat(in_file_name, '.XXX');

            reset(spell_file, concat(in_file_name, '.', in_file_type));
            rewrite(spelled_file, out_file_name);

            repeat

              get_word(spell_file, spelled_file, word, next_char);

              if length(word) <> 0
                then begin

                  if not word_in_dictionary(word, dictionary)
                    then process_word(word, dictionary, out_of_memory);

                  write_word(spelled_file, word);
                  write_char(spelled_file, next_char);

              end;

            until (length(word) = 0) or out_of_memory;

            close(spell_file);

            { Replace old input file with file that has been corrected. }
            rewrite(new_spelled_file, concat(in_file_name, '.',
                                             in_file_type));
            rename(spelled_file, new_spelled_file);

            { Update dictionary if it has changed. }
            update_dictionary(dictionary);

          end;

      end;

    if out_of_memory
      then button := do_alert('[1][Out of Memory][CANCEL]', 1);
```

```
    end;

end.
```

```
From -7970867335637167133
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e0f5029253325fea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 04:00:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht _ c/o HRZ TH Darmstadt _ Tel.)
Newsgroups: net.micro.atari16
Subject: UUDECODE - troubles .... add one line to the translation errors
Message-ID: <8609121059.AA19172@ucbvax.Berkeley.EDU>
Date: Fri, 12-Sep-86 07:00:56 EDT
Article-I.D.: ucbvax.8609121059.AA19172
Posted: Fri Sep 12 07:00:56 1986
Date-Received: Fri, 12-Sep-86 22:11:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 33


        As i reported to the list some days before, we had problems
        with the uuencoded files too. We located the problem in our
        EBCDIC --> ASCII Translation-Table. Looking around i found
        some other obscure tables. So some sites like to do a
        "visual - replacement". This means that for example the
        ASCII ! (exclamation point) ist translated to the EBCDIC
        | (short vertical bar). At our VAX there are two different
        Translation Tables (supported to choose at generating).
        So if a site in the (Bit-)Net is using the other table .....

        So i like to propose that people who are sending uuencode files
        may support an additional line, which shows the used characters
        in the ASCII-Order. ( I think in UUENCODE this are the chars
        between 20hex and 5Fhex in ASCII)

        for example a line like the one below

 !"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXYZ[\]^_


        starting with blank, may be very helpfull to decide where from
        troubles come.

        So with such line everyone could see, if there are some chars
        double, or the chars ar not in the ASCII-sequence, that he could
        save the time for transmitting the file to his ATARI
```

Steve

Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
Bitnet : #049@DDATHD21.Bitnet

From -6190678773305302265
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f9d9ff22635ca65
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 05:52:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari16
Subject: Re: RECENT ST PRICE IN D.C. AREA
Message-ID: <1288@ihlpl.UUCP>
Date: Fri, 12-Sep-86 08:52:51 EDT
Article-I.D.: ihlpl.1288
Posted: Fri Sep 12 08:52:51 1986
Date-Received: Sat, 13-Sep-86 05:37:06 EDT
References: <8609111838.AA03797@ucbvax.Berkeley.EDU>
Organization: AT&T Bell Laboratories
Lines: 25

> bridge, VA, the basic 520ST, monochrome monitor, one SS disk drive is going
> for $549. This is the same system that sold for $495 (on sale) not long
> ago. I didn't think that dealers would raise the 'sale' price. This (and
> any further possible price increases) could be a set-up for a big price
> CUT several weeks before Christmas. Or, has supply and demand worked its
> magic? Can the ST be selling **THAT** well ??
> Bob Menton
> MENTON@NRL-ACOUSTICS

In June, Atari threw in the SS disk drive free to dealers ordering the
monochrome system. This is what brought the price (sale) down under
$500 at several mail order sources and some discount stores. As I
understand it, the deal did not apply to color systems which is why
you didn't see a corresponding drop in prices of color systems. Probably
most of those systems are sold by now. A sale price of $549 is very,
very good if the dealer had to pay normal system price to Atari. I
have not heard of any price increases but Atari is trying to get the
EST system out by Christmas according to Current Notes and it will
cost more than the 1040ST. I would think that that would drive the
price of the other systems down slightly, but not guarantees.

Kit Kimes
AT&T-ISL
Naperville, IL
...ihnp4!iwvae!kimes

From 3180380060873398149
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50e1c0fac02e8a59,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 06:08:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!RNEWTON
From: RNEWTON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: First Word V.1,06
Message-ID: <860912090817.0000095E.AMBQ.MA@UMass>
Date: Fri, 12-Sep-86 09:08:17 EDT
Article-I.D.: UMass.860912090817.0000095E.AMBQ.MA
Posted: Fri Sep 12 09:08:17 1986
Date-Received: Fri, 12-Sep-86 22:20:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I just aquired version 1.06 of First Word and the only difference I can find
(from version 1.04) is that 1.06 DOES NOT work with Thunder! Two questions:
1) Anyone else find this problem? [It doesn't backspace correctly] 2) What
positive changes were made to 1.06 - I can't find any. Maybe GST and/or
Atari plan their own checker and this is sleaze marketing.
Rick Newton - UMass Amherst

From -5844791874489805964
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,96f6b8b27f95f6b2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 06:12:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decwrl!pulman.dec.com!peters
From: peters@pulman.dec.com (Don Peters, APO-1/F8, 289-1242)
Newsgroups: net.micro.atari16
Subject: Status of SEDT text editor
Message-ID: <5296@decwrl.DEC.COM>
Date: Fri, 12-Sep-86 09:12:23 EDT
Article-I.D.: decwrl.5296
Posted: Fri Sep 12 09:12:23 1986
Date-Received: Sat, 13-Sep-86 03:46:05 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 46

>Has anyone had any experience with SEDT, Anker Berg-Sonne's EDT-like editor
>for VAX/VMS, DEC Rainbows, and the Atari ST? Testimonials? I have really
>appreciated this editor on the Rainbow, and have been considering purchasing
>the ST because the keyboard so much resembles what I'm used to. I would
>like to know how much more of my environment (that is, editor) I can preserve

>on the ST.
>John Norman

I am one of the beta testers of SEDT, and have been using it for a few weeks now. Although SEDT is still in beta test, I find it to be unusually free of bugs. I feel it has EDT beat, and I've also now switched from using EDT to SEDT on my VAX at work. I consider it a real plus to be able to use the same editor on the VAX and on my ST at home. Also, its especially comforting to have such a high level of support from Anker - his response time to enhancements/fixes is fast! He recently spoke on SEDT at our local Atari club meeting.

Regarding the current status of SEDT, I'm including a message from him, below, that was extracted from our in-house NOTES file:

> I have been plugging away at it. Have what I think is a very solid TOS version. The only annoyance is the time that it takes for me to checkpoint the journal file, which has to be done by closing and reopening it again.
>
> I was given strong input that a GEM version was highly desirable and have taken that advice. Finished a first cut this weekend and feel very good about it. I need to enhance some of the menus, but it looks good. I'll get this out to the betatesters in about a week.
>
> Finally I have to get some feedback from the betatesters on where the product needs improvement. Having done that I should be ready to go to market.
>
> Anker

/Don Peters, Digital, 617-689-1242/

...decvax!decwrl!dec-rhea!dec-pulman!peters

From 4384074904766991191
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,816891072013ba31,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 06:16:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Help on Grafikon Ltd.?
Message-ID: <4657@pur-ee.UUCP>
Date: Fri, 12-Sep-86 09:16:03 EDT

Article-I.D.: pur-ee.4657
Posted: Fri Sep 12 09:16:03 1986
Date-Received: Sat, 13-Sep-86 06:08:25 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 22
Keywords: location price ANSIGRAF THUNDER

<<<<<>>>>>

Hello again,
  In response to my question about running THUNDER! and a GEM-type terminal emulator a kind soul posted a note about Grafikon Ltd.'s ANSIGRAF. This program is supposed to do VT102 and Tektronix 4014 as well as being under the GEM desktop.
  Question: Does anyone know how I can get ahold of Grafikon Ltd.? A phone number and/or address would be enough BUT if anyone has used this program with THUNDER! that would also be a great help. Any information about Grafikon Ltd. and/or ANSIGRAF including pricing/availability etc. will be greatly appreciated.
  Thanks for all the help.

                  Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From -3327099403818359513
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c7f77c56b01d192
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 06:27:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari16
Subject: Re: MacCartridge?
Message-ID: <1289@ihlpl.UUCP>
Date: Fri, 12-Sep-86 09:27:16 EDT
Article-I.D.: ihlpl.1289
Posted: Fri Sep 12 09:27:16 1986
Date-Received: Sat, 13-Sep-86 05:51:12 EDT
References: <158400001@uiucuxc>
Organization: AT&T Bell Laboratories
Lines: 29

[Ignore Header]

>
> Does anyone out ther know the current status of MacCartridge? Alive,
> dead, sick, in court or what?
>
> Steve Dorner
> University of Illinois Computing Services Office
> dorner@uiucuxc.CSO.UIUC.EDU
> ihnp4!cbosgd!uiucdcs!uxc!dorner

I will quote from an article in the September issue of Currrent Notes
which I just received:

"As this is composed, the decision ostensibly sits on the desk of the
President of Apple Computer, John Scully. If it's thumbs up, the
cartridge could move rather rapidly to the market, and be a vitiamin
"M" (money) motivational boost for Apple developers because it would
expand their potential market by another 250,000 machines and growing.
The chances of Apple recognizing the value of this, and/or deciding to
give a competitor, the ST, a leg up appears slim at this juncture."
                        -Current Notes- 9/86

Hope this helps...

Kit Kimes
AT&T-ISL
Naperville, IL
...ihnp4!iwvae!kimes

From -7493314874387392661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87290affe48a0dd6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 08:34:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!fischer-michael
From: fischer-michael@YALE.ARPA (Michael Fischer)
Newsgroups: net.micro.atari16
Subject: Where is Neil@Atari
Message-ID: <8609121534.AA04117@yale-celray.YALE.ARPA>
Date: Fri, 12-Sep-86 11:34:04 EDT
Article-I.D.: yale-cel.8609121534.AA04117
Posted: Fri Sep 12 11:34:04 1986
Date-Received: Sat, 13-Sep-86 03:45:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Does anyone know how to get electronic mail to Neil Harris at Atari?
The addresss that used to work is
    vecpyr!atari!neil@lll-crg.ARPA (Neil Harris)
but it seems to be no longer valid, as indicated by the bounced
mail message I received:

```
       ----- Transcript of session follows -----
    bad system name: vecpyr
    uux failed. code 68
    550 <vecpyr!atari!neil@lll-crg.ARPA>... Host unknown

--Mike Fischer
  <fischer@yale.arpa>

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-------


From -7225314075545986061
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9f9d9ff22635ca65
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 08:39:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ptsfa!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: RECENT ST PRICE IN D.C. AREA
Message-ID: <216@vlsvax1.UUCP>
Date: Fri, 12-Sep-86 11:39:09 EDT
Article-I.D.: vlsvax1.216
Posted: Fri Sep 12 11:39:09 1986
Date-Received: Sat, 13-Sep-86 21:25:51 EDT
References: <8609111838.AA03797@ucbvax.Berkeley.EDU>
Reply-To: cms@vlsvax1.UUCP (Michael Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 35

In article <8609111838.AA03797@ucbvax.Berkeley.EDU> "V5130B::MENTON"
<menton@v5130b.decnet> This may not be new info to many,
but@L&Y.Electronics.in.Wood- writes:
>bridge, VA, the basic 520ST, monochrome monitor, one SS disk drive is going
>for $549.  This is the same system that sold for $495 (on sale) not long
>ago.  I didn't think that dealers would raise the 'sale' price.  This (and
>any further possible price increases) could be a set-up for a big price
>CUT several weeks before Christmas.  Or, has supply and demand worked its
>magic?  Can the ST be selling **THAT** well ??
>                           Bob Menton
>                           MENTON@NRL-ACOUSTICS

The $495 price quoted here *was* a sale price.  It was a special promotion
that Atari offered last summer and it ended August 1.  There may be,
according to sources at Atari, some dealers who bought in on the deal
at the the end of the offer and they may still have some systems to offer
at that price.  The dealer in VA may be doing that and getting an extra
$54 out of of (I say *MAY* - I have no information on this, it's pure
speculation - the dealer may also just be offering a dynamite price).
At any rate, this does not reflect any price increases from Atari on
the ST.
```

While I'm here: This is probably my last posting on the net. Today is my last day with my employer and I don't have any idea if my next job will give me access to usenet. I have greatly enjoyed reading and interacting with the net and I appreciate both the information and sources contributed by net people and the opportunity provided by those organizations who make the net possible at all. Thanks, all. See you around.

Sweeney

```
/*
*  BTW:  I have no affiliation with Atari Corporation (Actually, I have
*  no affiliation with any corporation at the moment) and any remarks
*  above are my opinion and shouldn't be perceived to reflect reality.
*/
```


From -6964604265754062485
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,465f60bcf3377ac3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 09:37:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: HELP!!!
Message-ID: <8609121637.AA08698@ames-nas.ARPA>
Date: Fri, 12-Sep-86 12:37:29 EDT
Article-I.D.: ames-nas.8609121637.AA08698
Posted: Fri Sep 12 12:37:29 1986
Date-Received: Fri, 12-Sep-86 22:43:18 EDT
References: <1025@mhuxl.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 84

Hmm, let me try to simplify the problem.

     Since most of this conversation happens because of the introduction of Un*x flavored facilities, I will try to explain in Un*x terms.

     When people produce programs, especially in C, on Un*x systems they tend to do them in multiple source files, usually with a 'makefile' (command file for the make utility, but make is another article (:-) which depends on the files having the right names and being in the right places.

     To mail these files around to other users on the net, the source files are placed in encapsulated form. However, simply stacking them

all together in one file leaves the recipient with the problem of unpacking that file into all of the smaller files.

So, a format called shar (short for shell archive) was invented, which is simply to encapsulate each of the files into a huge shell script (Un*x command file) which the recipient simply feeds to the shell to get all of the files where they belong.

To simply the process even further, there are number of public domain Un*x utilities floating around which will do the packaging for you.

A related problem is that some mail systems have an upper limit on the size of a mail message they will transmit. This leads to the '1 of n' mail messages you sometimes see (like the source for uEmacs.)

The problem with just sending sources is that not everyone will have the compiler that you used to produce the software. (I for instance don't have any C compiler yet, having not figured out which one to buy (:-() So some people will send the executable image.

Since the executable is binary data, any byte in it can have any of the legal values from 0 to 255 (assume unsigned) but the ASCII character set is officially only from 0 to 127 and many implementations will strip off the high order bit when sending data over terminal lines.

Also, many mailers have problems with 'nonprinting' (or control) characters, some of which are treated especially. The solution to this problem is to encode binary files such as executable image into various formats in which the results are all 'printing ascii' characters.

uuencode and uudecode are opposite ends of this chain. uuencode encodes the file (the 'uu' is because they were intended to be used by uucp on unix systems) and the uudecode decodes them on the other side.

uuencode also calculates a checksum which uudecode checks. This gives you some assurance that nothing went wrong with the file (like a bit getting flipped by a noisey modem) during transmission along the mail system.

Another complexity which you didn't mention is how you get the file from the mail system or buletin board computer to your ST. There are two (or more?) competing mechanisms for transfering files, both of which were designed to get around limitations and problems in using terminal (RS232) lines to transmit data.

The first is the *MODEM (for * = x, y, z) family of protocols, first invented by Ward Christians in the early '70s for use between microcomputers. There are public domain XMODEM programs for most computers, as well as XMODEM facilities included in most 'communication programs'. If you want to get files from buletin boards, you'll probably need XMODEM, since most buletin boards use it.

The second is KERMIT, a protocol invented at Columbia university, and placed in the public domain. Again, there are KERMIT implementations for most computers, and some of the communications programs include the KERMIT protocol.

If you try to get files off of buletin boards you will also discover that there are alternatives to shar for archiving, to uuencode/decode for decoding, and all about tools for file compression; but that's for another discussion (;-)

Hope this helped more than it hurt.

Marty

From 746649253289734797
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,816891072013ba31
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 10:15:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!inuxc!pur-ee!j.cc.purdue.edu!h.cc.purdue.edu!pur-phy!piner
From: piner@pur-phy.UUCP (Richard Piner)
Newsgroups: net.micro.atari16
Subject: Re: Help on Grafikon Ltd.?
Message-ID: <2060@pur-phy.UUCP>
Date: Fri, 12-Sep-86 13:15:12 EDT
Article-I.D.: pur-phy.2060
Posted: Fri Sep 12 13:15:12 1986
Date-Received: Sat, 13-Sep-86 21:06:46 EDT
References: <4657@pur-ee.UUCP>
Reply-To: piner@pur-phy.UUCP (Piner)
Organization: Purdue Univ. Physics Dept., IN
Lines: 21

In article <4657@pur-ee.UUCP> beatyr@pur-ee.UUCP (Robert Beaty) writes:
><<<<<>>>>>
>Grafikon Ltd.'s ANSIGRAF. This program is supposed to do
>VT102 and Tektronix 4014 as well as being under the GEM
>desktop.
> Question: Does anyone know how I can get ahold of Grafikon
>Ltd.? A phone number and/or address would be enough BUT...

According to the Sept. issue of "ST Aplications" :
P.O. Box 446
College Park, MD 20740
301-937-3394

Price is listed as $79.95.

The usual disclaimers apply. In fact, I noticed that this same publication
list OS-9/68k as a "generic CP/M". How could anyone be that wrong?
So, take this information with a whole salt shaker.

Richard Piner
piner@galileo.UUCP

From -7568114225756026749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af13eb037d5a8e33,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 11:01:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Uudecode in OSS Pascal
Message-ID: <4658@pur-ee.UUCP>
Date: Fri, 12-Sep-86 14:01:59 EDT
Article-I.D.: pur-ee.4658
Posted: Fri Sep 12 14:01:59 1986
Date-Received: Sat, 13-Sep-86 21:05:34 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 287
Keywords: uudecode source oss pascal

<<<<<>>>>>

  I worked up this version of uudecode for the ST after getting
the turbo pascal version to work on my PC. It is the full
featured version, except that it will write only even numbered
binary files. This is because OSS Pascal can only write integers
to files and an integer is two bytes. This is not a functional
problem, only a theoretical one.
  The original author should probably stand forward, as should
the copywrite info for OSS Pascal, but since this is the net,
and you need the Compiler to get it running, I think it is
good enough.
  I don't guarantee anything other than it works for me, and it
does use the GEM interface (I added that). If you need the
executable then mail me at the address at the end of this posting,
I will try to work something out. Have fun!

****** cut here ******

```
program uudecode;

  CONST
    {$I gemconst }
    defaultSuffix = '.UUE';
```

```
  offset = 32;

TYPE
  {$I gemtype }
  string80 = string[80];

VAR infile: text;
    outfile: file of integer;
    lineNum: integer;
    uuline, mess : string80;
    path, name : Path_Name;
    double_byte : integer;
    Got_High_Byte : Boolean;
    i : integer;
    x : Str255;

{$I gemsubs }

procedure OutputWord( std_byte : byte );
  { This procedure is for the ST where the smallest thing is a word }
  begin
    if Got_High_Byte then
      begin
        double_byte:=double_byte + (std_byte & $00ff);
        outfile^:=double_byte;
        Put(outfile);
        Got_High_Byte:=False;
      end
    else
      begin
        double_byte:=ShL(std_byte, 8) & $ff00;
        Got_High_Byte:=True;
      end;
  end;

procedure Abort(message: string80);
  var
    x : str255;
    a, b : integer;
    i : integer;
  begin {abort}
    x:='[3][ ';        { make it a stop sign }
    if lineNum > 0 then
      begin
        x:=Concat(x,'Line ');
        a:=lineNum;
        for i:=4 downto 1 do
          begin
            b:=Trunc(a/PwrOfTen(i));
            a:=a-Trunc(b*PwrOfTen(i));
            x:=Concat(x,Chr(b+48));
          end;
        x:=Concat(x,Chr(a+48),' : | ');
```

```
      end;
    x:=Concat(x,message,' ]');
    x:=Concat(x,'[ Exit ]');
    i:=Do_Alert(x,1);
    Exit_GEM;
    Halt;
  end; {Abort}

procedure NextLine(var s: string80);

  begin {NextLine}
    LineNum := LineNum+1;
    readln(infile, s);
  end; {NextLine}

procedure Init;

  procedure GetInFile;

    VAR infilename: string80;
        i : integer;

    begin {GetInFile}
      path:='A:\*.UUE';
      name:='';
      if (Get_In_File( path, name )) then
        begin
          IO_Check( False );
          reset(infile, name);
          if IO_Result <> 0 then
            begin
              mess:=Concat( 'Cannot open ',name );
              abort( mess );
            end;
          IO_Check( True );
          infilename:=name;
        end
      else
        abort( 'No input file specified' );
    end; {GetInFile}

  procedure GetOutFile;

    var header, mode, outfilename, test: string80;
        ch: char;
        i : integer;
        x : str255;

    procedure ParseHeader;

      VAR index: integer;

      Procedure NextWord(var word:string80; var index: integer);
```

```
      begin {nextword}
        word := '';
        while header[index] = ' ' do
          begin
            index := index+1;
            if index > length(header) then abort ('Incomplete header');
          end;
        while header[index] <> ' ' do
          begin
            word := concat(word, header[index]);
            index := index+1;
          end;
      end; {NextWord}

    begin {ParseHeader}
      header := concat(header, ' ');
      index := 7;
      NextWord(mode, index);
      NextWord(outfilename, index);
    end; {ParseHeader}

  begin {GetOutFile}
    if EOF(infile) then abort('Nothing to decode.');
    NextLine(header);
    test:=Copy( header, 1, 6 );
    while not ((test = 'begin ') or EOF(infile)) do
      begin
        NextLine(header);
        test:=Copy( header, 1, 6 );
      end;
    if eof(infile) then abort('Nothing to decode.');
    ParseHeader;
    x:=Concat( '[0][   Destination is ', outfilename,'   ]' );
    x:=Concat( x, '[ Fine ]' );
    i:=Do_Alert(x,1);    { do the message }
    IO_Check( False );
    reset(outfile, outfilename);
    if IO_Result = 0 then
      begin
        x:='[2][';
        x:=Concat(x,' Overwrite current |');
        x:=Concat(x,outfilename,'? ]');
        x:=Concat(x,'[ Yes | No ]');
        i:=Do_Alert( x, 0 );
        if i = 2 then abort ('Overwrite cancelled.');
      end;
    IO_Check( True );
    rewrite (outfile, outfilename);
  end; {GetOutFile}

begin {init}
  lineNum := 0;
```

```
    GetInFile;
    GetOutFile;
  end; { init}

Function CheckLine: boolean;

  begin {CheckLine}
    if uuline = '' then abort ('Blank line in file');
    CheckLine := not (uuline[1] in [' ', '`']);
  end; {CheckLine}


procedure DecodeLine;

  VAR lineIndex, byteNum, count, i: integer;
      chars: array [0..3] of integer;
      hunk: array [0..2] of byte;

  function nextch: char;
    begin {nextch}
      lineIndex := lineIndex+1;
      if lineIndex > length(uuline) then abort('Line too short.');
      if not (uuline[lineindex] in [' '..'`']) then
        abort('Illegal character in line.');
      if uuline[lineindex] = '`' then
        nextch := ' '
      else
        nextch := uuline[lineIndex];
    end; {nextch}

  procedure DecodeByte;

    procedure GetNextHunk;

      VAR i : integer;
          a,b,c,d,e,f : byte;

      begin {GetNextHunk}
        for i := 0 to 3 do
          chars[i]:=ord(nextch)-offset;
        a:=ShL(chars[0],2) & $00fc;
        b:=ShR(chars[1],4) & $000f;
        c:=ShL(chars[1],4) & $00f0;
        d:=ShR(chars[2],2) & $003f;
        e:=ShL(chars[2],6) & $00c0;
        f:=chars[3];
        hunk[0] := a + b;
        hunk[1] := c + d;
        hunk[2] := e + f;
        byteNum := 0;
      end; {GetNextHunk}

    begin {DecodeByte}
```

```
        if byteNum = 3 then GetNextHunk;
        OutputWord( hunk[byteNum] );       { this is ST specific!! }
        byteNum := byteNum+1;
      end; {DecodeByte}

    begin {DecodeLine}
      lineIndex := 0;
      byteNum := 3;
      count := (ord(nextch) - offset);
      for i := 1 to count do
        DecodeByte;
    end; {DecodeLine}

  procedure terminate;

    var trailer, test: string80;

    begin {terminate}
      if eof(infile) then abort ('Abnormal end.');
      NextLine (trailer);
      if length (trailer) < 3 then abort ('Abnormal end.');
      test:=Copy( trailer, 1, 3 );
      if test <> 'end' then abort ('Abnormal end.');
      if Got_High_Byte then              { rescue the lost byte }
        begin
          outfile^:=double_byte;
          Put(outfile);
        end;
      close (infile);
      close (outfile);
    end;

  begin {uudecode}
    if Init_GEM >= 0 then
      begin
        init;
        NextLine(uuline);
        while CheckLine do
          begin
            DecodeLine;
            NextLine(uuline);
          end;
        terminate;
        Exit_GEM;
      end;
  end.
****** cut here ******
----------
   ... ihnp4!pur-ee!beatyr      <- usenet
  ... beatyr@ed.ecn.purdue.edu  <- arpa-net
   ... beatyr@pur-ee.UUCP       <- UUCP
----------
```

From -3705953372599283064
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aba6cb2f0b32d5c9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 11:06:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Uuencode in OSS Pascal
Message-ID: <4659@pur-ee.UUCP>
Date: Fri, 12-Sep-86 14:06:03 EDT
Article-I.D.: pur-ee.4659
Posted: Fri Sep 12 14:06:03 1986
Date-Received: Sat, 13-Sep-86 21:06:07 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 227
Keywords: uuencode oss pascal

<<<<<>>>>>

  This is the uuencode program to go with the uudecode program
posted previously. Same things apply - cut at the marks, remove
address at the end of this posting, and feed to OSS Pascal.
  Have Fun!

****** cut here ******

```
Program uuencode;

  CONST
    {$I gemconst }
    header = 'begin';
    trailer = 'end';
    defaultMode = '644';
    defaultExtension = '.uue';
    offset = 32;
    charsPerLine = 60;
    bytesPerHunk = 3;
    sixBitMask = $3F;

  TYPE
    {$I gemtype }
    string80 = string[80];

  VAR
    infile: file of integer;
    outfile: text;
    infilename, outfilename, mode, mess : string80;
    lineLength, numbytes, bytesInLine: integer;
    uuline: array [0..59] of char;
```

```
  hunk: array [0..2] of integer;
  chars: array [0..3] of integer;
  x : Str255;
  i : integer;
  one_waiting, eof_infile : Boolean;
  waiting_Byte : integer;

{$I gemsubs }

procedure Abort (message: string80);

  begin {abort}
    x:=Concat( '[3][ ', message,' ][ Exit ]' );
    i:=Do_Alert( x, 1 );
    close(infile);
    close(outfile);
    halt
  end; {abort}

procedure Init;

  procedure GetFiles;

    VAR i: integer;
        temp: string80;
        ch: char;
        path, name : Path_Name;

    begin {GetFiles}
      path:='A:\*.*';    { this is the default path for the input file }
      name:='';          { reset the name of the file }
      if not(Get_In_File( path, name )) then
        abort ('No input file specified.');
      infilename := name;
      IO_Check( False );
      Reset(infile, infilename);
      IO_Check( True );
      if IO_Result <> 0 then
        begin
          mess:=Concat( 'Cannot open file ', infilename );
          abort( mess );
        end;

      i := pos('.', infilename);
      if i = 0 then
        outfilename := infilename
      else
        outfilename := copy (infilename, 1, pred(i));
      outfilename := concat(outfilename, defaultExtension);
      mode := defaultMode;
      x:=Concat( '[0][ Coding to file ', outfilename, ' ][ Fine ]' );
      i:=Do_Alert( x, 1 );
```

```
      IO_Check( False );
      reset(outfile, outfilename);
      IO_Check( True );
      if IO_Result = 0 then
        begin
          x:='[2][';
          x:=Concat(x,' Overwrite current |');
          x:=Concat(x,outfilename,'? ]');
          x:=Concat(x,'[ Yes | No ]');
          i:=Do_Alert( x, 0 );
          if i = 2 then abort ('Overwrite cancelled.');
        end;
      close(outfile);

      IO_Check( False );
      rewrite(outfile, outfilename);
      IO_Check( True );
      if IO_Result <> 0 then
        begin
          mess:=Concat( 'Cannot open ', outfilename );
          abort( mess );
        end;
    end; {getfiles}

  begin {Init}
    GetFiles;
    bytesInLine := 0;
    lineLength := 0;
    numbytes := 0;
    writeln (outfile, header, ' ', mode, ' ', infilename);
  end; {init}

procedure FlushLine;

  VAR i: integer;

  procedure writeout(ch: char);

    begin {writeout}
      if ch = ' ' then write(outfile, '`')
                  else write(outfile, ch)
    end; {writeout}

  begin {FlushLine}
    writeout(chr(bytesInLine + offset));
    for i := 0 to pred(lineLength) do
      writeout(uuline[i]);
    writeln (outfile);
    lineLength := 0;
    bytesInLine := 0
  end; {FlushLine}

procedure FlushHunk;
```

```
  VAR i: integer;

  begin {FlushHunk}
    if lineLength = charsPerLine then FlushLine;
    chars[0] := ShR( hunk[0], 2 );
    chars[1] := ( ShL(hunk[0],4) ) + ( ShR(hunk[1],4) );
    chars[2] := ( ShL(hunk[1],2) ) + ( ShR(hunk[2],6) );
    chars[3] := hunk[2] & sixBitMask;
    for i := 0 to 3 do
      begin
        uuline[lineLength] := chr((chars[i] & sixBitMask) + offset);
        lineLength := succ(lineLength)
      end;
    bytesInLine := bytesInLine + numbytes;
    numbytes := 0
  end; {FlushHunk}

function get_a_byte : integer;
  { This function returns a byte input from the file 'infile'
    a file of two byte integers.                                  }
  var
    two_bytes : integer;
  begin
    if one_waiting then
      begin
        get_a_byte:=waiting_byte;
        one_waiting:=False;
      end
    else
      begin
        two_bytes:=infile^;
        IO_Check( False );
        Get(infile);               { get two bytes from the file }
        IO_Check( True );
        if IO_Result=0 then
          begin    { this is a normal in the file read }
            get_a_byte:=ShR( two_bytes, 8 ) & $00FF;   { get the first byte }
            waiting_byte:=two_bytes & $00FF;  { and the lower second byte }
            one_waiting:=True;
          end
        else
          begin    { this is an EOF mark }
            get_a_byte:=ShR( two_bytes, 8 ) & $00FF;   { get the first byte }
            eof_infile:=True;     { stop all this }
          end;
      end;
  end;

procedure encode1;

  begin {encode1};
    if numbytes = bytesperhunk then flushhunk;
```

```
      hunk[numbytes]:=get_a_byte;
      numbytes := succ(numbytes)
    end; {encode1}

  procedure terminate;

    begin {terminate}
      if numbytes > 0 then flushhunk;
      if lineLength > 0
        then
          begin
            flushLine;
            flushLine;
          end
        else flushline;
      writeln (outfile, trailer);
      close (outfile);
      close (infile);
    end; {terminate}


  begin {uuencode}
    if Init_GEM >= 0 then
      begin
        Init;
        eof_infile:=false;
        while not eof_infile do encode1;
        terminate;
        Exit_GEM;
      end;
  end. {uuencode}
****** cut here ******
----------
   ... ihnp4!pur-ee!beatyr      <- usenet
  ... beatyr@ed.ecn.purdue.edu  <- arpa-net
   ... beatyr@pur-ee.UUCP       <- UUCP
----------


From 9077348907043121519
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 11:30:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!XEROX.COM!Bicer.ES
From: Bicer.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <860912-112949-4257@Xerox>
Date: Fri, 12-Sep-86 14:30:13 EDT
Article-I.D.: Xerox.860912-112949-4257
Posted: Fri Sep 12 14:30:13 1986
```

Date-Received: Sun, 14-Sep-86 07:29:19 EDT
References: <5756@topaz.RUTGERS.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Has anyone compiled an Atari ST user group listing recently?

     Jack Bicer

Bicer.ES@Xerox.COM

From 6759708470373027912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db8293523133fb49,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 12:11:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc ....
Message-ID: <8609121814.AA25410@ucbvax.Berkeley.EDU>
Date: Fri, 12-Sep-86 15:11:42 EDT
Article-I.D.: ucbvax.8609121814.AA25410
Posted: Fri Sep 12 15:11:42 1986
Date-Received: Sat, 13-Sep-86 03:46:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 114

>I have some questions I hope someone can reply to:
> ......
>
>4. Related to memory allocation.... Has anyone understood the Memory
>Parameter Block concept in the ST? Is this related to GEMDOS's free memory
>list. If so I'd try and write some working allocation routines (assuming
>Malloc is broken, see question 2) maintaining the system memory list
>myself, thereby not breaking the loader. I looked a the MBP block in the
>system's variable area but nothing seemed to be linked to the three
>pointers in each. Further, after an allocation, nothing changed. Anyone
>understand how and where the SYSTEM's idea of free/allocated memory is
>kept?
>
> ......

I found some hints in the "Hitch' Guide" and played a bit with SID.

BIOS call "getmpb" is a special system call provided for GEMDOS use
only (parameter passing between BIOS and BDOS).
"getmpb" is called only once at boot time by GEMDOS to get its initial
memory management structure.

The first "getmpb" call initializes a BDOS structure at 0x56ec of type MPB
with { 0x48e, 0, 0x48e } and a memory descriptor at 0x48e of type MD
with {
         NULL   /* end of list */,
         0xa100   /* _membot */,
         0xedf00   /* _memtop - _membot (520ST+) */,
         NULL   /* owning process is system */
      }.
The memory descriptor at 0x48e is the initial single element free list for
the GEMDOS memory manager.
The first time, Malloc() is called, the MD at 0x48e is removed from the free
list and is inserted into the allocated list modified to the requested block
length. For the memory left a new MD is created and inserted into the allocated
list.
Insertion is done by putting the new in front of the existing elements.
This causes the MD at 0x48e to be the end of the allocated list and no Malloc()
call will change it.

Calling "getmpb" in a user program (panic !!!!!!!) modifies the last MD
in the allocated list.
Probably this has no effect to the memory manager because the modified MD
was originated for system memory which is never released, but who knows ?????

I wrote a little program to print the memory descriptor lists. It might be
useful, if you have memory fragmentation problems. Enjoy .....

------------ CUT HERE ------------

```
#include <osbind.h>

typedef struct PD {
                    long p_lowtpa,p_hitpa;
                    long p_tbase,p_tlen;
                    long p_dbase,p_dlen;
                    long p_bbase,p_blen;
                    char *p_xdta;
                    struct PD *p_parent;
                    char p_lddrv,p_curdrv;
                    char p_uft[2];
                    char *p_env;
                    char p_curdir[16];
                  } PD;

typedef struct MD {
                    struct MD *m_link;          /* next MD (or NULL) */
                    long m_start;               /* startaddr of block */
                    long m_length;              /* #bytes in block */
                    PD *m_own;          /* owner's process descriptor */
                  } MD;

typedef struct {
```

```
                MD *mp_mfl;             /* memory free list */
                MD *mp_mal;             /* memory allocated list */
                MD *mp_rover;           /* roving ptr */
              } MPB;

MPB *gdosmpb = 0x56ec;  /* pointer to GEMDOS memory parameter block */

printmd(md)
  MD *md;
  {
     printf(" Address: %lx\tLength: %lx\tOwner: %lx\n",
             md->m_start, md->m_length, md->m_own);
  }

main(argc,argv)
  int argc;
  char *argv[];
  {
    MD *mdpnt;
    long stack;
    stack = Super(0L);
    mdpnt = gdosmpb->mp_mal;
    printf("\nAllocated Memory Blocks:\n\n");
    while (mdpnt) { printmd(mdpnt); mdpnt = mdpnt->m_link; }
    printf("\nFree Memory Blocks:\n\n");
    mdpnt = gdosmpb->mp_mfl;
    while (mdpnt) { printmd(mdpnt); mdpnt = mdpnt->m_link; }
    Super(stack);
    Cconin();
  }

------------ CUT HERE ------------
```


  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany
  BITNET: XBR4D76H@DDATHD21

..... a voice from good old Germany ....


```
From -1006620584419164902
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 14:15:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site masscomp.UUCP
```

Path: utzoo!watmath!clyde!masscomp!garyo
From: garyo@masscomp.UUCP (Gary Oberbrunner)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <1109@masscomp.UUCP>
Date: Fri, 12-Sep-86 17:15:51 EDT
Article-I.D.: masscomp.1109
Posted: Fri Sep 12 17:15:51 1986
Date-Received: Sat, 13-Sep-86 06:11:45 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU>
Reply-To: garyo@masscomp.UUCP (Gary Oberbrunner)
Followup-To: net.micro.68k
Organization: Masscomp - Westford, Ma
Lines: 29
Keywords: patent, 68000, graphics
Xref: watmath net.micro.atari16:1951 net.micro.amiga:4704 net.micro.68k:1817
Summary: Yes, sometimes the patent office gets wacko

In article <6985@sun.uucp>, ludemann@sun.uucp (Jim Ludemann) writes:
> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> (applied for and granted) on using the untranslated addresses as the
> RAS addresses and doing the MMU address translation before the column
> addresses are needed for CAS. Sooner or later, it's going to cost some
> competitors a WHOLE lot of money.

Yes, folks, I can believe this man. I have in my office right now a
patent (which has been successfully contested) on xoring cursors into
a frame buffer, so they can be easily erased. The patent also apparently
applies to rubber-band lines in xor mode.

I also have another one (can you believe this? it's true!) on the
transformation equations for perspective projection on a display screen,
and their implementation in a digital computer. This one has also been
fought, and although the original scope of the patent was much reduced
(the guy can now only soak you if you use HIS FORM of the equations), the
patent was upheld, not once but several times (I have a sheaf of court
documents all about this case - if you're interested in this sicko stuff
mail me and I'll provide references).

I don't have the numbers or the authors right here, but if you're interested
I can mail them to you.

It's a mad, mad, mad, mad, mad, MAD world.

- Gary Oberbrunner
...!{harvard,allegra}!masscomp!garyo

From 707287037333330027
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,816891072013ba31

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 14:39:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!ihlpl!view3b5
From: view3b5@ihlpl.UUCP (Pruitt)
Newsgroups: net.micro.atari16
Subject: Re: Help on Grafikon Ltd.?
Message-ID: <1295@ihlpl.UUCP>
Date: Fri, 12-Sep-86 17:39:55 EDT
Article-I.D.: ihlpl.1295
Posted: Fri Sep 12 17:39:55 1986
Date-Received: Sat, 13-Sep-86 21:06:33 EDT
References: <4657@pur-ee.UUCP>
Organization: AT&T Bell Laboratories
Lines: 29

[Ignore Header]

> Question: Does anyone know how I can get ahold of Grafikon
> Ltd.? A phone number and/or address would be enough BUT
> if anyone has used this program with THUNDER! that would
> also be a great help. Any information about Grafikon Ltd.
> and/or ANSIGRAF including pricing/availability etc. will
> be greatly appreciated.
> Thanks for all the help.
>
> Bob

Address is: Grafikon, Ltd.
Attn. R. Kulkarni or G. Fekete
P.O. Box 446
College Park, MD 20740

Phone (301)-937-3394
Price: $79.95

There is a nice three page review of the program is September 1986 issue
of Current Notes (newsletter of the Washington Area Atari Computer
Enthusiasts). They do not address the problem of using a real time
spelling checker. Sorry...

Kit Kimes
AT&T-ISL
Naperville, IL
...ihnp4!iwvae!kimes

From -4148752395835166141
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e768e78b12265a52,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 14:41:25 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!twg-ap!amdahl!pyramid!hplabs!
tektronix!uw-beaver!ubc-vision!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.micro.atari16
Subject: LQ1000 printer driver
Message-ID: <372@vaxb.calgary.UUCP>
Date: Fri, 12-Sep-86 17:41:25 EDT
Article-I.D.: vaxb.372
Posted: Fri Sep 12 17:41:25 1986
Date-Received: Wed, 17-Sep-86 04:55:47 EDT
Organization: U. of Calgary, Calgary, Ab.
Lines: 13

A friend of mine has asked me to track down a driver
for his Epson LQ1000 printer. His problem comes in
making screen dumps with his 1040ST, as his printer
has 24 rather than 8 pins in the print-head.

If anyone could send me such a driver or provide a
pointer to one, I and my friend would be most grateful.
(This is the sort of problem that I would normally
handle myself, but not even OWNING a printer, I don't
know where to start.)

Thanx in Advance --   M. Brinsmead @ University of Calgary

From -8856886497985397240
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7a018096b7bbc9d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 15:50:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM request
Message-ID: <8609122152.AA28196@ucbvax.Berkeley.EDU>
Date: Fri, 12-Sep-86 18:50:22 EDT
Article-I.D.: ucbvax.8609122152.AA28196
Posted: Fri Sep 12 18:50:22 1986
Date-Received: Sat, 13-Sep-86 03:48:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

Hello,

Who can send me a UNITERM program.
I just recently joined the atari16. If it is not
poosible to uuencode it with the kermit uuencode program

(from CUVMA) would you please alse send a encode/decode program
preferably written in Lattic-C.
I understood this program also emulates a VT100 terminal.
I bought the program FLASH from ANTIC. They say it emulates a VT100
terminal but some commands are not understood by the program.
E.G. When working with the edditor on a VAX 11/750 in
full screen mode, the lines at the bottom are not scrolled.
Insertion of lines is also impossible.
If somebody else has also encountered these problems (and probably had
it solved) please leave a note.

Greetings,
Berend F. de Vries.
Univ. of Amsterdam
AMC Netherlands
user: U00170 node: HASARA5 network: BITNET.

From -1844933493150249882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,42945c671920c877
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 16:16:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!Xerox.COM!jeffers.Wbst
From: jeffers.Wbst@Xerox.COM
Newsgroups: net.micro.atari16
Subject: Re: Followup on Thunder and VT-52
Message-ID: <860912-161630-4554@Xerox>
Date: Fri, 12-Sep-86 19:16:28 EDT
Article-I.D.: Xerox.860912-161630-4554
Posted: Fri Sep 12 19:16:28 1986
Date-Received: Sat, 13-Sep-86 03:48:17 EDT
References: <4634@pur-ee.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Pc-intercom has a very very good vt100 emulator that use to talk to
vaxes all the time. (unix and vms) Works with EDT in vms (redefines the
keypad).

     Bill

From -7890146274259859433
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f312ef3a510fe95b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 18:32:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!ucbvax!XX.LCS.MIT.EDU!Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)

Newsgroups: net.micro.atari16
Subject: Future of GEM
Message-ID: <MDCG.WAYNE.12238471664.BABYL@MIT-OZ>
Date: Fri, 12-Sep-86 21:32:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12238471664.BABYL
Posted: Fri Sep 12 21:32:00 1986
Date-Received: Sun, 14-Sep-86 07:30:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Does anyone have any hard information or informed speculations about the future of GEM? Specifically, is there a multitasking GEM in the works which will fully exploit the resources of 68020 machines? I am sure most of us would love to see many of the best features of the windowing and operating systems of Symbolics, Sun, Apollo, MicroVAX, and Xerox 6085 workstations integrated into a GEM or GEMlike interface on the next generation of Atari machines.

Also, will it be possible to run Windows with the new IBM PC emulator for the Atari, and, if so, might not Windows and eventually MS-DOS 5.0 become the operating system of choice for Atari users and programmers?

From -2699720689520288100
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9e28c04df3ca8754,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-12 21:55:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!mitre-bedford.ARPA!jhs
From: jhs@mitre-bedford.ARPA
Newsgroups: net.micro.atari16
Subject: Re: upside-down DA, source and uuencoded binary
Message-ID: <8609130409.AA06042@mitre-bedford.ARPA>
Date: Sat, 13-Sep-86 00:55:06 EDT
Article-I.D.: mitre-be.8609130409.AA06042
Posted: Sat Sep 13 00:55:06 1986
Date-Received: Sat, 13-Sep-86 04:58:47 EDT
References: <3114@watmath.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

Heck, if all you want to do is turn a screen upside down, buy an Atari 800xl. All you have to do there is write one number to one memory location and the screen turns upside down! (:^/)

-jhs

From 3116123062963435526
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 03:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XEROX.COM!Ulrich.wbst
From: Ulrich.wbst@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers
Message-ID: <860913-033659-4828@Xerox>
Date: Sat, 13-Sep-86 06:37:00 EDT
Article-I.D.: Xerox.860913-033659-4828
Posted: Sat Sep 13 06:37:00 1986
Date-Received: Sun, 14-Sep-86 07:31:48 EDT
References: <1564@cwruecmp.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Who publishes "Gem Programming" that you mentioned in your message.

Thanks,

Denny

From -27267258023840234
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,edbefe398e24571e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 05:53:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson)
Newsgroups: net.micro.atari16
Subject: CHKDSK for ST?
Message-ID: <423@ektools.UUCP>
Date: Sat, 13-Sep-86 08:53:50 EDT
Article-I.D.: ektools.423
Posted: Sat Sep 13 08:53:50 1986
Date-Received: Sat, 13-Sep-86 21:01:02 EDT
Distribution: net
Organization: Eastman Kodak, Dept. 47
Lines: 8

One of the utilities I haven't seen yet is a "CHKDSK" for the ST.
I'm almost sure that I have diskettes with broken FATS which could use
a run of a CHKDSK like the MS-DOS'ers have. Has anyone seen a utility
which fixes FATS?

Bruce Nelson
...rochester!kodak!ektools!bruce

From -1655133671353048162
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,958224f69be2f60d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 06:48:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!burl!clyde!watmath!csc
From: csc@watmath.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: Memory Upgrade Plea
Message-ID: <3141@watmath.UUCP>
Date: Sat, 13-Sep-86 09:48:11 EDT
Article-I.D.: watmath.3141
Posted: Sat Sep 13 09:48:11 1986
Date-Received: Sat, 13-Sep-86 23:43:09 EDT
References: <905@sunybcs.UUCP>
Reply-To: csc@watmath.UUCP (Jan Gray)
Distribution: world
Organization: U of Waterloo, Ontario
Lines: 5

In article <905@sunybcs.UUCP> leo@sunybcs.UUCP (Leo Wilson) writes:
>though it does still boot & recognize bank 0 . A little added info: I
>used Hitachi HM50256 chips & wire wound 68k resistors. My board is a rev. B

I hope you meant 68 ohm resistors. Otherwise, that is your problem.

From -8865330416394114819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,527e70c71a46a960,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-13 08:49:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!BFLY-VAX.BBN.COM!aking
From: aking@BFLY-VAX.BBN.COM (Allen King)
Newsgroups: net.micro.atari16
Subject: A month's worth of ...tions
Message-ID: <8609140114.AA11736@ucbvax.Berkeley.EDU>
Date: Sat, 13-Sep-86 11:49:40 EDT
Article-I.D.: ucbvax.8609140114.AA11736
Posted: Sat Sep 13 11:49:40 1986
Date-Received: Sun, 14-Sep-86 07:32:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 114

   In my pounding on the keyboard these last months, I've come up with the
following observations, questions, and frustrations. They seem to amass
on little sheets of paper and every month or so I have this catharsis

and BLOUMPH, they come out as netmail.

MAKE:

I've experienced problems bringing up the recentnet-distributed make with the developer's kit. Besides the reported problems with VOID, my malloc (UNIX's memory allocator, with a small m) seems to have no memory available for it. Things went farther with Malloc (GEMDOS's memory allocator), except it barfs parsing blank lines and comment lines. With those edited out of the makefile, then Malloc runs out of memory. I'm now thinking that small m malloc is the one, but my GEMSTART is out of date (I got my kit around 4/86). Anybody been down these rat-holes too? (and maybe know the way out?)

REPORTING ERRORS:

I have modified make's FATAL routine to pause for a while so you have more than 50ms to read the error messages. Much GEM PD software has this problem. Why doesn't ATARI give us at least 200ms so the image can implant on our retina?

839K DISK FORMAT:

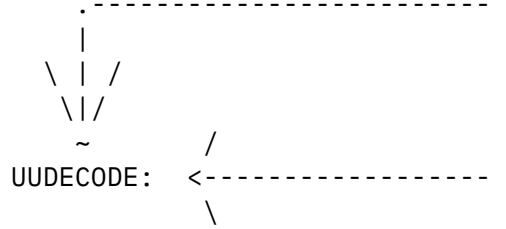
Just found the 410K formatter, which actually gives an extra 113K on double-sided drives (839K vs 726K). It lets me actually put all of my mandelbrot demo and compiler and linker on one disk! Do all the desktop utilities (such as copy) work with it? How is it that Atari doesn't use it?

RENAMING DIRECTORIES:

Anybody got a program or accessory to rename directories? Its a pain to creat a new one and copy things around. The copy program I asked for a few months ago was received and is well used -- every compilation I do.

FLIGHT SIMULATOR:

Would somebody recommend a flight simulator for the ST? What's available? Has anybody had good or bad experiences?



uudecode has been giving me *FITS*. I've tried 3 uudecodes on 2 files

i've gotten over the net. Nothing executes properly. What is less, (almost) none of the lengths agree.

	circle2	accdemo.acc
uudecode from some kind soul who copies disks	49710 (bus errors)	12032 (won't boot)
uudecode assembled from the recent net sources	25961 (bus errors)	12165 (won't boot)
uudecode on VAX/ULTRIX downlined with kermit	25728 (can't download)	12032 (won't boot)

BULLETIN BOARDS:

I've dropped back to using bulletin boards for the moment. I'm also about to release a fast interactive Mandelbrot demo, and can't see putting 80K of binary over the net. So here is the list of bulletin boards I know of (not all of which I've called):

ATARI:	1-408-745-2642 -4758 -5360 -5970 -5664
Computer Club II	1-313-334-8877 (Detroit)
(Fresno)	1-209-292-1777
(?)	1-312-283-0559
(?)	1-219-277-5825

Does anybody have a more complete list? Post it, or send me mail (aking@bfly-vax.bbn.com, possibly prefixed with ucbvax!, possibly prefixed with ucbcad!.) I'll accumulate responses for 2 weeks and then post. Seems like a good way to keep from getting reams of uuencoded printout in my net-mail printout. (I read it in the car at stoplights as I commute, and the discarded sheets of "M\$ZY'''N7CX\'*5!..." mess up my car!) Seriously, I'd like to see more mail of the form: "I just placed the following software with the following great features on the following bulletin boards: 1-617-...".

Also, would the guy who was going to be moderator (was it) of a sources something or another (remember all the mail on choosing its name?) post some status and "wake-up call" so we all know whats going on.

KERMIT:

What features does the new KERMIT have? does it offer remote operation (where you only have to go upline once to login) ? Hows about some statistics display like XMODEM has as the file is transfered? Are there bulletin boards around with the new KERMIT and uEMACS on them?

uEMACS:

Same question, uEMACS 3.4. Color, did I hear? and ^x^f like real EMACS!

(wanta know how to blow a file with 2 misplace keystrokes: Think youre in real EMACS and go to get a file with ^x^f. But you sit in uEMACS

and the disk doesn't spin. So you go to hit ^x^v to do the right thing, but you know Z is right next to X, and ^z writes your old file right on top of the one you wanted to get and then quits. P O O F ! (Did they think they were making it better?)

From -1900238255844430459
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4b0bd173573e86b3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 12:13:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!UMass.BITNET!SARGON
From: SARGON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: Sorry if this doesnt belong here..
Message-ID: <860906151330.000012CE.AART.MA@UMass>
Date: Sat, 6-Sep-86 15:13:30 EDT
Article-I.D.: UMass.860906151330.000012CE.AART.MA
Posted: Sat Sep 6 15:13:30 1986
Date-Received: Sat, 6-Sep-86 22:04:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Greetings,
  I remember coming across a rather complete and well done description of the uuencode/uudecode programs, and I neglected to save a copy of it. Well, I update a LARGE number of notesfiles, and I seem to have lost track of where it was (or might have been, public notesfiles on this system are cleaned often due to space limitations, and I think it might have come from this digest. What Im getting to is if this letter was posted on this digest and someone has it, would they be kind enough to send me a copy (and if it wasnt here but you know what Im talking about and have it and would be kind enough to send it)? Thanks either way.
                                                                -Steve
~~~~~
Sargon@Umass.BITNET         Sargon%Umass.BITNET@WiscVM.Wisc.EDU

From 6706646698144010867
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a483acb27c8ff8be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 15:49:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: TextBlt
Message-ID: <12236869067.34.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Sat, 6-Sep-86 18:49:24 EDT
~~~~~

Article-I.D.: DEEP-THO.12236869067.34.UC.BRI
Posted: Sat Sep 6 18:49:24 1986
Date-Received: Sun, 7-Sep-86 04:09:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 28

As for my earlier message as why my TextBlt did not work, I may have a clue. It turns out that the problem (I think) was in the size of the raster form width. I was using a form with a width of 4096 bytes, so maybe a signed word value may have had problems. I tried using a form with a much smaller width (the system font), and it worked fine. So, then I tried a form width of 2048. Nope, still didn't work. Hmmm...

So, right now, I take the character I want, blit it from the big form into a temporary form, and then TextBlt it. This works! It is interesting to note that normal GEM raster ops work fine with raster form widths of 4096 bytes. I wish I had some documentation that explained this for sure...

Also, I would like to thank Jwahar Bammi for his replies to my TextBlt questions. All of my letters got bounced back from case, so I couldn't thank him personally.

So, if anyone has any definitive ideas about this TextBlt/form width thing, I would love to hear about it.

--- Bri

...!mit-eddie!bri
uc.bri@deep-thought.mit.edu

From 228185025407542261
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4b0153b9a9aff846
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 19:10:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: A couple of questions (compilers & BASIC)
Message-ID: <980@batcomputer.TN.CORNELL.EDU>
Date: Sat, 6-Sep-86 22:10:56 EDT
Article-I.D.: batcompu.980
Posted: Sat Sep 6 22:10:56 1986
Date-Received: Sun, 7-Sep-86 20:23:10 EDT
References: <8609050441.AA07794@ucbvax.Berkeley.EDU>

Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 40
Keywords: HBASIC
Summary: A great incrementally compiled BASIC coming soon!

[]

Kevin J. Burnett wrote:
>What are good inexpensive ... compilers for the ST?
>Also, ... in ST BASIC...

Well, it took me very little time to abandon ST BASIC - it's got 3 windows too many (it is faster to retype one line than use the "screen" editor, and so on) and in the 250 page manual I couldn't find any hint on using the RS232 port (I'm sure it's possible, though) and it's SLOOOOOW, etc...

Those of you interested in BASIC, the langauge and/or the interactive environment, will be happy to know that an incrementally compiled, BASIC-like language is about to come out for the ST. Incrementally compiled means that each line is compiled immediately upon entry (which is so fast that you don't notice it) (and decompiled if you LIST, again fast - THAT is what the magic power of the 68000 is for) - and when you want to RUN the program the compiled code is ready to run, and run FAST! (The infamous SIEVE - n=8192, 10 iterations - takes about 25 seconds, or about 30 times faster than ST-BASIC, and faster than all the BASIC compilers too.)

The language, called HBASIC, is not quite standard BASIC, though.
(It is not a GEM program nor a GEM-compatible system, either!)
Data types include integers and reals (distinct!), strings, and arrays.
Floating point is double-precision but FAST. I don't know what graphics capabilities will be included in the early package, if any. Disk access bypasses TOS and is VERY FAST. A RAM-based assembler will be bundled with it, and there's access to assembled routines from HBASIC.

This is NOT vaporware, it is running now and the first public release is scheduled in about two months. It is a descendent of HALGOL, the language that runs on the 68000 add-on boards called "Dtack Grounded", that attach to Apple][' s and IBM PC's.

All of these HW/SW products are made by Digital Acoustics, inc., with which I am not at all associated. The price will be about $50, but I'm not sure if that will include the assembler. This info is out of the newsletter they sent to some of their old-time customers.

- Moshe Braner

From -9153779629244395406
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 19:21:14 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT...
Message-ID: <981@batcomputer.TN.CORNELL.EDU>
Date: Sat, 6-Sep-86 22:21:14 EDT
Article-I.D.: batcompu.981
Posted: Sat Sep 6 22:21:14 1986
Date-Received: Sun, 7-Sep-86 20:23:34 EDT
References: <8609050623.AA09089@ucbvax.Berkeley.EDU> <521@elmgate.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 19

[]

A quote from "ST internals" (the Abacus book that us traitors who
refused to spend $300 on a mediocre C compiler + some IBM-PC-GEM docs
have to live with until X-MAS):

> "The bit-block transfer is used by the text-block transfer...
> A6 must contain a pointer to a parameter table. Unfortunately, the
> construction of this parameter table could not be determined...
> Our attempts led to classic system crashes... we cannot say much
> about the function."

And I presume they did have the developer's package...

One of the wonders of the information age is that people go into so much
trouble to create software, but then neglect to disseminate (or create)
the information that would make it useful. Happens every time!

- Moshe Braner

From -281596648116032733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6f0a6abfe9a19d97,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 19:45:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!mit-amt!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Can I draw off-screen
Message-ID: <2700@mit-hermes.ARPA>
Date: Sat, 6-Sep-86 22:45:31 EDT
Article-I.D.: mit-herm.2700
Posted: Sat Sep 6 22:45:31 1986
Date-Received: Sun, 7-Sep-86 03:38:07 EDT
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA

Lines: 9

I'm doing some graphics-intensive stuff on my ST, using Megamax C. Some of it involves animation, and it really looks bad to draw elements of the output piece by piece. The time taken is significant, and it would be a great improvement to draw the whole thing off-screen, in some phantom area, and then reset the screen position. Then the new drawing would just "blink" into place. But as far as I understand it, the drawing routines (v_pline, v_fillarea, etc) work only on the current screen. If anyone knows a way around this problem I'd appreciate hearing it.
-jp

From -2956715677904545418
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 21:35:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!husc6!panda!genrad!decvax!decwrl!sun!ludemann
From: ludemann@sun.UUCP
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <6985@sun.uucp>
Date: Sun, 7-Sep-86 00:35:07 EDT
Article-I.D.: sun.6985
Posted: Sun Sep 7 00:35:07 1986
Date-Received: Mon, 8-Sep-86 20:53:31 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP>
Organization: Sun Microsystems, Inc.
Lines: 32
Xref: mnetor net.micro.atari16:1856 net.micro.amiga:4582 net.micro.68k:1194

> > >   You could do
> > > the same with a 68000. With a couple of 35ns rams and some address
> > > decoding (to map them into memory) you can implement a similar type of
> > > ....
> >
> > It's a nice idea in general . . . but not on the ST. Address
> > timing is *so* critical that running the address lines through a
> > 35ns RAM would result in missing RAS and/or CAS windows on the
> > DRAMs. Bad things happen.
>
> By design, this can be a non-problem. Drams have three parts to each cycle:
>
>   1) RAS/CAS precharge   -- Overlapped with end/begining of M68k cycle
>   2) RAS/Row address   -- taken from M68k address lines after AS asserted
>   3) CAS/Col address   -- taken from MMU result after delay from AS asserted

>
> The delay from RAS to CAS required/accepted by most DRAMS is about the same
> is running the address lines thru a mapping ram or adder/comparator based mmu.
> Addresses and function codes precede AS by half a clock giving a little more
> head room. RAS can be started without knowing if the translation will be
> valid, since witholding CAS is a refresh cycle.
>
I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
(applied for and granted) on using the untranslated addresses as the
RAS addresses and doing the MMU address translation before the column
addresses are needed for CAS. Sooner or later, it's going to cost some
competitors a WHOLE lot of money.

--
-Jim Ludemann

"186,000 miles per second. It's not just a good idea, it's the law."

From 560882298741346183
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f2874681f421abd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 00:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: okimate 20
Message-ID: <8609070722.AA13843@ucbvax.Berkeley.EDU>
Date: Sun, 7-Sep-86 03:13:00 EDT
Article-I.D.: ucbvax.8609070722.AA13843
Posted: Sun Sep 7 03:13:00 1986
Date-Received: Sun, 7-Sep-86 05:57:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Has anyone had any experience using the okimate 20 color printer with the
ST? There is a rather useless review in the October issue of Antic. Is the
printer driver supplied with it useable for monochrome screen dumps? I think
that other okidata printers emulate epson graphics, does the oki 20 provide
any such capabilities? Also, what is the print resolution? Does it support
italics, superscripts and subscripts and the like? Any general impressions?
                    peter lorraine (qbzj @ cornella.bitnet)

From 6056287144734730459
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 00:39:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!nitrex!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers
Message-ID: <1564@cwruecmp.UUCP>
Date: Sun, 7-Sep-86 03:39:05 EDT
Article-I.D.: cwruecmp.1564
Posted: Sun Sep 7 03:39:05 1986
Date-Received: Wed, 10-Sep-86 01:25:35 EDT
References: <8609050623.AA09089@ucbvax.Berkeley.EDU> <521@elmgate.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 59

In article <521@elmgate.UUCP> jdg@elmgate.UUCP (Jeff Gortatowsky) writes:
>
>As for the Line A doc you mentioned, my developer buddy told me on the
>phone that it says 'see the end of this document for a description of
>BITBLT'. Only there is no description to be found! I asked him if the 300
>bucks was well spent?   He hung up......

>Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
>Eastman Kodak Company
><Kodak won't be responsible for the above comments, only those below>

Well i admit it takes some digging around, but all the info is certainly
present. The 300 bucks are more than well spent. The bit block info is on
pages 775-789.

Ok here are the details:

B_WD width of blocks in pixels
D_HT height   "   "

PLANE_CT # of consecutive planes to blit

FG_COL & BG_COL   fg and bg color

OP TAB (4 bytes) {
     logic op to employ when FG=0 and BG = 1
                    FG=0   BG = 1
                    FG=1   BG = 0
                    FG=1   BG = 1
          } (one of 16 logic ops)
S_XMIN , S_YMIN   minimum X & Y source (in pixels)
S_FORM   source form base address (must fall on word address)
D_FORM   destin "   "   "   "   "

S_NXWD and D_NXWD offset to next word in plane of memory form. Mono = 2.
            Med = 4, low=8

S_NXLN and D_NXLN form width for source and dest. These widthare even, they

represent the offset from one row of the form to the next.
Hi rez (mono) = 80, low and med rez = 160

S_NXPL and D_NXPL offset from start of one plane to the start of next.
Always = 2

The pattern parameters (P_ADDR P_NXLN P_NXPL) are similarly defined.
Also there is that 26 byte buffer at the end that is used and does not
need to be initialized before the call.
Also see the description of MFDB in anything that describes Vdi and the
above will be quite clear. I can recommend "Gem Programming" by Balma and
Titler highly.

Hope that helps,

--
Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -2315439724339610884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 05:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!ihnp4!inuxc!iuvax!
authorplaceholder
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not m
Message-ID: <54600106@iuvax>
Date: Sun, 7-Sep-86 08:46:00 EDT
Article-I.D.: iuvax.54600106
Posted: Sun Sep 7 08:46:00 1986
Date-Received: Tue, 9-Sep-86 02:13:45 EDT
References: <514@elmgate.UUCP>
Lines: 3
Nf-ID: #R:elmgate.UUCP:-51400:iuvax:54600106:000:133
Nf-From: iuvax.UUCP!franco Sep 7 07:46:00 1986

Are you kidding? Of course the response is overwhelming. Kindly put it
on the net tomorrow (at least the executables). Thank you.

From -4269770824117081019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8cfabc38567b2eeb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 10:08:15 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET
Newsgroups: net.micro.atari16
Subject: retrieving files.
Message-ID: <8609071708.AA19482@ucbvax.Berkeley.EDU>
Date: Sun, 7-Sep-86 13:08:15 EDT
Article-I.D.: ucbvax.8609071708.AA19482
Posted: Sun Sep 7 13:08:15 1986
Date-Received: Sun, 7-Sep-86 20:41:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Hello,
Since it is impossible for me to obtain files from the atari16-info
i would be very pleased if somebody could send me some relevant files
,like public-domain software (written in C) or files with handy
suggestions concerning programming e.d..
If you do so, please leave a message so that i don't get files
from different peolpe twice.
Or maybe someone can tell me how I can mannage it myself.

Greeting,   Berend F. de Vries User:U00170 Node:HASARA5 on BITNET

From 1087989091919788444
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50b13260bb1b1848,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 11:55:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HASARA5.BITNET!U00170
From: U00170@HASARA5.BITNET
Newsgroups: net.micro.atari16
Subject: retrieving files
Message-ID: <8609071854.AA20568@ucbvax.Berkeley.EDU>
Date: Sun, 7-Sep-86 14:55:06 EDT
Article-I.D.: ucbvax.8609071854.AA20568
Posted: Sun Sep 7 14:55:06 1986
Date-Received: Sun, 7-Sep-86 20:48:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Hello,
Since it is impossible for me to obtain files from the atari16-info
i would be very pleased if somebody could send me some relevant files
,like public-domain software (written in C) or files with handy
suggestions concerning programming e.d..
If you do so, please leave a message so that i don't get files
from different peolpe twice.
Or maybe someone can tell me how I can mannage it myself.

Greeting,   Berend F. de Vries User:U00170 Node:HASARA5 on BITNET

From -8633952262923815604
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2b3296dfefa8ea7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 15:01:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!UMIX.CC.UMICH.EDU!hyc
From: hyc@UMIX.CC.UMICH.EDU (Howard Chu)
Newsgroups: net.micro.atari16
Subject: Re: uuencoded files
Message-ID: <8609072201.AA11415@umix.cc.umich.edu>
Date: Sun, 7-Sep-86 18:01:20 EDT
Article-I.D.: umix.8609072201.AA11415
Posted: Sun Sep 7 18:01:20 1986
Date-Received: Sun, 7-Sep-86 21:38:16 EDT
References: <8609051725.AA19497@mitre-bedford.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

This sounds really intriguing. Please let me know how the XL uuencode
project works out. Generally I wouldn't expect to need to transfer binaries
for my Atari too often, but I've recently been using ftp to get David
Young's latest products. Getting them down to my Atari from this Unix
machine can sometimes be a challenge....
  -- Howard

From -7256721771693657082
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7fd6b9235746ec61,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 15:43:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Mailing list
Message-ID: <984@batcomputer.TN.CORNELL.EDU>
Date: Sun, 7-Sep-86 18:43:08 EDT
Article-I.D.: batcompu.984
Posted: Sun Sep 7 18:43:08 1986
Date-Received: Mon, 8-Sep-86 06:00:51 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Cornell University, Ithaca NY
Lines: 22
Summary: Is this a nightmare?

[]

To whoever organizes this: Please add my friend Larry Bank,
<oykj@cornella.BITNET>, to the distribution list of net.micro.atari16.

Thanks!

BTW, when I learn't that on IBM mainframes you get this news as PERSONAL
MAIL, I fell over backwards. Does that mean that for every reader on the
same machine, a separate copy is mailed? It at least means that a separate
copy is stored, which would make the system administrators soon buy some
more disk drives...

For those of you who don't know: on (some) UNIX systems you read the news
by typing a command (e.g. "readnews"). The system knows which newsgroups
you "subscribe" to, and shows you that stuff, of which I presume there is
only one copy in there. The "readnews" program also allows things like
"mark item as (un)read", "show list of posting with subject line", "show
a specific posting", "post followup article", etc - all invoked by pressing
ONE KEY.

- Moshe Braner

From -5461443927525152484
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6351eed644f33e5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-07 15:45:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!ut-ngp!doug
From: doug@ut-ngp.UUCP (Doug Miller)
Newsgroups: net.micro.atari16
Subject: Normalized Device Coordinates in TDI Modula-2
Message-ID: <3933@ut-ngp.UUCP>
Date: Sun, 7-Sep-86 18:45:11 EDT
Article-I.D.: ut-ngp.3933
Posted: Sun Sep 7 18:45:11 1986
Date-Received: Sun, 7-Sep-86 21:39:05 EDT
Organization: U.T. Physics Dept. Austin, TX
Lines: 15
Keywords: Does it work? My attempts didn't

Does the ST support NDC (Normalized Device Coordinates)? I've seen one
source that says it doesn't and one that mentions NDC as a possibility,
which presumably means it does. Neither source is just a real fount of
reliable wisdom, though; one was the TDI manual (not quite useless, and I
do like Modula), the other was ABACUS Books' GEM_Programmer's_Reference_Guide.

So, what is the real story? I tried to get an application to run with NDC
and I got bombs instead. Am I missing something, is TDI missing
something, or is the ST at fault? Really, of course, Atari is at fault
for not providing useful documentation at a reasonable price. (Sorry,
Neil, but I just can't resist a chance to *slam* that point home to the

marketing wizards at Atari *one* *more* *time*   1/2 :-)

Working in the dark,
Doug Miller

From -6686505443040757017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,765cfea149953e9b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 02:27:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht _ c/o HRZ TH Darmstadt _ Tel.)
Newsgroups: net.micro.atari16
Subject: Re : uuencode / uudecode
Message-ID: <8609080927.AA02251@ucbvax.Berkeley.EDU>
Date: Mon, 8-Sep-86 05:27:48 EDT
Article-I.D.: ucbvax.8609080927.AA02251
Posted: Mon Sep 8 05:27:48 1986
Date-Received: Mon, 8-Sep-86 19:16:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

        We got some troubles tooin using uudecode.
        As reason we found an error in our local
        EBCDIC --> ASCII Translation - Table.
        So i propose those people, who have toubles too,
        try to look in the uuencode files if there are
        all possible chars (i think between blank and
        uppercase Z) are represented. At our site the
        ^ (circumflex) got to a ? questionmark. In this
        situation we found that at a DIGITAL VAX there are
        two Translation Tables to choose by generating.
        (So we have there two modifications belonging to
        the brackets [] . Which not worked with the defaults)

        Steve

        Name : Stephan Leicht
Organisation : Computer Center of Technical University Darmstadt, Germany
      Bitnet : XBR1Y049@DDATHD21

From 8348215829555293762
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d22f1f09c64d23ee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 06:21:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!EE.ECN.PURDUE.EDU!mckay

From: mckay@EE.ECN.PURDUE.EDU (Dwight D McKay)
Newsgroups: net.micro.atari16
Subject: Circle2 (source) - Scientific American, Computer Recreations
Message-ID: <8609081321.AA02528@ee.ecn.purdue.edu>
Date: Mon, 8-Sep-86 09:21:22 EDT
Article-I.D.: ee.8609081321.AA02528
Posted: Mon Sep 8 09:21:22 1986
Date-Received: Mon, 8-Sep-86 20:44:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 409

In A. K. Dewdney's "Computer Recreations" column in the September 1986, Scientific American he describes several Mandelbrot inspired programs. I've implemented the first of these, John E. Connett's CIRCLE2 in OSS Pascal. It draws the pattern in a small window in the upper right hand corner of the screen. A menu selection called "Commands" allows you to adjust the parameters of the function as descibed in the "Computer Recreations" column, as well as adjust the aspect ratio and number of colors used to draw the patterns. It has been tested on a color monitor, but I believe it will work just fine on monochrome.

This message contains the source for my implementation of circle2 and the following message contains the uuencoded binary (for those who don't have OSS Pascal and are able to uudecode successfully...).

--Dwight Mckay, ECN Text & Workstation Software Support
[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

```
-------------------------------- Cut Here --------------------------------
program circle2;

(* written by Dwight D. McKay - September 1986                  *)
(* Circle2 - from SciAm Computer Recreations column, Sept. 86   *)

(* This is a public domain demo program.  Feel free to          *)
(* distribute it for free; please leave this message and the    *)
(* message which is displayed in the "desk" menu item in place  *)
(* as that message satisfys the license agreement with OSS.     *)

const
        {$I gemconst.pas}
        Desk_Title = 3; { index of "desk" item in the menu bar }
        MAX_X = 100;
        MAX_Y = 100;

type
        mode_type = (MONO, FOUR, SIXTEEN);
        {$I gemtype.pas}

var
        menu : Menu_Ptr;
```

```
        dummy, which, handle : integer;
        param_title, param0_item, param1_item, param2_item : integer;
        param3_item : integer;
        msg : Message_Buffer;
        wind_type : integer;
        title : Window_Title;

        clrs : array [0..15] of integer;
        cx, cy, sz : integer;
        win_x, win_y, y_fix : integer;
        color_mode : mode_type;

{$I gemsubs.pas}

procedure circle2;

{ run the circle2 loop with the specified parameters }

var
        i, ii, j, c, ix, iy, w, h : integer;
        x, y, z : real;

begin
        { get the window size, set clipping }

        Work_Rect(handle, ix, iy, w, h);
        Set_Clip(ix, iy, w, h);

        { clear display rectangle }

        Paint_Style(Solid);
        Paint_Color(White);
        Paint_Rect(ix, iy, w, h);

        if y_fix > 0 then w := trunc(w/2);
        for ii := 0 to w do begin
                i := ii * (y_fix + 1);
                for j := 0 to h do begin
                        x := cx + (sz * (ii/100));
                        y := cy + (sz * (j/100));
                        z := sqr(x) + sqr(y);
                        c := trunc(z);
                        case color_mode of
                                MONO :
                                        begin
                                                if not(odd(c)) then begin
                                                        Line_Color(Black);
                                            line(i+ix, j+iy, i+ix+y_fix, j+iy);
                                                end;
                                        end;
                                FOUR :
                                        begin
                                                Line_Color(clrs[(c mod 4)]);
```

```
                                        line(i+ix, j+iy, i+ix+y_fix, j+iy);
                                    end;
                                SIXTEEN :
                                    begin
                                        Line_Color(clrs[(c mod 16)]);
                                        line(i+ix, j+iy, i+ix+y_fix, j+iy);
                                    end;
                        end;
                end;
        end;
end;

procedure itos(num : integer; var t : Str255);

var
        i, j, k : integer;
        s : array [0..10] of char;

begin
        k := num;
        t := '';
        j := 0;
        if k < 0 then begin
                t := '-';
                k := -k;
        end;
        while not (k = 0) do begin
                i := k - (10 * trunc(k/10));
                k := trunc(k/10);
                s[j] := chr(ord('0') + i);
                j := j + 1;
        end; { while }
        for i:= j-1 downto 0 do
                t := concat(t, s[i]);
end;

function stoi(text : Str255) : integer;

var
        i, j, k : integer;

begin
        k := 1;
        j := 0;
        for i := 1 to length(text) do
                if text[i] = '-' then begin
                        k := -1;
                end else if (ord(text[i]) >= ord('0')) or
                            (ord(text[i]) <= ord('9')) then begin
      j := j + trunc(PwrOfTen(length(text) - i) * (ord(text[i]) - ord('0')));
                end;
        j := j * k;
        stoi := j;
```

```
end;

procedure param_dialog;

var
        param_box : Dialog_Ptr;
        cx_idx, cy_idx, sz_idx, exit_btn : integer;
        text : Str255;

begin
        { user picked the parameter changer }
        param_box := New_Dialog(5,0,0,30,9);
        cx_idx := Add_Ditem(param_box, G_FText, Editable,
                        1, 1, 22, 1, 0, Black * 256 | 128);
        itos(cx, text);
        Set_Dedit(param_box, cx_idx, ' Lower Left X     ____ ', 'X999', text,
                        System_Font, TE_Left);
        cy_idx := Add_Ditem(param_box, G_FText, Editable,
                        1, 3, 22, 1, 0, Black * 256 | 128);
        itos(cy, text);
        Set_Dedit(param_box, cy_idx, ' Lower Left Y     ____ ', 'X999', text,
                        System_Font, TE_Left);
        sz_idx := Add_Ditem(param_box, G_FText, Editable,
                        1, 5, 22, 1, 0, Black * 256 | 128);
        itos(sz, text);
        Set_Dedit(param_box, sz_idx, ' Length of a side ____ ', '9999', text,
                        System_Font, TE_Left);
        exit_btn := Add_Ditem(param_box, G_Button,
                        Selectable|Default|Touch_Exit,
                        11, 7, 6, 1, 1, Black * 4096 | Black * 256);
        Set_Dtext(param_box, exit_btn, ' Done ', System_Font, TE_Center);
        Center_Dialog(param_box);
        dummy := DO_Dialog(param_box, cx_idx);
        Get_DEdit(param_box, cx_idx, text);
        cx := stoi(text);
        Get_DEdit(param_box, cy_idx, text);
        cy := stoi(text);
        Get_DEdit(param_box, sz_idx, text);
        sz := stoi(text);
        End_Dialog(param_box);
        Delete_Dialog(param_box);
end;

procedure aspect_dialog;

var
        aspect_box : Dialog_Ptr;
        inst_aspect_idx, one_btn, two_btn, exit_btn : integer;

begin
        { aspect ratio correction box }
        aspect_box := New_Dialog(5,0,0,18,7);
        inst_aspect_idx := Add_DItem( aspect_box, G_Text, None,
```

```
                                1, 1, 14, 1, 0, Black * 256);
        Set_DText(aspect_box, inst_aspect_idx,
                'Aspect Ratio', System_Font, TE_Center);
        one_btn := Add_DItem( aspect_box, G_Button, Selectable|Radio_Btn,
                                2, 3, 5, 1, 1, Black * 4096 | Black * 256);
        Set_DText(aspect_box, one_btn, '1:1', System_Font, TE_Center);
        two_btn := Add_DItem( aspect_box, G_Button, Selectable|Radio_Btn,
                                9, 3, 5, 1, 1, Black * 4096 | Black * 256);
        Set_DText(aspect_box, two_btn, '2:1', System_Font, TE_Center);
        exit_btn := Add_DItem( aspect_box, G_Button,
                                Selectable|Default|Touch_Exit,
                                5, 5, 6, 1, 1, Black * 4096 | Black * 256);
        Set_DText(aspect_box, exit_btn, ' Done ', System_Font, TE_Center);
        if y_fix = 0 then
                Obj_SetState(aspect_box, one_btn, Selected, false)
        else
                Obj_SetState(aspect_box, two_btn, Selected, false);
        Center_Dialog(aspect_box);
        dummy := Do_Dialog(aspect_box, 0);
        if Obj_State(aspect_box, one_btn) & Selected <> 0 then
                y_fix := 0
        else
                y_fix := 1;
        End_Dialog(aspect_box);
        Delete_Dialog(aspect_box);
end;

procedure color_dialog;

var
        color_box : Dialog_ptr;
        inst_color, two_btn, four_btn, sixteen_btn, exit_btn : integer;

begin
        { number of colors to use dialog }
        color_box := New_Dialog(5,0,0,18,7);
        inst_color := Add_DItem( color_box, G_Text, None,
                                1, 1, 16, 1, 0, Black * 256);
        Set_DText( color_box, inst_color, 'Number of Colors', System_Font,
                TE_Center);
        two_btn := Add_DItem( color_box, G_Button, Selectable|Radio_Btn,
                                3, 3, 3, 1, 1, Black * 4096 | Black * 256);
        Set_DText( color_box, two_btn, '2', System_Font, TE_Center);
        four_btn := Add_DItem( color_box, G_Button, Selectable|Radio_Btn,
                                7, 3, 3, 1, 1, Black * 4096 | Black * 256);
        Set_DText( color_box, four_btn, '4', System_Font, TE_Center);
        sixteen_btn := Add_DItem( color_box, G_Button, Selectable|Radio_Btn,
                                11, 3, 4, 1, 1, Black * 4096 | Black * 256);
        Set_DText( color_box, sixteen_btn, '16', System_Font, TE_Center);
        exit_btn := Add_DItem( color_box, G_Button,
                                Selectable|Default|Touch_Exit,
                                6, 5, 6, 1, 1, Black * 4096 | Black * 256);
        Set_DText( color_box, exit_btn, 'Done', System_Font, TE_Center);
```

```
        case color_mode of
                MONO: Obj_SetState( color_box, two_btn, Selected, false);
                FOUR: Obj_SetState( color_box, four_btn, Selected, false);
                SIXTEEN:Obj_SetState( color_box, sixteen_btn, Selected, false);
        end; { case }
        Center_Dialog( color_box );
        dummy := Do_Dialog( color_box, 0);
        if Obj_State( color_box, two_btn) & Selected <> 0 then
                color_mode := MONO
        else if Obj_State( color_box, four_btn) & Selected <> 0 then
                color_mode := FOUR
        else
                color_mode := SIXTEEN;
        End_Dialog( color_box );
        Delete_Dialog( color_box );
end;

procedure do_menu(title, item : integer);

{ take care of what happens when the user hits a menu item }

var
        alert : Str255;

begin
        if title = Desk_Title then begin

                { user picked the "desk" item, show program info }

                alert := '[0][';
                alert := Concat(alert, '             Circle2|');
                alert := Concat(alert, '   Written by Dwight D. Mckay|');
                alert := Concat(alert, '  Portions of this product are|');
                alert := Concat(alert, 'Copyright (c) 1986, OSS and CCD.|');
                alert := Concat(alert, '   Used by Permission of OSS.]');
                alert := Concat(alert, '[ OK ]');
                dummy := Do_Alert(alert,1);

        end else if title = param_title then begin
            if item = param0_item then param_dialog
            else if item = param1_item then aspect_dialog
            else if item = param2_item then color_dialog
            else if item = param3_item then begin
                Hide_Mouse;
                Begin_Update;
                circle2;
                End_Update;
                Show_Mouse;
            end;
        end;

        { turn the selected menu off again }
```

```
        Menu_Normal(menu, title);
end; { procedure do_menu }

begin { circle2 }
        { set initial parameters }
        cx := -20;
        cy := -20;
        sz := 40;
        clrs[0] := White;
        clrs[1] := Black;
        clrs[2] := Red;
        clrs[3] := Green;
        clrs[4] := Blue;
        clrs[5] := Cyan;
        clrs[6] := Yellow;
        clrs[7] := Magenta;
        clrs[8] := L_White;
        clrs[9] := L_Black;
        clrs[10] := L_Red;
        clrs[11] := L_Green;
        clrs[12] := L_Blue;
        clrs[13] := L_Cyan;
        clrs[14] := L_Yellow;
        clrs[15] := L_Magenta;
        color_mode := MONO;
        y_fix := 0;

        if Init_Gem >= 0 then begin { we got a good GEM startup... }

                { first set up for a window }
                Set_Mouse(M_Bee);
                wind_type := G_Size|G_Move|G_Close|G_Name;
                title := ' Circle2 ';
                handle := New_Window(wind_type, title, 0, 0, 0, 0);

                { next set up for the menu bar }
                menu := New_Menu(6, '  About Circle2  ');
           param_title := Add_MTitle(menu, ' Commands ');
           param0_item := Add_MItem(menu, param_title, '   Parameters    ');
           param1_item := Add_Mitem(menu, param_title, '   Aspect Ratio  ');
           param2_item := Add_MItem(menu, param_title, '   Colors        ');
           param3_item := Add_Mitem(menu, param_title, '   Redraw        ');

                { OK, now do it... }
                Draw_Menu(menu);
                Open_Window(handle, 10, 20, MAX_X, MAX_Y);

                { now loop until the user closes the window, handling events }

                Set_Mouse(M_Arrow);

                repeat
                        { check for an event }
```

```
                        which := Get_Event(E_Message, 0, 0, 0, 2000,
                                false, 0, 0, 0, 0, false, 0, 0, 0, 0,
                                msg, dummy, dummy, dummy, dummy, dummy, dummy);

                        { if we got some message, deal with it }

                        if which & E_Message <> 0 then

                                case msg[0] of
                                        { redraw the window }
                                        WM_Redraw :
                                                begin
                                                        Hide_Mouse;
                                                        Begin_Update;
                                                        circle2;
                                                        End_Update;
                                                        Show_Mouse;
                                                end;

                                        { moved or sized, fix things up... }
                                        WM_Sized, WM_Moved :
                                                begin
                                                        win_x := msg[6];
                                                        win_y := msg[7];
                                                        Set_WSize(handle,
                                                                msg[4],
                                                                msg[5],
                                                                msg[6],
                                                                msg[7]);
                                                        Hide_Mouse;
                                                        Begin_Update;
                                                        circle2;
                                                        End_Update;
                                                        Show_Mouse;
                                                end;

                                        { some menu was hit... }
                                        MN_Selected :
                                                do_menu(msg[3], msg[4]);
                                end;
                until msg[0] = WM_Closed;

                { user hit the "close" box, so clean up and exit }

                Close_Window(handle);
                Delete_Window(handle);
                Erase_menu(menu);
                Exit_Gem;
        end;
end.
```

From 8300801450249788946

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84322191d486a7d5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 07:18:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!fischer
From: fischer@YALE.ARPA (Michael Fischer)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <8609081418.AA16262@Yale-Bulldog.YALE.ARPA>
Date: Mon, 8-Sep-86 10:18:34 EDT
Article-I.D.: Yale-Bul.8609081418.AA16262
Posted: Mon Sep 8 10:18:34 1986
Date-Received: Mon, 8-Sep-86 20:45:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Thanks to Dennis Vadura for pointing me in the right direction on
my uudecode problem. I looked in the C sources for uudecode that
I had received from Columbia as part of the new GEM Kermit
distribution. Sure enough, it opened the binary output using
fopen(<name>, "wb") . In Alcyon C, this must be replaced by a call
on a different function: fopenb(<name>, "w"). Similar changes must
be made to uuencode so that its binary input is opened properly.
(Of course, one must also remember to declare the new function.)
After making the changes, I had no trouble in decoding the Kermit
resource and executable file, and they work fine. I'm looking forward
now to decoding uEMACS 3.7 and other goodies that have been
accumulating on the net.

--Mike Fischer
  fischer@yale.arpa

From -8074822797491246946
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6351eed644f33e5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 07:35:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Normalized Device Coordinates in TDI Modula-2
Message-ID: <8609080744.AA00967@ucbvax.Berkeley.EDU>
Date: Mon, 8-Sep-86 10:35:00 EDT
Article-I.D.: ucbvax.8609080744.AA00967
Posted: Mon Sep 8 10:35:00 1986
Date-Received: Mon, 8-Sep-86 19:08:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 37

OPTIONS: NOACK LOG SHORT NOTEBOOK ALL

Date: 8 September 1986, 09:34:05 EST
From: Ton van Overbeek +31 1719 83041 TPC862 at ESTEC
To: DOUG at NGP.UTEXAS.EDU
cc: INFO-ATARI16 at SU-SCORE.ARPA
Subject: Re: Normalized Device Coordinates in TDI Modula-2

>Does the ST support NDC (Normalized Device Coordinates)? I've seen one
>source that says it doesn't and one that mentions NDC as a possibility,
>which presumably means it does.

No, the Atari roms do not support NDC. Atari/DRI did not have room enough
in the ROM's to include the device independent part of the VDI. That is
also the reason why you cannot load fonts with the standard vdi functions
and why there is no official version of GEM Draw and GEM Write. (They use
the device independent part very much for different output devices).
One solution is to intercept the trap#2 (AES, VDI trap) and supply the
the missing parts of VDI. This is what GDOS does (used by Easydraw).
There have been announcements of an official release of GDOS but I have
not seen it yet.
An excellent background story is in STart, The ST Quarterly, Summer 1986
by Tim Oren: Tracking the elusive GDOS. Get hold of it and read it.
Hope this info is useful

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
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P.O.Box 299
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Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet (USENET/UUCP)
       TPC862@ESTEC (EARN/BITNET)

From 3069392054985178559
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 10:01:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!ubc-vision!
alberta!myrias!mj
From: mj@myrias.UUCP (Michal Jaegermann)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <267@myrias.UUCP>

Date: Mon, 8-Sep-86 13:01:16 EDT
Article-I.D.: myrias.267
Posted: Mon Sep 8 13:01:16 1986
Date-Received: Wed, 10-Sep-86 01:28:11 EDT
References: <8609060233.AA26238@ucbvax.Berkeley.EDU>
Organization: Myrias Research, Edmonton
Lines: 11

Most of binaries I undecoded from net postings work on my ST. Even
'cadenza' :-). Some of them I even managed to decode on VAX and
transfer as image files to ST. This depends on a phase of the moon and
good humour of 'kermit' programs on BOTH ends.
Not so good luck with emacs3.7.   I checked uudecoded files on VAX and
ST. They are exactly of the same length. Neverthless the program bombs
out with "#4 - Illegal instrunction trap". Is it cuased by a fact that
I tried to run it on a color monitor?

    Michal Jaegermann
    ...ihnp4!alberta!myrias!mj

From 7869655514331973040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 10:58:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!panda!genrad!decvax!decwrl!glacier!
navajo!rokicki
From: rokicki@navajo.UUCP
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <823@navajo.STANFORD.EDU>
Date: Mon, 8-Sep-86 13:58:05 EDT
Article-I.D.: navajo.823
Posted: Mon Sep 8 13:58:05 1986
Date-Received: Tue, 9-Sep-86 06:04:00 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp>
Organization: Stanford University
Lines: 13
Summary: What?
Xref: mnetor net.micro.atari16:1860 net.micro.amiga:4587 net.micro.68k:1198

In article <6985@sun.uucp>, ludemann@sun.uucp (Jim Ludemann) writes:
> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
> (applied for and granted) on using the untranslated addresses as the
> RAS addresses and doing the MMU address translation before the column
> addresses are needed for CAS. Sooner or later, it's going to cost some

> competitors a WHOLE lot of money.

How the hell can the patent office grant patents like this? It's sort
of like patenting the idea of grounding DTACK on a 68000 or putting
chocolate ice cream in root beer; the idea is too obvious. To coin a
phrase, it's patently ridiculous.

-tom

From 205332905783065715
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,135c94c9b07a79ae,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 11:45:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!cbatt!cbosgd!ucbvax!SUMEX-AIM.ARPA!
Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.ARPA (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: uncompress program
Message-ID: <12237348989.8.LYNN@PANDA>
Date: Mon, 8-Sep-86 14:45:41 EDT
Article-I.D.: PANDA.12237348989.8.LYNN
Posted: Mon Sep 8 14:45:41 1986
Date-Received: Tue, 9-Sep-86 08:42:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Does anyone out there have a version of uncompress that runs on
the ST? If not, does anyone have the specs so I can write such
a program?

Some binaries were sent out in compressed form a while back, but
because I don't have the uncompress program (and because whoever
sent them out assumed that all of us use unix-based mainframes),
I can't do a thing with them. :-(

Thanks in advance,

--Lynn

From 2463797701545940110
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 11:55:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!ubc-vision!molihp!
robt

From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode problems
Message-ID: <192@molihp.UUCP>
Date: Mon, 8-Sep-86 14:55:12 EDT
Article-I.D.: molihp.192
Posted: Mon Sep 8 14:55:12 1986
Date-Received: Wed, 10-Sep-86 01:28:40 EDT
References: <517@elmgate.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 22

In article <517@elmgate.UUCP> jdg@elmgate.UUCP (Jeff Gortatowsky) writes:
>Has anyone else successful uudecode anything and had it run on the ST?

  I have had excellent luck with uuencoded stuff. The only two problems
I remember were with a Forth interpreter (an early version of Bradley's
FORTHMACS) which came in four parts and never has worked, and the 'Piano'
package from Scott Huskey, which was simply broken (but the new copy he
sent me by mail works - thanks, Scott!).

  I capture the stuff and squirt it to my ST while still uuencoded,
downloading it as straight ASCII with FLASH!. I then uudecode it on my
ST. This even worked for Hack for the ST.

  Caveat: I haven't tried decoding the MicroEmacs 3.7 yet, and I didn't
get all of the Uniterm binary. But other people have had success, so...
I'll send my source for ST uudecode to anyone ; drop me a note if you wish.
(Or maybe I should send uuencoded binaries? :-) :-) :-))

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
          #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From 388234047437656304
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9fc2c05dfca39df3,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,9fc2c05dfca39df3,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-09-08 12:43:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!voder!kevin
From: kevin@voder.UUCP (The Last Bugfighter)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Northern California Atari EXPO (Sept. 20-21)

Message-ID: <2348@voder.UUCP>
Date: Mon, 8-Sep-86 15:43:16 EDT
Article-I.D.: voder.2348
Posted: Mon Sep 8 15:43:16 1986
Date-Received: Mon, 8-Sep-86 20:50:04 EDT
Reply-To: kevin@voder.UUCP (The Last Bugfighter)
Distribution: na
Organization: National Semiconductor, Santa Clara
Lines: 27
Xref: mnetor net.micro.atari8:407 net.micro.atari16:1855

   The First Northern California Atari Expo will be held September 20-21 at the San Jose Convention Center. Tickets are $5.00 a day at the door or $3.00 a day through user groups. The show is exclusively for Atari products and companies from around the country will be there showing their products for both the 8-bit and 16-bit machines.
   Atari will have a booth for hands-on demonstrations. The Expo is being sponsored by the Bay Area Atari Users Group (BAAUG) along with SLCC, ABACUS, & DACE. Look for new hardware and software from more than 50 developers. There will be door prizes and speakers from around the country as well as a major production from Atari Corp itself.
For 24-hour information call the BAAUG BBS at 408-249-7722. Or write to the NORCAL EXPO Executive Committee at:

             Northern California Atari EXPO
             Suite 280
             P.O. Box 9018
             Walnut Creek, CA 94598-0918

   In the evenings call Rich Anderson, 408-281-8139. Pass the information along to your user group!

Kevin Thompson   {ucbvax,pyramid,nsc}!voder!kevin

"It's a sort of threat, you see. I've never been very good at them
  myself but I'm told they can be very effective."

From 1007447765630837318
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d65ca0e4161c7ec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 15:25:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!styx!kerr
From: kerr@styx.UUCP (Grant Kerr)
Newsgroups: net.micro.atari16
Subject: Analog RGB monitor
Message-ID: <20827@styx.UUCP>
Date: Mon, 8-Sep-86 18:25:05 EDT
Article-I.D.: styx.20827

Posted: Mon Sep 8 18:25:05 1986
Date-Received: Mon, 8-Sep-86 23:30:11 EDT
Organization: Lawrence Livermore Laboratory, Livermore CA
Lines: 11

I wish to know if anyone has successfully interfaced an analog RGB monitor
to the Atari 520 or 1040. In particular has anyone used the Magnavox?
I have seen reports in COMPUTE that indicated SONY had trouble interfacing
their analog RGB monitor to the ST and has had to actually design an electronic
cable interface. Has anyone had experience in this area?

Brent Ostlund
Hill Air Force Base, Ut

UUCP: seismo!lognet2!oodis01!ostlund
ARPA: ostlund@oodis01

From -1722166915688118330
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 19:01:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!cornell!
batcomputer!wayne
From: wayne@batcomputer.TN.CORNELL.EDU (wayne smith)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <993@batcomputer.TN.CORNELL.EDU>
Date: Mon, 8-Sep-86 22:01:26 EDT
Article-I.D.: batcompu.993
Posted: Mon Sep 8 22:01:26 1986
Date-Received: Wed, 10-Sep-86 01:27:43 EDT
References: <8609060233.AA26238@ucbvax.Berkeley.EDU>
Reply-To: wayne@batcomputer.UUCP (wayne smith)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 33

I have also successfully uudecoded ue 3.7 and kermitted it to my ST.
I used GEM Kermit (which I uudecoded and kermitted with the kermit
that came with the developers kit). So far, I haven't experienced problems
with uudecode or kermit (or kermit at 1200 baud over an Avatex modem
for that matter). Just make sure and use image mode on both ends.

> It appears to work on my mono screen, though it appears to be
> set up for 43 lines (EGA PC screen) so you need the little HI50
> program to get it to work.

   What is this HI50 program that solves the 43 line problem?
At the moment, I make ue work by opening another window whose
length can be adjusted to a physically realizable dimension.

I seem to have a problem with the numbered macros (in the emacs.rc that came with ue). The keys are bound, but when I push them, they can't find the macro. The "help" macro works when I type ":help".

It also seem that lines in the resulting text files are delimited with only a line feed (instead of line feed/carriage return) which shows up when I double click a test file and "show" it. Does the original do this, or was something lost in the translation?

Nonetheless, this is an incredible improvement over the editor that came with Lattice C.

Thanks,

Wayne Smith
Sibley School of Mechanical Engineering
Cornell University
Ithaca, NY

From -4745130537994668284
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 19:19:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!inuxj!
wolenty
From: wolenty@inuxj.UUCP (R Wolenty)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <248@inuxj.UUCP>
Date: Mon, 8-Sep-86 22:19:25 EDT
Article-I.D.: inuxj.248
Posted: Mon Sep 8 22:19:25 1986
Date-Received: Tue, 9-Sep-86 20:49:33 EDT
References: <517@elmgate.UUCP>
Organization: AT&T Consumer Products, Indianapolis
Lines: 12

Finally!!!!!!
I GOT A UUDECODED PROGRAM TO WORK! I was trying to get Simon Poole's UNITERM to work and kept getting TOS ERROR #35 as others have noted. When I catted the three files together I did not check the end of each unsharred file. It turns out each file had two blank lines at the end. I deleted these lines and voila it works - I'm using the VT100 emulator even now.

Ron Wolenty
AT&T Information Systems
Indianapolis, IN

From 3012815273177699405
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,393411c1e723a5a6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 20:53:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!UCONNVM.BITNET!MOEWS
From: MOEWS@UCONNVM.BITNET
Newsgroups: net.micro.atari16
Subject: UUDECODE program enclosed; ignores absent trailing blanks
Message-ID: <8609090304.AA15716@ucbvax.Berkeley.EDU>
Date: Mon, 8-Sep-86 23:53:23 EDT
Article-I.D.: ucbvax.8609090304.AA15716
Posted: Mon Sep 8 23:53:23 1986
Date-Received: Tue, 9-Sep-86 08:46:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 326

There's been a lot of UUENCODEd stuff on INFO-ATARI16 recently. If you're on an IBM system running VM/CMS, you will have two problems with raw UUENCODEd files:

(1) Trailing blanks will be removed when the files are shipped over BITNET.

(2) Trailing blanks will be removed if you use VM/CMS Kermit to transmit the files from VM/CMS to your Atari ST. (Try it and see!)

I have written a version of UUDECODE that ignores the absence of trailing blanks in a file to be UUDECODEd; using it, I have been able to decode most of the UUENCODEd stuff that has been posted this summer.

The program is written in assembly language and as a result is much faster than, for example, the UUENCODE distributed in Franco's starter kit. It can be assembled with the public domain assembler, AS68, which can be found in Franco's starter kit or on the Atari BBS. This assembler does not assemble register shifts, so all the register shifts in the code have been commented out and hand-assembled to dc.w's.

David Moews MOEWS@UCONNVM.BITNET

```
---------------cut here----------------
* UUDECODE a file.  Copyright (C) 1986 by David Moews.
* Permission to use and redistribute for non-commercial purposes granted.
*  ... print an explanatory message ...
pfile   pea     openm
        move.w  #pline, -(a7)
        trap    #1
        addq.l  #6, a7
* ... get the line ...
```

```
        lea     buffer, a1
        move.l  #blen, d2
        bsr     getln
* Open file!
        clr.w   -(a7)           Open for reading
        pea     buffer
        move.w  #fopen, -(a7)
        trap    #1
        addq.l  #8, a7
* Check for error...
        tst.w   d0
        bmi     error
        move.w  d0, d1          Save handle number
* Skip over first 10 characters ('begin xxx ')
        clr.w   -(a7)
        move.w  d1, -(a7)
        move.l  #10, -(a7)
        move.w  #lseek, -(a7)
        trap    #1
        add.l   #10, a7
        tst.l   d0
        bmi     erroro
* Initialize I/O pointers
        bsr     init
* Get filename (terminated with CR/LF)
        lea     buf2, a1
gfloop  bsr     getch
        cmp.b   #$0d, d7
        beq     gfdone
        move.b  d7, (a1)+
        bra     gfloop
gfdone  clr.b   (a1)
        bsr     getch           Discard $0a
*
* Open file!
*
        clr.w   -(a7)           R/W file will be created
        pea     buf2
        move.w  #fcreat, -(a7)
        trap    #1
        addq.l  #8, a7
* Check for error...
        tst.w   d0
        bmi     erroro
        move.w  d0, d2          Save handle number
* ... now the fun begins ...
* GEM uses a0; input buffer pointers a2-a3; output ptrs a4-a5; stack ptr a7
* GEM uses d0; d3=byte count in this line; d4=byte count in this 4-character
* group -or- char count while reading;
*  d5=group of 4 characters -or- 3 bytes.
* Scratch in d7.
*
* LINE LOOP
```

```
*
* Get count.  If 0, we are done.
loop    bsr     getnn
        sub.b   #$20, d7        Subtract space
        beq     done
* Otherwise, get that many characters.
        clr.w   d3              High byte 0 for "dbf"
        move.b  d7, d3
        subq.w  #1, d3          Correct for "dbf"
        bsr     init3           Reset counters
loop3   bsr     getch3
        bsr     prtch
        dbf     d3, loop3
        bsr     skipnl          Skip over junk + $0d/$0a
        bra     loop
*
*  Initialize state of 3-characters.
*
init3   clr.w   d4
        rts
*
*  Get another character from a group of 3.
*
getch3  tst.w   d4
        bne     get32
* Read in another group of 4 into d3; reset count to 3.
        move.w  #3, d4
        clr.l   d5
*et3l   lsl.l   #6, d5
get3l   dc.w    $ed8d
        bsr     getnn
        sub.b   #$20, d7
        or.b    d7, d5
        dbf     d4, get3l
        move.w  #3, d4          Set byte count
        swap    d5              Pattern from [0123] to [2301]
* Get a character out of d3, decrement count in d2, & return!
get32   move.b  d5, d7
*       rol.l   #8, d5
        dc.w    $e19d
        subq.w  #1, d4
        rts
* Read until we come to a newline; then skip over $0d/$0a.
skipnl  bsr     getch
        cmp.b   #$0d, d7
        bne     skipnl
        bra     getch
*
*  Buffered I/O subroutines.  Input buffer pointer a2, end ptr in a3;
*                             output buffer pointer a4, end prt a5.
*
*  Sets up.
init    lea     inpend, a2
```

```
        lea     inpend, a3
        lea     outbuf, a4
        lea     outend, a5
        rts
*  Get a character in d7.b, EXCEPT that if we are at a newline, get a blank
*  instead.
getnn   cmp.l   a3, a2
        bcc     getrn
        cmp.b   #$0d, (a2)
        beq     getsn
        move.b  (a2)+, d7
        rts
getsn   move.b  #$20, d7
        rts
getrn   bsr     getrec
        bra     getnn
*  Gets a character in d7.b.
getch   cmp.l   a3, a2
        bcc     getr
        move.b  (a2)+, d7
        rts
getr    bsr     getrec
        bra     getch
*
* Get a new record into the buffer.
getrec  pea     inpbuf
        move.l  #inplen, -(a7)
        move.w  d1, -(a7)
        move.w  #fread, -(a7)
        trap    #1
        add.l   #12, a7
        tst.l   d0
        bmi     error2
        beq     done            No bytes read, file over, done.
* Actual number of bytes read in d0!
        lea     inpbuf, a2
        lea     0(a2, d0.l), a3
        rts
*
*  Prints byte in d7.b.
prtch   cmp.l   a5, a4
        bcc     putr
        move.b  d7, (a4)+
        rts
putr    bsr     putrec
        bra     prtch
*
* Dump buffer out.
* Compute number of bytes to put out.
putrec  lea     outbuf, a5
        move.l  a5, -(a7)
        sub.l   a5, a4
        move.l  a4, -(a7)
```

```
        move.w  d2, -(a7)
        move.w  #fwrite, -(a7)
        trap    #1
        add.l   #12, a7
        tst.l   d0
        bmi     error2
        lea     outbuf, a4
        lea     outend, a5
        rts
*
*
*   We come here in case of error.
error   bsr     pmsg
        bra     xit
* Here for error after opening 1 file.
erroro  bsr     pmsg
        bsr     close1
        bra     xit
* Here for error after opening  2 files.
error2  bsr     pmsg
        bsr     close1
        bsr     close2
        bra     xit
* Here for normal end.  Notice that we flush output buffer.
done    bsr     putrec
        bsr     close1
        bsr     close2
xit     clr.w   -(a7)
        trap    #1
*
pmsg    pea     msg
        move.w  #pline,-(a7)
        trap    #1
        addq.l  #6,a7
        rts
*
close1  move.w  d1, -(a7)
        move.w  #fclose, -(a7)
        trap    #1
        addq.l  #4, a7
        rts
*
close2  move.w  d2, -(a7)
        move.w  #fclose, -(a7)
        trap    #1
        addq.l  #4, a7
        rts
*
*
*
*   This subroutine reads a line of input into the buffer at a1.
*   Maximum buffer length should be passed in d2.  Actual count is
*   returned in d1.  The buffer should have one more byte than d2
```

```
*   (to allow for a zero at the end.)
getln   movem.l d0/a0, -(a7)
* Clear char count
        clr.l   d1
glloop  move.w  #conine,-(a7)
        trap    #1
        addq.l  #2, a7
* A BS?
        cmp.b   #$08, d0
        beq     bs
* A CR?
        cmp.b   #$0d, d0
        beq     crret
* Just a plain character ... are we at EOL?
        cmp.l   d1, d2
* Yes, ignore it.
        beq     glloop
*  Otherwise, store it...
        move.b  d0, 0(a1, d1.l)
        addq.l  #1, d1
* ... and echo.
        bsr     echo
        bra     glloop
* A BS --- are we at start of line?
bs      tst.l   d1
*  If so, ignore keystroke.
        beq     glloop
* Otherwise, decrement counter...
        subq.l  #1, d1
* ... print BS, space, BS to wipe out char
        move.b  #$08, d0
        bsr     echo
        move.b  #$20, d0
        bsr     echo
        move.b  #$08, d0
        bsr     echo
        bra     glloop
* A CR --- echo & return.
crret   bsr     echo
        move.b  #$0a, d0
        bsr     echo
        clr.b   0(a1, d1.l)
        movem.l (a7)+, d0/a0
        rts
*
*
*   Echo --- echoes a character in d0 to the screen.  Destroys d0 & a0.
echo    move.w  d0, -(a7)
        move.w  #conout, -(a7)
        trap    #1
        addq.l  #4, a7
        rts
*
```

```
*
*
openm   dc.b    'Enter filename to read: '
        dc.b    0
msg     dc.b    'TOS error occurred!', 13, 10
        dc.b    0
buffer  ds.b    51
buf2    ds.b    51
blen    equ     50
* Buffer for reading from file
inpbuf  ds.b    $400
inpend  ds.b    0
inplen  equ     $400
* ... and for writing ...
outbuf  ds.b    $400
outend  ds.b    0
outlen  equ     $400
* Codes for GEMDOS
conout  equ     $02
rawcon  equ     $06
conine  equ     $07
pline   equ     $09
fcreat  equ     $3c
fopen   equ     $3d
fclose  equ     $3e
fread   equ     $3f
fwrite  equ     $40
lseek   equ     $42
        end
```

```
From 8165806219846690977
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,11fb0a80ffc6152,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-08 23:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: HEEEELLLLPPP with Kermit sources
Message-ID: <8609090626.AA18305@ucbvax.Berkeley.EDU>
Date: Tue, 9-Sep-86 02:37:00 EDT
Article-I.D.: ucbvax.8609090626.AA18305
Posted: Tue Sep  9 02:37:00 1986
Date-Received: Tue, 9-Sep-86 21:19:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Date: 8 September 1986, 22:33:55 PST
From: Kevin J. Burnett          x3330                <KJBSF@SLACVM>
To:   <INFO-ATARI16@SCORE.STANFORD.EDU>
```

Subject: HEEEELLLLPPP with Kermit sources

I've got a listing of the Kermit source code here, and I have a bit of a
problem in trying to figure out a couple of things here, due to the fact
that the listing was made on an IBM 3800 laster printer, which prints stuff
out in EBCDIC. This means that there are two places (that I have come
across so far) where I can't tell what the character actually is.
There is one place where in the listing there is what looks like a dgree
sign (like a superscript o), and another where there is a logcal NOT sign.
The problem is, both of t
type out the file on my ASCII (ST) terminal.
  Does anybody know what these two codes should map into in ASCII?

From 135410303142979139
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce013f9acb642920
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 05:56:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!dcl-cs!strath-cs!paisley!rh
From: rh@cs.paisley.ac.uk (Robert Hamilton)
Newsgroups: net.micro.atari16
Subject: Re: uE3.7 - was ANYONE able to run what i posted ?
Message-ID: <184@paisley.ac.uk>
Date: Tue, 9-Sep-86 08:56:30 EDT
Article-I.D.: paisley.184
Posted: Tue Sep 9 08:56:30 1986
Date-Received: Wed, 10-Sep-86 01:37:29 EDT
References: <495@imagen.UUCP>
Sender: rh@paisley.ac.uk
Reply-To: rh@cs.paisley.ac.uk (Robert Hamilton)
Distribution: net
Organization: Paisley College of Technology Scotland.
Lines: 25

No Problem... I uudecoded it on our vax (BSD4.2) then
used kermit to send it to an ST.
I've never had a problem with uuencoded binaries using this method
You need a kermit in the ST which supports binary (image) transfer
mode. The version in the developers kit does that ok.
What methods are others using?

On U-emacs 3.7 though... I found it worked fine on a colour monitor
but not on te monochrome one I use at home.

Robert Hamilton

JANET: rh@uk.ac.paisley.cs
EMAIL: rh@cs.paisley.ac.uk | Post: Paisley College
UUCP: ...!seismo!mcvax!ukc!paisley!rh | Department of Computing,
Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                        | Scotland.

                        | PA1 2BE
--
JANET: rh@uk.ac.paisley.cs
EMAIL: rh@cs.paisley.ac.uk | Post: Paisley College
UUCP: ...!seismo!mcvax!ukc!paisley!rh | Department of Computing,
Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                        | Scotland.
                        | PA1 2BE

From -5062792471547793871
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,42945c671920c877,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 06:15:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Followup on Thunder and VT-52
Message-ID: <4634@pur-ee.UUCP>
Date: Tue, 9-Sep-86 09:15:58 EDT
Article-I.D.: pur-ee.4634
Posted: Tue Sep 9 09:15:58 1986
Date-Received: Wed, 10-Sep-86 01:24:24 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 37
Keywords: They don't work together at all!

<<<<<>>>>>

This is a followup to the article that I posted about the
use of THUNDER! (copywrite Batteries Included) and the VT-52
desk accessory. I was told that it might work (and in one case
was told that it was used 'all the time') so I went ahead and
purchased it for around $35.00.

To make a long story short, it does not work at all with
the VT-52 desk accessory. It MUST have the normal desk top-like
menu bar at the top of the screen to work properly. Even so,
when I tried it with a tektronix 4010 multiple screen terminal
emulator the I wrote that uses the menu bar and the like, it
didn't work either. So it seems that just having the menu bar
is not enough. I tried talking to the people at B.I. and asked
them if they know of a terminal emulator that would work with
THUNDER! and they didn't know of any.

I*S Talk (I have heard) emulates a vt-100. Is there someone
who has this program that could verify this. Please! don't
respond if you just think it might - I already have one $35
program that I have no use for. The people at B.I. (I*S too)
didn't seem too knowledgable about the terminal emulation

features of I*S Talk, this is why I am asking.

Please respond all you I*S Talk users, I really need an on-line
spelling checker as soon as possible. As always, thanks in advance,
but PLEASE make sure that you know for certain the information
you pass along - I don't need to keep B.I. in business buying
programs I don't use.

Bob

... ihnp4!pur-ee!beatyr <- usenet
... beatyr@ed.ecn.purdue.edu <- arpa-net

From -5411355579218887032
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,465f60bcf3377ac3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 06:56:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!akgua!lcuxlm!whuxl!houxm!mhuxt!mhuxr!mhuxn!mhuxl!
cbz
From: cbz@mhuxl.UUCP (Craig B. Ziemer)
Newsgroups: net.micro.atari16
Subject: HELP!!!
Message-ID: <1025@mhuxl.UUCP>
Date: Tue, 9-Sep-86 09:56:01 EDT
Article-I.D.: mhuxl.1025
Posted: Tue Sep 9 09:56:01 1986
Date-Received: Wed, 10-Sep-86 22:07:37 EDT
Organization: AT&T Bell Laboratories, Reading, PA.
Lines: 14

Please forgive me for my ignorance, but would some kind net.hacker explain
a few things to me? I bought a 520st several months ago and have been
using it mostly to help me with graduate work (i.e. word processing, charts,
graphs, etc.). I have recently acquired a modem to use so I can dial-in
to the systems at work. I am fairly baffled by all the talk on uuencode,
uudecode, shar files, sources vs. binaries, etc., and I feel like I am
missing out on some great software because I don't know how to down-load
the stuff to my machine. Would someone please give me some definitions,
procedures, etc. or recommend some other source for this info? Please
reply via e-mail. Thanks in advance.

Craig B. Ziemer
mhuxl!cbz

From 4518742677833219795
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,3f8c247a5e81e83a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 07:09:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Re: SMM804 Printer?
Message-ID: <5731@topaz.RUTGERS.EDU>
Date: Tue, 9-Sep-86 10:09:39 EDT
Article-I.D.: topaz.5731
Posted: Tue Sep 9 10:09:39 1986
Date-Received: Tue, 9-Sep-86 20:23:37 EDT
References: <8580003@acf4.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8

I have had to SMM804 printer for a few months now without having any problems. It seems to go through ribbons fast, but I did quite a few screen dumps when I first bought it. The speed is 80cps. It is bi-directional. It is a graphics printer and, I think, the same as an Epson lx80 under the cover.

Phil Paone

From -3263438433734781656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 08:34:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: a few questions
Message-ID: <8609091534.AA03565@ncsc.ARPA>
Date: Tue, 9-Sep-86 11:34:02 EDT
Article-I.D.: ncsc.8609091534.AA03565
Posted: Tue Sep 9 11:34:02 1986
Date-Received: Wed, 10-Sep-86 01:25:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

I have a couple of questions that I hope aren't too inane:

1) Is 1ST WORD free or not? I know it's currently shipped with the 520ST, but can just anyone make themselves a copy of it? I've seen a place *selling* the word processor for (I believe) $34.95. What gives?

2) What is the size of the memory area set aside for ACCessories? Or is there a numerical limit on the number of accessories you can have at one time: i.e., you can only have 6 desk accessories? A friend, who has TOS in ROM, gets 380-odd K memory when he runs FREERAM with a PD CALCULATOR, CALENDAR, PALETTE CHANGE, CONTROL PANEL, and INSTALL PRINTER as accessories. Is *that* much memory required for the accessories? And, is there any way to remove the INSTALL PRINTER to make room for another accessory? I got rid of his VT52 emulator (he has FLASH!), but I couldn't find any ACC file for INSTALL PRINTER.

Thanks for any help.

Jim Moore
NCSC
Panama City, FL

From -8649749665397823793
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,301833e2877a76a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 09:23:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM
Message-ID: <8609091623.AA25095@ucbvax.Berkeley.EDU>
Date: Tue, 9-Sep-86 12:23:44 EDT
Article-I.D.: ucbvax.8609091623.AA25095
Posted: Tue Sep 9 12:23:44 1986
Date-Received: Wed, 10-Sep-86 01:25:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Thanks to everybody who sent me comments or requests for UniTerm, a few nasty bugs have turned up during the last three weeks (due mostly to me not having a test program (I've got one now)) most of them are already fixed (GINMode, Tabs etc.). I will send a updated copy to everyone who has already sent me a message sometime this or next week (I'm really on holidays).

Simon Poole
K538915@CZHRZU1A.BITNET

From -4061757671175096908
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa56bac3eb5b88c1

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 09:27:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: a few questions
Message-ID: <8609091627.AA21723@ames-nas.ARPA>
Date: Tue, 9-Sep-86 12:27:35 EDT
Article-I.D.: ames-nas.8609091627.AA21723
Posted: Tue Sep 9 12:27:35 1986
Date-Received: Wed, 10-Sep-86 04:44:41 EDT
References: <8609091534.AA03565@ncsc.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

1) There are two versions of 1ST WORD, the one that comes with your
   system and one called 1ST WORD PLUS. Neither of them is free, as
   I understand it. 1ST WORD is bundled with the system, but still
   belongs to Atari. 1ST WORD PLUS is (will be?) available at an
   extra cost.

   Since 1ST WORD comes with, the dealer should have been selling
   1ST WORD PLUS, but. . .(?)

2) The limit is numeric. You can have no more than six desk accessories
   loaded at once. A gotcha is that some desk accessory files contain
   more than one desk accessory. This is true for both emulator.acc,
   which contains 'VT52' and 'configure rs232', and control.acc, which
   contains the 'control panel' and 'install printer'. To do away with
   'install printer', you also have to do away with 'control panel'.

   There also appears to be no way to unload a loaded desk accessory,
   other than changing the .ACC to something and rebooting.

Marty

From -1341884189106303136
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 12:07:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!unisoft!mtxinu!ed

From: ed@mtxinu.UUCP (Ed Gould)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <79@mtxinu.UUCP>
Date: Tue, 9-Sep-86 15:07:50 EDT
Article-I.D.: mtxinu.79
Posted: Tue Sep 9 15:07:50 1986
Date-Received: Wed, 10-Sep-86 01:30:19 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU>
Reply-To: ed@mtxinu.UUCP (Ed Gould)
Organization: mt Xinu, Berkeley, CA
Lines: 33
Xref: mnetor net.micro.atari16:1874 net.micro.amiga:4597 net.micro.68k:1200

>> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
>> (applied for and granted) on using the untranslated addresses as the
>> RAS addresses and doing the MMU address translation before the column
>> addresses are needed for CAS.
>
>How the hell can the patent office grant patents like this? It's sort
>of like patenting the idea of grounding DTACK on a 68000 or putting
>chocolate ice cream in root beer; the idea is too obvious. To coin a
>phrase, it's patently ridiculous.

If it's so obvious, why didn't anyone think of it before Andy did?
Is the Set-UID bit (also patented) any less obvious? Not to me,
now that I've seen them both. But I never thought of them; neither
did anyone else, evidently, before their respective inventors.

The person who first put chocolate ice cream into root beer probably
didn't realize what they'd done. They should have patented it, too!
(Unless, of course, someone had already done the same thing with
vanilla ice cream. Then *they* should have pattented it.)

The real question, to me, is (since the original poster suggested that
Sun's competitors would have to start paying for this idea) Who really
owns the patent? The idea was developed while Andy was at Stanford,
possibly (I have no idea, one way or the other) with public money.
If it was developed with Federal money, then policy says that there
will be no fees for use of the patent. If Sun owns it, then there
probably will be fees.

--
Ed Gould   mt Xinu, 2560 Ninth St., Berkeley, CA 94710 USA
{ucbvax,decvax}!mtxinu!ed   +1 415 644 0146

"A man of quality is not threatened by a woman of equality."

From 4608805487060948953
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9fc93c978c1747d2

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 13:07:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!NOCMI.BITNET!TAYLOR
From: TAYLOR@NOCMI.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609091959.AA28614@ucbvax.Berkeley.EDU>
Date: Tue, 9-Sep-86 16:07:37 EDT
Article-I.D.: ucbvax.8609091959.AA28614
Posted: Tue Sep 9 16:07:37 1986
Date-Received: Wed, 10-Sep-86 04:45:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

got your mail re being on the mailing list, but since then have heard
precisely 0. is anything going on out there ???

richard

From 5874753022687031617
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28336512c221a169,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 13:46:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!XEROX.COM!Ulrich.wbst
From: Ulrich.wbst@XEROX.COM
Newsgroups: net.micro.atari16
Subject: InSoft ST NETWORK out of Boston.
Message-ID: <860909-164050-118@Xerox>
Date: Tue, 9-Sep-86 16:46:20 EDT
Article-I.D.: Xerox.860909-164050-118
Posted: Tue Sep 9 16:46:20 1986
Date-Received: Wed, 10-Sep-86 06:44:26 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ULRICH.WBST@Xerox.COM
Organization: The ARPA Internet
Lines: 5

Anyone know anything about this company? I.e. are they reputable?

Reference: September Analog pg. 66.

Denny

From 8178277234967141470
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-09 15:13:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!decwrl!sun!wmb
From: wmb@sun.uucp (Mitch Bradley)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode problems
Message-ID: <7089@sun.uucp>
Date: Tue, 9-Sep-86 18:13:55 EDT
Article-I.D.: sun.7089
Posted: Tue Sep 9 18:13:55 1986
Date-Received: Wed, 10-Sep-86 01:37:42 EDT
References: <517@elmgate.UUCP> <192@molihp.UUCP>
Organization: Sun Microsystems, Inc.
Lines: 18

> I have had excellent luck with uuencoded stuff. The only two problems
> I remember were with a Forth interpreter (an early version of Bradley's
> FORTHMACS) which came in four parts and never has worked.

Some mailer somewhere completely ruined that posting. I got a copy
off the net, unpacked, and od'ed the binary. Parts of it were correct,
and other parts were totally hosed.

BTW, if you don't have Forthmacs yet, get a copy and try it out. It
has a disassembler, assembler, memory display/modification, interactive
file access, a command interpreter, MicroEmacs, xmodem, interactive access
to every TOS/BDOS/BIOS/XBIOS/VDI/AES/LINE-A call, mushroom analysis,
on-line documentation, command completion, interactive command history,
multitasking, 25/40/44/50 line switching, and split-screen scrolling.

It's in John Franco's STarter kit as shareware.

Mitch Bradley

From 2778504589161058184
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc8953d865aef7d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-09 17:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: (copy) address corrections
Message-ID: <8609100316.AA04663@ucbvax.Berkeley.EDU>
Date: Tue, 9-Sep-86 20:46:00 EDT
Article-I.D.: ucbvax.8609100316.AA04663
Posted: Tue Sep 9 20:46:00 1986
Date-Received: Wed, 10-Sep-86 06:44:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Originally sent from: QBZJ@CORNELLA
Originally sent to: G.ABRAMS@SU-SCORE.ARPA

Pleasedelete qbzj@cornella.bitnet from the distribution list and add
mscbtc!clark!peter.l@gvax.cs.cornell.edu
to the distribution list.
thank you, peter lorraine

From 5525880341122276560
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,204aae9bdc1bc395,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 04:51:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!VERBRUGGEN.HENR
From: VERBRUGGEN.HENR@XEROX.COM
Newsgroups: net.micro.atari16
Subject: PRO GEM ISSUES AVAILABILITY QUESTION
Message-ID: <860910-045143-1608@Xerox>
Date: Wed, 10-Sep-86 07:51:37 EDT
Article-I.D.: Xerox.860910-045143-1608
Posted: Wed Sep 10 07:51:37 1986
Date-Received: Thu, 11-Sep-86 08:20:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

HOW MANY ISSUES ARE PUBLISHED 14 ?
HOW CAN I GET THEM OVERHERE IN EUROPE ?

THANKS

PETER VERBRUGGEN

RANK XEROX HOLLAND

From 5214115933552468540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c5ee818770fd00e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 05:53:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!topaz!husc6!h-sc4!norman
From: norman@h-sc4.harvard.edu (John Norman)
Newsgroups: net.micro.atari16
Subject: SEDT Editor
Message-ID: <209@husc6.HARVARD.EDU>
Date: Wed, 10-Sep-86 08:53:14 EDT
Article-I.D.: husc6.209

Posted: Wed Sep 10 08:53:14 1986
Date-Received: Wed, 10-Sep-86 19:57:28 EDT
Sender: news@husc6.HARVARD.EDU
Reply-To: norman@h-sc4.UUCP (John Norman)
Distribution: net
Organization: Harvard Science Center
Lines: 12

Has anyone had any experience with SEDT, Anker Berg-Sonne's EDT-like editor for VAX/VMS, DEC Rainbows, and the Atari ST? Testimonials? I have really appreciated this editor on the Rainbow, and have been considering purchasing the ST because the keyboard so much resembles what I'm used to. I would like to know how much more of my environment (that is, editor) I can preserve on the ST.
John Norman

UUCP: harvard!h-sc4!norman
ARPA: norman%h-sc4@harvard.harvard.edu
BITNET: norman@harvlaw1

From -558132261693820804
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c7f77c56b01d192,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 07:49:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!dorner
From: dorner@uiucuxc.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: MacCartridge?
Message-ID: <158400001@uiucuxc>
Date: Wed, 10-Sep-86 10:49:00 EDT
Article-I.D.: uiucuxc.158400001
Posted: Wed Sep 10 10:49:00 1986
Date-Received: Sat, 13-Sep-86 04:33:25 EDT
Lines: 8
Nf-ID: #N:uiucuxc:158400001:000:223
Nf-From: uiucuxc.CSO.UIUC.EDU!dorner Sep 10 09:49:00 1986

Does anyone out ther know the current status of MacCartridge? Alive, dead, sick, in court or what?

Steve Dorner
University of Illinois Computing Services Office
dorner@uiucuxc.CSO.UIUC.EDU
ihnp4!cbosgd!uiucdcs!uxc!dorner

From 1118803735471890280
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,90b4f002cab2a38f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 07:49:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UOGUELPH.BITNET!SOFPJF
From: SOFPJF@UOGUELPH.BITNET (Peter Jaspers-Fayer)
Newsgroups: net.micro.atari16
Subject: Accessories
Message-ID: <8609101512.AA12173@ucbvax.Berkeley.EDU>
Date: Wed, 10-Sep-86 10:49:16 EDT
Article-I.D.: ucbvax.8609101512.AA12173
Posted: Wed Sep 10 10:49:16 1986
Date-Received: Thu, 11-Sep-86 08:21:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

In Message-Id: <8609091627.AA21723@ames-nas.ARPA>
on 09 Sep 86 09:27:35 PDT (Tue), fouts@AMES-NAS.ARPA writes:
> There also appears to be no way to unload a loaded desk accessory,
> other than changing the .ACC to something and rebooting.

This has been a sore point with me for some time. ExcUuUse me, but
WHY NOT!? It seems to me that someone asked this several months ago
and the reply was something like "it's too difficult" or something.

How about it gang, is it feasible to write an accessory loader/unloader?
Has it been done? Could anyone upload it if they have written it? Huh,
With such a beast, desk accessories could even become useful!

From 4323231575273960497
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2cb14117ac5c7f1f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 08:50:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ritvaxc.BITNET!mas2743
From: mas2743@ritvaxc.BITNET
Newsgroups: net.micro.atari16
Subject: maillist
Message-ID: <8609101550.AA12781@ucbvax.Berkeley.EDU>
Date: Wed, 10-Sep-86 11:50:43 EDT
Article-I.D.: ucbvax.8609101550.AA12781
Posted: Wed Sep 10 11:50:43 1986
Date-Received: Thu, 11-Sep-86 08:22:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester
Lines: 6

Hello,
        Please add me to your 16bits mail listing in this

bitnet. Thanks...

Mike Stepansky
Rochester, Ny.
Proundly Owner of 520ST.

From 6306505619333518611
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ac23f5699565069a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 09:01:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ritvaxc.BITNET!mas2743
From: mas2743@ritvaxc.BITNET (John Lytle)
Newsgroups: net.micro.atari16
Subject: add me to mail list
Message-ID: <8609101601.AA13028@ucbvax.Berkeley.EDU>
Date: Wed, 10-Sep-86 12:01:45 EDT
Article-I.D.: ucbvax.8609101601.AA13028
Posted: Wed Sep 10 12:01:45 1986
Date-Received: Thu, 11-Sep-86 08:41:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 6

Hello,
        Please add me to your 16bits mail listing in this
bitnet. Thanks...

Mike Stepansky
Rochester, Ny.
Proundly Owner of 520ST.

From -6581500742078543097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f57dc58dfbb22200,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 09:24:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Followup to Terminal + THUNDER!
Message-ID: <4643@pur-ee.UUCP>
Date: Wed, 10-Sep-86 12:24:51 EDT
Article-I.D.: pur-ee.4643
Posted: Wed Sep 10 12:24:51 1986
Date-Received: Thu, 11-Sep-86 10:50:48 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 17
Keywords: I*S Talk does not emulate anything

<<<<<>>>>>

  As a followup, I called Batteries Included technical support to see if the response that I got about I*S Talk being a VT100 terminal emulator was true. Well, let's just say that I am glad I didn't buy another program that would sit on my shelf.
  I*S Talk does not emulate anything. It just copies the serial port to the screen. I want a terminal emulator that uses the GEM interface that will work with THUNDER! Is that too much to ask? Will someone please help me?

              Bob

   ... ihnp4!pur-ee!beatyr   <- usenet
  ... beatyr@ed.ecn.purdue.edu <- arpa-net
   ... beatyr@pur-ee.UUCP   <- UUCP

From 7801403445251535962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d65ca0e4161c7ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 09:32:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Re: Analog RGB monitor
Message-ID: <387@unmvax.UUCP>
Date: Wed, 10-Sep-86 12:32:15 EDT
Article-I.D.: unmvax.387
Posted: Wed Sep 10 12:32:15 1986
Date-Received: Thu, 11-Sep-86 18:40:41 EDT
References: <20827@styx.UUCP>
Organization: Univ. of New Mexico, Albuquerque
Lines: 10

    I used a SONY monitor with mine, don't have the model number right here, however. That particular model had a switch in the back for both TTL and analog levels. Apparently you can now get dealers to order the non-standard 13 pin connector, but I had to cut the cable for my monochrome and add an adaptor plug.

I can now use the SONY on both my IBM and ST just by switching cables and changing from TTL to analog. No problems excpet no sound from the ST.

From 7001760971780348546
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976

X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 09:33:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <214@vlsvax1.UUCP>
Date: Wed, 10-Sep-86 12:33:55 EDT
Article-I.D.: vlsvax1.214
Posted: Wed Sep 10 12:33:55 1986
Date-Received: Fri, 12-Sep-86 08:16:04 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<6985@sun.uucp> <823@navajo.STANFORD.EDU>
Reply-To: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 19
Xref: mnetor net.micro.atari16:1906 net.micro.amiga:4627 net.micro.68k:1209

In article <823@navajo.STANFORD.EDU> rokicki@navajo.UUCP writes:
>In article <6985@sun.uucp>, ludemann@sun.uucp (Jim Ludemann) writes:
>> I hate to tell you folks, but Andy Bechtolsheim here at Sun has a patent
>> (applied for and granted) on using the untranslated addresses as the
>> RAS addresses and doing the MMU address translation before the column
>> addresses are needed for CAS. Sooner or later, it's going to cost some
>> competitors a WHOLE lot of money.
>
>How the hell can the patent office grant patents like this? It's sort
>of like patenting the idea of grounding DTACK on a 68000 or putting
>chocolate ice cream in root beer; the idea is too obvious. To coin a
>phrase, it's patently ridiculous.
>
One of the criteria the patent office uses (or is supposed to) in granting
a patent is that a modification to an existing device/process cannot be
obvious to a person of usual competence in the field. Perhaps they felt
that it would take unusual competence to figure this one out? (:-)

Sweeney

From -8729540983323295909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54809fe519db8d1b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-10 12:45:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!akgua!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16

Subject: Questions re. hard disks, clocks, and neil harris.
Message-ID: <1628@alvin.mcnc.UUCP>
Date: Wed, 10-Sep-86 15:45:22 EDT
Article-I.D.: alvin.1628
Posted: Wed Sep 10 15:45:22 1986
Date-Received: Thu, 11-Sep-86 18:42:59 EDT
Organization: Microelectronics Center of NC; RTP, NC
Lines: 51
Keywords: Hard disks clock supra atari

[Yum ...]

Hi People,
Question time again. I'd appreciate anything anyone could tell me. Please reply directly to me or to the net, whichever you prefer (I think these are questions of reasonably general interest).

1) Hard disks: I'm interested in getting a 20Mb hard disk. I've heard that the Supra hard disk is superior to the Atari hard disk, but I do not know any more. How do the two disks compare in terms of

1) Speed
2) Convenience, ie. size, installation.
3) Compatibility. Someone told me that the reason I should choose the Atari disk is because it will remain 'compatible' over future versions of ROMS, etc. Is the Supra any different? Others have said that the Supra is nicer because it has a longer cable, is smaller, faster etc. Comments?
4) Price. I've heard of a discount offer by Atari to students that'll make their disk available for about $640. How does the Supra disk compare price-wise?

2) Clock cards: I've recently heard of two alternatives to the Logikhron clock cartridge: One is the piece from No Solder Required (the Timesaver) mentioned by Neil Harris, which plugs under the U2 ROM. Has anyone used it? I couldn't get hold of the company, does anyone happen to have a phone number?

The other is the stuff mentioned in Jerry Pournelle's column in last month's BYTE, from Mind Mine. Their card plugs somewhere into the key board, and runs off a pair of Nicads, good for about 7-8 days without powering up the ST. The batteries charge up when the machine is powered up, etc. At $55 (including shipping), its doesn't seem that great a deal; does anyone know if it works well, etc?

3) Neil Harris: I've tried contacting him a couple of times, but I always get a message from 'lll-crg' saying that 'vecpyr' is an unknown host, ie. the message gets as far as lll-crg, then it says

'vecpyr!atari!neil' is unknown. Please let me know if there

is an alternate path to 'atari'.

Well, that's it. Thanks in advance for your comments. If I get enough letters on a subject, I'll summarise to the net.

-ravi

{decvax, ihnp4, ucbvax}!mcnc!ravi

From 2796325852204602311
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 13:16:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <7073@utzoo.UUCP>
Date: Tue, 26-Aug-86 16:16:08 EDT
Article-I.D.: utzoo.7073
Posted: Tue Aug 26 16:16:08 1986
Date-Received: Tue, 26-Aug-86 16:16:08 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP>, <3260@ism780c.UUCP>
Organization: U of Toronto Zoology
Lines: 24
Keywords: 68000 atari amiga 68k mmu

> I have heard people claim that there is enough information around
> after a bus error (or address error) to restart most instructions,
> if the bus error handler is willing to be clever. However, I haven't
> seen any actual code... Anyone know if this is true? If so, what
> are the instructions that can't be restarted?

Probably true. The 68000 is a sort of mutated PDP-11, and software on the 11 could backtrack well enough to restart most instructions. This is what Unix on the 11/40, 34, 23, 60, et al did/does. The major problem comes when an instruction modifies registers: which registers did it modify before it died? The larger 11s had an MMU which would tell you. The cut-down version of the MMU, which is what the 40 et al had/have, won't. So the software has to guess. It can usually guess right. The fundamentally intractable cases are where the instruction modifies the same register more than once, and you can't tell how many times it did it before the fault. The automatic stack growth on small-11 Unixes would generally fail if you used something like "cmp -(sp), -(sp)" to grow the stack two words; I believe the compiler never did this, and assembler

programmers simply had to look out for themselves. On the 68000 it's
worse, because important and useful instructions like move-multiple
can modify the same register several times.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From 3066198484699149949
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c417db611b1cb750,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 13:35:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!ULKYVX.BITNET!
RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: RS232 <--> DMA ?
Message-ID: <8608280136.AA11037@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 16:35:00 EDT
Article-I.D.: ucbvax.8608280136.AA11037
Posted: Tue Aug 26 16:35:00 1986
Date-Received: Thu, 28-Aug-86 23:12:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

Does anyone know if it would be possible to connect a remote micro computer
to an ST through the DMA "port?" I have a CP/M-68K machine with an RS232
and a PIO connection available and would like to use its 1024K RAM disk and
floppies as additional drives for the ST. The RAM disk would be especially
useful. I thought of using the DMA port because I was sure I could get the
other machine to imitate a diskdrive without the ST's knowing that there is
no disk there. The software on the CP/M side should be easy if I just
treat the ST requests for directories as calls to user areas. It would
need to translate sectors and directory requests from the ST format into
the CP/M format and back.

But I was wondering about signals from the ST ports and what would be
required to make them compatible with another machine. If a DMA <-> RS232
were possible, it shouldn't be too hard to use any machine with an SIO as a
remote. If the DMA plan would not work, what other ports, besides the
ST serial line, might be used? I need the serial line for the modem. Would
a RAM disk driver work as a model for an ST resident program to treat one of
the ST ports as a disk? Then the program on the other end could handle the
sectoring and finding the files.

From 7315871801171332814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c79d7913e4242280

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 16:09:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Emulator question
Message-ID: <422@atari.UUcp>
Date: Tue, 26-Aug-86 19:09:19 EDT
Article-I.D.: atari.422
Posted: Tue Aug 26 19:09:19 1986
Date-Received: Wed, 27-Aug-86 11:13:44 EDT
References: <2764@islenet.UUCP>
Organization: Atari Corp/Mktg
Lines: 26

In article <2764@islenet.UUCP>, jons@islenet.UUCP (Jonathan Spangler) writes:

> If one plugs the IBM emulator into the DMA port, where does
> the hard disk plug into?

The _other_ DMA connector in the IBM emulator.

> Does the approx. $300 for the emulator include a 5-1/4" drive?

No, it just includes a connector for one. The drives are widely available
for so little money that it wasn't worth it for us to put one in.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 2297890794074792568
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff4976801810074c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 17:38:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16

Subject: Re: KERMIT UPLOAD PROBLEM WITH AVATEX MODEM
Message-ID: <8608261931.AA21867@mitre-bedford.ARPA>
Date: Tue, 26-Aug-86 20:38:50 EDT
Article-I.D.: mitre-be.8608261931.AA21867
Posted: Tue Aug 26 20:38:50 1986
Date-Received: Wed, 27-Aug-86 20:30:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 6

Speaking of Avatex...
I understand from my local Avatex dealer that the fully Hayes-compatible
Avatex will be followed soon by a 2400 bps model at less than $200.

-John Sangster
jhs@mitre-bedford.arpa

From -8994963753411437227
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1146f8b9057a73d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 17:47:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!ssc-vax!ssc-bee!
chas
From: chas@ssc-bee.UUCP (Chas Boyd)
Newsgroups: net.micro.atari16
Subject: Review of Tramiel Talk - COMDEX Preview
Message-ID: <600@ssc-bee.UUCP>
Date: Tue, 26-Aug-86 20:47:13 EDT
Article-I.D.: ssc-bee.600
Posted: Tue Aug 26 20:47:13 1986
Date-Received: Thu, 28-Aug-86 01:35:07 EDT
Organization: Flight Technology, Boeing Aerospace
Lines: 47

  [Waka - Waka - Waka - Waka]

   On Monday Aug 18th Leonard Tramiel spoke at a meeting of the
Boeing Employees Computer Society. I am not an Atari owner, but
I attended just to see what was there. He said many things that
seemed too good to be true about coming Atari hardware.
   The following is my impression gathered from him and talk with
other hackers at the meeting:
   The next major product to be released is the TT. It is a 68020
based UN*X box with 68881 floating point support and memory managed
multiprocessing. It will have no graphics capability. It will have
eight DMA ports which can be connected to peripherals such as disk
drives or STs. It was not clear whether the memory management will
use the 68000 series chip or not, but will probably support virtual
operations. I have no idea of the eventual cost of such a box, but

cheap UNIX boxes are currently all over $8k. For about $2k from Atari, a crunch unit would be a major coup. The actual announcement at COMDEX should settle that. I wonder how much RAM it has 2M? 4M?

The implications are that a multi-user, multi-terminal UNIX system with hard disks and bit mapped graphics terminals capable of running a window for each of several processes will be possible.

Another product mentioned was the successor to the 1040ST. I will call it the 2080ST for convenience. It is reasonable to expect that it will have 2Meg of RAM. The relevant quote on graphics was: "With the same resolution as the current hi res mode (640x400) it will have as many colors as the current lo res mode". The current low res mode has 16 colors, which requires four bits per pixel. This implies that if the 2080 has a hi res mode with one color per pixel (monochrome) it would have twice the resolution i.e. 1280 by 800. This is in the class of engineering workstations like Sun, Apollo, and MicroVAX.

Tramiel confirmed that the 2080, due for release probably near Xmas will have a custom blitter chip. This should greatly increase the speed of graphics operations. It would still have a 68000 for cpu.

He denied that Atari would ever produce a 1024 by 1024 display. This is probably because it is tough to make those numbers come out even. He also implied that the 2080 would not have a separate keyboard but I am not sure about this.

I am particularly impressed with the Atari approach to expansion because it permits owners of STs to keep them and still upgrade to the power of a 32bit cpu with a real operating system. The STs become intelligent terminals. If much of this is true, the Atari system will be a definite competitor for the Apple Unix machine (Jonathan?) rumored to be announced in April.

I hope I haven't stepped on anybody's toes,
Chas.

From -4837721953195721954
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97bf8761fa936cae
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 18:09:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Yet another Megamax bug
Message-ID: <948@batcomputer.TN.CORNELL.EDU>
Date: Tue, 26-Aug-86 21:09:50 EDT
Article-I.D.: batcompu.948
Posted: Tue Aug 26 21:09:50 1986
Date-Received: Wed, 27-Aug-86 11:44:10 EDT
References: <8608251511.AA06093@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 72
Summary: If you use registers, use two!

[]

The following program will never exit:

```
------------------------------------------------
#include <stdio.h>
long n;
subr()
{
     register int  j;
     j = (97 * n) / 12345;   /* integer result, long intermediate
     */
}
main()
{
     register long i;
     for (i=0; i<0x20000; i++) {
          subr();
          if ((i&0xFFF) == 0)
               printf("t = %lx\n", i);
     }
}
------------------------------------------------
```

The reason is that subr() is compiled into: (excerpt)

```
     MOVE D7,-(A7)  /* save the "register int j" space,        */
     MOVE.L    #97,D7        /*  but use it as "register long scratch", */
                    /*  upper word of main's i gets clobbered! */
     ...
```

(If you declare > 1 register, MOVEM.L ,-(A7) is used, so no problem.)
This is especially surprising because in MOST other cases the compiler
moves register vars into a scratch register (D0) before doing ANYTHING
with them, which is a waste of time and space. For example:

```
     register int  i, k;
     i = i + k;
```

compiles into (even if mmimp'roved):

```
     MOVE D7,D0
     ADD  D6,D0
     MOVE D0,D7
```

You would think that that's because while evaluating "i + k", the
stupid compiler doesn't know yet that it is not going to keep the old
value of i, i.e. it could say "j = i + k". But look:

```
     register int  i, j, k;
     i = j + k;
```

compiles into:

```
     MOVE D6,D7
     ADD  D5,D7
```

- i.e. in the former example the compiler is not stupid, just lazy!

Anybody at Megamax listening?

Disclaimer: Although I AM disappointed that I have to spend so much time debugging a compiler I spent $200 on (and get no rebate...), I still think that the Megamax compiler is the best we have right now. But, if anybody has had experience with the brand new Mark Williams compiler/shell, please let us know! (bug density, speed of compilation, quality of code...)
At something like $125 for compiler AND shell it MIGHT be a bargain, unless you have already spent your money on such things. But then, the compiler output products might work with the shell's I/O redirection...

- Moshe Braner

Corson Hall, Cornell U., Ithaca NY 14853   607-272-3487

```
From 1785778868480010105
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,553d7941b5664680,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 18:10:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM PART 2 OF 5 / DOCS
Message-ID: <8608262348.AA04698@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 21:10:04 EDT
Article-I.D.: ucbvax.8608262348.AA04698
Posted: Tue Aug 26 21:10:04 1986
Date-Received: Wed, 27-Aug-86 20:31:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1388

---cut here---
.!*****************************************************************************
.!
.!   File: UG.PRF
.!                       UniTerm Users Guide
.!
.!*****************************************************************************
.!
.!
.vs Name UniTerm
.vs Version BETA-1.2
```

```
.so macros.prf
.so Chapter1.prf
.so Chapter2.prf
.so Chapter3.prf
.so Chapter4.prf
.!
.!
.cl 0 Appendices
.so apndx1.prf
.so apndx2.prf
.so apndx3.prf
.!
.!
.so toc.prf
.!
.!
.!*****************************************************************************
---cut here---
.!*****************************************************************************
.!
.!   File: MACROS.PRF
.!
.!*****************************************************************************
.!
.!
.!
.!
.define Chapter
.he //$Name User's Guide/#/
.fo //Version $Version//
.bp
.bold on
.ce 1
Chapter - $1
.br
.sp 1
.ce 1
$2 $3 $4 $5 $6 $7 $8 $9
.bold off
.cl 0 Chapter - $1.  $2 $3 $4 $5 $6 $7 $8 $9
.he /$Name User's Guide/Chapter $1/#/
.sp 1
.en
.!
.! Section Heading
.!
.define SH
.in 0
.cl 1 $1 $2 $3 $4 $5 $6 $7 $8 $9
.ne 10
.sp 2
.bold 1
$1 $2 $3 $4 $5 $6 $7 $8 $9
```

```
.br
.sp 1
.ti +3
.en
.!
.! Subsection Heading
.!
.define SSH
.in 0
.cl 2 $1 $2 $3 $4 $5 $6 $7 $8 $9
.ne 10
.sp 2
.bold 1
$1 $2 $3 $4 $5 $6 $7 $8 $9
.br
.sp 1
.ti +3
.en
.!
.! Subsubsection Heading
.!
.define SSSH
.in 0
.cl 3 $1 $2 $3 $4 $5 $6 $7 $8 $9
.ne 5
.sp 1
$1 $2 $3 $4 $5 $6 $7 $8 $9
.br
.sp 1
.en
.!
.! Paragraph
.!
.define PP
.ne 3
.sp 1
.ti +3
.en
.! Appendix
.define AP
.fi
.he /$Name User's Guide/Appendix $1/#/
.fo //Version $Version//
.bp
.cl 1 Appendix - $1 $2 $3 $4 $5 $6
.ce on
.bold on
Appendix - $1
.br
$2 $3 $4 $5 $6
.bold off
.ce off
.sp 3
```

```
.nf
.en
.!*****************************************************************************
.!
.!                              End Macros
.!
.!*****************************************************************************
---cut here---
.!*****************************************************************************
.!
.!    File: TOC.PRF
.!                         Table of Contents
.!
.!*****************************************************************************
.!
.!
.br
.pn roman
.he //#//
.bp 1
.nf
.fo ////
.bold on
.ce
Table of Contents
.bold off
.sp
.pc
.!*****************************************************************************
.!
.!                                  THE END
.!
.!*****************************************************************************
---cut here---
.!*************************************************************************
.!*                                                                       *
.!*  File: CHAPTER1.PRF                                                   *
.!*                                                                       *
.!*************************************************************************
.Chapter 1 Introduction
.PP
$Name is a program that emulates most of the functions of DEC's
(Digital Equipment Corporation) VT102 text terminal and the vector mode
of Tektronic's 4014
graphics terminal. The program and its documentation can be copied,
distributed and used free of
cost, but may not be sold for commercial purposes. Please contact me, if
you
find bugs or have suggestions for revised versions of $Name, but read
appendix A
and the implementation notes first.
.PP
Some compromises have been made in the implementation of the VT100
```

```
special graphics
character set and double height/width characters, but as soon as we can
design and load fonts on the
ST, this will be fixed. Other things which are planned for future
releases:
.nf
.in 10
.sp 1
-Tektronix 4105 commands (already started!)
.br
-VT200/VT220/VT132 compatibility
.br
-sideways scrolling for 132 columns
.br
-backwards scrolling
.br
-desk accessory version (for use with GEM-Kermit)
.br
-make $Name work with the blitter-chip
.br
-speedup the redrawing of vectors
.br
-saving of vectors to a GEM metafile
.br
-color version (just need a color monitor to try it out)
.sp 1
.fi
.br
.sp 1
GEM is a trademark of Digital Research Co.
.br
DEC,VT are trademarks of Digital Equipment Co.
.br
Tektronix is a trademark of Tektronix Co.
.br
Atari is a trademark of Atari Co.
---cut here---
.!*********************************************************************
.!*                                                                   *
.!*  File: CHAPTER2.PRF                                               *
.!*                                                                   *
.!*********************************************************************
.Chapter 2 Starting using $Name
.SH Requirements
To use $Name you need:
.in +5
a ATARI ST computer
.br
a monochrome monitor (color compatibility is not verified yet)
.br
a RS232 standard cable
.br
a computer to talk to
```

```
.br
a floppy disk with ${Name}.PRG on it
.in -5
.SH Getting started
After connecting your ST to your host computer, double click the
$Name Icon. After the program has been loaded you will (hopefully) see
the $Name opening dialog. Now you can select the size of the
vector/filecapture
buffer, if you select 0 or a size to big for your free RAM no
buffer will be allocated.
.PP
Probably now a alert box will appear, press <Return> (in this manual
<xx> means
the key with xx on it) and ignore the warning ($Name didn't
find the file DEFAULT.SET, we will create it later on), the screen
will clear to white (on a monochrome monitor) with a status line on line
25.
Press <Help> and the  $Name selection dialog will appear, the actions
which
you can select are:
.in +5
.bd
.sp 1
Save Setup
.br
Save a setup file to disk
.sp 1
.bd
.br
Load Setup
.br
Load a setup file from disk
.sp 1
.bd
.br
Edit F-Keys
.br
Assign a string to the function keys
.sp 1
.bd
.br
Set Terminal Parameters 1
.br
and
.br
.bd
Set Terminal Parameters 2
.br
allow you to set the parameters of the serial port and the terminal
emulator
.sp 1
.bd
File Transfer Parameters
```

```
.br
Allows you to set the parameters for ASCII file transfer
.sp 1
.ne 2
.bd
.br
A little bit of help
.br
Gives you some help on the functions of the special keys
.sp 1
.ne 2
.bd
Leave Menu
.br
Leave this dialog and return to terminal mode
.in -5
.sp 1
Click the box |Set terminal parameters 1| (|xx| means a GEM button with
the
text xx in it) and a new dialog will appear.
Selecting the different values for the parameters is quite straightforward,
just click on the buttons with the right values (we hope you know them,
otherwise you will just have to experiment) and when you are finished
select |OK|. Now you are back in the main dialog, to save the setup select
|Save setup|, a normal GEM file selector dialog will appear, if you want
to
use this setup as default save it with the name 'DEFAULT.SET' and $Name
will
load it automatically on startup. To leave the main dialog press <Return>
or
select |Leave Menu|.
.PP
If you have adjusted the parameters correctly, you should now be able to
communicate
with your host computer. Some operating systems (VMS) try to identify
the terminal automatically, depending on your setup $Name will
identify itself as a DEC VT102 or VT100. A VT102 has more 'advanced'
editing functions (which results in less overhead in transmitting inserts
etc.) so leave this
option on VT102 if possible. If you have to enter the terminal type
manually try VT102 first (changing from VT102 to VT100 only changes the
report from $Name,
not the actual commands $Name understands).
.SH Exiting $Name
To stop $Name press <Undo>, if there is nothing in the buffer you will be
returned straight away to the Desktop, otherwise a alertbox will appear
asking for confirmation.
.SH Vector graphics mode
After receiveing the control code 'GS' or the 4105 command 'ESC'%!0
(ASCII control characters are enclosed
in apostrophes to distinguish them from printable characters, a space is
 written 'SP') from the host, $Name switches to a
separate graphics screen, if the host doesn't send 'ESC''FF' (the ASCII
```

characters
Escape and Formfeed) before
starting a new picture, you will have to clear the screen manually with
<Alt><F1>. The incoming characters will be interpreted
as Tektronix encoded vectors or commands (see appendix A) until $Name receives
one of the following codes:
.in 5
.sp 1
'CR' or 'US' will return you to VT102 mode if the first 'GS' was
received there,
otherwise the terminal will enter Tektronix alpha mode.
.br
'ESC''FF' will clear the screen and enter Tektronix alpha mode.
.br
'ESC'%!1 will return to VT102 mode.
.in 0
.sp 1
On returning from Tektronix to VT102/VT100 mode $Name only switches the
logical screen (the one on which output operations are performed) back to
the text mode screen. To switch
the physical screen (the one you actually see) back to the text screen,
press <Alt><F6> (this key combination always returns you back to VT102/VT100
mode!). To view
your picture again press <Alt><F5>.
.SH Zoom mode
If you selected a vector buffer larger than zero kilo bytes, you can
redraw a picture with different scaling factors. To select this mode press
<Alternate><F9>, the screen will be cleared, the current contents of
the buffer will be drawn on the screen and the normal arrow mouse cursor
will appear.
.PP
To select the region of the picture you want to magnify, move
the arrow to the upper left corner of the region, press the left mouse button
and drag the mouse to the lower right corner of the region (a 'rubber box'
should follow the arrow) and release the button. The resulting picture will
be scaled so that the larger side of box will fit on the screen (if the option
|True Aspect| is selected). You can repeat this operation till a magnification
factor of thirty is reached.
.PP
 <Backspace> will restore the previous scaling
factors, the arrow keys will move the screen a 10th of the screen
width/height
in their direction and <Return> will leave zoom mode (all other keys only
redraw the screen). Remember that if your picture is built out a lot of vectors,
the redrawing may take some time!
.SH GIN mode
The sequences 'ESC''SUB' will enter GIN mode from any of the Tektronix modes,
it will not work from the VT102/VT100 mode since SUB cancels any ANSI command.
A crosshair cursor will appear which can be moved with the mouse. Pressing
any key on the keyboard will cause a GIN report to be sent to the host and
exits the GIN mode to Tektronix alpha mode. Moving the cursor to regions of
the screen with invalid coordinates will cause an invalid report (if you have
selected |True Aspect| the 1024*780 (4096*3120) Tektronix coordinate system is

mapped to a centered region sized 525*400 pixels on the ST monochrome screen).
.SH Tektronix 4014 alpha mode
This mode is only included for compatibility with the GIN-mode and is not very usefull.
But you can position alphatext anywhere on the screen. This mode will probably be replaced in future versions with a 4105 compatible alphamode.
.SH Using the special keys
Here is a list of the functions on the special keys (press <Alternate> and the key listed here):
.sp 1
.in 5
<F1>
.br
Erases the graphics screen from any terminal mode.
.sp 1
<F2>
.br
Toggles the foreground/background color (white on black or
black on white).
.sp 1
.ne 2
<F3>
.br
Toggles between blinking and static cursor.
.sp 1
.ne 2
<F4>
.br
Prints the contents of the textbuffer.
.sp 1
.ne 2
<F5>
.br
Switches the physical screen (the one you see) to the graphics screen.
.sp 1
.ne 2
<F6>
.br
Switches the screen and the terminal to VT102/VT100 mode.
.sp 1
.ne 2
<F7>
.br
Resets the terminal, reads the default values from disk.
.sp 1
.ne 2
<F8>
.br
Toggle autoprint.
.sp 1
.ne 2
<F9>
.br

```
Enter zoommode.
.sp 1
.ne 2
<F10>
.br
Reset the Tektronix mode.
.sp 1
.ne 2
<B>
.br
Send a short break (0.233 s).
.sp 1
.ne 2
<L>
.br
Send a long break (3.5 s).
.sp 1
.ne 2
<A>
.br
Send the answerback string
.sp 1
.ne 2
<W>
.br
Switch to 132 column mode (really only 128*64).
.sp 1
.ne 2
<S>
.br
Switch to 80 column mode.
.sp 1
.ne 2
<X>
.br
Reset the XOff flags of the bios.
.sp 1
.ne 2
<C>
.br
Start/stop file capture.
.sp 1
.ne 2
<R>
.br
Playback a captured file.
.sp 1
.ne 2
<T>
.br
Start ASCII file transfer.
.sp 1
.ne 2
```

```
<Help>
.br
Atari screen dump.
.sp 1
.ne 2
<P>
.br
Atari screen dump of the physical screen.
.sp 1
.ne 2
<Insert>
.br
Start the single line editor.
.in 0
---cut here---
.!*********************************************************************
.!*                                                                   *
.!*  File: CHAPTER3.PRF                                               *
.!*                                                                   *
.!*********************************************************************
.Chapter 3 More about $Name
.SH Terminal Parameters 1
To change these settings, press <Help> and select
.br
.ce
.bd
 |Change Terminal Parameters 1|
Following parameters can be changed:
.in 5
.sp 1
.bd
Baud
.br
Selects the rate for the serial port.
.sp 1
.bd
Flowcontrol
.br
Selects the flowcontrol mode, these functions are implemented by the bios.
.sp 1
.bd
Parity
.br
Selects the parity mode, these modes are implemented by the bios.
.sp 1
.bd
Data/Stop
.br
Allows you to select the number of data and stop bits, implemented by the bios
.sp 1
.bd
Mode
.br
```

Allows you to put the terminal in one of following modes:
.br
Full: Data typed on the terminal is echoed by the host computer.
.br
Echo: $Name echos user input on the screen.
.br
Local: User input is only sent to the screen.
.sp 1
.bd
Terminal
.br
Selects the terminal mode and change the terminal identification.
4014 selects
4014 alpha mode!
.sp 1
.bd
Attributes
.br
Allows you to change the processing of text attributes:
.br
Ignore: All attributes except inverse are ignored, the terminal identifies
itself as if it had the advanced video option (AVO), this is the quickest
output mode.
.br
AVO: The terminal process all DEC text attribute codes, slowest mode.
.br
NoAVO: The terminal only processes underline and inverse attributes.
.sp 1
.bd
Scroll
.br
Selects between slow and quick scroll.
.sp 1
.bd
Aspect
.br
This option controls the scaling of pictures.
.in 0
.SH Terminal Parameters 2
To change these settings, press <Help> and select
.br
.ti 5
.bd
.ce
|Change Terminal Parameters 2|
following parameters can be changed:
.in 5
.sp 1
.bd
GIN Termination Sequence
.br
Determines the string sent after a GIN or status report.
.sp 1

```
.bd
Answerback
.br
The string which is sent as answerback message.
.sp 1
.bd
Print terminator
.br
Determines if a FF is sent after each print operation or not.
.sp 1
.bd
Printer
.br
Determines if a printer is connected or not.
.in 0
.SH File Transfer Parameters
To change these settings, press <Help> and select
.br
.ti 5
.bd
.ce
|File Transfer Parameters|
following parameters can be changed:
.in 5
.sp 1
.bd
Start of file transfer
.br
A string that is sent before file transfer starts.
.sp 1
.bd
End of file transfer
.br
A string that is sent when the transfer finishes.
.sp 1
.bd
Delay after every character [ms]
.br
Sets the time $Name waits after every character sent (this is implemented
with the AES call event_multi, this means the 200Hz system clock is used).
.sp 1
.bd
Method
.br
If Paced by Echo is selected, $Name waits for every character sent to be
echoed (except ASCII control codes), doesn't time out!.
.sp 1
.bd
Send EOL as
.br
Selects if 'CR''LF' is sent as 'CR''LF','CR','LF' or 'SP''CR'.
.SH Setup Files
Follow information is stored in the setup files:
```

.br
.nf
.nj
.in +5
Version Number
Baud
Flowcontrol
Parity
Databits
Stopbits
Communication Mode
Terminal Mode
Attribute Mode
Scroll Mode
Aspect Mode
GIN Termination String
Answerback String
Print Terminator
Printer Mode
Cursor Mode
Screen Mode
ASCII File Transfer Start String
ASCII File Transfer Finish
ASCII File Transfer Delay Time
ASCII File Transfer Method
ASCII File Transfer EOL Type
Function Key Strings
.in 0
.ju
.fi
.sp 1
Loading a setup file from a different version of $Name will result in
a version conflict error message.
.SH File Capture/Playback
These functions were only added for debugging purposes, but can be used
for simple seven-bit ASCII file capture and for playing back a sequence
of terminal commands (redrawing a picture as well).
.SH Editing Function Keys
To edit the string assigned to a function key, press <Help> and select
.br
.ce
.bd
 |Edit F-Keys|
.br
you now can edit the strings, the cursor keys will move you to the string
you want to edit, <Esc> will clear the string, <Backspace> will delete to
the left, <Delete> the current character. Control codes can be entered by
pressing <Control> and the appropriate key (see appendix B).
.SH The Statusline
The 25th line on the screen is used as a statusline in VT102/VT100 mode
it should look like this:
.sp 1
.bd

```
.nj
.nf
$Name $Version                                          R 1234
.sp 1
.fi
.ju
1234 simulate the LED's on a VT100, when they are set they will change from
inverse to normal. R indicates that the terminal is in replace mode, an I
insert mode.
Other indicators: C file capture is on, L the keyboard is locked.
.SH The Single-Line Editor
To make working on systems that don't have a single-line editor (short
sle) easier, a simple
sle is implemented in $Name. The last 10 lines typed by the user are
stored in a circular buffer. Pressing <Insert> starts the sle, the status line
will clear and the current line will be displayed instead. Following
functions are provided:
.br
.in 5
Left and right cursor keys: move the cursor one character left or right.
.br
Up and down cursor keys: display the next or last line in the buffer.
.br
<Delete>: delete the character under the cursor.
.br
<Backspace>: delete the character to the left of the cursor.
.br
<Insert>: abort the sle.
.br
<Return>: send the line and leave the sle.
.in 0
The sle is always in insert mode.
.SH ASCII File Transfer
<Alternate><C> will capture all ASCII characters sent to $Name in a file,
this option disables zooming of pictures. You can play back the contents
of a File with <Alternate><R>, the characters are processed as if they were
received from the serial port.
.PP
Pressing <Alternate><T> will send a file to the host using the current
file transfer parameters. <A> will abort the file transfer.
---cut here---
.!*********************************************************************
.!*                                                                   *
.!*  File: CHAPTER4.PRF                                               *
.!*                                                                   *
.!*********************************************************************
.Chapter 4 Implementation Notes
.SH General
Most of $Name is written in CCD/OSS Pascal and uses standard
GEM,GEMDos,Bios and XBios calls. The exceptions are:
.br
.sp 1
.in 5
```

Scrolling up, this is done with a assembler routine instead of a raster
operations.
.sp 1
Peeking and poking in user and supervisor status is done in assembler.
.sp 1
.in 0
In future versions probably more will be done in assembler.
The Bios input buffer for the serial port is expanded to 2000 bytes. If
no attributes
except reverse are set and the character cell height is 16 or 8 pixels, screen
output is done with the Bios call BConout (Bios 3), this is at least twice as
fast as using GEMDos and three and half times faster than using GEM.
Typical times (may change
from version to version, these were taken with Beta version 0.7):
.sp 1
.in 5
.nj
.nf
Polling of the serial port and keyboard (main loop): 0.65ms
                                        (Beta V1.2   0.48ms)
(if ther are characters in the input buffer, a maximum
of 20 are processed before the keyboard is polled again)
The following data was measured with simulated input
to the VT102 command processing routine, the times
are per operation:
   Carriage return   0.6ms
   Clear complete screen ('ESC'[2K):   140 ms
   Clear complete line ('ESC'[2J):   10.0ms
   Absolute cursor address combination
   ('ESC'[H'ESC'[10;10H):   5.6ms
   Linefeed with scroll: 30.0ms
   40'000 characters 8 per line   4.4ms
                     80 per line   1.0ms
                                         (Beta V1.2   0.88ms)
   4'000 characters bold (highlighted)
                     80 per line   3.5ms
.sp 1
.in 0
.fi
.ju
To decode one character without any output operation (moving of cursor
etc.) takes less than 0.5 ms. Use of $Name at 9600 baud is probably
not unresonable, but it may need flowcontrol.
.PP
The carrier detect signal and the break bit on the Mfp are polled once per
main loop and if they are present a appropriate message is displayed.
.SH VT102/VT100 Mode
.SSH 132 Column Mode
A simulation of 132 column mode is done using the 6*6 font. The characters
are spaced in 5 pixels increments instead of 6, this gives (monochrome)
128 columns * 64 lines. Characters between 128 and 132 columns are lost.
This mode will probably be exchanged for sideways scrolling later. Restrictions:
No double height/width characters.

.SSH Special Graphics/Line Drawing Character Set
The line drawing characters are mapped to lines (which are actually drawn)
and to the '+' and '|' characters. The other special characters are mapped
as good as possible to the ATARI ST character set. Hopefully this will change
before the end of year, as soon as we can design and load fonts this will be
done properly.
.SSH Double Height/Width Characters
Restrictions: only USASCII set, no double height in color. The same goes here
as for the line drawing set.
.SSH HDS200 International Character Set
Undocumented, only for use at CHRZU1A.
.SH Tektronix Mode
.SSH General
The Tektronix mode is still a bit in a mess. This will change with the
using the 4105 command set, this implies that you should only use the
vector mode of the 4010 emulation as all other 4010 commands will probably
be removed from the program.
.PP
Right now scaling is done with respect to a 4010 with 1024*780 points, this
probably will change for the 4105 (512*360) emulation. In Tek coordinates the
screen measures 4096*3120 points (4105: 4096*3072 points).
.PP
For redrawing and zooming purposes the incoming characters are stored in
a linear buffer. This is quite a memory saving way to store them, but on the
other hand this means they have to be decoded every time the vectors are drawn.
.SSH Alpha Mode
Restrictions: 1 margin, all (well nearly all) character sizes are the same
only the spacing is different.
.SSH Vector Mode
.sp 1
.SSH Zoom Mode
Restrictions: No zooming of graph text, slow.
.SH Problems
Sometimes the serial port seems to blocked (this has happened to me with
other ST terminal emulators aswell), possibly we received a XOFF but
no XON. Pressing <Alternate><X> wil reset the XOFF flags of the bios.
.PP
Don't use the |Change Terminal Parameters 1| dialog in an editor or the like,
for some mysterious reason the serial port outputs a delete character if
you
actually change something and exit with |OK|.
.SH The German keyboard and other horrible things
Due to the way the keyboard interrupt routine is written for the German
bios
not all of the control codes can be produced with the keyboard. To make
local
debugging easier <Alternate><V> will send a 'GS' code and to allow you
to get to
the [,],{,},@, and \ characters without pressing two to three keys the
umlauts
are caught and replaced by the ASCII characters on the keys (if somebody
sends
me the layout of the other none US keyboards I will try to do the same

thing).
Do not count on this feature to stay, maybe this will be replaced by
loading
a keyboard table.

---cut here---
```
.!*************************************************************************
.!*                                                                       *
.!*  File: APNDX1.PRF                                                     *
.!*                                                                       *
.!*************************************************************************
.AP A Control Codes and Escape Sequences
.fi
.ju
.PP
This appendix list control codes and escape sequences that
complete implementations of VT102 and Tektronix 4014/4105 terminals should
interpret and the functions they should initiate. * marks functions that
are redundant or not possible on an Atari ST computer, *NI marks other not
implemented functions (due to my laziness?), *RI uncomplete implementation of
a function, please read the implementation notes for details.
.PP
Consult the ASCII table for numeric values of the control codes, 'Ps',
'Pn', 'Pc'
and 'Pl' denote decimal values (Esc[10;10f postion cursor at text coordinates
(10,10)).
.PP
The following control codes and commands, the syntax and the command
interfaces as a whole
could possibly be patented or/and copyrighted,
please consider this list as 'for information only'. Commercial use is strictly
forbidden.
.nj
.nf
.SH ANSI/VT102/VT100 Mode
.sp 1
.SSH Set Mode
.sp 1
.in 5
'ESC'[2h                Keyboard locked
'ESC'[4h                Insert mode
'ESC'[12h               Local echo off
'ESC'[20h               New line mode on
'ESC'[?1h               Cursor key application mode
'ESC'[?3h               *RI 132 column mode
'ESC'[?4h               Smooth scrolling
'ESC'[?5h               Screen reverse
'ESC'[?6h               Origin mode relative
'ESC'[?7h               Auto wrap on
'ESC'[?8h               * Auto repeat on
'ESC'[?9h               * Interlace on
'ESC'[?18h              Print form feed on
'ESC'[?19h              Print extent full screen
```

```
.SSH Reset Mode
.in 5
'ESC'[2l                 Keyboard unlocked
'ESC'[4l                 Replace mode
'ESC'[12l                Local echo on
'ESC'[20l                New line mode off
'ESC'[?1l                Cursor key cursor mode
'ESC'[?2l                *NI VT52 mode
'ESC'[?3l                80 column mode
'ESC'[?4l                Jump scrolling
'ESC'[?5l                Screen normal
'ESC'[?6l                Origin mode absolute
'ESC'[?7l                Auto wrap off
'ESC'[?8l                * Auto repeat off
'ESC'[?9l                * Interlace off
'ESC'[?18l               Print form feed on
'ESC'[?19l               Print extent scrolling region
.SSH Select Character Sets
.in 5
  G0         G1
.sp 1
'ESC'(A   'ESC')A          UK
'ESC'(B   'ESC')B          USASCII
'ESC'(0   'ESC')0          Special graphics (line drawing)
'ESC'(1   'ESC')1          *NI Alt char ROM
'ESC'(2   'ESC')2          *NI Alt char ROM
.SSH Shift into Character Sets
.in 5
'ESC'N                   Single shift into G1
'ESC'O                   Single shift into G0
'SO'                     Locked shift G1
'SI'                     Locked shift G0
.SSH Character Attributes
.in 5
'ESC'[m                 No attributes
'ESC'[0m                No attributes
'ESC'[1m                Bold
'ESC'[4m                Underline
'ESC'[5m                Blink (Light)
'ESC'[7m                Reverse
.SSH Scrolling Region
.in 5
'ESC'['Pt';'Pb'r        Set scrolling region
.SSH Cursor Movement Commands
.in 5
'ESC'['Pn'A             Cursor up
'ESC'['Pn'B             Cursor down
'ESC'['Pn'C             Cursor right
'ESC'['Pn'D             Cursor left
'ESC'['Pl';'Pc'H        Cursor position
'ESC'['Pl';'Pc'f
'ESC'D                  Index
'ESC'M                  Reverse Index
```

```
'ESC'E                  Next line
'ESC'7                  Save cursor
'ESC'8                  Restore cursor
.SSH Tab Stops
.in 5
'ESC'H                  Horizontal tab set
'ESC'[g                 Tab clear
'ESC'[0g                Tab clear
'ESC'[3g                Clear all tabs
.SSH Line Attributes
.in 5
'ESC'#3                 *RI Double-height top half
'ESC'#4                 *RI Double-height bottom half
'ESC'#5                 Single-width single-height
'ESC'#6                 *RI Double-width single-height
.SSH Erasing
.SSSH In Line
.in 5
'ESC'[K                  Cursor to end of line
'ESC'[0K
'ESC'[1K                 Beginning of line to cursor
'ESC'[2K                 Entire line
.SSSH In Screen
.in 5
'ESC'[J                  Cursor to end of screen
'ESC'[0J
'ESC'[1J                 Beginning of screen to cursor
'ESC'[2J                 Entire screen
.SSH Requests/Reports
.in 5
Requests from host         Reports to host
.sp 1
.ne 2
'ESC'[5n   Status          'ESC'[0n         Terminal OK
                           'ESC'[3n         * Terminal not OK
'ESC'[6n   Cursor position 'ESC'['Pl';'Pc'R Cursor position Pl,Pc
.ne 3
'ESC'[c    What are you?   'ESC'[?1;'Ps'c   VT100, Ps options
'ESC'[0c                   'ESC'[?6;'Ps'c   VT102, Ps options
'ESC'Z
.ne 3
'ESC'[?15n Printer status  'ESC'[?10n   Printer ready
                           'ESC'[?11n   Printer not ready
                           'ESC'[?13n   No printer
'ESC'[0x   Terminal Parameter
           Request, send on
           exit of setup
'ESC'[1x   send only on
           request
.in 0
.SSH Reset
.in 5
'ESC'c                   Reset to default values
```

```
.in 0
.SSH Tests
.in 5
'ESC'#8                 Fill screen with E's
'ESC'[2;'Ps'y           * Invoke tests
.in 0
.SSH Keyboard LED's
.in 5
'ESC'[0q                All off
'ESC'['Ps'q             LED 'Ps' on
.in 0
.SSH VT52 Mode
.in 5
'ESC'<                  Enter ANSI Mode
'ESC'=                  *NI Enter alternate keypad mode
'ESC'>                  *NI Exit alternate keypad mode
'ESC'F                  *NI Select special graphics character set
'ESC'G                  *NI Select US/UK character set
'ESC'A                  *NI Cursor up
'ESC'B                  *NI Cursor down
'ESC'C                  *NI Cursor right
'ESC'D                  *NI Cursor left
'ESC'H                  *NI Cursor home
'ESC'Y'Pl''Pc'          *NI Direct cursor address
'ESC'I                  *NI Reverse line feed
'ESC'K                  *NI Erase to end of line
'ESC'J                  *NI Erase to end of screen
'ESC'Z                  *NI What are you?
'ESC'/Z                 *NI I am a VT52 (Response)
'ESC'^                  *NI Enter auto print mode
'ESC'-                  *NI Exit auto print mode
'ESC'W                  *NI Enter printer controller mode
'ESC'X                  *NI Exit printer controller mode
'ESC']                  *NI Print screen
'ESC'V                  *NI Print cursor line
.in 0
.SSH Editing Functions
.in 5
'ESC'['Pn'P             Delete character
'ESC'['Pn'L             Insert Line
'ESC'['Pn'M             Delete Line
.in 0
.SSH Print Commands
.in 5
'ESC'[?5i               Enter auto print
'ESC'[?4i               Exit  auto print
'ESC'[5i                Enter printer controller
'ESC'[4i                Exit printer controller
'ESC'[i                 Print screen
'ESC'[0i
'ESC'[?1i               Print cursor line
.in 0
.SSH Other Control Characters
```

```
.in 5
'NUL'                   Ignored
'SOH'                   Ignored
'ETX'                   Ignored
'EOT'                   Ignored
'ENQ'                   Transmit answerback message
'BEL'                   Bell
'BS'                    Backspace
'HT'                    Horizontal tab
'LF'                    Linefeed or 'CR''LF'
'VT'                    'LF'
'FF'                    'LF'
'CR'                    Carriage Return
'SO'                    Shift to G1 character set
'SI'                    Shift to G0 character set
'DC1'                   Ignored (Alternate XOn)
'DC3'                   Ignored (Alternate XOff)
'CAN'                   Cancel
'SUB'                   Cancel
'DEL'                   Ignored
'US'                    Ignored
'RS'                    Ignored
'FS'                    Ignored
'SYN'                   Ignored
'EM'                    Ignored
'ETB'                   Ignored
'NAK'                   Ignored
'DLE'                   Ignored
'XON'                   In XOn/XOff flow control mode
'XOFF'                  intercepted by ST bios, otherwise
                        ignored
.in 0
.SSH Nonstandard VT102 functions
.in 5
'ESC'(<   'ESC')<       *RI HDS200 International character set
'GS'                    Enter 4014 Vector mode (Nonstandard)
'ESC'%!0                Enter Tektronix alpha mode (4105 command)
'ESC'#!0                Report terminal mode (4105 command)
%!'SP''SP'1             Report: I am a ANSI terminal
.in 0
.SH 4014 Mode
.SSH Alpha Mode
.SSSH Cursor movement
.in 5
'BS'                    Cursor left
'HT'                    Cursor right
'LF'                    Cursor down
'VT'                    Cursor up
'CR'                    Cursor to left margin
.in 0
.SSSH Character set sizes
.in 5
'ESC'8                  Normal   35x76 (lines x columns)
```

```
'ESC'9                  Small    38x81
'ESC':                  Smaller  50x120
'ESC';                  Smallest 58x133
'ESC'6                  *NI Enter Italics ?
'ESC'7                  *NI Exit Italics  ?
.in 0
.SSSH Mode changing
.in 5
'GS'                    Vector mode
'ESC''SUB'              GIN mode
'FS'                    Point plot mode
'ESC''FS'               *NI Special point plot mode
'RS'                    *NI Increment mode
.in 0
.SSH Other functions and extended escape codes
.in 5
'ESC''ETB'              Hardcopy
'ESC''ENQ'              Transmit status
'ESC''STX'              Enable block fill/erase
'ESC''ETX'              Disable block fill/erase
'ESC'\R                 Enable rectangle draw
'ESC'\r                 Disable rectangle draw
'ESC'x                  Enable selective erase
.in 0
.SSH Vector mode
.in 5
'GS'                    Next vector is dark
address                 Draw vector, next vector is visible
'ESC'`                  Solid vector
'ESC'a                  Dotted
'ESC'b                  Dot-dashed
'ESC'c                  Short-dashed
'ESC'd                  Long-dashed
'ESC'p                  Solid vector, XOR
'ESC'q                  Dotted, XOR
'ESC'r                  Dot-dashed, XOR
'ESC's                  Short-dashed, XOR
'ESC't                  Long-dashed, XOR
'ESC''SUB'              GIN mode
'US'                    Alpha mode, don't move
'CR'                    Alpha mode
'ESC''FF'               Alpha mode, clear screen
.in 0
.SSH Point plot/special point plot mode
.in 5
address                 Plot point
intensity address       *NI Special plot point
'CR'                    Alpha mode
'ESC''FF'               Alpha mode
.in 0
.SSH Incremental point plot mode
.in 5
'SP'                    *NI Pen up
```

```
P                       *NI Pen down
D                       *NI North
E                       *NI North east
A                       *NI East
I                       *NI South east
H                       *NI South
J                       *NI South west
B                       *NI West
F                       *NI North west
'CAN'                   *NI Alpha mode
'ESC''SUB'              *NI GIN mode
.in 0
.SH 4105 Commands
.fi
.ju
In the following list capital letters are part of the
command sequences and lower case identifiers denote Tektronix encoded
parameters.
.nf
.nj
.sp 1
'ESC'IQ code                *NI Report terminal settings
'ESC'IJ normal
        shifted             *NI Change GIN cursor speed
.sp 1
'ESC'JC                     *NI Copy
.sp 1
'ESC'KC                     *NI Cancel
'ESC'KR mode                *NI Change carriage return/line feed mode
'ESC'KD number
        contents            *NI Define macro
'ESC'KO number
        contents            *NI Define nonvolatile macro
'ESC'KA mode                *NI Enable dialog area
'ESC'KW mode                *NI Enable key expansion
'ESC'KX number              *NI Expand macro
'ESC'KH mode                *NI Hardcopy
'ESC'KI mode                *NI Ignore deletes mode
'ESC'KF mode                *NI Change line feed/carriage return mode
'ESC'KL mode                *NI Lock keyboard
'ESC'KQ                     *NI Report errors
'ESC'KV                     *NI Reset
'ESC'KU                     *NI Save nonvolatile parameters
'ESC'KE mode                *NI Change echo mode
'ESC'KZ char-delete
        line-delete
        literal             *NI Change edit characters
'ESC'KT threshold           *NI Change error threshold
'ESC'KY char                *NI Change key execute character
'ESC'KS mode                *NI Change transparent mode
'ESC'KB positions           *NI Change tab stops
.sp 1
'ESC'LL number              *NI Change number of lines in dialog area
```

```
'ESC'LP start-point
       fill-boundary       *NI Start panel boundary
'ESC'LZ                    *NI Clear dialog area
'ESC'LG position           *NI Draw to position
'ESC'LH position           *NI Draw marker at position
'ESC'LE                    *NI Finish panel
'ESC'LT text               *NI Graphic text
'ESC'LF position           *NI Move to position
'ESC'LB number             *NI Change number of lines for dialog buffer
'ESC'LI char-color
       char-backgr-color
       dialog-backgr-color *NI Change dialog area color
'ESC'LV mode               *NI Change dialog area visibility
'ESC'LM writing-mode       *NI Change dialog area writing mode
.sp 1
'ESC'MP number             *NI Choose fill pattern
'ESC'MG writing-mode       *NI Change graphics area writing mode
'ESC'MN direction          *NI Change graphtext direction
'ESC'MR mantissa
       power-of-two        *NI Change graphtext rotation
'ESC'MC width
       height
       spacing             *NI Change graphtext size
'ESC'ML color              *NI Change line color
'ESC'MV style              Change line style
'ESC'MM type               Change marker type
'ESC'MT text-color         *NI Change text color
.sp 1
'ESC'NM mode               *NI Prompt mode
'ESC'NR transmit
       receive             *NI Change baud rates
'ESC'NK time               *NI Change break time
'ESC'NU char               *NI Change echo suppression cancel character
'ESC'NE string             *NI Change EOF string
'ESC'NT string             *NI Change EOL string
'ESC'NC first-char
       second-char         *NI Change EOM characters
'ESC'NF mode               *NI Change flow control mode
'ESC'NP string             *NI Change prompt string
'ESC'NQ size               *NI Change input buffer size
'ESC'NB stopbits           *NI Change number of stop bits
'ESC'ND delay              *NI Change transmit delay
.sp 1
'ESC'QI values             *NI Map color to monochrome values for print
'ESC'QU density            *NI Choose color hardcopy
                           image density
'ESC'QD type               *NI Choose printer type
'ESC'QL pages
       page-origin
       ff-mode             *NI Change dialog hardcopy
                           attributes
'ESC'QE attributes         *Ni Change hardcopy monochrome
                           attributes
```

```
'ESC'QO orientation         *NI Change image orientation
.sp 1
'ESC'RU plane
        writing-mode
        bits-per-pixel      *NI Begin pixel operations
'ESC'RX dest.-plane
        d.-lower-left-corner
        first-source-corner
        second-s.-corner    *NI Copy pixels
'ESC'RP number
        color               *NI Write pixels
'ESC'RR lower-left-corner
        upper-right-corner
        fill-color          *NI Fill rectangle
'ESC'RL array               *NI ?
'ESC'RH position            *NI Move to pixel position
'ESC'RS lower-left-corner
        upper-right-corner  *NI Change coordinates for pixel operations
'ESC'RW first-corner
        opposite-corner     *NI Change window on 4096*4096 coordinates
.sp 1
'ESC'TD first-color
        second-color        *NI Change alpha cursor colors
'ESC'TF colors              *NI Change color indices for dialog area
'ESC'TG plane
        colors              *NI Change color indices for plane
'ESC'TC first-color
        second-color
        third-color         *NI Change GIN cursor color
.sp 1
'ESC'SX number
        position            *NI Change GIN cursor position
.sp 1
'ESC''SUB'                  Enter 4010 GIN mode
'ENQ'                       *NI Inquire 4105 status
'US'                        *NI Enter 4105 alpha mode
'ESC''CAN'                  Enter echo suppression mode
'FS'                        Enter marker mode
'GS'                        Enter vector mode
'ESC''FF'                   Clear screen, enter alpha mode
'ESC'#!0                    Report terminal mode
'ESC''ENQ'                  Report 4010 status
'ESC'%! mode                Change to a different terminal mode
'ESC' font                  Change fonts
'ESC' style                 Change 4014 line style
'ESC''ETB'                  4014 hardcopy
---cut here---
.!*********************************************************************
.!*                                                                   *
.!*  File: APNDX2.PRF                                                 *
.!*                                                                   *
.!*********************************************************************
.AP B ASCII control characters
```

Dec	Oct	Hex	Keys	Atari character	ASCII name
0	000	00	<Control><@>	None	NUL Null
1	001	01	<Control><A>	Up Arrow	SOH Start of header
2	002	02	<Control><B>	Down Arrow	STX Start text
3	003	03	<Control><C>	Right Arrow	ETX End text
4	004	04	<Control><D>	Left Arrow	EOT End of transmission
5	005	05	<Control><E>	Close Box	ENQ Enquiry
6	006	06	<Control><F>	Move Box	ACK Acknowledge
7	007	07	<Control><G>	Full Box	BEL Bell
8	010	08	<Control><H>	Check	BS Backspace
9	011	09	<Control><I>	Clock	TAB Horizontal tab
10	012	0A	<Control><J>	Bell	LF Linefeed
11	013	0B	<Control><K>	Note	VT Vertical tab
12	014	0C	<Control><L>	FF	FF Formfeed
13	015	0D	<Control><M>	CR	CR Carrige return
14	016	0E	<Control><N>	Left Atari sign	SO Shift out
15	017	0F	<Control><O>	Right Atari "	SI Shift in
16	020	10	<Control><P>	Led 0	DLE Data link escape
17	021	11	<Control><Q>	Led 1	DC1 X-on
18	022	12	<Control><R>	Led 2	DC2
19	023	13	<Control><S>	Led 3	DC3 X-off
20	024	14	<Control><T>	Led 4	DC4
21	025	15	<Control><U>	Led 5	NAK Negative acknowledge
22	026	16	<Control><V>	Led 6	SYN Synchronus idle
23	027	17	<Control><W>	Led 7	ETB End transmission blocks
24	030	18	<Control><X>	Led 8	CAN Cancel
25	031	19	<Control><Y>	Led 9	EM End of medium
26	032	1A	<Control><Z>	?	SUB Substitute
27	033	1B	<Control><[>	ES	ESC Escape
28	034	1C	<Control><\>	?	FS File separator
29	035	1D	<Control><]>	?	GS Group separator
30	036	1E	<Control><^>	?	RS Record separator
31	037	1F	<Control><__>	?	US Unit separator
32	040	20	< >		SP Space

.in 0
.sp 1
.fi
.ju
Due to the way the german bios is written (and probably most of the none US versions) not all of these codes can be produced with the keyboard.
---cut here---
```
.!*************************************************************************
.!*                                                                       *
.!*  File: APNDX3.PRF                                                     *
.!*                                                                       *
.!*************************************************************************
.AP C Error numbers
.in 5
1  No VT52 mode
4  No special point plot
```
---cut here---

From 398078467706735920
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9bff1c725c6405be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-27 07:15:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!sri-spam!parcvax!hplabs!hp-sdd!ncr-sd!
sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: Re: KERMIT UPLOAD PROBLEM WITH AVATEX MODEM
Message-ID: <653@marlin.UUCP>
Date: Wed, 27-Aug-86 10:15:21 EDT
Article-I.D.: marlin.653
Posted: Wed Aug 27 10:15:21 1986
Date-Received: Thu, 28-Aug-86 23:48:34 EDT
References: <8608261651.AA01583@ucbvax.Berkeley.EDU>
Reply-To: dobbs@marlin.UUCP (Lynn B. dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 18

In article <8608261651.AA01583@ucbvax.Berkeley.EDU> "V5130B::MENTON"
<menton@v5130b.decnet> writes:
>
>   I had one failure in capability of an Avatex 1200 bps modem that
>I'd like to share with the net. The Avatex was unable to complete a text
>file transfer from the ST to a VAX, using Kermit. When the Avatex was
>replaced with a Hayes Smartmodem 1200, the file uploaded with no problems.
>
Kermit SHOULDN'T need anything special to run. I have two versions of
Kermit (A GEM version and the developer's kit version) and both perform
perfectly with the AVATEX 1200. I upload and download to/from a vax
running UNIX 4.2BSD over PacBell lines. Packets are sent/received
with no retries or errors.

The problem MAY be the noisy lines to work that you mentioned. The AVATEX
is slightly less friendly in noisey environments than the Hayes. But, at
the price of each, the Avatex has my full support.

--Lynn

From 5278449377594467853
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a1fd9be087e0f487,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-27 07:51:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16

Subject: VT100 Emulator
Message-ID: <8608272212.AA06952@ucbvax.Berkeley.EDU>
Date: Wed, 27-Aug-86 10:51:20 EDT
Article-I.D.: ucbvax.8608272212.AA06952
Posted: Wed Aug 27 10:51:20 1986
Date-Received: Thu, 28-Aug-86 22:59:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

This had to happen: after finishing sending the files for UniTerm yesterday, I did some work with EasyDraw, after an hour or so I started UniTerm and it crashed! The problem is due to the GDOS which is disributed with EasyDraw, at least one of the functions of CCD/OSS Pascal doesn't seem to work and a VDI-call returns 0 as height of a character, maybe all these problems are my own fault or are due to the prerelease version of GDOS. So for now: don't try to run UniTerm with GDOS loaded! This will be fixed a.s.a.p., if anybody has had the same problems please contact me.

Simon Poole

K538915@CZHRZU1A.BITNET

From 5413330198600984269
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-27 10:38:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!orca!tekecs!jans
From: jans@tekecs.UUCP (Jan Steinman)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <7578@tekecs.UUCP>
Date: Wed, 27-Aug-86 13:38:01 EDT
Article-I.D.: tekecs.7578
Posted: Wed Aug 27 13:38:01 1986
Date-Received: Thu, 28-Aug-86 21:35:17 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <653@cbmvax.cbmvax.cbm.UUCP>
<270@dmsd.UUCP>
Reply-To: jans@tekecs.UUCP (Jan Steinman)
Organization: Tektronix, Wilsonville OR
Lines: 18
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1737 net.micro.amiga:4415 net.micro.68k:1168

In article <270@dmsd.UUCP> bass@dmsd.UUCP (John Bass) writes:

>In article <653@cbmvax.cbmvax.cbm.UUCP>, grr@cbmvax.cbm.UUCP (George Robbins)
writes:
>> A reasonable attitute, but remember that both the Amiga and Atari were
>> intended to be affordable machines...
>
>Consider that (for) a simple paging mmu... we are talking under $45 at
>the shelf. This is the difference between the ST being a game machine and
>having the support for process issolation and error detection for a strong
>bussiness machine.

I don't quite buy that. Look at the #1 business machine -- what kind of MMU
does it have? The Atari has just about the same features as the IBM PC --
including lack of reasonable system software. The Amiga at least made an
attempt to make up for the lack of an MMU with good system software.
--
:::::: Artificial   Intelligence   Machines   ---   Smalltalk   Project ::::::
:::::: Jan Steinman   Box 1000, MS 60-405   (w)503/685-2956 ::::::
:::::: tektronix!tekecs!jans   Wilsonville, OR 97070   (h)503/657-7703 ::::::

From -6160794431290491863
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,366ea09ca6b28f50,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-27 13:50:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM PART 1 OF 5 / README
Message-ID: <8608271943.AA04755@ucbvax.Berkeley.EDU>
Date: Wed, 27-Aug-86 16:50:29 EDT
Article-I.D.: ucbvax.8608271943.AA04755
Posted: Wed Aug 27 16:50:29 1986
Date-Received: Thu, 28-Aug-86 22:54:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 46

Please consider this version of UniTerm as a Beta test version, some functions
are not very well tested, but the VT102 mode should be OK.

To cut down the size of the uuencoded executable I had to cut it in three
pieces, the files should be in part 3,4 and 5 of this posting. At the end
of each line except the 'begin' and 'end' lines there is a lower case a,b
or c, this is to stop trailing blanks being destroyed by Bitnet/Earn. To
uudecode Uniterm cut away the headers from files 3,4 and 5 and concatenate
them in some way. The first part should have a's as line endings the second
b's and the third c's. Now you should be able to run the resulting file
through uudecode (if it doesn't work try deleting all lower case
a's,b's and c's), name the resulting file UniTerm.Prg.

```
      File sizes: Part a : 48379 Bytes
                       b : 44800 Bytes
                       c : 46277 Bytes
                   Total  :139456 Bytes
                UniTerm.Prg : 96522 Bytes (this is one Byte less than the
                                           original file, probaly a bug
                                           in my version of uuencode, but
                                           it still seems to work)
The manual for UniTerm is in PROFF source in file 2 of this posting, to
cut it up in to the seperate files search for the string
---cut here---
you should end up with following files:
                ug.prf
                macros.prf
                toc.prf
                chapter1.prf
                chapter2.prf
                chapter3.prf
                chapter4.prf
                apndx1.prf
                apndx2.prf
                apndx3.prf
Run ug.prf thru PROFF and you should have the UniTerm user's guide. If anybody
doesn't have PROFF I might send them the formatted manual. The macros were
adopted from those used for Tim Oren's ProGEM series, thanks to who ever wrote
them.

Please send me bug reports and suggestions concerning UniTerm, I will support
it and will release a new version in 2 to 3 months.

Mail to (Bitnet): K538915@CZHRZU1A

                  Simon Poole

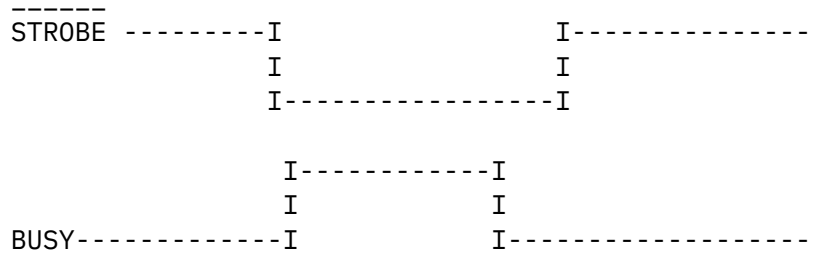

From 5276916282829592130
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dfb50d005c676443,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-27 16:51:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!SU-SCORE.ARPA!
G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: [FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU: re: 520ST parallel printer port
doubles characters?]
Message-ID: <12234258938.40.G.ABRAMS@Score.Stanford.EDU>
Date: Wed, 27-Aug-86 19:51:32 EDT
Article-I.D.: Score.12234258938.40.G.ABRAMS
Posted: Wed Aug 27 19:51:32 1986
Date-Received: Thu, 28-Aug-86 23:12:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
```

Organization: The ARPA Internet
Lines: 60

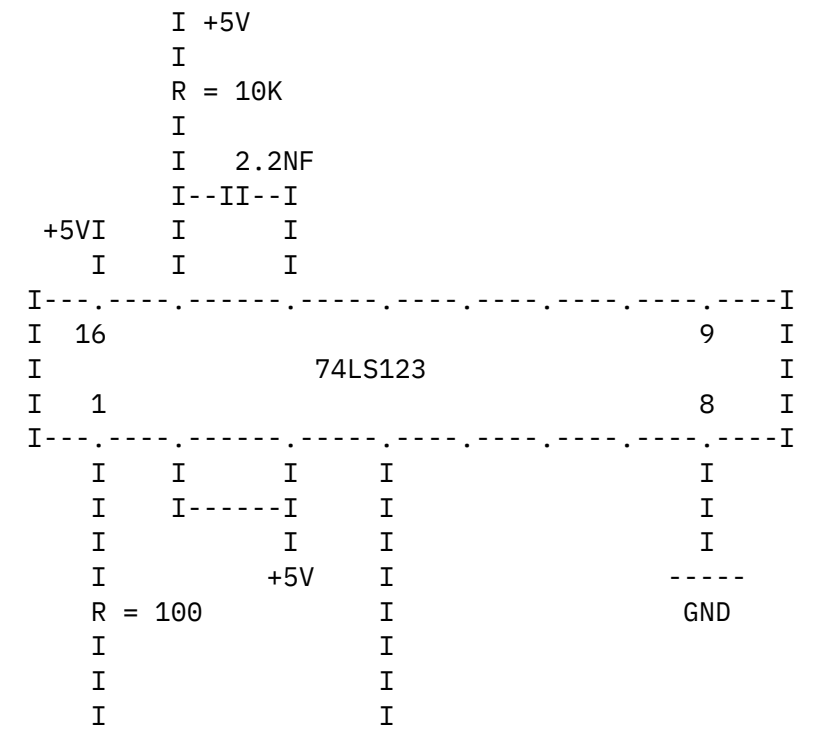
Return-Path: <FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU>
Received: from WISCVM.WISC.EDU by SU-SCORE.ARPA with TCP; Wed 27 Aug 86 06:39:49-PDT
Received: from (FGCBA10)BLEKUL11.BITNET by WISCVM.WISC.EDU on 08/27/86
  at 03:42:54 CDT
Date: Wed, 27 Aug 86 10:42:23 SET
To: info-atari16-request@su-score.ARPA
From: FGCBA10%BLEKUL11.BITNET@WISCVM.WISC.EDU
Subject: re: 520ST parallel printer port doubles characters?

DEER JAN,

THE PROBLEM OF THE DDOOUUBBLLEEDD CHARACTERS LIES IN THE STROBE
PIN NUMBER 1 THAT GOES TO THE PRINTER. THE PULSE IS TO LONG SO
AFTER THAT THE BUSY-LINE HAS DROPPED THERE IS STILL A STROBE PULSE
AND THE CHARACTER WILL BE PRINTED AGAIN.



INTERUPT THE STROBE LINE AND PUT THE FOLLOWING SCHEME BETWEEN IT
THEN THE PROBLEM HAS TO BE SOLVED.



```
  STROBE IN        STROBE OUT
FROM COMPUTER      TO PRINTER
```

```
From -3585704890746336844
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,be2e9a6bb6ec82c8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-27 17:47:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!parcvax!hplabs!tektronix!uw-beaver!
cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Timesaver
Message-ID: <957@batcomputer.TN.CORNELL.EDU>
Date: Wed, 27-Aug-86 20:47:57 EDT
Article-I.D.: batcompu.957
Posted: Wed Aug 27 20:47:57 1986
Date-Received: Fri, 29-Aug-86 01:13:42 EDT
References: <421@atari.UUcp>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 14
Keywords: clock
Summary: Nice, but expensive.

[]

The same chip (or whatever you would call this thing) apparently is sold
by JADE, but is called the "no-slot-clock" and is directed towards the IBM
PC. "Installs easily in the motherboard or option boards of any computer
with a 28-pin PROM socket", they say.  No word on software.  Price: $49.
Personally, I'd wait till is comes closer to the price of a clock chip
and a pair of batteries added up.

I also think it's kinda' funny that the solution for a computer with 2 clocks
is a third one.  Are you folks at Atari going to have a perrenial clock in
some future model?

- Moshe Braner,    Cornell U.,  607-272-3487


From 1722461912578639563
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b94ca44873a4b2d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 02:20:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!at
From: at@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Calling gemdos() in Lattice C. - (nf)
Message-ID: <96100019@exunido.UUCP>
Date: Thu, 28-Aug-86 05:20:00 EDT
Article-I.D.: exunido.96100019
Posted: Thu Aug 28 05:20:00 1986
Date-Received: Fri, 29-Aug-86 05:44:40 EDT
References: <7859@watdaisy.UUCP>
Lines: 11
Nf-ID: #R:watdaisy:-785900:exunido:96100019:000:326
Nf-From: exunido!at   Aug 28 10:20:00 1986

> Lattice C gemdos bindings...

    First you must use another flag in fattrib to scan for folders.
    Lattice C expects allways 32 bit integers as arguments, but
    the gemdos, bios and xbios functions keep some sort of
    conversion table to make shure that all parameters are of the
    required size.

    Andreas Toenne
    at@unido.uucp

From -7294664481130714888
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1851e35e307ddfb3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 05:33:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: Bugs in UniTerm (Already!)/Problems with OSS Pascal
Message-ID: <8608290014.AA07877@ucbvax.Berkeley.EDU>
Date: Thu, 28-Aug-86 08:33:24 EDT
Article-I.D.: ucbvax.8608290014.AA07877
Posted: Thu Aug 28 08:33:24 1986
Date-Received: Fri, 29-Aug-86 05:38:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

I. Problems with OSS/CCD Pascal and preliminary version of GDOS

None of the calls to VDI (like clear_screen) seem to work, so no fixing of this problem (or am I doing something wrong?).

II. Bugs in UniTerm

Sorry, but 2 bugs crept in to UniTerm going from version 1.1 to 1.2:
Carrier Dectect doesn't work.
Delete ($7F) is not ignored, but is displayed as a small triangle, this is a serious problem if your host computer sends Delete as a padding character.

If you really want a fixed version, I will send it to you (I would rather not post the three uuencoded files again).
Anybody on cernvax should be able to get UniTerm from Michael Doser (ASTERIX group).

Simon Poole.

K538915@CZHRZU1A.BITNET

From -3625358607815708414
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7140e46d037744b6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 06:27:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!icdoc!qmc-cs!don
From: don@cs.qmc.ac.uk (Don Beal)
Newsgroups: net.micro.atari16
Subject: Re: VT52 emulator locks up serial port
Message-ID: <190@cs.qmc.ac.uk>
Date: Thu, 28-Aug-86 09:27:05 EDT
Article-I.D.: cs.190
Posted: Thu Aug 28 09:27:05 1986
Date-Received: Sat, 30-Aug-86 21:48:16 EDT
References: <860825204410.000018D7.APEG.MA@UMass>
Reply-To: don@cs.qmc.ac.uk (Don Beal)
Organization: CS Dept, Queen Mary College, University of London, UK.
Lines: 17

Summary:

Expires:

Sender:

Followup-To:

Distribution:

Keywords:

In article <860825204410.000018D7.APEG.MA@UMass> ATARI@UMass.BITNET writes:
>When I accidently hit two keys at the same time on my 1040ST, while
>using the VT52 emulator desk accessory, the serial port sometimes locks up.

I found the Atari VT52 emulator (on my 520ST) can lock up. In my case it
was triggered by RTS/CTS problems. My own terminal emulator did not lock up
under the same conditions, and printed a warning that the RS232 port was
not ready to transmit data.

I guess the Atari emulator does not do an "bcostat" bios call before doing
the "bconout" call. No way for a user to fix, but trivial for the writer
of the emulator to fix, at least to the extent of not locking up. Unjamming
the port may be harder. I power cycled.

Anyone care to tell me what system call or calls are necessary to reset the
RS232 port? In my case I found that toggling the RTS/CTS option, or changing
the baud rate, with the "rsconf" xbios call was not sufficient.

From 1885927835778756727
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-28 06:36:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!amdahl!dmsd!bass
From: bass@dmsd.UUCP (John Bass)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <271@dmsd.UUCP>
Date: Thu, 28-Aug-86 09:36:11 EDT
Article-I.D.: dmsd.271
Posted: Thu Aug 28 09:36:11 1986
Date-Received: Thu, 28-Aug-86 22:17:48 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp>
Organization: DMS Design, San Luis Obispo Office, CA
Lines: 88
Keywords: 68000 atari amiga 68k mmu
Summary: MMU's need not affect Ram RAS/CAS timings
Xref: mnetor net.micro.atari16:1738 net.micro.amiga:4416 net.micro.68k:1169

In article <417@atari.UUcp>, dyer@atari.UUcp (Landon Dyer) writes:
> In article <4374@gatech.CSNET>, jeff@gatech.CSNET (Jeff Lee) writes:
> >   You could do
> > the same with a 68000. With a couple of 35ns rams and some address
> > decoding (to map them into memory) you can implement a similar type of
> > ....
>

> It's a nice idea in general . . . but not on the ST. Address
> timing is *so* critical that running the address lines through a
> 35ns RAM would result in missing RAS and/or CAS windows on the
> DRAMs. Bad things happen.

By design, this can be a non-problem. Drams have three parts to each cycle:

   1) RAS/CAS precharge   -- Overlapped with end/begining of M68k cycle
   2) RAS/Row address   -- taken from M68k address lines after AS asserted
   3) CAS/Col address   -- taken from MMU result after delay from AS asserted

The delay from RAS to CAS required/accepted by most DRAMS is about the same is running the address lines thru a mapping ram or adder/comparator based mmu. Addresses and function codes precede AS by half a clock giving a little more head room. RAS can be started without knowing if the translation will be valid, since witholding CAS is a refresh cycle.

>
> The other gotcha is that by the time the lookup RAM can indicate
> if a location should generate a bus error, the memory controller
> is already comitted to the read or write cycle. You'd have to
> map every unused page to some piece of scratch RAM.

Using a mapping ram, two of the outputs are valid and write-protect allowing:

```
RAS  := AS2RAS_DELAY  * AS

DTACK:= AS2RAS_DELAY  * AS * MEM_ACCESS                          +
        ROM_DELAY     * AS * ROM_ACCESS                          +
        IO_DELAY      * AS * IO_DTACK

CAS  := RAS2CAS_DELAY * AS * MEM_ACCESS *  VALID *  RW           +
        RAS2CAS_DELAY * AS * MEM_ACCESS *  VALID * /RW *  WPROT

BERR := RAS2CAS_DELAY * AS * MEM_ACCESS * /VALID                 +
        RAS2CAS_DELAY * AS * MEM_ACCESS *        *  RW * /WPROT
```

NOTE: the delay terms can be external (delay lines??) or state terms from on-chip counter/sequencer outputs.

Since you can determine a fault at CAS time, CAS is withheld to prevent writing. DTACK is given early, and BERR asserted on a fault. Target data is protected during the fault for both reads and writes.

It can't be done that way???? We currently run 16mhz 4-CLK memory cycles using 120ns DRAMS and a $15.00 mapping ram based mmu (4-CLK cycles are zero wait state for the M68000, and 1 wait state for the M68020 which uses 3-CLK memory cycles). Stop by next month and we will show you our M68020 UNIX SBC running 3-CLK memory cycles at 16mhz with our mapping ram mmu and 80ns DRAMS. Still not convinced, order now and we will save one from the October build for you to try yourself (starting from $1,800 + tax and shipping).

For a 8mhz M68000 the above the timings are all a piece of cake, including

cycle-stealing arbitration for display accesses.

>
> We looked at this many months ago, and went a different route....

MMU's are left out of toy computers because toy engineers don't know how
to design real computers -- NOT because they take to much time (the above
solves that problem) or because they cost too much (two mapping rams cost
less than $10 in volume, and the rest of the circuit could have been dumped
into the custom parts or pals already on the board -- an adder/comparator
design could have been placed in the custom parts for nearly zero additional
production cost). Ditto for memory parity.

MMU's are also left out of toy computers because toy programmers don't know
how to use an mmu, because toy marketing/sales don't care, and many toy buyers
don't care. If you want a toy computer buy one, I like my toy Mac, I can even
do some real work on it ... the cost of ownership could have been lower though
if less development time had been spent by it's programmers fighting the
memory manager and lack of process/os protection from software faults. With
an mmu, certain failures can be identified much earlier, allowing the product
to mature faster and reach market sooner and possibly stay on the market longer
by supporting CLEAN multiuser/multitasking ... thus being more profitable in
the LONG RUN. MMU's are left out of systems due to short term thinking.
--

John Bass (DBA:DMS Design)
DMS Design (System Design, Performance and Arch Consultants)
{amdahl,fortune,polyslo}!dmsd!bass

From -4939883516920949819
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,758247b6fb48a729
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 06:38:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!pyramid!decwrl!
amdcad!amdimage!prls!philabs!micomvax!othervax!z-80
From: z-80@othervax.UUCP (Grant Bonnell)
Newsgroups: net.micro.atari16
Subject: Re: HELP! 520ST parallel printer port doubles characters?
Message-ID: <810@othervax.UUCP>
Date: Thu, 28-Aug-86 09:38:08 EDT
Article-I.D.: othervax.810
Posted: Thu Aug 28 09:38:08 1986
Date-Received: Sat, 30-Aug-86 03:12:23 EDT
References: <1310@watdragon.UUCP>
Reply-To: z-80@othervax.UUCP (Grant Bonnell)
Distribution: net
Organization: Philips Information Systems - St. Laurent P.Q., Canada
Lines: 21

In article <1310@watdragon.UUCP> you write:

>I just bought a db25->centronics connector to hook up my ST to an old
>Seikosha GP-100A printer
>Unfortunately, characters sent from the ST arrive ddoouubblleedd at the
>printer.

I have also experienced this problem and determined that it was due to
a difference in potential between the ground at the connector of the atari
and that of the printer. This causes noise on the signal lines and produces
the effect you mention. A temporary solution is to ensure that one of the
two cable ends is NOT connected to the chasis ground. This problem may stem
from the fact that your equipment is not properly grounded. Are you certain
that the outlets into which your equipment is plugged are grounded? For
example in my house (built about 30 years ago) I discovered that even though
the wall sockets were the grounded type (presumably installed by some
previous owner) the ground screw was not connected to anything, since
the house was wired with only two conductor cable. I hope this helps.

Grant Bonnell
!philabs!micomvax!othervax!z-80

From -3137491847037956120
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e3032f9805c365d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 07:18:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: File Specs and Auto ???
Message-ID: <8608281418.AA01902@ncsc.ARPA>
Date: Thu, 28-Aug-86 10:18:31 EDT
Article-I.D.: ncsc.8608281418.AA01902
Posted: Thu Aug 28 10:18:31 1986
Date-Received: Fri, 29-Aug-86 02:39:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Pardon a couple questions from a person who still has to borrow a friend's
520ST:

What do the file extensions IMG and TOS mean? What other system extensions are
there?

Is an AUTO folder like an MSDOS machine's AUTOEXEC.BAT file (do commands in
the AUTO folder get executed when the machine is booted)? How do I create an
AUTO folder?

Thanks for any help.

Jim Moore
NCSC
(moore@ncsc.arpa)

From 225908593646325298
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,92d9f43218c7a4d1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 09:34:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: wet floppy disks!!
Message-ID: <8608281534.AA16446@mitre-bedford.ARPA>
Date: Thu, 28-Aug-86 12:34:10 EDT
Article-I.D.: mitre-be.8608281534.AA16446
Posted: Thu Aug 28 12:34:10 1986
Date-Received: Fri, 29-Aug-86 02:39:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 14

Offhand, I would think that putting it in a bell jar and pulling a vacuum on it would be the safest way. But I would try it on another floppy disk first to make sure that nothing else besides the water boils away!!!

This method is good because it will not use any heat and because it will definitely dry out any water inside the device without having to open it. Does anybody else have any experience with the effects of vacuum on a disk?

Considering how important the data is to you, I would also call the disk manufacturer and ask them if they think vacuum is safe and if they have a better idea.

-John Sangster
jhs@mitre-bedford.arpa

From -9193882670369710731
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 11:24:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!pyramid!decwrl!sun!cmcmanis

From: cmcmanis@sun.uucp (Chuck McManis)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <6657@sun.uucp>
Date: Thu, 28-Aug-86 14:24:15 EDT
Article-I.D.: sun.6657
Posted: Thu Aug 28 14:24:15 1986
Date-Received: Fri, 29-Aug-86 05:46:02 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <653@cbmvax.cbmvax.cbm.UUCP>
<270@dmsd.UUCP> <7578@tekecs.UUCP>
Organization: Sun Microsystems, Inc.
Lines: 21
Xref: mnetor net.micro.atari16:1758 net.micro.amiga:4432 net.micro.68k:1171

In article <7578@tekecs.UUCP> jans@tekecs.UUCP (Jan Steinman) writes :
>
> I don't quite buy that. Look at the #1 business machine -- what kind of MMU
> does it have? The Atari has just about the same features as the IBM PC --
> including lack of reasonable system software. The Amiga at least made an
> attempt to make up for the lack of an MMU with good system software.
> --
> :::::: Artificial   Intelligence   Machines   ---   Smalltalk   Project ::::::
> :::::: Jan Steinman   Box 1000, MS 60-405   (w)503/685-2956 ::::::
> :::::: tektronix!tekecs!jans   Wilsonville, OR 97070   (h)503/657-7703 ::::::

Two points here, one neither the Atari nor the 8088 based PC try to multitask.
The AT has an MMU built into the '286. Lets not debate this issue yet again
(the last time the consensus was "Multitasking is a lot safer with an MMU,
however with clever system software and reasonably well behaved programs
it is not required.")

--
--Chuck McManis
uucp: {anywhere}!sun!cmcmanis   BIX: cmcmanis ARPAnet: cmcmanis@sun.com
These opinions are my own and no one elses, but you knew that didn't you.

From -3209730833518397092
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9bff1c725c6405be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 15:04:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: KERMIT UPLOAD PROBLEM WITH AVATEX MODEM
Message-ID: <487@imagen.UUCP>
Date: Thu, 28-Aug-86 18:04:32 EDT
Article-I.D.: imagen.487
Posted: Thu Aug 28 18:04:32 1986
Date-Received: Sat, 30-Aug-86 03:13:04 EDT

References: <8608261651.AA01583@ucbvax.Berkeley.EDU> <653@marlin.UUCP>
Organization: The Houses of the Holy
Lines: 23

> In article <8608261651.AA01583@ucbvax.Berkeley.EDU> "V5130B::MENTON"
<menton@v5130b.decnet> writes:
> >
> > I had one failure in capability of an Avatex 1200 bps modem that
> >I'd like to share with the net. The Avatex was unable to complete a text
> >file transfer from the ST to a VAX, using Kermit. When the Avatex was
> >replaced with a Hayes Smartmodem 1200, the file uploaded with no problems.
> >
just to cloud the issue further, i have found (atleast with
PC/Intercomm) that you must use kermit -i (on the vax) and
kermit-image (on PC/IC) for binary files and kermit on both for text
files, if you mix them in any way the transfer will run but you will
end up with null files or the famed garbage.
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -2172022687188275164
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,de072f3eae83ea57,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 15:36:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: from betatest minds come betatest products-microEmacs3.7
Message-ID: <488@imagen.UUCP>
Date: Thu, 28-Aug-86 18:36:54 EDT
Article-I.D.: imagen.488
Posted: Thu Aug 28 18:36:54 1986
Date-Received: Sat, 30-Aug-86 03:13:18 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 68

~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~

The following postings contain the parts of my port of microEmacs 3.7
~~~~~~~~~~~~~~~~~

for the Atari ST, i have more features that i wish to add but this seems to work well enough to be released for beta test. Please remember the meaning of beta test (and my track record with ARC) and do NOT edit your life's work with this. I am also posting the emacs.rc file that i use as an example, but for the sake of the net will not post all of the doc's that go with uE3.7, send me email if you need them and if i get enough requests ill post them also. please don't ask for the source, once i have a stable version they will go the the keeper of 3.7 to be incorporated into the master sources. I have implemented the following:

1. color - in med res you get black, white, yellow, and blue; in high res you get black, white, red, green. blue, cyan, yellow, and magenta. if someone has a scheme to add new colors while in emacs, im all ears

2. key bindings - the special keys are bound to the ascii values of their scancodes, i.e. F1-F10 = FN;-FND, Shifted F1-F10 = FNT-FN], Help = FNb, Undo = FNa, Insert = FNR, Clr = FNG, the arrow keys are FNH, FNP, FNK, and FNM for up, down, left, and right; the left mouse button is FNt and the right is FNu. See emacs.rc for some good examples of how to bind these keys.

3. mouse movement moves the cursor - Q. is this useful or an annoyance ?

4. command execution - ^X! will prompt you for a single program name to be executed via Pexec, arguements may be passed

5. cmode - CMODE will be automatically invoked for any file edited which has an extention of .c, .h, .C, or .H

6. all disk i/o is done thru gemdog, im not sure whether this speeds things up or just clutters up the code

Things yet to be done (but im working at it)

1. use hardware scrolling in each edit window

2. add wildcard matching for searching (Q. is this worth it ? would you use it ?)

3. implement ^X^E (execute make)

4. add super hires mode for b/w (40 lines x 80 char)

please send any bugs or suggestion to me, they are most welcome.

combine all three parts of the postings and uudecode it e.g.

```
cat xaa xab xac > emacs.uue
uudecode emacs.uue > emacs.ttp
```

enjoy!

--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 9000227751119320190
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,68999ac965974ad0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 15:51:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!pyramid!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uEmacs 3.7 for ST, misc files and caveats
Message-ID: <492@imagen.UUCP>
Date: Thu, 28-Aug-86 18:51:04 EDT
Article-I.D.: imagen.492
Posted: Thu Aug 28 18:51:04 1986
Date-Received: Sat, 30-Aug-86 03:15:49 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 363

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

a few caveats, dont forget to strip the lineater line and my
signature out of the files before combining them, when editing
the emacs.rc file be careful, any syntax error will cause emacs
to bomb out, if it does it will leave the cursor in a screwed
up condition. Use the Alt-arrow keys (press Alternate and the
arrow keys at the same time) or reboot the system. of course
reinvoking emacs and exiting normally will fix it too.

the shar file for emacs.rc and emacs.hlp follow

```
#! /bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #! /bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create:
#    emacs.rc
#    emacs.hlp
```

```
# This archive created: Thu Aug 28 15:42:28 1986
# By:    D'arc Angel (The Houses of the Holy)
export PATH; PATH=/bin:/usr/bin:$PATH
echo shar: "extracting 'emacs.rc'" '(2144 characters)'
if test -f 'emacs.rc'
then
     echo shar: "will not over-write existing file 'emacs.rc'"
else
sed 's/^ X//' << \SHAR_EOF > 'emacs.rc'
     X;   EMACS.RC: Startup file for MicroEMACS 3.4
     X;
     X;            This file is executed everytime the
     X;            editor is entered
     X
     X;   ***** Setup the vt52 arrow key functions
     X
     Xbind-to-key previous-line      FNH
     Xbind-to-key next-line          FNP
     Xbind-to-key forward-character       FNM
     Xbind-to-key backward-character      FNK
     X
     X;   ***** Rebind the Function key group
     X
     Xbind-to-key next-window             FN;
     Xbind-to-key set-mark           FN<
     Xbind-to-key exchange-point-and-mark FN=
     Xbind-to-key hunt-forward       FN>
     Xbind-to-key hunt-backward      FN?
     Xbind-to-key begin-macro             FN@
     Xbind-to-key end-macro          FNA
     Xbind-to-key execute-macro      FNB
     Xbind-to-key save-file          FNC
     Xbind-to-key exit-emacs         FND
     Xbind-to-key execute-macro-1         FNT
     Xbind-to-key execute-macro-2         FNU
     Xbind-to-key execute-macro-14        FNV
     X
     X;   set screen colors
     Xadd-global-mode "blue"
     X
     X;   Enter Help
     X1 store-macro
     X    help
     X    8 resize-window
     X    bind-to-key execute-macro-12 FN\
     X    bind-to-key execute-macro-13 FN]
     X    bind-to-key execute-macro-11 FNT
     X    add-mode "yellow"
     X    add-mode "Black"
     X    begining-of-file
     X    2 forward-character
     X    clear-message-line
     X[end]
```

```
X
X;   consult file
X2 store-macro
X    2 split-current-window
X    previous-window
X    view-file "@File to Consult: "
X    8 resize-window
X    add-mode "yellow"
X    add-mode "Black"
X    next-window
X[end]
X
X;   Exit Help
X11 store-macro
X    bind-to-key previous-page FN\
X    bind-to-key next-page FN]
X    bind-to-key execute-macro-1 FNT
X    delete-window
X    clear-message-line
X[end]
X
X;   last help page
X12 store-macro
X    begining-of-line
X    search-reverse "=>"
X    1 redraw-display
X[end]
X
X;   next help page
X13 store-macro
X    begining-of-line
X    2 forward-character
X    search-forward "=>"
X    1 redraw-display
X[end]
X
X;
X14 store-macro
X
X    2 split-current-window
X    select-buffer "Function Keys"
X    add-mode "yellow"
X    add-mode "Blue"
X    2 resize-window
X    begining-of-file
X    unmark-buffer
X    next-window
X[end]
X
X;   bring up the function key window
X
X    2 split-current-window
X    select-buffer "Function Keys"
```

```
     X    add-mode "yellow"
     X    add-mode "Blue"
     X    2 resize-window
     X    insert-string "F1 next window F2  set mark    F3 goto mark  F4  forward
hunt  F5  back hunt"
     X    newline
     X    insert-string "F6 begin macro F7  end macro   F8 exec macro F9  save file
F10 exit emacs"
     X    begining-of-file
     X    unmark-buffer
     X    next-window
     X
SHAR_EOF
if test 2144 -ne "`wc -c < 'emacs.rc'`"
then
     echo shar: "error transmitting 'emacs.rc'" '(should have been 2144
characters)'
fi
fi
echo shar: "extracting 'emacs.hlp'" '(8410 characters)'
if test -f 'emacs.hlp'
then
     echo shar: "will not over-write existing file 'emacs.hlp'"
else
sed 's/^ X//' << \SHAR_EOF > 'emacs.hlp'
     X=>      MicroEMACS 3.7 Help screens      (07/02/86)
     X
     X    M-  means to use the <ESC> key prior to using another key
     X    ^A  means to use the control key at the same time as the A key
     X
     X^V or [Pg Dn]     Scroll down       M-< or <HOME> Begining of file
     X^Z or [Pg Up]     Scroll up         M-> or <END>  End of file
     X
     X-------------------------------------------------------------------------
     X=>      (1) MOVING THE CURSOR
     X
     X^F  Forward character   M-F    Forward word       Keypad arrows
     X^B  Backward character  M-B    Backward word      are active!
     X^A  Front of line M-G    Goto a line
     X^E  End of line
     X^N  Next line          M-N    Front of paragraph
     X^P  Previous line M-P    End of paragraph
     X-------------------------------------------------------------------------
     X=>      (2) DELETING & INSERTING
     X
     X<--             Delete previous character
     X^D or <DELETE>  Delete next character
     X^C or <INSERT>  Insert a space
     XM-<--           Delete previous word
     XM-D             Delete next word
     X^K              Close (delete) to end of line
     X-------------------------------------------------------------------------
     X=>      (2a) MORE DELETING & INSERTING
```

```
X
X<RETURN>   Insert a newline             <TAB>  Advance to next tab stop
X^J         Insert a newline and indent  M-^W   Delete paragraph
X^O         Open (insert) line
X^W         Delete region between mark (set using M-<spacebar>) and cursor
XM-W        Copy region to kill buffer
X^X ^O      Delete blank lines around cursor
X-------------------------------------------------------------------------
X=>      (3) SEARCHING
X
X^S  Search forward from cursor position.
X^R  Reverse search from cursor position.
X^X S    Forward incremental search
X^X R    Reverse incremental search
X<ALT> S  Search for the next occurence of the last string (IBM-PC only)
X<ALT> R  Search for the last occurence of the last string (IBM-PC only)
X-------------------------------------------------------------------------
X=>      (4) REPLACING
X
XM-R   Replace all instances of first typed-in string with second
X          typed-in string.  End each string with ESC.
XM-^R  Replace with query.  Answer with:
X    ^G  cancel              .   exit to entry point
X    !   replace the rest        Y    replace & continue
X    ?   Get a list of options   N   no replacement & continue
X-------------------------------------------------------------------------
X=>      (5) CAPITALIZING & TRANSPOSING
X
XM-U UPPERCASE word
XM-C Capitalize word        ^T   Transpose characters
XM-L lowercase word
X^X ^L   lowercase region
X^X ^U   uppercase region
X^Q  Quote next entry, so that control codes may be entered into text
X-------------------------------------------------------------------------
X=>      (6) REGIONS & THE KILL BUFFER
X
XM-<spacebar> set MARK at current position
X^X ^X        eXchange mark and cursor
X
XA REGION will then be continuously-defined as the area between the mark and
Xthe current cursor position.  The KILL BUFFER is the text which has been
Xmost recently saved or deleted.
X-------------------------------------------------------------------------
X=>      (7) COPYING AND MOVING
X
X^W  Delete (Wipe) region       M-W  copy region to KILL buffer
X^Y  Yankback save buffer at cursor
XGenerally, the procedure for copying or moving text is:
X    1)  Mark a REGION using M-<spacebar> at beginning and cursor at end.
X    2)  Delete it (with ^W) or copy it (with M-W) into the KILL buffer.
X    3)  Move the cursor to the desired location and yank it back (with ^Y).
X-------------------------------------------------------------------------
```

```
X=>      (8) MODES OF OPERATION
X^X M    Add mode in buffer             M-M    Add global mode
X^X ^M   Delete mode in buffer          M-^M   Delete global mode
XOVER         Replaces (overwrites) rather than inserts characters
XWRAP         Turns on word wrap (automatic carraige return).
XVIEW         Allows viewing file without insertion and deletion.
XCMODE        Automatic indenting for C program entry
XEXACT/MAGIC  Changes how search and replace commands work (see next page)
X-------------------------------------------------------------------------
X=>      (9) SEARCH AND REPLACE MODES
X
XEXACT   Uppper/lower case is not ignored in searches
XMAGIC   Regular pattern matching characters are active
X           ?   Matches any one character
X           *   Matches any sequence of characters
X    [EXACT MODE NOT READY YET ---- 6/5/86]
X
X-------------------------------------------------------------------------
X=>      (10) ON-SCREEN FORMATTING
X
X^X F         Set fill column
XMn-<tab>Set tab spacing to n charecters between tabs stops
XM-Q     Format paragraph so that text lies between margins
X^X =         Position report -- displays line number, char count,
X                                  file size and character under cursor
XM-^C         Count words/lines/chars in marked region
X-------------------------------------------------------------------------
X=>      (11) MULTIPLE WINDOWS
X
XMany WINDOWS may be active at once on the screen.  All windows may show
Xdifferent parts of the same buffer, or each may display a different one.
X^X 2    Split the current window in two  ^X O Change to next window
X^X 0    delete current window           ^X P    Change to previous window
X^X 1    delete all other windows        M-^V    Page down next window
X                                   M-^Z Page up other window
X-------------------------------------------------------------------------
X=>      (12) CONTROLLING WINDOWS
X
X^X ^    Enlarge current window   M-<n> ^X W   Resize window to <n> lines
X^X ^Z   Shrink current window
X^X ^N   Move window down
X^X ^P   Move window up
XM-^L    Reposition window
X^L      Refresh the screen
X-------------------------------------------------------------------------
X=>      (13) MULTIPLE BUFFERS
XA BUFFER is a named area containing a document being edited.  Many buffers
Xmay be activated at once.
X^X B    Switch to another buffer.  <CR> = use just-previous buffer
X^X X    Switch to next buffer in buffer list
XM-^N    Change name of current buffer
X^X K    Delete a non-displayed buffer.
X^X ^B   Display buffer directory in a window
```

```
X-------------------------------------------------------------------------
X=>      (14) READING FROM DISK
X
X^X ^F   Find file; read into a new buffer created from filename.
X    (This is the usual way to begin editing a new file.)
X^X ^R   Read file into current buffer, erasing its previous contents.
X    No new buffer will be created.
X^X ^I   Insert file into current buffer at cursor's location.
X^X ^V   Find a file to make current in VIEW mode
X-------------------------------------------------------------------------
X=>      (15) SAVING TO DISK
X
X^X ^S   Save current buffer to disk
X^X ^W   Write current buffer to disk
X^X N    Change file name of current buffer
XM-Z Write out all changed buffers and exit MicroEMACS
X
X
X-------------------------------------------------------------------------
X=>      (16) ACCESSING THE OPERATING SYSTEM
X
X^X !    Send one command to the operating system and return
X^X @    Pipe DOS command results to buffer
X^X #    Filter buffer through DOS filter program
X^X C    Start a new command processor under MicroEMACS
X^X D    Suspend MicroEMACS into the background (UNIX BSD4.2 only)
X^X ^C   Exit MicroEMACS
X-------------------------------------------------------------------------
X=>      (17) KEY BINDINGS AND COMMANDS
X
XM-K Bind a key to a command
XM-^K    Unbind a key from a command
X^X ?    Describe command bound to a key
XM-X Execute a named (and possibly unbound) command
X{Describe-bindings}
X    Display a list of all commands and key bindings to a buffer
X-------------------------------------------------------------------------
X=>      (18) COMMAND EXECUTION
XCommands can be specified as command lines in the form:
X    <optional repeat count> {command-name} <optional arguments>
X{Execute-command-line} execute a typed in command line
X{Execute-buffer}  executes commands lines in a buffer
X{Execute-file}        executes command lines from a file
X{clear-message-line}  clears the message line during execution
X   M-~            clears the change flag for a buffer
X-------------------------------------------------------------------------
X=>      (19) MACRO EXECUTION
X
X^X (    Start recording keyboard macro
X^X )    Stop recording keyboard macro
X^X E    Execute keyboard macro
XM-<n> {store-macro}   Start recording named macro
X      [end]       Stop recording named macro
```

```
     X{execute-macro-n} Execute macro n (where n is from 1 to 20)
     X-------------------------------------------------------------------------
     X=>       (20) SPECIAL KEYS
     X
     X^G       Cancel current command and return to top level of processing.
     X^U or         Universal repeat.  May be followed by an integer (default = 4)
     XM-<digit>     and repeats the next command that many times.
     XM-X      Execute a named (and possibly unbound) command
     X
     X
SHAR_EOF
if test 8410 -ne "`wc -c < 'emacs.hlp'`"
then
     echo shar: "error transmitting 'emacs.hlp'" '(should have been 8410
characters)'
fi
fi
exit 0
#    End of shell archive
--
----
          It aint life that gets me down, it's gravity

Name:     James M. Turner
Mail:     Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T:     (408) 986-9400
UUCP:     ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie     : D-ARCANGEL


From -9107823230414928473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91662c0253f25aa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 15:59:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!RNEWTON
From: RNEWTON@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: EasyDraw Output
Message-ID: <860828185921.0000025E.ALCY.MA@UMass>
Date: Thu, 28-Aug-86 18:59:21 EDT
Article-I.D.: UMass.860828185921.0000025E.ALCY.MA
Posted: Thu Aug 28 18:59:21 1986
Date-Received: Fri, 29-Aug-86 23:56:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Does anyone out there have, know of, or know how to create a replacement
for the FX80.sys file that will drive a C-Itoh Prowriter 8510?  I hate
```

to think of trashing a very good printer to use one piece of software.
Rick Newton
University of Massachusetts - Amherst

From -4602775499566889162
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cc5af5fe621185c0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 16:37:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!drutx!druhi!wpc
From: wpc@druhi.UUCP (ChristmasWP)
Newsgroups: net.micro.atari16
Subject: ST crashing/resetting/disk errors
Message-ID: <933@druhi.UUCP>
Date: Thu, 28-Aug-86 19:37:31 EDT
Article-I.D.: druhi.933
Posted: Thu Aug 28 19:37:31 1986
Date-Received: Sun, 31-Aug-86 05:03:50 EDT
Organization: AT&T Information System Labs, Denver, Co
Lines: 35

<Summary: here's one way to fix it, are there better ways?>

I have an early 520 ST with the new ROMS and the 1Meg upgrade.
For the past month (since the ROM upgrade), the system has been
crashing frequently. The crashes have come in the form of lockups,
spontaneous resets and the disk suddenly appearing to have nothing on it.
None of these things were permanently fatal; time, repowering
or jarring the ST would temporarily fix the problem.

Anyway, after much fooling around, I discovered
that the voltage to my ICs was low (about 4.8 volts).
I assume the extra bank of RAMs and extra ROMS (it was shipped with
just the two) caused excessive current drain.
In poking around, I noticed there was a choke in the path of the
5 volts that was not in the developer's kit schematics
(L29 or L39 I think). This choke had a DC resistance of about
1/2 ohm and with my system had a voltage drop of about .4 volts
under load. My current fix to the problem was to place another
choke (of high AC impedence and about 1/2 ohm DC impedence) in
parallel with the first. This reduced the DC drop across the
inductor and raised my IC voltages to 5.0 volts.

The questions- Do all STs have this inductor? What's it for?
Any idea of what it's value is supposed to be (both DC and AC impedance)?
Am I effecting anything else by changing the value of this inductor?
Is my problem really a low voltage coming in from my power supply
(I have the older style power supply), or is it that inductor?

The system has behaved much better since I made the change, but I'd
love to know if there's a better/safer fix!

Thanks!
     Walt Christmas
     AT&T Denver
     ...!druhi!wpc

From -9150772370577366846
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16f39e7fc530c04d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 17:46:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET (Mike V.)
Newsgroups: net.micro.atari16
Subject: Bravo!!!!!
Message-ID: <8608290222.AA11065@ucbvax.Berkeley.EDU>
Date: Thu, 28-Aug-86 20:46:41 EDT
Article-I.D.: ucbvax.8608290222.AA11065
Posted: Thu Aug 28 20:46:41 1986
Date-Received: Fri, 29-Aug-86 05:43:08 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

I have finally, after many attempts, received a uuencoded file thru BITNET
which I could uudecode and run. Who is the lucky person who accomplished such
a monumental action? Simon Poole. Thank you Simon for wonderful foresight
and understanding of the problem with uuencoded programs. The problem? Others
may ask. Yes, the problem I experience (due to some gateway) is two:

1) Tab expansion. None of the proff files I receive ever shell correctly
    due to this problem.
2) IBM machines love to pad lines to 80 columns. What does this mean? This
    means that uuencoded programs having trailing spaces added (which I remove
    when I receive them on the 3B20) do not uudecode correctly. Nor do the
    ones with the spaces left on. Not until Simon hit upon the key.

Solution: add an extra letter at the end of every line in a uuencoded file
           sent over BITNET, to insure that the contents are not altered.

BRAVO!! BRAVO!!! BRAVO!!!!
I can only too heartily recommend that everyone who sends files should adopt
this method.
    Ah yes, and now his program...
I like it very much. It is excellent public domain software, as it is now.
If he were to market it, the program would certainly have a place, seeing that
ansigraf is like it, and does not really have all the same features.

Again, thank you Simon.

Mike V.

From -8250573654061922695
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65f0eb474b23c417
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 19:35:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Division problem with Lattice C
Message-ID: <8608290225.AA02876@mitre-bedford.ARPA>
Date: Thu, 28-Aug-86 22:35:11 EDT
Article-I.D.: mitre-be.8608290225.AA02876
Posted: Thu Aug 28 22:35:11 1986
Date-Received: Fri, 29-Aug-86 05:43:26 EDT
References: <199@nikhefh.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

Anyone who tries to write a prime factorization program is silly because
primes have only the trivial factors 1 and p where p is the prime in question.

(!)

-John Sangster
jhs@mitre-bedford.arpa

From 5771955636550492204
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1e5b8d2bf4314733,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 20:00:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-
THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: To Mike Vederman
Message-ID: <12234555554.24.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Thu, 28-Aug-86 23:00:53 EDT
Article-I.D.: DEEP-THO.12234555554.24.UC.BRI
Posted: Thu Aug 28 23:00:53 1986
Date-Received: Fri, 29-Aug-86 05:44:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

This letter is in reply to Mike Vederman, because I couldn't reply directly. Sorry for any inconvenience.

Mike, you got the button down solution right on the nose. If you add an evnt_timer call to the evnt_button, you can avoid the problem of vq_mouse posting events. Thanks for the help.

--- Bri

From -2764213312259976858
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-28 22:11:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <744@aum.UUCP>
Date: Fri, 29-Aug-86 01:11:01 EDT
Article-I.D.: aum.744
Posted: Fri Aug 29 01:11:01 1986
Date-Received: Sat, 30-Aug-86 10:08:58 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP>
Organization: The Aurora Systems Bunch
Lines: 17
Xref: mnetor net.micro.atari16:1773 net.micro.amiga:4460 net.micro.68k:1180

> The delay from RAS to CAS required/accepted by most DRAMS is about the same
> is running the address lines thru a mapping ram or adder/comparator based mmu.
> Addresses and function codes precede AS by half a clock giving a little more
> head room. RAS can be started without knowing if the translation will be
> valid, since witholding CAS is a refresh cycle.
>

The basic arguments seem real sound as presented by this gentlemen and
I myself wondered why it would be so difficult to add memory management.
I wish that he had worked on the ST!!.
--

Erik James Freed
Aurora Systems

San Francisco, CA
ptsfa!aum!freed

From -7009310586226047869
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,f5b05b858197c32c,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,f5b05b858197c32c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-29 05:26:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc L. Appelbaum)
Newsgroups: net.micro.atari16,net.micro.atari8
Subject: Atari Explorer
Message-ID: <5629@topaz.RUTGERS.EDU>
Date: Fri, 29-Aug-86 08:26:17 EDT
Article-I.D.: topaz.5629
Posted: Fri Aug 29 08:26:17 1986
Date-Received: Fri, 29-Aug-86 21:22:47 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 5
Keywords: Does it still exist????
Xref: mnetor net.micro.atari16:1759 net.micro.atari8:393
Cc: appelbau@topaz.rutgers.edu,appelbaum@blue.rutgers.edu

I remeber that a while ago Neil Harris said that Atari Explorer was
going to be published by a couple of people in NJ and was to be out in
July. Well it's now late August and I haven't seen anything about
Atari Explorer. Is Atari Explorer going to be published in the near
future? If so when?

From 8987893069321849641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-29 09:01:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!think!mit-eddie!mit-hermes!mit-prep!tmb
From: tmb@mit-prep.ARPA (Thomas M. Breuel)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <71@mit-prep.ARPA>
Date: Fri, 29-Aug-86 12:01:52 EDT
Article-I.D.: mit-prep.71
Posted: Fri Aug 29 12:01:52 1986

Date-Received: Fri, 29-Aug-86 23:26:22 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <653@cbmvax.cbmvax.cbm.UUCP>
<270@dmsd.UUCP> <7578@tekecs.UUCP>
Reply-To: tmb@prep.UUCP (Thomas M. Breuel)
Organization: The MIT AI Lab, Cambridge, MA
Lines: 19
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1762 net.micro.amiga:4449 net.micro.68k:1177

||Consider that (for) a simple paging mmu... we are talking under $45 at
||the shelf. This is the difference between the ST being a game machine and
||having the support for process issolation and error detection for a strong
||bussiness machine.
|
|I don't quite buy that. Look at the #1 business machine -- what kind of MMU
|does it have? The Atari has just about the same features as the IBM PC --
|including lack of reasonable system software. The Amiga at least made an
|attempt to make up for the lack of an MMU with good system software.

The IBM PC has a better MMU than the Atari. While segment registers
are awfully annoying if you try to program the 8088 as a machine with
a 20 bit address space, they do provide you with a memory model that
is very similar to the PDP-11 with separate I/D. That is probably
one of the reasons why there is UN*X for the IBM PC but not for the
Atari. You can achieve a similar effect by using only indexed addressing
on a 68000, but on a 68000 you really lose a lot by doing so.

Thomas.

From 2430109337571504026
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-29 11:16:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!pyramid!chronon!eric
From: eric@chronon.UUCP (Eric Black)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <339@chronon.chronon.UUCP>
Date: Fri, 29-Aug-86 14:16:21 EDT
Article-I.D.: chronon.339
Posted: Fri Aug 29 14:16:21 1986
Date-Received: Fri, 29-Aug-86 23:23:15 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
Reply-To: eric@chronon.UUCP (Eric Black)
Organization: (none)
Lines: 55

Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1760 net.micro.amiga:4445 net.micro.68k:1175

In article <510@elmgate.UUCP> jdg@elmgate.UUCP (Jeff Gortatowsky) writes:
>In article <64@mit-prep.ARPA>, tmb@mit-prep.ARPA (Thomas M. Breuel) writes:
>> However, an MMU has other uses besides paging, e.g. to protect processes
>> from one another, to help utilise memory more efficiently, and
>> to allow swapping and process duplication (a la fork(1); you can't
>> implement fork(1), in general, on the 68000 without an MMU).
>>
>> I consider it a grave mistake not to have included even a rudimentary kind
>> of address remapping on the Amiga; even just an adder on the address lines
>> of the 68000 would have simplified the system software and allowed some
>> kind of swapping to be hacked.
>>
>>   Thomas.
>
>I understand your first paragraph completely. But you lost me on the second.
>I can see where a MMU that provides protection only would be useful but
>address mapping is still of no use. Not without a 68010, admittedly an
>easy upgrade, but not provided. If you mapped a some address block to
>another would you not HAVE to ensure it was a legal RAM/ROM address? One
>faulty address and your back to GURU type crashes, yes?   I guess it be
>nice to learn from you what type of paging you could implement with just an
>adder, etc. Enlighten me. Mail if you must. Post if it seems of general
>interest to all 68000 based machines.

Just recently there was a fair amount of discussion in net.micro.amiga
about the difficulties of making shareable code. One of the biggest
difficulties is generating code which can use distinct parts of memory
for data for each of the processes/tasks/threads/whatever sharing the
one copy of the code. There are ways of doing this for the 68K, but
unfortunately none of the compilers currently available for the Amiga
do this well, if at all. Protection issues aside, it sure would be
nice to be able to compile & link my program so that it uses a data
segment starting at some particular address which gets mapped by
something MMU-like to the address of a memory block allocated by the
OS when I start to run the program.

And hey, I could do that for the code, too, and keep executable images
on the disk as a memory image, instead of a "hunk" file, so that
loading the program consists of allocating memory, reading from
the disk into memory, setting the memory map correctly, and going.
The hunk scheme used by the Amiga results in the CPU having to touch
everything when loading a program, even if you had a hard disk with
fast DMA.

There are real advantages to be had from a simple address mapping
scheme. Protection is nice, especially on a multitasking machine,
but is a separate issue. Demand paging, implying the ability to
restart an instruction which faulted, is yet another separate issue.

--

Eric Black   "Garbage In, Gospel Out"
UUCP: {sun,pyramid,hplabs,amdcad}!chronon!eric
    >>>> after Sept 1: <<<<
             {sun,pyramid,hplabs,amdcad}!cti!eric
                                        ^^^

From 4086369705432603148
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-29 16:45:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!cit-vax!cit-vlsi!wen-king
From: wen-king@cit-vlsi.Caltech.Edu (Wen-King Su)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <937@cit-vax.Caltech.Edu>
Date: Fri, 29-Aug-86 19:45:02 EDT
Article-I.D.: cit-vax.937
Posted: Fri Aug 29 19:45:02 1986
Date-Received: Fri, 29-Aug-86 23:25:04 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP>
Sender: news@cit-vax.Caltech.Edu
Reply-To: wen-king@cit-vlsi.UUCP (Wen-King Su)
Organization: /usr/lib/news/organization
Lines: 12
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1761 net.micro.amiga:4447 net.micro.68k:1176

<<->>

This is only a note on John Bass's article about a way to do virtual
memory with little or no extra cost in time. There is a catch to
hiding MMU operations between RAS and CAS, though I do not know whether
this applies to the ST. The high speed CAS only block transfer
operation available in many DRAMs is rendered useless since contiguous
column addresses in a DRAM chip are no longer contiguous in 68K's
address space. I am not familiar with the graphic hardware of the ST,
but the block transfer modes of the DRAM chips are well suited for high
speed sequential access of blocks of memory that is typical to bitmap
graphic systems.

From 4754884450168217424
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4717fadabddcc108,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-08-29 21:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Atari GST
Message-ID: <MDCG.WAYNE.12234830139.BABYL@MIT-OZ>
Date: Sat, 30-Aug-86 00:09:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12234830139.BABYL
Posted: Sat Aug 30 00:09:00 1986
Date-Received: Sat, 30-Aug-86 04:55:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 33

More rumor mill material: this sounds too good to be true (I wonder if Neil could comment):

Compute's Atari ST, October 1986, p. 10, ST News & Notes:

Overheard during dinner at Pacific Fresh, a Sunnyvale seafood eatery just a stone's throw from Atari Headquarters on Borregas Avenue:

Atari's next computer will attempt to penetrate Fortune 500 companies in a big way. To be announced and shown in November at the Winter Computer Dealer Exposition (COMDEX) in Las Vegas, the Atari GST (the actual name varies depending on the day of the week) will be driven by a 32-bit 68020 microprocessor with a whopping four megabytes of memory. A two-meg version of the GST may be shown in the U.S., but will probably be marketed only in Europe.

The GST's operating system will be a System V-compatible Unix, although a hardware switch will allow the system to be booted in ST mode to run ST software. A 20- or 30-megabyte hard disk drive will be standard along with an MS-DOS emulator and built-in networking capabilities.

Even more interesting is the GST's monochrome-only screen display, which will be vertically oriented and boast a resolution of 1024 x 1024 pixels for true workstation quality. It's said to include most of the functionality of AT&T's BLIT (Bell Labs Intelligent Terminal).

At this point, Atari hopes to start shipping the GST by the end of the second quarter in 1987. T-NET networking software is planned to be available in the third quarter.

The price of this package should send severe shock waves throughout the industry: Watch for a sticker price around $1,995 to $2,495, plus a network-capable laser printer for about $1,000.

From -3692260530198899525
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,9bff1c725c6405be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-29 23:14:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!cbatt!cbosgd!ucbvax!
UMIX.CC.UMICH.EDU!hyc
From: hyc@UMIX.CC.UMICH.EDU (Howard Chu)
Newsgroups: net.micro.atari16
Subject: Re: KERMIT UPLOAD PROBLEM WITH AVATEX MODEM
Message-ID: <8608300614.AA17402@umix.cc.umich.edu>
Date: Sat, 30-Aug-86 02:14:10 EDT
Article-I.D.: umix.8608300614.AA17402
Posted: Sat Aug 30 02:14:10 1986
Date-Received: Sat, 30-Aug-86 10:03:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

You always have to specify image mode when using mainframe Kermits.
They default to text mode, which for Unix systems means a single
line feed delimits lines, whereas most other systems use both a
carriage return and a line feed. If you transfer a file using text
mode, the Unix Kermit looks for line feeds and replaces them with
CR/LF sequences. If you want to send a file with absolutely no
translation of the data, you use image mode. (Boy, if you really
want to get screwed up, try Kermitting to an IBM style system that
uses EBCDIC! Then the difference between Text mode and Image mode
becomes *really* obvious...)
  -- Howard Chu
     hyc@umix.cc.umich.edu

From 181286696634321674
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-30 00:07:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <678@cbmvax.cbmvax.cbm.UUCP>
Date: Sat, 30-Aug-86 03:07:06 EDT
Article-I.D.: cbmvax.678
Posted: Sat Aug 30 03:07:06 1986
Date-Received: Sat, 30-Aug-86 10:11:55 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP> <937@cit-vax.Caltech.Edu>

Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 28
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1774 net.micro.amiga:4461 net.micro.68k:1181

In article <937@cit-vax.Caltech.Edu> wen-king@cit-vlsi.UUCP (Wen-King Su) writes:
><<->>
>
>This is only a note on John Bass's article about a way to do virtual
>memory with little or no extra cost in time. There is a catch to
>hiding MMU operations between RAS and CAS, though I do not know whether
>this applies to the ST. The high speed CAS only block transfer
>operation available in many DRAMs is rendered useless since contiguous
>column addresses in a DRAM chip are no longer contiguous in 68K's
>address space. I am not familiar with the graphic hardware of the ST,
>but the block transfer modes of the DRAM chips are well suited for high
>speed sequential access of blocks of memory that is typical to bitmap
>graphic systems.

This isn't really too much of a problem, since implementing page mode
operations for the processor is really not much fun without some clues
from the cpu (see Fairchild Clipper and Z80,000). The big loss is with
graphics, especially with video DRAM, since you loose the linear relation
between addresses and shift-register or page mode accesses.

Of course one can argue that the display memory need not be relocated,
perhaps just protected via a storage key of some sort, but then your
system is starting to get complicated...

--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -7501145849752828227
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,506b3ac6b44dc549,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-30 16:25:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: make!
Message-ID: <2201@gitpyr.UUCP>
Date: Sat, 30-Aug-86 19:25:26 EDT
Article-I.D.: gitpyr.2201
Posted: Sat Aug 30 19:25:26 1986
Date-Received: Tue, 9-Sep-86 23:50:08 EDT
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology

Lines: 27
Keywords: make source st .prg bug

Where are you?

Can anyone out there supply me with the sources to the MAKE.PRG
distributed in the STarter kit? (or better yet, one which has been
fixed...)

I'm trying to use make for modula-2, and the MAKE.PRG I have, doesn't
seem to run .PRG (GEM) files properly. Also, TDI's command line
interface seems screwy in that the compiler doesn't append the current
drive:directory to the command line file name. So, the compiler never
finds the file on the first try and tries to query the user (poor
me...) Since MAKE didn't launch the compiler properly (the .TTP cursor
is still blinking!) I can't interact with the compiler.

Result: REBOOT!

I'l post the fixed MAKE if someone would be kind enough to send me source.

=-=
If the facts do not conform to the theory, they must be disposed of.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From 7115393564839685044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-30 20:48:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!jeff
From: jeff@gatech.CSNET (Jeff Lee)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <4422@gatech.CSNET>
Date: Sat, 30-Aug-86 23:48:29 EDT
Article-I.D.: gatech.4422
Posted: Sat Aug 30 23:48:29 1986
Date-Received: Sun, 31-Aug-86 05:07:51 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP> <937@cit-vax.Caltech.Edu>

Reply-To: jeff@gatech.UUCP (Jeff Lee)
Organization: School of Information and Computer Science, Georgia Tech, Atlanta
Lines: 23
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1777 net.micro.amiga:4474 net.micro.68k:1182

In article <937@cit-vax.Caltech.Edu> wen-king@cit-vlsi.UUCP (Wen-King Su) writes:
>   The high speed CAS only block transfer
>operation available in many DRAMs is rendered useless since contiguous
>column addresses in a DRAM chip are no longer contiguous in 68K's
>address space.

If you are talking about nibble-accessible rams, the ones that I saw
operate only on mod-4 boundaries and each time you strobe the CAS they
return the next bit circularly (mod-4). Since the memory management
schemes that I am familiar with use 2^N boundaries (N > 2), this should
be no problem. But then, you might be talking about another (even newer)
type of ram that I'm not familiar with.

Speaking of which, does anyone know of a REAL (ie - available off the
shelf, now) system that actually uses the nibble mode of some of the
newer rams. It looks like a great way to load your cache quickly with
some of the bus-hog multiprocessors that are becoming available now
(Encore, Sequent, etc...). They already load 64 bits of memory at a time
onto the separate processor cards when they need to hit main memory.
--
Jeff Lee
CSNet: Jeff @ GATech   ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

From -6731041958471480530
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-31 03:20:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <1045@hoptoad.uucp>
Date: Sun, 31-Aug-86 06:20:39 EDT
Article-I.D.: hoptoad.1045
Posted: Sun Aug 31 06:20:39 1986
Date-Received: Sun, 31-Aug-86 10:03:34 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<4422@gatech.CSNET>
Organization: Nebula Consultants in San Francisco

Lines: 28
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1778 net.micro.amiga:4480 net.micro.68k:1183

In article <4422@gatech.CSNET>, jeff@gatech.CSNET (Jeff Lee) writes:
>>   ...contiguous
>>column addresses in a DRAM chip are no longer contiguous in 68K's
>>address space.
>If you are talking about nibble-accessible rams...

There are many types of RAMs where accessing columns is faster than
accessing rows. Nibble mode, where you can toggle CAS and get out 4
bits; page mode, where you can drop CAS, set up a new column address,
and enable CAS again; and static column mode, where you can just change
the column address on the fly, wait the column access time, then look
at the data. There are also video RAMs which scan data out serially by
columns.

>   ...does anyone know of a REAL (ie - available off the
> shelf, now) system that actually uses the nibble mode of some of the
> newer rams...

I do not remember if the new cached Sun uses nibble mode (or other
fast column mode) RAMs.

Part of the problem is that designers don't want to require nibble mode
RAMs, since they usually cost more than "any old RAMs". Designing to
the least common denominator in RAMs [modulo what speed you need]
is very useful for reducing prices.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -4933350259146443445
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ecec0f674414fa4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-31 05:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: MS-DOS emulator wish
Message-ID: <8608311252.AA04449@ucbvax.Berkeley.EDU>
Date: Sun, 31-Aug-86 08:47:00 EDT
Article-I.D.: ucbvax.8608311252.AA04449
Posted: Sun Aug 31 08:47:00 1986
Date-Received: Sun, 31-Aug-86 19:59:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 28

I've a question for the Atari folks about the MS-DOS emulator. Will this device be interruptable from the ST? It would be very useful for the ST to work with it like a debugger board. For example, I write a program for the MS-DOS environment and wnat to debug it, but my code bombs under MS-DOS and I can't find why. Enter the ST. With a simple double click on the right mouse button, the ST stops the 8088 and saves its state. An MS-DOS debugger takes over on the ST side and displays the line of errant code with the SEGMENT:ADDRESS. This would let the ST run as a Periscope (c)? type product. I've used a few co-processors before, and the most annoying problem with them is the lack of programming control that the host has over the parasite board. I think this debugger suggestion is useful because many of the ST users who would buy the emulator want it for software development. I know I would sure appreciate a feature like this for the times when I need to write an MS-DOS utility but don't want to go into the office and scrounch up a machine. Who in her right mind would want to run PC software when she had an ST?

BTW: I ordered my 1040 ST from a local dealer one month ago. The hard drive came in in a week. But the dealer *swears* ATARI will not return his calls or give him a definite delivery date. To coin a phrase, "I want my ST!"

Robert Royar
Department of English
University of Louisville
Louisville, KY 40292

BITNET: rdroya01@ulkyvx

From -6373946549250777649
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-31 18:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <686@cbmvax.cbmvax.cbm.UUCP>
Date: Sun, 31-Aug-86 21:37:00 EDT
Article-I.D.: cbmvax.686
Posted: Sun Aug 31 21:37:00 1986
Date-Received: Mon, 1-Sep-86 02:43:12 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<417@atari.UUcp> <271@dmsd.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA

Lines: 40
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1780 net.micro.amiga:4490 net.micro.68k:1184

In article <271@dmsd.UUCP> bass@dmsd.UUCP (John Bass) writes:
>
[omitted - description of simplified Sun derivative MMU design]
>
>MMU's are left out of toy computers because toy engineers don't know how
>to design real computers -- NOT because they take to much time (the above
>solves that problem) or because they cost too much (two mapping rams cost
>less than $10 in volume, and the rest of the circuit could have been dumped
>into the custom parts or pals already on the board -- an adder/comparator
>design could have been placed in the custom parts for nearly zero additional
>production cost). Ditto for memory parity.
>
>John Bass (DBA:DMS Design)

Gee John, around here we smile when we say 'Toy Computer...'.

I think you are making a mistake in confusing intent with ability. The
engineers working at the consumer level would love to slip in an MMU function,
but when the time comes to meet to cost criteria, it gets crossed out with a
long sigh. The cuts are on dime and dollar issues, let alone a ten!

The engineers in Shivji's gang, prior to moving to Atari were working on a
Z8000 based game/graphics/unix type box. It had a MMU, which coincidentally
did translation in the RAS/CAS delay. The ST can be viewed as a 68000 based
derivative of this effort.

The Amiga, on the other hand, consists of a high-performance graphics processor
complex, memory and display, with a 68000 added on to tickle the graphics chips
and interface to the real world. In a sense the software exists to drive the
engine, not the engine existing to run some generic software.

The real obstacle to putting in an MMU is the lack of any real world software
at that level that would make it seem a neccessary item. Unix tends to make
the minumum machine too expensive (hard disk and license fees). With two years
of hindsight, OS/9 68K level 2 might look like a good choice, but even now,
Microware doesn't seen too speedy in delivering their Amiga and ST ports.
--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -6130025036737026335
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa050a8d45bc0a4c,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 129c11,fa050a8d45bc0a4c,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 11946d,fa050a8d45bc0a4c,start

X-Google-Attributes: gid11946d,public
X-Google-Thread: 142096,fa050a8d45bc0a4c,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,fa050a8d45bc0a4c,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-08-31 20:11:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!inuxc!iuvax!ndmath!milo
From: milo@ndmath.uucp (Greg Corson)
Newsgroups: net.micro.amiga,net.micro.mac,net.micro.atari16,net.micro,net.dcom
Subject: Unix Based BBS
Message-ID: <135@ndmath.uucp>
Date: Sun, 31-Aug-86 23:11:18 EDT
Article-I.D.: ndmath.135
Posted: Sun Aug 31 23:11:18 1986
Date-Received: Tue, 2-Sep-86 02:02:48 EDT
Organization: Notre Dame University, Math Department
Lines: 53
Xref: mnetor net.micro.amiga:4496 net.micro.mac:6871 net.micro.atari16:1782
net.micro:5964 net.dcom:1235

I run a Unix Based multiline BBS system which features a wide variety of discussion groups (over 50) on various computer and non-computer topics. We also feature a download section with good support for Commodore and Macintosh computers (with growing support for the Amiga and Atari ST). The system is up 24 hours a day, 7 days a week on 5 telephone lines. All lines support both 300 and 1200 baud communications.

In addition to the BBS and downloads we currently have a game of "old empire" on line. Anyone may play but the game is limited to 32 players and currently has a short waiting list. For info on empire checkout net.games.empire.

Obviously a system of this size is not cheap to keep running so we do charge a monthly fee of $5 which goes towards paying the phone company (those business lines are expensive!), maintaining the hardware and slowly paying off the purchase price of the computer & modems and other expenses. The monthly fee may go up somewhat in the comming months because of telephone rate hikes, call the BBS for current information.

We have one of our phone lines available for limited free use by nonsubscribers who want to see what our system looks like. The line allows you to look at all our current discussion groups and our download section...but you may not write messages or download programs without a subscription.

The free demo number is (219) 277-5825 300/1200 baud 24 hours

If you want to subscribe please try to call the free demo number and read the introduction to the system first. We normally do not acknowledge the recept of a subscription other than by crediting it to your account (at these prices we can't afford to phone or write everyone). If you need a recept please send a stamped self-addressed envlope.

NOTE

Please don't flame me for a "commercial posting" the system described above just makes enough money to pay the operational expenses, it's not really a commercial venture (it doesn't make a profit or pay me a salary). The system was originally intended to be developed into a national on-line service like Compuserve or Genie but we have not been able to locate anyone interested in investing in the project yet (hint-hint anyone interested?)

The software is for sale <this bit is a little commercial but I include it because everyone always asks> but only as a custom-installed system taylored to a particular applications needs. (it's great for customer support systems)

If you send me net mail please use the address below, don't mail to the address in the article header, or your mail might get lost.

Greg Corson
Kangaroo Koncepts, Inc.
19141 Summers Drive
South Bend, IN 46637
Voice phone (weekdays till 5:00 pm): (219) 277-5306

UUCP: {pur-ee | seismo}!iuvax!kangaro!milo

From 2342141158011041688
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,10878c721a919dee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-01 00:22:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: UNITERM
Message-ID: <8609010722.AA11907@ucbvax.Berkeley.EDU>
Date: Mon, 1-Sep-86 03:22:58 EDT
Article-I.D.: ucbvax.8609010722.AA11907
Posted: Mon Sep 1 03:22:58 1986
Date-Received: Mon, 1-Sep-86 23:04:08 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

To all who have sent mail to me, I will anwser it! I've just forgot how to send mail to UUCP, as soon as I have figured it out again, I'll answer your requests.

Simon Poole.
K538915@CZHRZU1A.BITNET

From -725508171241261521
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4717fadabddcc108
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-01 19:35:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Atari GST
Message-ID: <8609020232.AA09735@mitre-bedford.ARPA>
Date: Mon, 1-Sep-86 22:35:52 EDT
Article-I.D.: mitre-be.8609020232.AA09735
Posted: Mon Sep 1 22:35:52 1986
Date-Received: Tue, 2-Sep-86 20:45:19 EDT
References: <MDCG.WAYNE.12234830139.BABYL@MIT-OZ>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 4

Guess it just shows ta go ya that ya gotta be careful what ya talk about over
lunch in Sunnyvale. Assuming it was all true and not just disinformation!

-jhs

From -7687790909891962550
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3e984da7afc14ae8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 07:26:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: On-line Spelling Checkers?
Message-ID: <4597@pur-ee.UUCP>
Date: Tue, 2-Sep-86 10:26:08 EDT
Article-I.D.: pur-ee.4597
Posted: Tue Sep 2 10:26:08 1986
Date-Received: Tue, 2-Sep-86 21:54:59 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 25
Keywords: spelling checkers VT-52 real-time

<<<< >>>>

Help!
  My spelling is really pretty poor, and I would like to have an
on-line spelling checker on my side in the war against typos. The
environment I want to use is the vt-52 (or st-52) terminal emulator
desk accessory. I am using my 520ST (1 Meg, TOS in ROM, 2 SS drives,
Monochrome) as a very nice, and intelligent terminal to a Vax 11/780
running 4.3BSD. I use vi on the vax and would like to have something
on the atari that checks my spelling in real time.
  I have looked at Thunder (copyright by someone) and I am not sure

if it is capable of being used with the terminal emulator desk
accessory. I have looked at hippospell and I don't think that it
is a real time spelling checker. I really have to have it real-time
and while using the terminal emulator.
  Please! anyone! with any ideas, or personal experience with
Thunder or the like, let me know.

         Any response is greatly appreciated!
              Thanks,
              Bob

   ...inhp4!pur-ee!beatyr   <- usenet
   beatyr@ed.ecn.purdue.edu <- apra-net

From -1062270640621801956
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 07:35:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!jeff
From: jeff@gatech.CSNET (Jeff Lee)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <4455@gatech.CSNET>
Date: Tue, 2-Sep-86 10:35:39 EDT
Article-I.D.: gatech.4455
Posted: Tue Sep 2 10:35:39 1986
Date-Received: Tue, 2-Sep-86 21:30:58 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<4422@gatech.CSNET> <1045@hoptoad.uucp>
Reply-To: jeff@gatech.UUCP (Jeff Lee)
Followup-To: net.micro.68k
Organization: School of Information and Computer Science, Georgia Tech, Atlanta
Lines: 52
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1788 net.micro.amiga:4509 net.micro.68k:1185

In article <1045@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>>
>>   ...does anyone know of a REAL (ie - available off the
>> shelf, now) system that actually uses the nibble mode of some of the
>> newer rams...
>
>I do not remember if the new cached Sun uses nibble mode (or other
>fast column mode) RAMs.
>

>Part of the problem is that designers don't want to require nibble mode
>RAMs, since they usually cost more than "any old RAMs". Designing to
>the least common denominator in RAMs [modulo what speed you need]
>is very useful for reducing prices.

Speaking of the new SUN, I just saw it come through "The Monthly Report" in the August UNIX Review. For folks who may not have seen it, here are (what I consider to be) the highlights.

> "Designed to address those traditional scientific/engineering tasks that tend to be computebound (such as electrical and mechanical CAD, geophysical analysis and AI), the SUN-3/200 series features the 25 MHz 68020, a 20 MHz 68881 floating point co-processor, and a proprietary MMU."
>
> ... talk of 4 MIPS integer performance ...
>
> "Also available is SUN's optional Floating Point Accelerator (FPA) which is said to perform 32 and 64-bit floating point calculations at rates as high as 865 KFLOPS, according to the workstation vendor."
>
> "To maximize throughput, the machine has a 64 KB virtual-address, write-back memory cache and 64-bit processor-memory bus. The 3/200 also comes with up to 32 MB of memory, and -- with teh use of four of SUN's new 575 MB disks -- up to 2.3 GB of mass storage capapcity."
>
> "SUN is showing the new machines at trade shows this month (AAAI and SIGGRAPH), and is promising shipment within 90 days. The price on the SUN-3/260HM (high-resolution monochrome) base system, including 12-slot card cage and 8 MB memory, is pegged at $33,900; with a 280 MB disk drive and 1/4-inch tape, the cost goes up to $51,500. The base configuration for the 3/260C (color) station is $44,900; with disk and tape, $62,500."

Since this may not thrill atari and amiga folks, I restricted followups to this message to net.micro.68k.

> Enjoy...

--
Jeff Lee
CSNet: Jeff @ GATech ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

From -4384061125245657891
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,fa050a8d45bc0a4c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 11946d,fa050a8d45bc0a4c
X-Google-Attributes: gid11946d,public
X-Google-Thread: 142096,fa050a8d45bc0a4c
X-Google-Attributes: gid142096,public

X-Google-Thread: 129c11,fa050a8d45bc0a4c
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,fa050a8d45bc0a4c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 07:54:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!chinet!randy
From: randy@chinet.UUCP (randy)
Newsgroups: net.micro.amiga,net.micro.mac,net.micro.atari16,net.micro,net.dcom
Subject: Re: Unix Based BBS
Message-ID: <530@chinet.UUCP>
Date: Tue, 2-Sep-86 10:54:50 EDT
Article-I.D.: chinet.530
Posted: Tue Sep 2 10:54:50 1986
Date-Received: Tue, 2-Sep-86 21:55:12 EDT
References: <135@ndmath.uucp>
Reply-To: randy@chinet.UUCP (Randy Suess-)
Organization: chi-net, Public Access UN*X, Chicago IL
Lines: 41
Xref: mnetor net.micro.amiga:4510 net.micro.mac:6875 net.micro.atari16:1790
net.micro:5971 net.dcom:1237

In article <135@ndmath.uucp> milo@ndmath.uucp (Greg Corson) writes:
>I run a Unix Based multiline BBS system
>
>Obviously a system of this size is not cheap to keep running so we do charge a
>monthly fee of $5 which goes towards paying the phone company (those business
>lines are expensive!), maintaining the hardware and slowly paying off the
>purchase price of the computer & modems and other expenses. The monthly fee
>may go up somewhat in the comming months because of telephone rate hikes, call
>the BBS for current information.
>We have one of our phone lines available for limited free use by nonsubscribers
>who want to see what our system looks like.
>
>Greg Corson
>Kangaroo Koncepts, Inc.
>19141 Summers Drive
>South Bend, IN 46637
>Voice phone (weekdays till 5:00 pm): (219) 277-5306
>
>UUCP: {pur-ee | seismo}!iuvax!kangaro!milo

I, too, run a Public access UN*X system. It has been running over two years now. It consists of an AT&T 3b2/300 with 8 phone lines. We run the PicoSpan conferencing system (The same program The WELL runs) plus full access to UNIX. 4 of the lines are available to any interested person, with access to UNIX, and PicoSpan. Guests do not have access to usenet or off site mail. There are also two contributor only lines. Contributors ($50 a year) have access to off site mail (uucp) and usenet. I also have two dedicated uucp lines. (I feed news to a number of large sites). All modems are 300/1200/2400 baud.

Main guest number is 312 283-0559.

--
.. that's the biz, sweetheart...
Randy Suess
chinet - Public Access UN*X
(312) 545 7535 (h) (312) 283 0559 (system)
..!ihnp4!chinet!randy

From 2766690216682877844
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cc5af5fe621185c0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 08:15:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: ST crashing/resetting/disk errors
Message-ID: <8609021508.AA25295@mitre-bedford.ARPA>
Date: Tue, 2-Sep-86 11:15:40 EDT
Article-I.D.: mitre-be.8609021508.AA25295
Posted: Tue Sep 2 11:15:40 1986
Date-Received: Tue, 2-Sep-86 21:09:17 EDT
References: <933@druhi.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

(For what it's worth, possibly but not necessarily equal to what it cost)...
Your fix sounds eminently reasonable to me. The choke might be for RFI and
spike protection. Finding a better choke (same inductance, lower series R)
might be still better, as shunting the existing choke will reduce the
inductance as well as the series resistance. The only penalty then may be
the cost of the choke, which is probably not a problem if viewed as part of
the cost of the upgrade. Shucks, even buying a heftier power supply would be
a cheap way to get a 1MB ST, starting from the current $495 price of the 520!

-John Sangster
jhs@mitre-bedford.arpa

From -4793620022066352751
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 08:22:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)

Newsgroups: net.micro.atari16
Subject: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers
Message-ID: <514@elmgate.UUCP>
Date: Tue, 2-Sep-86 11:22:08 EDT
Article-I.D.: elmgate.514
Posted: Tue Sep 2 11:22:08 1986
Date-Received: Tue, 2-Sep-86 21:08:24 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 57
Keywords: Line-A disassemblers, memory allocation GEMDOS MPB's

I have some questions I hope someone can reply to:

1. The short discussion in the 'Best of BIX' column in the latest BYTE magazine tantilized(sp?) me into wanting to know more about the LINE-A bit blit opcode ($A007). The structure was given but no mention of the what the fields represent. I could guess at some but that could take months. Could someone get me started by posting a commented view of the BITBLIT structure in the article?
ie.
```
struct BitBlock {
        short    b_wd,b_ht;    /* Width and height of block in 'xunits' */

    pixels/words/bytes

        Get the idea??
        short    plane_ct; /* Video planes ??? */
        etc ..........
```

Any help would be fine. I've worked with the Mindset PC, and the Amiga. so bit-blitting (or blasting as I like to say) is not completely out of my grasp. I just need to know the 'units' for each structure field.

2. What exactly ARE the KNOWN bugs in the ST's memory allocation system? I find sometimes I have missing memory, other times everything is fine. I don't seem to be able to find a pattern. One person says you can have no more than 512 Malloc() calls, the GEMDOS manual says 20, and my own program seems to allow 120. Could someone on the NET give a short run down of what Malloc()'s real behavior is? It seems to me any bugs in something as vital as memory allocation is a real loser, and knowing the bugs could save many a programmer many a late night fiasco.

3. Does anyone know of a an ST disassembler in the PD? Or one that is 'easily' ported? Preferrably one that's output can be redirected to a printer.

4. Related to memory allocation.... Has anyone understood the Memory Parameter Block concept in the ST? Is this related to GEMDOS's free memory list. If so I'd try and write some working allocation routines (assuming Malloc is broken, see question 2) maintaining the system memory list myself, thereby not breaking the loader. I looked a the MBP block in the system's variable area but nothing seemed to be linked to the three

pointers in each. Further, after an allocation, nothing changed. Anyone understand how and where the SYSTEM's idea of free/allocated memory is kept?

The line-a question is the most pressing for me right now. Email if you think it's of limited interest. However the memory and disassembler questions would be of interest to many (I think).

    Thanks,

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 5130064775823629276
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,919af1e72d57e3ea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 08:22:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Printer Spooler Bug?
Message-ID: <5642@topaz.RUTGERS.EDU>
Date: Tue, 2-Sep-86 11:22:15 EDT
Article-I.D.: topaz.5642
Posted: Tue Sep 2 11:22:15 1986
Date-Received: Tue, 2-Sep-86 21:06:01 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 14
Keywords: Clock speed

    I recently purchased a combination ram disks/printer spooler from a company called power systems. The ram disk works fine, but when I set aside the memory for the printer spooler, the time speeds up by a factor of 4. This gets to be a problem, within a half anb hour its already 2 hours off.
    Has anyone else out there had this problem with other printer spoolers? Has anyone used this one?

              Thanks for any ideas,
                   Phil Paone
paone@topaz.rutgers.edu

From -2030919763088319653
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50c5bf5859bf419e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 08:32:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HNYKUN53.BITNET!SCHOMAKE
From: SCHOMAKE@HNYKUN53.BITNET
Newsgroups: net.micro.atari16
Subject: MicroMumps for the ST?
Message-ID: <8609021532.AA00223@ucbvax.Berkeley.EDU>
Date: Tue, 2-Sep-86 11:32:41 EDT
Article-I.D.: ucbvax.8609021532.AA00223
Posted: Tue Sep 2 11:32:41 1986
Date-Received: Tue, 2-Sep-86 21:09:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

(Sorry to dissappoint you, but this message is not going to
 decrease the current #Questions/#Answers ratio. It contains
 juicy info for the Language Conoisseurs among you, however.)

Hello,
     does anyone have some information on MicroMumps for the ST?
I know there is a CP/M version of Mumps which could be used via a
CP/M emulator but I rather prefer a real 68000-based Mumps interpreter
for the ST.

{For those interested: Mumps is a real old oddity among computer languages.
 It is interpreted or mixed interpreted/compiled, has a terrible syntax and
 program structure but a beautiful tree-based way of dynamically storing data.
 Examples:
    MYARR(1) is an element of an array in memory,
   ^MYARR(1) is an element of an array on disk, no OPEN/CLOSE etc. needed!
 Subscripts can be strings: ^OBJECTS("HUMANS","John","FATHER")="Bill"
 so you can build a database or knowledge representation system rather fast.
 Other features are powerful string manipulation/pattern matching and, in
 the original language definition, multi-using + multi-tasking.
 Adherents can often be recognized by their religious attitude (cf. APL, Lisp,
 Unix monks), meditating on single-line system exploders. }

Lambert Schomaker
SCHOMAKER@HNYKUN53 (BITNET)
Nijmegen, The Netherlands.

From -7081906013216164801
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7d5791942f06a4bb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-02 18:55:11 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site clan.UUCP
Path: utzoo!dciem!nrcaer!clan!andrew
From: andrew@clan.UUCP (Andrew Moizer)
Newsgroups: net.micro.atari16
Subject: wanted: LaTeX Preview for ST
Message-ID: <192@clan.UUCP>
Date: Tue, 2-Sep-86 21:55:11 EDT
Article-I.D.: clan.192
Posted: Tue Sep 2 21:55:11 1986
Date-Received: Thu, 4-Sep-86 04:24:11 EDT
Reply-To: andrew@clan.UUCP (Andrew Moizer)
Organization: Systems Eng., Carleton Univ., Ottawa, Canada
Lines: 23

hello there,

Does anyone have any ideas, especially with code etc., of previewing
the LaTeX output (the .dvi file) using the ST? I am using the ST as
a dialup terminal to a VAX running 4.2 Un*x. It seemed to me that now
there is a graphics terminal emulator (Tektronix 4014 thanks to Simon
Poole) that there might be a way. This would be *real* useful to me
in my vain efforts to finish a thesis!! My only other option is to go
on campus and use a Sun, which takes a couple of hours.

Any thoughts anyone? Thanks for listening

                  Andrew

Andrew Moizer,
Systems & Computer Engineering Department,
Carleton University, Ottawa, Canada K1S 5B6

UUCP: {allegra,decvax,ihnp4,linus,utzoo}!watmath!clan!andrew
CDN: andrew@systems.carleton.cdn
ARPA: andrew%systems.carleton.cdn%ubc.csnet@csnet-relay.arpa
CSNET: andrew%systems.carleton.cdn@ubc.csnet

From -3985310492573353734
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 05:04:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <517@elmgate.UUCP>
Date: Wed, 3-Sep-86 08:04:48 EDT
Article-I.D.: elmgate.517
Posted: Wed Sep 3 08:04:48 1986

Date-Received: Wed, 3-Sep-86 20:51:49 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 43
Keywords: uudecode emacs ST kermit errors

It's me again. I took the 3 part microemacs posting (uuencoded), glued the parts together (carefully), removed all the headers and signatures, and uudecoded here on a Sun system. Next I took Ckermit and transmitted it to my ST using PC/IC in the kermit image mode and the unix command line :
mysystem% ckermit -i -s emacs.ttp

BOOM BOOM. Bus errors when executed. Ok. I downloaded the uuencoded file to my amiga (using Xmodem) and uudecoded it there. I shoved it over to the ST to execute (also using Xmodem).

BOOM BOOM. Bus error. Ok. Take the uuencoded from my Sun directly to the ST using kermit in the non-image mode (text). Uudecode it.

BOOM BOOM. Bus error. ARRRRRRRRRGHHHHH!!!!

Now I know the files (3 of them) were not tuncated as they all had signatures on them. None of the 3 uudecodes ever complained. Not Unix, or the ST's (compiled under MegaMax), or the Amiga's (compiled under Manx).

Is there a point to this? Sure is. Just for the thrill of it I decided to uudecode the cadenza.prg and the levy.ttp that were posted eons ago. Cadenza came up with TOS error #35 (too many files open?????). And levy just started and exited.

So I have yet to uudecode any posting for the ST, on three different machines, and have a working program. Up till now I guess I did not care. But me3.7 (and the recent GEMKermit) are exceptions. I want a decent editor that supports long (>80 chars) lines. And Gemkermit would be nice. Gemkermit has all it resources uuencoded.

Has anyone else successful uudecode anything and had it run on the ST? What might I be screwing up? The few binaries posted for the Amiga uudecoded fine on the Amiga and ran. The unix binaries I've decoded also run fine. So you'd figure I could get an ST binary to run? No way!

Could someone help on this? Could the diffs for me3.7 under MegaMax be posted or mailed to me? Thank you for your support (B & J).

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -1537015909404433244
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cc5af5fe621185c0

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 09:00:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: ST crashing/resetting/disk errors
Message-ID: <210@vlsvax1.UUCP>
Date: Wed, 3-Sep-86 12:00:33 EDT
Article-I.D.: vlsvax1.210
Posted: Wed Sep 3 12:00:33 1986
Date-Received: Thu, 4-Sep-86 21:24:51 EDT
References: <933@druhi.UUCP> <8609021508.AA25295@mitre-bedford.ARPA>
Reply-To: cms@vlsvax1.UUCP (Michael Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 34

In article <8609021508.AA25295@mitre-bedford.ARPA> jhs@MITRE-BEDFORD.ARPA writes:
>Your fix sounds eminently reasonable to me. The choke might be for RFI and
>spike protection. Finding a better choke (same inductance, lower series R)
>might be still better, as shunting the existing choke will reduce the
>inductance as well as the series resistance. The only penalty then may be
>the cost of the choke, which is probably not a problem if viewed as part of
>the cost of the upgrade. Shucks, even buying a heftier power supply would be
>a cheap way to get a 1MB ST, starting from the current $495 price of the 520!
>

I have had the same symptoms after upgrading my 520 to 1Meg and,
hearing (reading) the chatter about problems and weaknesses with the
original power supply, was ready to swap it for a new switiching power
supply or something. Recently, though, I talked to a hardware hacker
type in the East Bay (east San Francisco Bay, that is) who told me
that the original power supply, bad though it is, is not where the
problem lies. He has done (and repaired) many ST upgrades and his
procedure includes changing an inductor on the right side of the ST
board (with the RAM at the bottom or toward you). The original coil
is rated at about 4.something micro-henries. He replaces that with
one of 2.2 micro-henries or less. His claim is that this will prevent
the power drop to the RAM that is causing the problems. He also adds
an additional buffer chip. I am unwilling to post what I remember
of his instructions since I am not a hardware engineer or very knowlegeable
of such things and I would mislike being the proximate cause of someone
frying their ST. If there is any interest from the net in complete
instructions, I will try to get him to write them up and I will post
them. I would also be interested in comments from other hardware
people about this approach.

Sweeney
qantel!vlsvax1!cms

415 490 3555

From -4162489611406097492
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d279ff21618a3b1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 11:24:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!reed!dinadan!percival!russ
From: russ@percival.UUCP (Russ Schwartz)
Newsgroups: net.micro.atari16
Subject: Bug in TOS ROMs...
Message-ID: <222@percival.UUCP>
Date: Wed, 3-Sep-86 14:24:44 EDT
Article-I.D.: percival.222
Posted: Wed Sep 3 14:24:44 1986
Date-Received: Fri, 5-Sep-86 05:07:06 EDT
Distribution: net
Organization: The Nerds of the Round Table, Portland, OR.
Lines: 14

["Nice jail. Looks strong." -- H. Houdini]

Well, I found a system bomber and I don't remember if anyone else has
mentioned it. If you have TOS in ROMs and you are at an Item Selector
box and you want to change the directory path to go into a folder that
has an underscore ('_') in it's name, forget it! The instant that you
type the underscore, it will bomb out! I have tried it om several
different STs an they all do the same thing! What I suggest is to stay
away from using the underscore until Atari comes out with a new TOS ROM
set. (Hey Atari, any plans for that?).

Russell Schwartz
...!tektronix!reed!percival!russ
...!tektronix!reed!omsi

From -8348660864940408791
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 12:24:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <5661@topaz.RUTGERS.EDU>
Date: Wed, 3-Sep-86 15:24:15 EDT
Article-I.D.: topaz.5661
Posted: Wed Sep 3 15:24:15 1986
Date-Received: Wed, 3-Sep-86 21:03:41 EDT
References: <517@elmgate.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 9

Keywords: uudecode emacs ST kermit errors

I also was unable to do anything. I didn't get the TOS error 35, but when I ran a crash utility, I saw that I had a bus error.
I catted all files together after removing the signitures. Then I uudecoded it without error, then I used xmodem to transfer it to my ST and VOLIA, it didn't work.

Phil Paone

From 7125422831141226535
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91662c0253f25aa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 12:28:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!tikal!slovax!michael
From: michael@slovax.UUCP (Michael Longe)
Newsgroups: net.micro.atari16
Subject: Re: EasyDraw Output
Message-ID: <173@slovax.UUCP>
Date: Wed, 3-Sep-86 15:28:55 EDT
Article-I.D.: slovax.173
Posted: Wed Sep 3 15:28:55 1986
Date-Received: Thu, 4-Sep-86 22:21:14 EDT
References: <860828185921.0000025E.ALCY.MA@UMass>
Organization: R & D Associates., Tacoma, WA
Lines: 25

> Does anyone out there have, know of, or know how to create a replacement
> for the FX80.sys file that will drive a C-Itoh Prowriter 8510? ...
> Rick Newton

I might be able to specify a fix (via SID) if the aforementioned printer is NEARLY Epson FX-80 compatible. I used to work for Migraph, Inc., and wrote a fix program for the Gemini 10X (available on CompuServe and local BBS). That was a matter of adjusting the vertical spacing (from 1/216 to something else, I think). FX80.SYS is rather hardware-specific, though, and won't allow much tampering. Migraph will be coming out with drivers for laser and color printers in the future; others, I can't say.

Michael Longe'
..!tikal!slovax!michael

-- standard disclaimer ----------

Knowledge gained at present and prior places of occupation may be proprietary to my employers, but how in the heck will they get it

   out of my head?

-- usual disclaimer --

   Qui, moi?

From 8551715737663648872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fb142510fff89a2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 13:36:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: ST Pictures
Message-ID: <860903-143743-1285@Xerox>
Date: Wed, 3-Sep-86 16:36:30 EDT
Article-I.D.: Xerox.860903-143743-1285
Posted: Wed Sep 3 16:36:30 1986
Date-Received: Thu, 4-Sep-86 03:57:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Now that I have alot of DEGAS and NEO pictures,what I need is a way to
reverse them so that I can get a heat Transfer ribbon for my printer and
print them on T-Shirts (my kids will love that). is there a program that
will reverse pictures????What about taking out the colors??

Bill

Also wanted more pictures(I like using them with the slide shows)

From 4821927054718636640
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 20:14:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <1326@lsuc.UUCP>
Date: Wed, 3-Sep-86 23:14:27 EDT
Article-I.D.: lsuc.1326
Posted: Wed Sep 3 23:14:27 1986
Date-Received: Wed, 3-Sep-86 23:56:49 EDT
References: <517@elmgate.UUCP> <5661@topaz.RUTGERS.EDU>

Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 26
Keywords: uudecode emacs ST kermit errors
Summary: This is why sources should be posted.

In article <5661@topaz.RUTGERS.EDU> paone@topaz.RUTGERS.EDU (Phil Paone) writes:
>
>   I also was unable to do anything. I didn't get the TOS error 35,
>but when I ran a crash utility, I saw that I had a bus error.
>   I catted all files together after removing the signitures. Then
>I uudecoded it without error, then I used xmodem to transfer it to my
>ST and VOLIA, it didn't work.
>
>
>Phil Paone

     This really emphasizes the importance of posting real source code instead of Uuencoded files. Often a slightly broken source can be repaired without reposting the whole code. Uuecoded files are generally scrap when they are busted. It makes me wonder how much Net time is going to be wasted because of the bad MicroEMACS sending. If it's re-sent, how much confusion is going to result?

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 7805304571893924077
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91662c0253f25aa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-03 20:35:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: EasyDraw Output
Message-ID: <967@batcomputer.TN.CORNELL.EDU>
Date: Wed, 3-Sep-86 23:35:09 EDT
Article-I.D.: batcompu.967
Posted: Wed Sep 3 23:35:09 1986
Date-Received: Thu, 4-Sep-86 05:18:57 EDT
References: <860828185921.0000025E.ALCY.MA@UMass>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10

Keywords: GEM, EasyDraw, Postscript, virtual devices
Summary: ANY info out there about the format?

In article <860828185921.0000025E.ALCY.MA@UMass> RNEWTON@UMass.BITNET writes:
>Does anyone out there have, know of, or know how to create a replacement
>for the FX80.sys file...
    (of EasyDraw, for other printers)

- Or, for that matter, any general info about the output format?
Is it related to GDOS, or GEM device-independent stuff? What would it take
to, say, derive Postscript output?

- Moshe Braner

From -1965438075869053936
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4665eb3824392c3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 00:39:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Fix: Pathnames for LINK68
Message-ID: <8609040738.AA18529@ucbvax.Berkeley.EDU>
Date: Thu, 4-Sep-86 03:39:33 EDT
Article-I.D.: ucbvax.8609040738.AA18529
Posted: Thu Sep 4 03:39:33 1986
Date-Received: Thu, 4-Sep-86 06:43:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Trying to overcome the problem with LINK68 not accepting pathnames I found
a scanner control table starting at file-offset 0x8144.
The command scanner of LINK68 uses a byte entry of this table indexed by an
input character as a control pattern specifying the character class.

The backslash entry at file-offset 0x81A0 has the value 0x02 which is a
separator pattern.
Patching it to value 0x04 puts the backslash into the number class.
After this fix LINK68 treats the backslash as a normal identifier character
but GEMDOS still sees a pathname.

  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany

From 1813453142900937623
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,cca8dc926294b023,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 02:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uklirb!wip014
From: wip014@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: EasyDraw Output - (nf)
Message-ID: <14600001@uklirb.UUCP>
Date: Thu, 4-Sep-86 05:39:00 EDT
Article-I.D.: uklirb.14600001
Posted: Thu Sep 4 05:39:00 1986
Date-Received: Fri, 5-Sep-86 22:06:45 EDT
References: <1834726721@UMass.UUCP>
Lines: 19
Nf-ID: #R:UMass:1834726721:uklirb:14600001:000:843
Nf-From: uklirb!wip014   Sep 4 10:39:00 1986

/***** uklirb:net.micro.at16 / UMass!RNEWTON / 11:59 pm Aug 28, 1986*/
Does anyone out there have, know of, or know how to create a replacement
for the FX80.sys file that will drive a C-Itoh Prowriter 8510? I hate
to think of trashing a very good printer to use one piece of software.
Rick Newton
University of Massachusetts - Amherst
/* ---------- */

I'd like to have a driver for the C.Itoh 8510 as well. I know that Atari-Benelux
has released such a driver for their SMM800-printer (or whatever they call that
thing). But there are no directions included for adapting the driver to any
other printer. And I just don't feel like comparing the FX80.SYS against the
SMM800.SYS or even disassembling the two.

I hope that someone comes up with a solution, Michael.

Michael Doerr
Uni. Kaiserslautern (Germany)
...!seismo!unido!uklirb!wip014

From -7685165999127013905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 03:40:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uklirb!wip014
From: wip014@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not ma - (nf)
Message-ID: <14600002@uklirb.UUCP>
Date: Thu, 4-Sep-86 06:40:00 EDT
Article-I.D.: uklirb.14600002
Posted: Thu Sep 4 06:40:00 1986

Date-Received: Fri, 5-Sep-86 22:06:57 EDT
References: <514@elmgate.UUCP>
Lines: 49
Nf-ID: #R:elmgate:-51400:uklirb:14600002:000:1781
Nf-From: uklirb!wip014   Sep 4 11:40:00 1986

/***** uklirb:net.micro.at16 / elmgate!jdg / 4:22 pm Sep 2, 1986*/
Subject: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers

I have some questions I hope someone can reply to:

.
.

3. Does anyone know of a an ST disassembler in the PD? Or one that is
'easily' ported? Preferrably one that's output can be redirected to a
printer.

.
.

    Thanks,

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>
/* ---------- */

Some time ago the West German computer magazine "Happy Computer" released
a special 68000-issue. There was a PD-Disk available, that featured most
of the Atari-ST-programs as executables and some of them even as source.

Among these programs was a PD-ML-monitor (somewhat bigger than 8KByte)
with some excellent features:
- display/edit memory in hex/ascii
- load/save files from/to disk (Sorry, no loading for execution like SID)
- tiny disk monitor
- disassembler
- single stepping/tracing of instructions
- output redirection to parallel or serial port
- advanced find capabilities (hex bytes, strings, wildcards, 68000 instructions)
  [to find all MOVE.Ws yoy say: f "move.w" start-address end-address]

I'm willing to post the executable, if there's enough interest on the net. But
there's one problem with the documentation: it's in German. Although this is
my mother tongue, it may be not your's. I might be convinced to attempt a
translation, if I get tremendous feedback. But that might take a while to get
accomplished. I'll even consider sending the assembler sources (BIG: ~>50Kbyte),
if the responses are overwhelming.

Michael Doerr

University of Kaiserslautern (Germany)
uucp: ...!seismo!unido!uklirb!wip014

From -6499143144448187263
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 05:31:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <419@ektools.UUCP>
Date: Thu, 4-Sep-86 08:31:01 EDT
Article-I.D.: ektools.419
Posted: Thu Sep 4 08:31:01 1986
Date-Received: Thu, 4-Sep-86 21:34:21 EDT
References: <517@elmgate.UUCP>
Reply-To: bruce@ektools.UUCP (Bruce D. Nelson (408))
Organization: Eastman Kodak, Dept. 47
Lines: 8
Keywords: uudecode emacs ST kermit errors

For some odd reason, my download of uemacs 3.7 seems to work ... at least it
hasn't bombed my ST (yet!). Only problem I've encountered is some error
messages which fly by quite fast saying that some of the keys are unbound
or undefined (the messages do fly by FAST!) when it reads the .rc file.

Bruce Nelson
...rochester!kodak!ektools!bruce

From -3526220048745190277
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 06:21:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site dciem.UUCP
Path: utzoo!dciem!ski
From: ski@dciem.UUCP (Dave Eaton)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <1949@dciem.UUCP>
Date: Thu, 4-Sep-86 09:21:34 EDT
Article-I.D.: dciem.1949
Posted: Thu Sep 4 09:21:34 1986
Date-Received: Thu, 4-Sep-86 11:33:55 EDT
References: <517@elmgate.UUCP>
Reply-To: ski@dciem.UUCP (Dave Eaton)

Organization: D.C.I.E.M., Toronto, Canada
Lines: 33
Keywords: uudecode emacs ST kermit errors
Summary:

In article <517@elmgate.UUCP> jdg@elmgate.UUCP (Jeff Gortatowsky) writes:

>Has anyone else successful uudecode anything and had it run on the ST? What
>might I be screwing up?   The few binaries posted for the Amiga uudecoded
>fine on the Amiga and ran. The unix binaries I've decoded also run fine.
>So you'd figure I could get an ST binary to run? No way!

I just finished putting together uniterm.prg, uudecoding it on an 11/70
running UNIX v7, and transferring it to my ST using Xmodem. Simon
Poole was decent enough to indicate how many bytes to expect in the
uudecoded version, consequently I was able to check that the uudecoded
version was the correct size. When I looked at the Xmodem transferred
version on the ST it was 16 bytes larger. I obtained a hex dump of the
beginning and end of the uudecoded version and compared it to the
version on my ST and found that there were extra characters at the
end of the program. After editing these out using H&D's Tool Box,
uniterm.prg worked fine.

My success with program transfers has been varied. This is the first time
I was able to recover from what I thought was a failed transmission.
The next time it happens I will certainly check the byte totals on both
machines. It was nice to have the actual byte total to check whether
the posting arrived on our 11/70 successfully. I hope future postings
include this feature.

Dave Eaton

D.C.I.E.M.
Toronto, Ontario
CANADA

...!ihnp4!utzoo!dciem!ski

From -831914720566910688
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 07:49:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!watmath!watnot!watdaisy!dvadura
From: dvadura@watdaisy.UUCP (Dennis Vadura)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <7863@watdaisy.UUCP>
Date: Thu, 4-Sep-86 10:49:43 EDT
Article-I.D.: watdaisy.7863

Posted: Thu Sep 4 10:49:43 1986
Date-Received: Thu, 4-Sep-86 22:08:44 EDT
References: <517@elmgate.UUCP> <5661@topaz.RUTGERS.EDU>
Reply-To: dvadura@watdaisy.UUCP (Dennis Vadura)
Organization: Computer Science Dept., University of Waterloo
Lines: 16
Keywords: uudecode emacs ST kermit errors

I have had a similar problem with uudecode/encode recently. As it turned out
I uudecoded a file on a Vax, and on the ST. But voila the file lengths were
different! This got me curious since I trust the UNIX version more than the
ST version I did some checking. As it turned out the ST version of uudecode
opened the file it was writing in ascii mode, this posed some problems with
traslation of the new-line chars. Anyway hacking the code for uudecode to
use fopenb instead of fopen and recompiling it fixed the problem!

--
Dennis Vadura, Computer Science Dept., University of Waterloo

UUCP: {ihnp4|allegra|utzoo|utcsri}!watmath!watdaisy!dvadura
==========

From 2691212434983432508
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f8c8cb9ae415946,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 10:43:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (Robert Royar)
Newsgroups: net.micro.atari16
Subject: Class demo using ST
Message-ID: <8609042322.AA02923@ucbvax.Berkeley.EDU>
Date: Thu, 4-Sep-86 13:43:00 EDT
Article-I.D.: ucbvax.8609042322.AA02923
Posted: Thu Sep 4 13:43:00 1986
Date-Received: Fri, 5-Sep-86 00:01:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 24

I teach a writing course at this university and have been developing a
set of programs too run on an IBM-PC and a Vax system. But my
computer is an ST. I would like to be a little subversive and demo
the "environment" on my 1040 (color). Our school has large screen
projection TVs that they use for demos with Apple computers. Since
the demo will be for our entire department, I would like to be able to
use the projection system (Sony).

My question is what do I need to connect the ST to a system like this.
Or what more info would one of you kindly readers need to help me out.
There is a DIN and an RCA (phono plug) input on the projector, but the
department that maintains them doesn't know much about the technical
info, and the technical info guys don't know anything about computers.
So I'm pretty much on my own. Any help would be appreciated. Who
knows I might be able to convince the department that it's time to
develope an ST based writing lab!

Robert Royar
Department of English
University of Louisville
Louisville, KY 40292

BITNET: rdroya01@ulkyvx

From 3830555355674049162
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 11:55:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers
Message-ID: <8609050623.AA09089@ucbvax.Berkeley.EDU>
Date: Thu, 4-Sep-86 14:55:20 EDT
Article-I.D.: ucbvax.8609050623.AA09089
Posted: Thu Sep 4 14:55:20 1986
Date-Received: Fri, 5-Sep-86 05:11:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

The parameter block for bitblt (a007) is described in detail in the document
titled 'The much awaited Line A document' that comes with the developers
sytem. Its too long to retype here.

From 1767455139676176210
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,43a3ac37c004ae5e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 12:46:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: Kermit for ST?
Message-ID: <8609041952.AA29649@ucbvax.Berkeley.EDU>

Date: Thu, 4-Sep-86 15:46:38 EDT
Article-I.D.: ucbvax.8609041952.AA29649
Posted: Thu Sep 4 15:46:38 1986
Date-Received: Thu, 4-Sep-86 21:44:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 16

Date: 4 September 86 10:12-PST
From: KJBSF@SLACVM
To: INFO-ATARI16@SCORE
Subject: Kermit for ST?

Date: 4 September 1986, 10:11:47 PST
From: Kevin J. Burnett   x3330   <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD>
Subject: Kermit for ST?

I need to get a version of Kermit for my newly-purchased 1040ST, and am
wondering which is the correct version to get. Could someone please tell
me? Please respond directly, as my name doesn't seem to have made its way
onto the list yet.

Thanks.

From -3874037873342799949
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff02c7baf197139,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 13:21:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson)
Newsgroups: net.micro.atari16
Subject: 1-meg upgrades
Message-ID: <420@ektools.UUCP>
Date: Thu, 4-Sep-86 16:21:28 EDT
Article-I.D.: ektools.420
Posted: Thu Sep 4 16:21:28 1986
Date-Received: Thu, 4-Sep-86 21:44:19 EDT
Distribution: na
Organization: Eastman Kodak, Dept. 47
Lines: 7

What is the availability of one-meg upgrades for the 520ST other than
the "piggyback-ram" methods posted on the net. Are there any plug-in
(plug-over, hang-on-the-side, whatever) boards available? Does anyone
have any experience with any of them? Cost? Caviats?

Bruce Nelson
...rochester!kodak!ektools!bruce

From 5152411927950098879
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2b3296dfefa8ea7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 14:26:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.ARPA!Lynn%PANDA
From: Lynn%PANDA@SUMEX-AIM.ARPA (Lynn Gold)
Newsgroups: net.micro.atari16
Subject: uuencoded files
Message-ID: <12236329617.8.LYNN@PANDA>
Date: Thu, 4-Sep-86 17:26:07 EDT
Article-I.D.: PANDA.12236329617.8.LYNN
Posted: Thu Sep 4 17:26:07 1986
Date-Received: Fri, 5-Sep-86 00:00:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

There's also one other hassle with uuencoding/uudecoding -
SOME of us don't have uuencode/uudecode programs on our machines.

--Lynn

From -1496750290235901435
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d846ed5a2dd9127c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 15:36:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!mitlns!tether
From: tether@mitlns ("STEPHEN_TETHER")
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609042236.AA02246@ucbvax.Berkeley.EDU>
Date: Thu, 4-Sep-86 18:36:57 EDT
Article-I.D.: ucbvax.8609042236.AA02246
Posted: Thu Sep 4 18:36:57 1986
Date-Received: Fri, 5-Sep-86 00:00:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "STEPHEN_TETHER" <tether@mitlns>
Organization: The ARPA Internet
Lines: 1

From -3242484228373602001
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 19:41:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <8609050240.AA05902@ucbvax.Berkeley.EDU>
Date: Thu, 4-Sep-86 22:41:04 EDT
Article-I.D.: ucbvax.8609050240.AA05902
Posted: Thu Sep 4 22:41:04 1986
Date-Received: Fri, 5-Sep-86 03:17:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 19

> Has anyone else successful uudecode anything and had it run on the ST? What might I be screwing up? The few binaries posted for the Amiga uudecoded fine on the Amiga and ran. The unix binaries I've decoded also run fine. So you'd figure I could get an ST binary to run? No way!

I have had exactly the same experience. I couldn't get the uudecoded Cadenza files to work (TOS Error #35 just like you got), but I didn't care much since I had no trouble recompiling the sources and getting a working version that way. I brought GEM Kermit over from Columbia but couldn't get the resource files decoded properly so that they could be read into the resource construction set that came with the developers kit. I haven't even tried to use the new uEMACS.

I too would appreciate any advice on what might be going wrong.

--Mike Fischer
  <fischer@yale.arpa>

From 5783074500330853894
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,516b8594eb4f7d46,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 20:46:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!cornell!
batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: YAMMB (yet another Megamax bug)
Message-ID: <973@batcomputer.TN.CORNELL.EDU>
Date: Thu, 4-Sep-86 23:46:50 EDT
Article-I.D.: batcompu.973

Posted: Thu Sep 4 23:46:50 1986
Date-Received: Sat, 6-Sep-86 00:00:34 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 22
Summary: Don't use BRA.S -n(PC)

[]

Seems that the assembler built into the Megamax C compiler has a bug:
BRA.S n(PC) with a negative n yields pretty much random code. The same
holds for Bcc.S.

Note the absolute displacement. I am not sure if it works right with labels.
Changing it to a word displacement (BRA instead of BRA.S) fixes it.

Usually you would use labels, and also use just plain BRA. The mmimp
program can then be used to convert branches to short ones where possible.
But the fun starts when you mmdis-assemble some existing .o file for
which you don't have the source...

There is also a bug in the disassembler: very large numbers (32-bit)
are sometimes displayed as garbage characters, e.g.

     AND.L #)(&.)/(*.)(,D0

(Conclusion: don't buy a compiler until it's perfect - and obsolete :-)

- Moshe Braner

From -507486441338154836
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 20:54:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!cornell!
batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode vs. sources
Message-ID: <974@batcomputer.TN.CORNELL.EDU>
Date: Thu, 4-Sep-86 23:54:34 EDT
Article-I.D.: batcompu.974
Posted: Thu Sep 4 23:54:34 1986
Date-Received: Sat, 6-Sep-86 00:00:54 EDT
References: <517@elmgate.UUCP> <5661@topaz.RUTGERS.EDU> <1326@lsuc.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 15
Summary: Me too: much better luck with source text!

In article <1326@lsuc.UUCP> jimomura@lsuc.UUCP (Jim Omura) writes:
>   ... the importance of posting real source code
>instead of Uuencoded files. Often a slightly broken source can be repaired
>without reposting the whole code...

Yeah!

I have never managed to get ANYTHING uudecoded and running on the ST.
But I have downloaded a lot of source code (including microEMACS and Proff)
using ASCII (no error checking) and had very few problems. (The rare missing
bytes usually were a tab on the left, i.e. it compiled anyway!)

- Moshe Braner

"Let the source be with you!"

From -2604677811130514728
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4b0153b9a9aff846,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-04 21:35:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!SLACVM.BITNET!KJBSF
From: KJBSF@SLACVM.BITNET
Newsgroups: net.micro.atari16
Subject: A couple of questions
Message-ID: <8609050441.AA07794@ucbvax.Berkeley.EDU>
Date: Fri, 5-Sep-86 00:35:03 EDT
Article-I.D.: ucbvax.8609050441.AA07794
Posted: Fri Sep 5 00:35:03 1986
Date-Received: Fri, 5-Sep-86 03:27:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: KJBSF%SLACVM.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 15

Date: 4 September 86 21:32-PST
From: KJBSF@SLACVM
To: INFO-ATARI16@SCORE
Subject: A couple of questions

Date: 4 September 1986, 21:30:51 PST
From: Kevin J. Burnett   x3330   <KJBSF@SLACVM>
To: <INFO-ATARI16@SCORE.STANFORD>
Subject: A couple of questions

I have a couple of questions to ask:
What are good inexpensive (emphasis on inexpensive) C and/or Pascal/Modula2
compilers for the ST?
Also, anybody know why INKEY$ is a 'reserved word' in ST BASIC, when it uses
INPUT$ instead?

From 7276661998465231309
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 05:17:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers
Message-ID: <521@elmgate.UUCP>
Date: Fri, 5-Sep-86 08:17:32 EDT
Article-I.D.: elmgate.521
Posted: Fri Sep 5 08:17:32 1986
Date-Received: Fri, 5-Sep-86 21:11:28 EDT
References: <8609050623.AA09089@ucbvax.Berkeley.EDU>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 40
Summary: I'd like an example (well commented) of using BITBLT ($A007).

In article <8609050623.AA09089@ucbvax.Berkeley.EDU>, bammi@case.CSNET ("Jwahar R. Bammi") writes:
> The parameter block for bitblt (a007) is described in detail in the document
> titled 'The much awaited Line A document' that comes with the developers
> sytem. Its too long to retype here.

No,no,no,... I meant I'd just like to see the same structure definition that was published in the 68K issue of BYTE, only with the fields of the structure commented as to what units they represent (BYTES,PIXELS,X/Y pairs, words, etc). That is assuming of course it is the correct structure definition in the first place. For example the structure starts with:

```
struct blahblah {
     short    b_wd,b_ht;
     .....
     ....
     lots more stuff...
```

Now I looked at that and said AH HAH!
     block width and block height.
Hmmm ....in pixels? Must be. Well maybe not. Hmmm.

The offsets (word,line,plane) really are the ones I can't deduce from looking at the structure. Offset by what? Word offset? 16 bits right? Or 1 for one word. Plane offset? I thought the plane offsets were 0,1,2,3 words depending on color choice (or something like that). I'll muddle along figuring the rest out. Just get me started with a commented structure definition. Please?

As for the Line A doc you mentioned, my developer buddy told me on the phone that it says 'see the end of this document for a description of BITBLT'. Only there is no description to be found! I asked him if the 300

bucks was well spent? He hung up.....

8^)

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -4449917163464931588
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3f8c247a5e81e83a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 08:33:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!acf4!slavin
From: slavin@acf4.UUCP (Scott Slavin)
Newsgroups: net.micro.atari16
Subject: SMM804 Printer?
Message-ID: <8580003@acf4.UUCP>
Date: Fri, 5-Sep-86 11:33:00 EDT
Article-I.D.: acf4.8580003
Posted: Fri Sep 5 11:33:00 1986
Date-Received: Fri, 5-Sep-86 22:03:38 EDT
Organization: New York University
Lines: 21

   Does anybody have specs on the Atari SMM804 printer. I need info
like speed, compatability with other micro's, what ribbons does it
use...etc...

   Also can anyone help me on this one:

    I just bought the Developer's Kit(sic) and I was using some VDI
calls and I noticed that when I changed the color using vs_color of color
3 (which is green by default I think) to blue the desktop also turns blue
Is there anyway around this besides making another call to vs_color with
the original rgb numbers.

Thanks

Scott Slavin

US snail: 2707 E65th St Brooklyn   Arpa: slavin@acf4.uucp

bitnet: slavin@nyuacf

From 8038833446246195407

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4b0153b9a9aff846
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 09:18:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: A couple of questions
Message-ID: <8609051618.AA03888@ames-nas.ARPA>
Date: Fri, 5-Sep-86 12:18:45 EDT
Article-I.D.: ames-nas.8609051618.AA03888
Posted: Fri Sep 5 12:18:45 1986
Date-Received: Fri, 5-Sep-86 22:16:07 EDT
References: <8609050436.AA00672@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 33

C: GST C is suppose to be good/cheap, although it doesn't have floating
    point and some other features; I haven't used it.
    Mark Williams appears to be good, and it's cheap around San Jose (:-)
    but I'm waiting until I can afford a hard disk before I buy it (:-(
    Beyond that there's Lattice, MegaMax, and the developers kit in
    aproximate increasing order of cost, though not necessarily quality.
    HIPPO C, (even if you can still find it) is not worth the money.

Modula-2: The only choice appears to be TDI Modula-2. I have a friend who
           has it, and says it is a reasonable implementation but the
        manual is limited.

Pascal: OSS Personal Pascal is the best choice here. I have it, and
         have written GEM applications and a desk accessory with it,
      and am in the middle of both MIDI software and a CHESS program.

     If you already know Pascal, or don't know any of the above
languages, I would recommend Personal Pascal highly. Especially if you
don't have a lot of experience with GEM on the ST yet. It's a fairly
full implementation of the ISO standard with a few useful extentions,
it has seperate compilation (mediocre) and a good library interface to
GEM along with reasonable documentation in the manual.

     So far I've only found one nasty bug, and its fairly easy to work
around.

     I would not recommend Pascal if you are already a C hacker and
don't know Pascal though. In this case, you'll find the language very
restrictive.

From 5536073271820591435
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce013f9acb642920,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 10:08:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!cbatt!ihnp4!qantel!intelca!oliveb!
glacier!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: uE3.7 - was ANYONE able to run what i posted ?
Message-ID: <495@imagen.UUCP>
Date: Fri, 5-Sep-86 13:08:00 EDT
Article-I.D.: imagen.495
Posted: Fri Sep 5 13:08:00 1986
Date-Received: Sun, 7-Sep-86 21:46:31 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 24

help! imagine my frustration, all that work and no one can run it, i
don't want to start the sources vs. binaries debate again (i am on
the sources side) but i think i stated my reasons for not posting
the sources and being an obstinate &^%&$ i will stand by them.
meanwhile back at the ranch, does anyone have a better way to
distribute binaries then uuencode ??????

someone recently posted comments about some mailer deleting trailing
spaces and therefore screwing up uudecode postings, i am going to
use their method (adding a char to the end of each line) and mail
them to some of the people who couldn't use the last posting. if
that works we'll go from there, sorry

--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 60019023877452177
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,f84f089812bd926,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 152df8,f84f089812bd926,start
X-Google-Attributes: gid152df8,public

X-Google-Thread: 142096,f84f089812bd926,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f84f089812bd926,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 10:37:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!tektronix!orca!tekecs!
jans
From: jans@tekecs.UUCP (Jan Steinman)
Newsgroups: net.micro.68k,net.micro.amiga,net.micro.mac,net.micro.atari16
Subject: Worm memory test from DDJ in net.sources
Message-ID: <7609@tekecs.UUCP>
Date: Fri, 5-Sep-86 13:37:31 EDT
Article-I.D.: tekecs.7609
Posted: Fri Sep 5 13:37:31 1986
Date-Received: Sat, 6-Sep-86 05:46:23 EDT
Reply-To: jans@tekecs.UUCP (Jan Steinman)
Organization: Tektronix, Wilsonville OR
Lines: 5
Xref: mnetor net.micro.68k:1191 net.micro.amiga:4568 net.micro.mac:6908
net.micro.atari16:1827

Subject says it all!
--
:::::: Artificial   Intelligence   Machines   ---   Smalltalk   Project ::::::
:::::: Jan Steinman   Box 1000, MS 60-405   (w)503/685-2956 ::::::
:::::: tektronix!tekecs!jans   Wilsonville, OR 97070   (h)503/657-7703 ::::::

From -310157035934864179
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 11:06:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!ADS.ARPA!fxl
From: fxl@ADS.ARPA (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: Re: Uudecode wierdidities, ue 3.7 (from Turner*Imagen),etc.
Message-ID: <8609060233.AA26238@ucbvax.Berkeley.EDU>
Date: Fri, 5-Sep-86 14:06:47 EDT
Article-I.D.: ucbvax.8609060233.AA26238
Posted: Fri Sep 5 14:06:47 1986
Date-Received: Sat, 6-Sep-86 02:11:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I have successfully uudecoded ue 3.7 and kermitted it to my ST.
It appears to work on my mono screen, though it appears to be
set up for 43 lines (EGA PC screen) so you need the little HI50
program to get it to work. I used image mode on both ends of
kermit. I used the kermit that came with the developers kit

when I bought it about a year ago. I got problems when I forgot
to use image mode on the ST side. Previous postings, such as the
xmdm program also worked for me. I haven't tried cadenza yet.
Maybe the problem lies with GEM Kermit, but this is only speculation.

Franz Lanzinger
Advanced Decision Systems
201 San Antonio Circle #286
Mountain View CA 94040
(415) 941-3912
fxl@ads.arpa

From -1698869513375899167
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,366ea09ca6b28f50
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 13:26:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!ubc-vision!molihp!
robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM
Message-ID: <191@molihp.UUCP>
Date: Fri, 5-Sep-86 16:26:52 EDT
Article-I.D.: molihp.191
Posted: Fri Sep 5 16:26:52 1986
Date-Received: Sun, 7-Sep-86 21:39:39 EDT
References: <8608271943.AA04755@ucbvax.Berkeley.EDU>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 10
Keywords: missing part3

  We got parts 1,2,3 and 4 of Uniterm here during the dates Aug. 29-31
but never got part 5, part 'C' of the uuencoded binary. Could someone
send me the missing part? The docs look good. (Damn! *I* wanted to
do a 4105 emulator as a project! :-) :-) :-))

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
     #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From -1269883444078038417
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,678077985115508c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 14:45:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Smalltalk-80 ?
Message-ID: <8609052144.AA22271@ucbvax.Berkeley.EDU>
Date: Fri, 5-Sep-86 17:45:39 EDT
Article-I.D.: ucbvax.8609052144.AA22271
Posted: Fri Sep 5 17:45:39 1986
Date-Received: Fri, 5-Sep-86 23:01:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

    Has anyone heard something about a Smalltalk-80 implementation for the 520ST+ ?

I guess 1MB RAM, a 20MB Winchester drive, a mouse, a bitmapped screen and last not least a 68000 CPU would be a perfect environment for a Smalltalk system.

If there are any rumours, please let me hear.

Thanks,

  Konrad Hahn
  Techn. University Darmstadt
  Dept. of Computer Science (Datentechnik)
  Merckstr. 25, D-6100 Darmstadt, W.-Germany

..... a voice from good old Germany ....

From 8958752637945540375
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eebb259621b885b5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 15:52:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR4D76H
From: XBR4D76H@DDATHD21.BITNET
Newsgroups: net.micro.atari16
Subject: Wanted: Backup Utility for SH204
Message-ID: <8609052252.AA23420@ucbvax.Berkeley.EDU>
Date: Fri, 5-Sep-86 18:52:57 EDT
Article-I.D.: ucbvax.8609052252.AA23420
Posted: Fri Sep 5 18:52:57 1986
Date-Received: Fri, 5-Sep-86 23:01:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 17

Does anybody have an intelligent backup utility for the ATARI-Winchester, which can save and reinstall directory trees not fitting on a single floppy.

I guess some other people on the net would also be glad getting a nice backup program.

So if someone has got such a utility, I would appreciate him posting it.

Thanks in advance,

Konrad Hahn
Techn. University Darmstadt
Dept. of Computer Science (Datentechnik)
Merckstr. 25, D-6100 Darmstadt, W.-Germany

..... a voice from good old Germany .....

From -5519044569960401553
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a13b723e655b5bf7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 17:29:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ptsfa!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: uudecode problems
Message-ID: <211@vlsvax1.UUCP>
Date: Fri, 5-Sep-86 20:29:34 EDT
Article-I.D.: vlsvax1.211
Posted: Fri Sep 5 20:29:34 1986
Date-Received: Sun, 7-Sep-86 20:13:38 EDT
Distribution: na
Organization: Voelker-Lehman Fremont CA
Lines: 19

[]

I may have found a solution to the problems of transferring uuencoded/ uudecoded files to STs. I had the same problems as others have described (i.e. transfer the file, run it and get a TOS Error #35) with the recent Uniterm posting. I tried both Xmodem and kermit and got the same result each time. So I loaded the uuencoded file into EMACS, and went to the end. There was an extra line feed and the word 'end' and a couple of more line feeds. I deleted everything except the last line feed on the last line of the file. This, of course, produced an error message of 'Short File' when I uudecoded the file. But I still had 'uniterm.prg' at about the size it should have been (I didn't check

specifically). I went ahead and transferred the file to my ST and
double clicked on it. It worked. Perfectly. I like it. Anyway,
try that on some of the files that have been creating problems and see
if it works. Luck.

Sweeney
qantel!vlsvax1!cms

From 6766879040285216454
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9e1996966a462e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 17:32:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Class demo using ST
Message-ID: <8609051730.AA19744@mitre-bedford.ARPA>
Date: Fri, 5-Sep-86 20:32:40 EDT
Article-I.D.: mitre-be.8609051730.AA19744
Posted: Fri Sep 5 20:32:40 1986
Date-Received: Sat, 6-Sep-86 02:05:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

If the projection system has an RGB input, all you should need is a cable or
adaptor to make the connections from the Atari RGB output to the right input
connections on the projector. At worst you might have to wire up such an
adaptor.

-John Sangster
jhs@mitre-bedford.arpa

From -1352564596019099741
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,82d1b9c5cff6a583,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 17:36:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!amiga!pyramid!hplabs!tektronix!uw-beaver!
cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Cartridge port connector - query
Message-ID: <977@batcomputer.TN.CORNELL.EDU>
Date: Fri, 5-Sep-86 20:36:08 EDT
Article-I.D.: batcompu.977
Posted: Fri Sep 5 20:36:08 1986

Date-Received: Sun, 7-Sep-86 10:04:20 EDT
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10
Summary: Any adaptors available?

[]

I sort of remember seeing something but can't find it:

Does anybody know of some plug available for the ST cartridge port?
I am thinking of something like a board with the right fingers on an edge,
expanded to a more standard width on the other edge, or even with an edge
connector on the other edge. I DON'T need any traces for PROMS.

- Moshe Braner

From 2076158220698660637
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2b3296dfefa8ea7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 17:45:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: uuencoded files
Message-ID: <8609051725.AA19497@mitre-bedford.ARPA>
Date: Fri, 5-Sep-86 20:45:33 EDT
Article-I.D.: mitre-be.8609051725.AA19497
Posted: Fri Sep 5 20:45:33 1986
Date-Received: Sat, 6-Sep-86 02:05:57 EDT
References: <12236329617.8.LYNN@PANDA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 9

uuencode/decode is not a hard thing to write, though. I am working on a
version for the Atari 800xl and it looks as though it won't be difficult.

If anybody wants the definition of uuencode/decode coding, I just happen to
have a "functional spec" and also very compatible "c" source code from a kind
soul on the net.

-John Sangster
jhs@mitre-bedford.arpa

From 2854763203834224193
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a0b86c45d896bc0,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-05 17:59:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!MSCC13
From: MSCC13@UHUPVM1.BITNET (Richard Coggins)
Newsgroups: net.micro.atari16
Subject: Mailing List
Message-ID: <8609060106.AA25349@ucbvax.Berkeley.EDU>
Date: Fri, 5-Sep-86 20:59:01 EDT
Article-I.D.: ucbvax.8609060106.AA25349
Posted: Fri Sep 5 20:59:01 1986
Date-Received: Sat, 6-Sep-86 02:06:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Please include me on the atari16 mailing list.
Thank you

Richard

From -8718361384970185886
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba316a81d600e097,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 19:17:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ucla-cs!topaz!husc6!yale!cmcl2!acf4!slavin
From: slavin@acf4.UUCP (Scott Slavin)
Newsgroups: net.micro.atari16
Subject: SMM804 Printer?
Message-ID: <1106@curly.ucla-cs.ARPA>
Date: Fri, 5-Sep-86 22:17:55 EDT
Article-I.D.: curly.1106
Posted: Fri Sep 5 22:17:55 1986
Date-Received: Sun, 7-Sep-86 01:36:51 EDT
Organization: New York University
Lines: 21

   Does anybody have specs on the Atari SMM804 printer. I need info
like speed, compatability with other micro's, what ribbons does it
use...etc...

   Also can anyone help me on this one:

    I just bought the Developer's Kit(sic) and I was using some VDI
calls and I noticed that when I changed the color using vs_color of color
3 (which is green by default I think) to blue the desktop also turns blue
Is there anyway around this besides making another call to vs_color with
the original rgb numbers.

Thanks

Scott Slavin

US snail: 2707 E65th St Brooklyn Arpa: slavin@acf4.uucp

bitnet: slavin@nyuacf

From 7558206694598380307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 19:20:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ucla-cs!topaz!nike!lll-crg!seismo!mcvax!unido!
uklirb!wip014
From: wip014@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not ma - (nf)
Message-ID: <1169@curly.ucla-cs.ARPA>
Date: Fri, 5-Sep-86 22:20:56 EDT
Article-I.D.: curly.1169
Posted: Fri Sep 5 22:20:56 1986
Date-Received: Sun, 7-Sep-86 01:43:20 EDT
References: <514@elmgate.UUCP>
Organization: UCLA CS Department
Lines: 49
Nf-ID: #R:elmgate:-51400:uklirb:14600002:000:1781
Nf-From: uklirb!wip014 Sep 4 11:40:00 1986

/***** uklirb:net.micro.at16 / elmgate!jdg / 4:22 pm Sep 2, 1986*/
Subject: Questions on BITBLIT, Malloc (not malloc), and 68 Disassemblers

I have some questions I hope someone can reply to:

.
.

3. Does anyone know of a an ST disassembler in the PD? Or one that is
'easily' ported? Preferrably one that's output can be redirected to a
printer.

.
.

    Thanks,

--
Jeff Gortatowsky {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>
/* ---------- */

Some time ago the West German computer magazine "Happy Computer" released
a special 68000-issue. There was a PD-Disk available, that featured most
of the Atari-ST-programs as executables and some of them even as source.

Among these programs was a PD-ML-monitor (somewhat bigger than 8KByte)
with some excellent features:
- display/edit memory in hex/ascii
- load/save files from/to disk (Sorry, no loading for execution like SID)
- tiny disk monitor
- disassembler
- single stepping/tracing of instructions
- output redirection to parallel or serial port
- advanced find capabilities (hex bytes, strings, wildcards, 68000 instructions)
  [to find all MOVE.Ws yoy say: f "move.w" start-address end-address]

I'm willing to post the executable, if there's enough interest on the net. But
there's one problem with the documentation: it's in German. Although this is
my mother tongue, it may be not your's. I might be convinced to attempt a
translation, if I get tremendous feedback. But that might take a while to get
accomplished. I'll even consider sending the assembler sources (BIG: ~>50Kbyte),
if the responses are overwhelming.

Michael Doerr
University of Kaiserslautern (Germany)
uucp: ...!seismo!unido!uklirb!wip014

From -7702975426989227623
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,512f8beb76228cc3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 19:22:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ucla-cs!topaz!nike!lll-crg!seismo!mcvax!unido!
uklirb!wip014
From: wip014@uklirb.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Questions on BITBLIT, Malloc (not ma - (nf)
Message-ID: <1198@curly.ucla-cs.ARPA>
Date: Fri, 5-Sep-86 22:22:34 EDT
Article-I.D.: curly.1198
Posted: Fri Sep 5 22:22:34 1986
Date-Received: Sun, 7-Sep-86 01:45:09 EDT
References: <514@elmgate.UUCP>
Organization: UCLA CS Department
Lines: 49
Nf-ID: #R:elmgate:-51400:uklirb:14600002:000:1781
Nf-From: uklirb!wip014   Sep 4 11:40:00 1986

/***** uklirb:net.micro.at16 / elmgate!jdg / 4:22 pm Sep 2, 1986*/
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Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
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- load/save files from/to disk (Sorry, no loading for execution like SID)
- tiny disk monitor
- disassembler
- single stepping/tracing of instructions
- output redirection to parallel or serial port
- advanced find capabilities (hex bytes, strings, wildcards, 68000 instructions)
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translation, if I get tremendous feedback. But that might take a while to get
accomplished. I'll even consider sending the assembler sources (BIG: ~>50Kbyte),
if the responses are overwhelming.

Michael Doerr
University of Kaiserslautern (Germany)
uucp: ...!seismo!unido!uklirb!wip014

From 5005224753509054238
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-09-05 19:34:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!higgin
From: higgin@cbmvax.cbm.UUCP (Paul Higginbottom)
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <703@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 5-Sep-86 22:34:02 EDT
Article-I.D.: cbmvax.703
Posted: Fri Sep 5 22:34:02 1986
Date-Received: Sat, 6-Sep-86 02:11:47 EDT
References: <503@elmgate.UUCP> <8608061704.AA23758@ames-nas.ARPA>
<839@edison.UUCP>
Reply-To: higgin@cbmvax.UUCP (Paul Higginbottom)
Organization: Commodore Technology, West Chester, PA
Lines: 20

In article <839@edison.UUCP> dca@edison.UUCP (David Albrecht) writes:
>If you decide to 'play around' with an Amiga let me give you a word to the
>wise. The system tasks and the disk driver are separate in the Amiga and
>the communication is not real tight. What this means is that the task may
>prompt you to swap disks while the disk driver is still writing to it.
>If you don't sit and stare at the disk light you will take the disk out
>while the Amiga is writing to it. I had quite a number of crashes that
>I blame on this. Once I 'trained' myself to not pull the disk until the
>light is out no matter what the screen says crashes have been extremely
>infrequent.
>
>David Albrecht

This is fixed in system software version 1.2. AmigaDOS will not put up
a requester asking for a disk until ALL disk activity is finished.

     Regards,
          Paul Higginbottom.

Disclaimer: I do not work for Commodore, and opinions expressed are my own.

From 620725439054998079
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c3874b01d08f0f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-05 20:13:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!sdcsvax!noscvax!cod!myers
From: myers@cod.UUCP (Margaret E. Myers)
Newsgroups: net.micro.atari16
Subject: compilers for the atari st
Message-ID: <114@cod.UUCP>
Date: Fri, 5-Sep-86 23:13:04 EDT
Article-I.D.: cod.114
Posted: Fri Sep 5 23:13:04 1986

Date-Received: Sat, 6-Sep-86 20:47:40 EDT
References: <517@elmgate.UUCP> <5661@topaz.RUTGERS.EDU> <7863@watdaisy.UUCP>
Organization: Naval Ocean Systems Center, San Diego
Lines: 25
Keywords: ST compilers review
Summary: mark williams C preliminary review

A couple of days ago I purchased MARK WILLIAMS C for about $170.
The package included two Double Sided disks, and a large manual
(the manual seems very thorough). After about one hour I was able
to install a workable version on my system, a 1040st and a single
sided drive. The manual states that MW C requires two double sided
drive (or a hard disk) but I got around this with a
ram disk and some patience (there are single sided versions available
from MW company).

The compiler and linker appear to be fairly quick (quicker than lattice,
or GST...) with the hello world program compiling and linking in about
90 seconds from floppy disk. In addition the libraries seem extensive,
including floating point.

MW C comes with MicroEmacs and a micro shell. IO redirection works,
including pipes (special)! I haven't yet had time to play the editor...

If anyone has test suites they would like me to try please send them
via e-mail...

I will post results... and perhaps have more comments after the manual
is sufficeintly broken in...

MM

From 8755818252726111841
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f7a2450372dec652,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 00:19:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!watmath!sunybcs!leo
From: leo@sunybcs.UUCP (Leo Wilson)
Newsgroups: net.micro.atari16
Subject: Memory upgrade (groan and moan, another boo-bo)
Message-ID: <819@sunybcs.UUCP>
Date: Sat, 6-Sep-86 03:19:56 EDT
Article-I.D.: sunybcs.819
Posted: Sat Sep 6 03:19:56 1986
Date-Received: Sat, 6-Sep-86 20:36:08 EDT
Reply-To: leo@sunybcs.UUCP (Leo Wilson)
Organization: guest at SUNY/Buffalo Computer Science
Lines: 22

Well, I did the upgrade on my ST at work & tho it complains not it doesn't seem to be there. Ok, the questions:

1) Does the freeram.acc I pulled off of the net awhile back actually know if I have > 512k?

2) How do I use the memtest.prg I pulled off of the net? It says it's running a 1M check, but gives no errors unless forced by the mouse. Shouldn't it beef a little if there's a problem WITHOUT moving the mouse? (This question could be a little premature as I only let it run 3 or 4 minutes)

Help! I'd like to get this one flying before digging into mine. It's kind of nice to have someone else's machine to practice on, but it should work.

Thanks, -Leo

BTW, I've managed to uudecode lots of stuff from the net w/out mishap. Are you sure you're setting file type binary when transferring executables with kermit?

From 3685573039148127800
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1bf3825cde44aa19,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 03:44:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: Re: UNITERM -- need parts 1 & 2
Message-ID: <2013@dalcs.UUCP>
Date: Sat, 6-Sep-86 06:44:43 EDT
Article-I.D.: dalcs.2013
Posted: Sat Sep 6 06:44:43 1986
Date-Received: Mon, 8-Sep-86 02:43:05 EDT
References: <8608280946.AA20397@ucbvax.Berkeley.EDU>
Organization: Marine Ecology Lab.
Lines: 8

I got parts 3-5, the encoded uniterm.prg, and it looks great, but I desparately need parts 1 & 2, which I assume contain the documentation. My main concern is that I need the 4014 emulation, and can't figure out how to get it to work -- while playing around with it I got a couple of random lines on the screen, so I assume that it does work, but clearly i am not getting into graphics mode properly. So if anyone knows how to make the 4014 emulation work but can't send the two missing parts, that would help too.

From 2719752774489267124
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,18802be14e9c87d4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 03:54:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: uuencoded binaries -- we don't all have the same compiler
Message-ID: <2014@dalcs.UUCP>
Date: Sat, 6-Sep-86 06:54:08 EDT
Article-I.D.: dalcs.2014
Posted: Sat Sep 6 06:54:08 1986
Date-Received: Mon, 8-Sep-86 02:45:15 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 17

In the discussion about uuencoded binaries vs. source, everyone seems to
assume that we all have compatible compilers. We don't. For example, I
have the Modula-2 developers' kit, which is very nice but doesn't do
much of a job on C sources.

I've had no problem with uuencoded files though -- I decode them on the
Unix machine that is on the net and send the binaries down using xmodem
or kermit. All the uudecodes that I have seen really seem written to
run under Unix anyway, and maybe this is why they don't run OK on the ST.

Sources for uudecode and xmodem have been posted to the net, and there
are tons of PD xmodem packages for the ST (my favourite is xmdm.tos from
the group at Case, via bammi, which is much more robust and reliable
than the others I have tried). The time may be ripe for reposting of
these sources, preferably with enough defines so that they will compile
on any Unix engine (my versions are heavily hacked for specialized use
on my machine and may not be very portable).

From 2145894071630766600
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9fc93c978c1747d2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-09-06 09:05:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!RELAY.CS.NET!eceres12%usl-
pc%usl.CSNET
From: eceres12%usl-pc%usl.CSNET@RELAY.CS.NET (Lalonde David P)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8609061605.AA14878@usl-pc.USL.EDU>
Date: Sat, 6-Sep-86 12:05:09 EDT

Article-I.D.: usl-pc.8609061605.AA14878
Posted: Sat Sep 6 12:05:09 1986
Date-Received: Mon, 8-Sep-86 20:45:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Please include me in the mailing list

Thank you berry mudge,

ut-sally!usl-pc!eceres12

From -1000592032441700104
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d8ac715da4c3a8d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 03:11:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!cit-vax!nike!ucbcad!ucbvax!
NOCMI.BITNET!TAYLOR
From: TAYLOR@NOCMI.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8608161011.AA04719@ucbvax.Berkeley.EDU>
Date: Sat, 16-Aug-86 06:11:28 EDT
Article-I.D.: ucbvax.8608161011.AA04719
Posted: Sat Aug 16 06:11:28 1986
Date-Received: Sun, 17-Aug-86 10:44:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

help| I am having some problem with the buffers used for the create
and delete sprite, the call works, but I am damned if I can find out
where the pattarn/save areas of memory are. My documentation indicates that
these are pointed to by a couple of the registers on calling the routine, but
these dont appear to work in the way indicated in my book "Internals of the
ST". Currently I am still running the disc based os, having not yet received
my roms, - is this the problem ?
    thanks in anticipation
    richard

From -7554674414834912442
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d8ac715da4c3a8d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 08:04:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!NOCMI.BITNET!TAYLOR
From: TAYLOR@NOCMI.BITNET

Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8608161503.AA07385@ucbvax.Berkeley.EDU>
Date: Sat, 16-Aug-86 11:04:14 EDT
Article-I.D.: ucbvax.8608161503.AA07385
Posted: Sat Aug 16 11:04:14 1986
Date-Received: Sun, 17-Aug-86 10:14:13 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I am having some problems using the line a sprite definition. I can draw and
undraw the things, but getting the pointers to the definition block appears
to have eluded me. No matter what I do to the listed registers, the sprite
is never my sprite | Can anyone help with a little more info on these functions
please ?

 thanks in anticipation

      aRTy

From 3597866050953044724
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,203e9fdf3c547de5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 12:04:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: RE: "Microsoft supports the ST
Message-ID: <860816150457.00000A74.AUMH.MA@UMass>
Date: Sat, 16-Aug-86 15:04:57 EDT
Article-I.D.: UMass.860816150457.00000A74.AUMH.MA
Posted: Sat Aug 16 15:04:57 1986
Date-Received: Sun, 17-Aug-86 09:30:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Since there seems to be a lot of interest in it, here is the quote I was
referring about Microsoft Word on the ST. It's from InformationWEEK,
7/14/86, page 41, in their INDUSTRY BRIEFS section.

Microsoft Modifies Microsoft Word for Atari's PCs
     Users of Atari Corp.'s 520ST and 1040ST personal computers now have
a word processing program written just for them. Microsoft, of Bellevue,
Wash., has modified its Macintosh-version of the Microsoft Word program
for the Atari PCs. The new version is called Microsoft Write. In addition,
the agreement between the two firms gives Atari, which is based in
Sunnyvale, Calif., worldwide distribution rights to the program.

The other reference to this was in Computerworld, 7/14 issue. It was buried at the end of an article on Microsoft Windows on the IBM PC, and gave the same information.

From -8860510722100769706
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b9a53e958c2de5c6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 14:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!CSNET-RELAY.ARPA!HELLER%cs.umass.edu
From: HELLER%cs.umass.edu@CSNET-RELAY.ARPA (Stride 440 User)
Newsgroups: net.micro.atari16
Subject: Ethernet for the 1040ST???
Message-ID: <8608170513.AA15863@ucbvax.Berkeley.EDU>
Date: Sat, 16-Aug-86 17:53:00 EDT
Article-I.D.: ucbvax.8608170513.AA15863
Posted: Sat Aug 16 17:53:00 1986
Date-Received: Sun, 17-Aug-86 09:57:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

I have a hardware question about Atari 1040ST's: Does there exist an Ethernet interface for this machine? And if so, what software is available?

My interest is this: I am contemplating getting a small computer for use "at the office". This means I'll mostly be using the machine as a smart terminal (with some local editing). Normally I'd just connect the RS232 port to one of the VAXen (or a terminal server) I use at work, but the serial ports on the VAXen are being phased out in favor of Ethernet-based terminal servers (fewer wires need be strung and less dependencies on particular VAXen). We have two DECserver-100's in the office where I work, but all of their ports are in use. There are several available Ethernet drops available (via a DELNE). If it were posible to put the Atari on the Ethernet directly, I would get much faster file transfer (10Megbit!), than with the DECserver-100's, as well as access to ANY of the machines on the Ethernet (only limited by whatever protocol(s) the software for the Ethernet interface handles). We run several different Ethernet protocols: DECNet between VAXen running VMS & Ultrix, ChaosNet between the LISP Machines (and some of the VAXen running VMS), TCP between UNIX machines (SUN's, HP's, VAXen running Ultrix and some of the VAXen running VMS), DEC's LAT protocol (between the terminal servers and the VMS and Ultrix VAXen).

Robert Heller
ARPANet: Heller@UMass-CS.CSNET
BITNET: Heller@UMass.BITNET
BIX: heller
GEnie: rheller

From 7922732338925024456
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d8ac715da4c3a8d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 21:02:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!amiga!pyramid!decwrl!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <1556@cwruecmp.UUCP>
Date: Sun, 17-Aug-86 00:02:41 EDT
Article-I.D.: cwruecmp.1556
Posted: Sun Aug 17 00:02:41 1986
Date-Received: Tue, 19-Aug-86 07:47:08 EDT
References: <8608161503.AA07385@ucbvax.Berkeley.EDU>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 489

In article <8608161503.AA07385@ucbvax.Berkeley.EDU> TAYLOR@NOCMI.BITNET writes:
>I am having some problems using the line a sprite definition. I can draw and
>undraw the things, but getting the pointers to the definition block appears
>to have eluded me. No matter what I do to the listed registers, the sprite
>is never my sprite | Can anyone help with a little more info on these functions
>please ?
>
> thanks in anticipation
>
>   aRTy

Here is a little example from this months issue of STuser magazine that
i hope will help. The parameters are set up for a monochrome monitor, but
it should be trivial to convert to color (see comments). You will also
need asmstart.s that i am also including. Assemble both using the
developers system, and link as follows:
     link68 sprite.68k=asmstart,sprite
     relmod sprite

#!/bin/sh
This is a shell archive, meaning:
1. Remove everything above the #!/bin/sh line.
2. Save the resulting text in a file.
3. Execute the file with /bin/sh (not csh) to create the files:
asmstart.s
sprite.s
This archive created: Sat Aug 16 23:59:52 1986
By: Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'asmstart.s'" '(1959 characters)'
if test -f 'asmstart.s'

```
then
     echo shar: over-writing existing file "'asmstart.s'"
fi
sed 's/^X//' << \SHAR_EOF > 'asmstart.s'
X*****************************************************************************
X*
X*   Assembler runtime startup for CP/M-68k.
X*   Adapted from C runtime startup from Atari.
X*
X*****************************************************************************
X*
Xltpa=0            * Low TPA address
Xhtpa=4            * High TPA address
Xlcode=8           * Code segment start
Xcodelen=12        * Code segment length
Xldata=16     * Data segment start
Xdatalen=20        * Data segment length
Xlbss=24           * Bss  segment start
Xbsslen=28         * Bss  segment length
Xfreelen=32        * free segment length
Xresvd=36     * Reserved
Xfcb2=56           * 2nd parsed fcb
Xfcb1=92           * 1st parsed fcb
Xcommand=128       * Command tail
Xprtstr=9     * Print string BDOS Call
Xexit=0            * BDOS exit call
X.globl  __main
X.globl  __exit
X.globl  __base
X
X    .text
X*
X*  Must be first object file in link statement
X*
X    move.l   a7,a5         * save a7 so we can get the base page address
X    move.l   4(a5),a5 * a5=basepage address
X    move.l   a5,__base * save for C startup
X    move.l   $c(a5),d0
X    add.l    $14(a5),d0
X    add.l    $1c(a5),d0
X    add.l    #$500,d0 * d0=basepage+textlen+datalen+bsslen
X*                  (plus 1K of user stack)
X    move.l   d0,d1
X    add.l    a5,d1         * compute stack top
X    and.l    #-2,d1        * ensure even byte boundary
X    move.l   d1,a7         * setup user stack, 1K above end of BSS
X
X    move.l   d0,-(sp)
X    move.l   a5,-(sp)
X    clr.w    -(sp)         * junk word
X    move #$4a,-(sp)    * return excess storage
X    trap #1
X    add.l    #12,sp
```

```
X
X
X         move.l    __base,a0     *    Load C external
X         move.l    lbss(a0),a1         *    a1 -> bss region
X         adda.l    bsslen(a0),a1       *    a1 -> 1st heap loc
X
X         move.l    a1,__break          *    Put in "break" loc
X         lea.l     command(a0),a2           *    a2 -> command line
X         move.b    (a2)+,d0       *    d0 = byte count
X         andi.l    #$ff,d0             *    clear junk
X         move.w    d0,-(a7)       *    push length
X         move.l    a2,-(a7)       *    Push commnd
X         clr.l     a6             *    Clear frame pointer
X         jsr  __main              *    call main routine
X* No Need to jmp  __exit                 call "exit"
X
X__exit:      move.w    #exit,d0       *    Exit
X         trap #2             *         now
X
X    .bss
X    .even
X__base:       .ds.l     1              *    -> Base Page
X__break       .ds.l     1              *    first break location
X
X         .end
SHAR_EOF
if test 1959 -ne "`wc -c 'asmstart.s'`"
then
     echo shar: error transmitting "'asmstart.s'" '(should have been 1959
characters)'
fi
echo shar: extracting "'sprite.s'" '(5512 characters)'
if test -f 'sprite.s'
then
     echo shar: over-writing existing file "'sprite.s'"
fi
sed 's/^X//' << \SHAR_EOF > 'sprite.s'
X*
X* sprite demonstarator
X*
X
X*        Aline Equates
Xinit          equ  $A000          ; init line a
Xdrsprite equ  init+13        ; draw sprite
Xunsprite equ  init+12        ; undraw sprite
Xshow_mou equ  init+9         ; show mouse
Xhide_mou equ  init+10        ; hide mouse
X
Xv_x_max       equ  -12       ; max x pixel value
X
X*        Gemdos Equate
Xc_conin       equ  1
X
```

```
X*       Bios eqautes
Xbconout      equ  3
Xconsole      equ  2
X
X*       General equates
XCR      equ  13
XNULL         equ  0
XESC     equ  27
X
X        .text         ; now that all the BS is out of the way
X
X*       Get a Key
Xkey:
X        move.w   #c_conin,-(sp)
X        trap #1
X        addq.l   #2,sp
X        rts
X
X*       Write string in a4 - 1st byte is (count - 1)
Xwstring:
X        clr.l    d4
X        clr.l    d5
X        move.b   (a4),d4
X_wloop:
X        add.l    #1,a4
X        move.b   (a4),d5
X        move.w   d5,-(sp)
X        move.w   #console,-(sp)
X        move.w   #bconout,-(sp)
X        trap #13
X        addq.l   #6,sp
X        dbra d4,_wloop
X        rts
X
X*       Read a string into text
Xrstring:
X        lea  text,a3
X_rloop:
X        move.w   #c_conin,-(sp)
X        trap #1
X        addq.l   #2,sp
X        cmp.b    #CR,d0
X        beq  _rend         ; the end?
X        move.b   d0,(a3)+
X        bra  _rloop
X_rend:
X        move.b   #NULL,(a3)    ; terminate string
X        rts
X
X        .globl   __main
X
X__main:
X        lea  sprite,a5
```

```
X
X         lea  scdat,a4
X         bsr  wstring
X         bsr  rstring       ; get paper color
X         bsr  xint     ; to int
X         move.w   d5,6(a5)  ; into sprite block
X
X         lea  data1,a4
X         bsr  wstring
X         bsr  rstring       ; get int color
X         bsr  xint     ; to int
X         move.w  d5,8(a5)   ; into sprite block
X
X         lea  data2,a4
X         bsr  wstring
X         bsr  key_v_x       ; get format
X
X         lea  data3,a4
X         bsr  wstring
X         bsr  key_d_v       ; read delay type
X
X         lea  data4,a4
X         bsr  wstring
X         bsr  rstring       ; get step size
X         bsr  xint     ; to int
X         lea  step_siz,a3
X         move.w   d5,(a3)
X         beq  __main        ; step size of 0? let him have it
X
X         lea  data5,a4
X         bsr  wstring
X
X         .dc.w    init      ; Init Aline d0,a0 = addr of Aline vars
X
X         move.w   v_x_max(a0),a5
X         sub.w    #9,a5          ; xlimit
X
X         .dc.w    hide_mou  ; hide the critter
X
Xsproff:
X         move.w   #0,d0
X         move.w   #16,d1
X         lea  sprite,a0
X         lea  saveblk,a2
X
Xloop:
X         movem.l d0-d2/a0-a4,-(sp)
X
X         .dc.w    drsprite
X
X         lea  hold,a4
X         move.w   (a4),d0
X         bne  do_vblnk  ; wait for Vblank
```

```
X
X         move.w    #2000,d0
Xwait:
X         dbra d0,wait
X         bra  no_wait
X
Xdo_vblnk:
X         move.w    #37,-(sp)
X         trap #14
X         addq.l    #2,sp
X
Xno_wait:
X         lea  saveblk,a2
X
X         .dc.w     unsprite
X
X         movem.l   (sp)+,d0-d2/a0-a4
X         lea  step_siz,a3
X         add.w     (a3),d0
X         cmp.w     a5,d0
X         ble  loop
X
X         bsr  key
X         cmp.b     #CR,d0         ; CR start all over again
X         beq  __main
X         cmp.b     #'q',d0        ; quit
X         beq  exit
X         bra  sproff         ; do again with same parameters
X
Xexit:
X         .dc.w     show_mou
X         move.w    #0,-(sp)
X         trap #1
X         addq.l    #2,sp
X         rts
X
X*        extract 2 digit integer in text
Xxint:
X         lea  text,a3
X         clr.l     d4
X         clr.l     d5
X         move.w    (a3),d4
X         tst.b     d4
X         bne  digit2
X         lsr  #8,d4
Xdigit2:
X         sub  #48,d4
X         move.b    d4,d5
X         lsr  #8,d4
X         beq  digit          ; isnt one
X         add.l     #10,d5         ; assume its a '1'
Xdigit:
X         cmp  #15,d5         ; too high ?
```

```
X         bgt  error
X         rts
X
X*        general error, make him restart
Xerror:
X         addq.l   #4,sp         ; pop return address
X         jmp  __main
X
X*        get format (V)di or (X)or
Xkey_v_x:
X         bsr  key
X         lea  sprite,a3
X         cmp.b    #'x',d0
X         beq  key_x
X         cmp.b    #'v',d0
X         beq  key_v
X         lea  err,a4
X         bsr  wstring
X         bra  error
Xkey_v:
X         lea  Vdi,a4
X         bsr  wstring
X         move.w   #1,4(a3)
X         rts
Xkey_x:
X         lea  Xor,a4
X         bsr  wstring
X         move.w   #-1,4(a3)
X         rts
X
X*        Get delay type (d)elay or (v)blank
Xkey_d_v:
X         bsr  key
X         lea  hold,a5
X         cmp.b    #'d',d0
X         beq  key_d
X         cmp.b    #'v',d0
X         beq  key_vv
X         lea  err,a4
X         bsr  wstring
X         bra  error
X
Xkey_vv:
X         lea  Vblnk,a4
X         bsr  wstring
X         move.w   #1,(a5)
X         rts
Xkey_d:
X         lea  Delay,a4
X         bsr  wstring
X         move.w   #0,(a5)
X         rts
X
```

```
X
X         .data
X         .even
XVdi:          dc.b 3
X         dc.b 8,'Vdi'
X
X         .even
XXor:          dc.b 3
X         dc.b 8,'Xor'
X
X         .even
XDelay:        dc.b 5
X         dc.b 8,'Delay'
X
X         .even
XVblnk:        dc.b 6
X         dc.b 8,'Vblank'
X
Xerr:          dc.b 6
X         dc.b 8,'Error!'
X         .even
X
X         .even
X*        sprite block
Xsprite:
X         dc.w 0,0  ; x,y
X         dc.w -1   ; 1 = vdi  -1=xor
X         dc.w 0    ; background color
X         dc.w 0    ; foreground color
X
Xpattern:dc.w $ffff
X         dc.w $03c0
X         dc.w $ffff
X         dc.w $0ff0
X         dc.w $ffff
X         dc.w $1ff8
X         dc.w $ffff
X         dc.w $3ffc
X         dc.w $ffff
X         dc.w $73ce
X         dc.w $ffff
X         dc.w $73ce
X         dc.w $ffff
X         dc.w $ffff
X         dc.w $ffff
X         dc.w $ffff
X         dc.w $ffff
X         dc.w $fbdf
X         dc.w $ffff
X         dc.w $f81f
X         dc.w $ffff
X         dc.w $ffff
X         dc.w $ffff
```

```
X         dc.w $67e6
X         dc.w $ffff
X         dc.w $300c
X         dc.w $ffff
X         dc.w $1ff8
X         dc.w $ffff
X         dc.w $0420
X         dc.w $ffff
X         dc.w $1818
X
X         .even
Xscdat:
X         dc.b 131  ; unsigned of course
X         dc.b ESC,'E'   ; cls
X         dc.b ESC,'b',1 ; black ink
X         dc.b ESC,'c',0 ; white paper
X         dc.b ESC,'Y!*' ; goto 1,10
X         dc.b ESC,'p'       ; inv video
X         dc.b 'Sprite demonstrator'
X         dc.b ESC,'Y%%pap_col(0-15)' ; at 5,5
X         dc.b ESC,'q'       ; normal
X         dc.b ESC,'Y)%ink_col(0-15)' ; at 9,5
X         dc.b ESC,'Y-%format(XOR/VDI)' ; at 13,5
X         dc.b ESC,'Y1%sync(delay/vblnk)' ; at 17,5
X         dc.b ESC,'Y5%step_size(1-15)'   ; at 21,5
X         dc.b ESC,'Y&&'        ; cursor to 6,6
X
Xdata1:
X         dc.b 41
X         dc.b ESC,'Y%%pap_col(0-15)' ; at 5,5
X         dc.b ESC,'p'       ; inverse
X         dc.b ESC,'Y)%ink_col(0-15)' ; at 9,5
X         dc.b ESC,'q'       ; normal
X         dc.b ESC,'Y*&' ; 10, 6
X
Xdata2:
X         dc.b 43
X         dc.b ESC,'Y)%ink_col(0-15)' ; at 9,5
X         dc.b ESC,'p'       ; inverse
X         dc.b ESC,'Y-%format(XOR/VDI)' ; at 13,5
X         dc.b ESC,'q'       ; normal
X         dc.b ESC,'Y.&' ; 14, 6
X
Xdata3:
X         dc.b 47
X         dc.b ESC,'Y-%format(XOR/VDI)' ; at 13,5
X         dc.b ESC,'p'       ; inverse
X         dc.b ESC,'Y1%sync(delay/vblnk)' ; at 17,5
X         dc.b ESC,'q'       ; normal
X         dc.b ESC,'Y2&' ;
X
Xdata4:
X         dc.b 47
```

```
X        dc.b ESC,'Y1%sync(delay/vblnk)' ; at 17,5
X        dc.b ESC,'p'       ; inverse
X        dc.b ESC,'Y5%step_size(1-15)'   ; at 21,5
X        dc.b ESC,'q'       ; normal
X        dc.b ESC,'Y6&';
X
Xdata5:
X        dc.b 22
X        dc.b ESC,'Y5%step_size(1-15)'   ; at 21,5
X        dc.b ESC,'Y  ';
X* vars
X        .bss
X        .even
Xsaveblk: ds.b 74   ; for mono
X* saveblk:   ds.b 266  ; for color
X
Xstep_siz:    ds.w 1
Xhold:        ds.w 1
Xtext:        ds.w 8
X
X        end
SHAR_EOF
if test 5512 -ne "`wc -c 'sprite.s'`"
then
     echo shar: error transmitting "'sprite.s'" '(should have been 5512
characters)'
fi
#    End of shell archive
exit 0

--
                        Jwahar R. Bammi
                Usenet:  .....!decvax!cwruecmp!bammi
                CSnet:  bammi@case         Arpa:  bammi%case@csnet-relay
             CompuServe:  71515,155


From -6922756222506271039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67ed58cfcd4cb010,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-16 21:19:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!qantel!intelca!oliveb!glacier!decwrl!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Yet another Megamax C bug
Message-ID: <1557@cwruecmp.UUCP>
Date: Sun, 17-Aug-86 00:19:23 EDT
Article-I.D.: cwruecmp.1557
Posted: Sun Aug 17 00:19:23 1986
Date-Received: Wed, 20-Aug-86 04:40:00 EDT
```

Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 23
Keywords: MEGAMAX C PREPROCESSOR

I came across the following bug in Megamax C's pre-processor. It does not
substitute arguments enclosed in single quotes ('x'). My understanding
is that the pre-processor should not substitute arguements in strings
(ie within double quotes (")).

For Example:

```
#include <stdio.h>
#define BROKEN(x)  putc('x', stdout); putc('\n', stdout)

main()
{
     BROKEN(A);
}
```

will always print the character x no matter what the argument to BROKEN is.
Alcyon (v 4.14) and Vax (bsd 4.3) print out the character A as i expect.
--

                        Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                CSnet: bammi@case   Arpa: bammi%case@csnet-relay
            CompuServe: 71515,155

From 1373875714295918306
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-17 13:26:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!ut-ngp!wca
From: wca@ut-ngp.UUCP (William C. Anderson)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint (rubberband line)
Message-ID: <3809@ut-ngp.UUCP>
Date: Sun, 17-Aug-86 16:26:27 EDT
Article-I.D.: ut-ngp.3809
Posted: Sun Aug 17 16:26:27 1986
Date-Received: Tue, 19-Aug-86 02:00:53 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP> <208@bridge2.UUCP> <2694@mit-hermes.ARPA>
Distribution: net
Organization: UTexas Computation Center, Austin, Texas
Lines: 32

Summary: reverse Bresenham scan convert
Xref: mnetor net.micro.mac:6649 net.micro.atari16:1626

In article <2694@mit-hermes.ARPA>, jpexg@mit-hermes.ARPA (John Purbrick) writes:
> Here's the lone dissenter--name removed as it was private mail:
>
> Actually, MacPaint keeps the old screen buffer and copies it back each
> time you move the line to restore the original image. It doesn't do
> XOR--if you notice, the line always looks like it will when you finish
> moving it. Bill Atkinson has a special routine that copies his "save"
> bitmap VERY quickly to the screen for just this kind of application,
> thus the fixed window size.
>
> So what does everyone else think of this? To me, it has the ring of truth
> about it.
>   --jp

This is a possibility, but I think that there are more efficient ways to
rubberband an OR line. One strategy that could be used is to do "reverse
Bresenham": instead of *drawing* a line according to a Bresenham DDA algorithm,
go out to the screen and *copy* the data that is in the area to be drawn
over into some buffer, using the same positioning logic (DDA) that is used in
Bresenham line drawing. Then draw the line. When you move the line, just
replace the stuff you copied from the screen and recycle the procedure.
A bit more complex than the XOR technique of drawing the line twice, but
it does the trick with a minimum of copying and buffer space (which was
certainly at a premium in the 128K Mac).

I have seen this technique used in some Multibus graphics buffer boards.
It's not too difficult and would require considerably less data moving
and buffer space than copying the entire screen. Since Atkinson did lots
of custom code for MacPaint, it is not inconceivable that he used this
technique. But we'll never *really* know, will we?

William Anderson - University of Texas Computation Center

From 7522484166440967997
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f69fca1d6df0e00,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-17 16:58:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!jafischer
From: jafischer@watnot.UUCP (Jonathan Fischer)
Newsgroups: net.micro.atari16
Subject: bios/xbios/gemdos for PPascal
Message-ID: <11964@watnot.UUCP>
Date: Sun, 17-Aug-86 19:58:33 EDT
Article-I.D.: watnot.11964
Posted: Sun Aug 17 19:58:33 1986
Date-Received: Mon, 18-Aug-86 01:19:10 EDT

Reply-To: jafischer@watnot.UUCP (Jonathan Fischer)
Organization: U of Waterloo, Ontario
Lines: 11
Keywords: pascal bios xbios gemdos
Summary: has anyone typed in all the procs/funcs?

Has anyone typed in a complete set of definitions for xbios, bios, and gemdos calls for OSS Pascal? I've started it myself, and got halfway thru gemdos when I thought I'd ask here. It's a pain in the neck to type in every definition, and if someone else has already done it, I'm sure that many users would appreciate a posting.

i.e.,
```
procedure Cconout( param: integer or whatever );
   gemdos( whatever );
etc.
```

From -982144423467108355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6e709119b51df1c7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 00:58:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Re: malloc() problem
Message-ID: <197@nikhefh.UUCP>
Date: Mon, 18-Aug-86 03:58:52 EDT
Article-I.D.: nikhefh.197
Posted: Mon Aug 18 03:58:52 1986
Date-Received: Wed, 20-Aug-86 23:31:00 EDT
References: <155@hslrswi.UUCP>
Reply-To: gert@nikhefh.uucp (Gert Poletiek)
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 68
Apparently-To: rnews@mcvax

In article <155@hslrswi.UUCP> brantsch@hslrswi.UUCP (Stefan Brantschen) writes:
```
>Has anybody ever had problems with malloc() (DRI C)?
>Consider the following piece of code:
>
>long free_mem;
>
>struct midi_event
>{ int delay;
>  char midi_msgs[3];
>} buffer;
>
>main()
```

```
>{
>  struct event *malloc();
>
>  free_mem = (long)malloc(-1L);
>
>  buffer = malloc(free_mem);
>
>/*  error handling ..... */
>
>  printf("%ld bytes free",free_mem);
>
>  ........
>  ........
>}
>
>What I get is "879000 bytes free" on a 1040 with a 600k RAM disk
>installed....????
>
>Any hint?
>
>Thanks       Stefan Brantschen
>         ...cernvax!hslrswi!hslraxe!brantsch
```

Its all DRI's fault. First they wrote a memory allocation mechanism for the Atari's OS, which is the most weird mechanism i have seen sofar. It works something like this:

> When an application has done it's startup Mshrink the OS calculates the amount of memory that's left. This amount is divided by 256 and an array of pointers to that number of 256 byte memory blocks is initialized. Every time you do a Malloc (not a C malloc) you will get a pointer to one of those 256 byte blocks. There's yet another setback in this story: the maximum number of pointers is limited to about 512.
>
> So, when i ported MicroEmacs 3.7 to my ST i used Malloc instead of malloc (i thought it might be more efficient: i used Lattice C). You can imagine what happened: Emacs wouldn't read files more than about 320 lines. THE OS WAS OUT OF POINTERS, NOT OUT OF MEMORY.

So every C compiler has to have its own 'linked list' memory allocation mechanism, and so has DRI-C. To find the amount of memory left in the system use Malloc(-1L) instead of malloc(-1L). malloc(-1L) should be a request for 16Mbytes of memory !!. And if i remember right malloc of DRI WILL ONLY ACCEPT SHORT ARGUMENTS (<= 32KBYTE REQUEST)

Gert Poletiek
Dutch National Intitute for High Energy Physics.
Amsterdam
The Netherlands.

Hope Atari will get decent OS writers one day.....

From -6709340697892432562
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df0f490a202e1fd7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 03:47:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!kcl-cs!agjenkin
From: agjenkin@kcl-cs.UUCP (Alun Jenkins)
Newsgroups: net.micro.atari16
Subject: Battery backup for the 6803 ?
Message-ID: <725@neon.kcl-cs.UUCP>
Date: Mon, 18-Aug-86 06:47:19 EDT
Article-I.D.: neon.725
Posted: Mon Aug 18 06:47:19 1986
Date-Received: Thu, 21-Aug-86 01:25:09 EDT
Reply-To: agjenkin@kcl-cs.UUCP (Alun Jenkins)
Organization: Department of Computing, Kings College, University of London.
Lines: 12

<munch munch ... >
     I read a while back on the net that someone had done a mod to the
ST keyboard processor to enable the counter that keeps the clock to be
kept running. I have not heard any more and I wondered if the schematics
had appeared on the net and our PDP 11/44 had eaten them! (we only have 160M
on line) I have tryed mailing the author but I get an unknown addressee back
from about half way down the path!
     Any help appreciated

     Alun Jenkins

     ...mcvax!ukc!kcl-cs!agjenkins

From 8018508811503282441
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9ae7722d791b0110
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 09:07:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!inuxd!keen
From: keen@inuxd.UUCP (D Keen)
Newsgroups: net.micro.atari16
Subject: Re: Copy protection and quality software
Message-ID: <921@inuxd.UUCP>
Date: Mon, 18-Aug-86 12:07:18 EDT
Article-I.D.: inuxd.921
Posted: Mon Aug 18 12:07:18 1986
Date-Received: Tue, 19-Aug-86 08:12:42 EDT

References: <819@drutx.UUCP>
Organization: AT&T Consumer Products, Indianapolis
Lines: 47

> >>Call Accolade. Their copy protection does not work with some early 520ST
> >>keyboard controller chips. They have a fix for this. That's what they get
> >>for going beyond the bounds of what we say is OK to use.
>
> >- That's what the BUYER gets for buying "copy protected" software.
> >Please, let's all get together and refuse to do that! As things are now,
> >the pirates copy anyway, and legitimate buyers have problems, not only
> >with things like an old computer model, but simply with using RAM disks
> >and hard disks. Would you pay for a book that can only be read under UV
> >light, and that you're not allowed to read on more than one desk?
>
> Fine. I guess that leaves me with a 520ST computer and a lot of
> non-copy protected software that's not worth copying anyway.
> While there are some excellent packages that are not protected,
> most of the really useful stuff IS protected.
> While boycotting vendors of copy protected software
> may well teach THEM a lesson (or put them out of business),
> it doesn't leave ME with much useful software.
> Besides, it only teaches THEM a lesson if they know that the reason
> their software is not selling is because of copy protection.
>
> Did you buy your computer to teach people lessons or to use it?
>
> --
> Terry L. Zrust, AT&T Information Systems Laboratories
> MS 30L49, 11900 North Pecos Street, Denver, CO 80234
>   ihnp4!drutx!tlz   Voice: (303)-538-4547

Personally, I take great pleasure in writing to the company
whose product I did not purchase due to unacceptable copy
protection methods (which includes most if not all that I have
encountered) and informing them of the lost sale, the reason
why, and usually the product that I purchased in lieu of their
own. I also point out that I have recommended to all my
acquaintances that they also search for another product. One
should also write to the company of purchase and complement them
on their approach and pass on the same information. Indeed, one
cannot teach a lesson without communication. If one cannot find
a commercial or PD product to accomplish what one wants, there
is the option of writing the code oneself. While this is
usually more expensive (person-hours to write the code), it
often is more to your needs anyway.

Don Keen, AT&T Consumer Products

AT&T barely knows I exist and certainly would not wish or be
willing to take credit for anything I may say or write.

From -5438826274320335218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 09:36:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <510@elmgate.UUCP>
Date: Mon, 18-Aug-86 12:36:19 EDT
Article-I.D.: elmgate.510
Posted: Mon Aug 18 12:36:19 1986
Date-Received: Tue, 19-Aug-86 21:03:24 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 30
Keywords: 68000 atari amiga 68k mmu
Summary: If paging with a 68000 is impossible? Why worry address REMAPPING on the Amiga or any other 68000 based machine?
Xref: mnetor net.micro.atari16:1635 net.micro.amiga:4305 net.micro.68k:1140

In article <64@mit-prep.ARPA>, tmb@mit-prep.ARPA (Thomas M. Breuel) writes:
> The fact that it is difficult to restart an instruction that received
> a bus fault on the 68000 makes it difficult to implement paging.
> However, an MMU has other uses besides paging, e.g. to protect processes
> from one another, to help utilise memory more efficiently, and
> to allow swapping and process duplication (a la fork(1); you can't
> implement fork(1), in general, on the 68000 without an MMU).
>
> I consider it a grave mistake not to have included even a rudimentary kind
> of address remapping on the Amiga; even just an adder on the address lines
> of the 68000 would have simplified the system software and allowed some
> kind of swapping to be hacked.
>
>   Thomas.

I understand your first paragraph completely. But you lost me on the second. I can see where a MMU that provides protection only would be useful but address mapping is still of no use. Not without a 68010, admittedly an easy upgrade, but not provided. If you mapped a some address block to another would you not HAVE to ensure it was a legal RAM/ROM address? One faulty address and your back to GURU type crashes, yes? I guess it be nice to learn from you what type of paging you could implement with just an adder, etc. Enlighten me. Mail if you must. Post if it seems of general interest to all 68000 based machines.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 8873610550958590578
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 11:35:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site unc.unc.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!whuxcc!lcuxlm!akgua!mcnc!unc!
steele
From: steele@unc.UUCP (Oliver Steele)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint (rubberband line)
Message-ID: <170@unc.unc.UUCP>
Date: Mon, 18-Aug-86 14:35:57 EDT
Article-I.D.: unc.170
Posted: Mon Aug 18 14:35:57 1986
Date-Received: Wed, 20-Aug-86 05:16:24 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP> <208@bridge2.UUCP> <2694@mit-
hermes.ARPA>
Reply-To: steele@unc.UUCP (Oliver Steele)
Distribution: net
Organization: CS Dept, U. of N. Carolina, Chapel Hill
Lines: 36
Xref: watmath net.micro.mac:7384 net.micro.atari16:1672

In article <2694@mit-hermes.ARPA> jpexg@mit-hermes.ARPA (John Purbrick) writes:
>
> Actually, MacPaint keeps the old screen buffer and copies it back each
> time you move the line to restore the original image. It doesn't do
> XOR--if you notice, the line always looks like it will when you finish
> moving it. Bill Atkinson has a special routine that copies his "save"
> bitmap VERY quickly to the screen for just this kind of application,
> thus the fixed window size.
>
>So what does everyone else think of this? To me, it has the ring of truth
>about it.
>   --jp

Almost. You'll notice that there's no flicker when you move the line,
as there would be if MP constantly copied the old screen buffer onto
the real screen and then did the draw (even Atkinson&Quickdraw can't
beat a vertical retrace on circles that huge). Rather, MP copies the
effected portion of the old screen buffer onto a temporary buffer
(affected portion=union of rectangle within which last instance was
drawn and this instance), does the draw in the temp buffer, and then

copies the temp buffer onto the actual screen.

Atkinson gave a mini-speech here about {software,human}-engineering
about a year ago, and said that using the mini-buffer slowed things
down by about a third, but that it actually looked faster to the user
since things didn't flicker when foo moved them.

Incidentally, this is the way a lot of arcade games used to work on the
old {1,2,4}meg 8-bit machines with fixed screen space, like the Model
I/III TRS-80. Anybody remember Big Five Software?
new screen.

--
Oliver Steele----------------------------------steele@unc
     ...!{decvax,ihnp4}!mcnc!unc!steele   (usenet)
     steele%unc@csnet-relay.csnet   (arpanet)

From 5773715511464829086
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdea7a15f3fd4875,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 11:45:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!BFLY-VAX.BBN.COM!aking
From: aking@BFLY-VAX.BBN.COM (Allen King)
Newsgroups: net.micro.atari16
Subject: Mod for Battery Backup Clock
Message-ID: <8608181913.AA03344@ucbvax.Berkeley.EDU>
Date: Mon, 18-Aug-86 14:45:42 EDT
Article-I.D.: ucbvax.8608181913.AA03344
Posted: Mon Aug 18 14:45:42 1986
Date-Received: Tue, 19-Aug-86 04:25:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

A while ago there was talk of a (simple?) mod to the keyboard chip which
would allow time to be kept when power is off. WOULD SOME KIND SOUL PLEASE
SHARE THE WEALTH. Its almost mandatory with make, since I run about 20 BPH.
(Boots Per Hour).

From 6587487757339893413
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df3bc7198bf8a193,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 11:48:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!houxm!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: easy-ram 520

Message-ID: <1942@mtgzy.UUCP>
Date: Mon, 18-Aug-86 14:48:22 EDT
Article-I.D.: mtgzy.1942
Posted: Mon Aug 18 14:48:22 1986
Date-Received: Tue, 19-Aug-86 04:23:18 EDT
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 9

Has anyone had any experience with the Easy-RAM 520 upgrade for the 520ST?
It updates the 520 to 1 Meg and costs approx. $160 here in northern NJ.

Apparently it installs without any piggybacking of the RAM chips.
I've had reports that it is easy to install but have never heard anything
as to its reliability and/or performance.

From 1700544170120411290
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 17:54:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <653@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 18-Aug-86 20:54:37 EDT
Article-I.D.: cbmvax.653
Posted: Mon Aug 18 20:54:37 1986
Date-Received: Tue, 19-Aug-86 07:54:07 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 16
Keywords: 68000 atari amiga 68k mmu
Xref: watmath net.micro.atari16:1665 net.micro.amiga:4380 net.micro.68k:1747

In article <64@mit-prep.ARPA> tmb@prep.UUCP (Thomas M. Breuel) writes:
>
>I consider it a grave mistake not to have included even a rudimentary kind
>of address remapping on the Amiga; even just an adder on the address lines
>of the 68000 would have simplified the system software and allowed some
>kind of swapping to be hacked.
>   Thomas.

A reasonable attitute, but remember that both the Amiga and Atari were
intended to be affordable machines. To this end, they contain only those

things that were considered to be needed - no 'it sure would be nice...'
type goodies.
--
George Robbins - now working with, uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)

From -9004629779234818600
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5ab3cd19fcf5d16,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 20:10:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: st kermit
Message-ID: <8608191601.AA08715@ucbvax.Berkeley.EDU>
Date: Mon, 18-Aug-86 23:10:48 EDT
Article-I.D.: ucbvax.8608191601.AA08715
Posted: Mon Aug 18 23:10:48 1986
Date-Received: Wed, 20-Aug-86 04:43:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 8

I had requested that someone please send me the first five files of the
kermit which was sent out a while ago. I had only received the last,
number 6, part and would like the other parts, too. I checked with
kermsrv at cuvma, but the stkermit is SYSTEM TOOLS kermit for HP3000.
Please reply to me before you send, I would appreciate your help.

Thank you,
Mike

From -2531482982173157072
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,33a80656bb294533,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-18 22:49:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!cit-vax!nike!ucbcad!ucbvax!
UMass.BITNET!Silver
From: Silver@UMass.BITNET (I forgot your name already.)
Newsgroups: net.micro.atari16
Subject: Atari and Dealer relations.
Message-ID: <860819014936.00000C3F.BDET.MA@UMass>
Date: Tue, 19-Aug-86 01:49:36 EDT
Article-I.D.: UMass.860819014936.00000C3F.BDET.MA
Posted: Tue Aug 19 01:49:36 1986

Date-Received: Wed, 20-Aug-86 01:38:34 EDT
Sender: jason@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 56

Hi,

You know, I work for this Atari Dealer. And we seem to have some sort of problem in getting ANY Atari hardware in. Seems that Atari either has run out of stock, or do not have enough people in charge of orders for dealers. It is pretty sad, cause we cannot sell what we do not have in stock. On a daily basis we lose sales to mail order, cause people cannot afford to wait for Atari. We have been waiting for "any day now" for about 2 months now. Sigh. It is pretty sad. I dunno, maybe Neil over at Atari can say something. One of the tricks to selling computers at a dealership when competing against mail order is to be able to have the hardware in stock. People cannot deal with "any day now". So they leave, and go mail order. Atari is trying to compete with other major computer companies. But we cannot sell what is not available. "We carry all these, plus the ST which is more powerfull than any IBM machine, but we dunno when we will get one. We DO have the IBM-Compatibles in stock, though" When people go computer shopping they like to get what they buy NOW, and not wait for some non-announced date. If this is the way that Atari Corp. is planning to deal with dealers, it is pretty sad. Selling machines ONLY mail order and in stores like Lechemer's is not very good if you want to establish yourself in the market. Corporations, Schools, Universities (we have 6 around us) will ONLY purchase from a dealer and not from mail order. Business men like to SEE what they are getting and try it out, and get a store to back them up with some sort of service contract. By going only with mail order and such, Atari Corp. is putting itself in danger. In the end one can see a price war like happened before. And nobody wins. Machines are sold below cost, and losses are reported everywhere.

I honestly hope that Atari Corp. sees beyond this mass-volume-sales into the future and establishing themselves as a real, mature, secure and stable computer company which can computer with big blue and others. But by not supporting its dealers, they place themselves in jeopardy. Since, without dealers, they will not be accepted into the business, educational markets in any amount that causes a difference. I like Atari, and I own an ST. I have followed the Tramiels for years. Having started off with a PET 2001, then a C64 and now an ST. I wish to continue being with them, but that can only be done, if they keep up with times. I personally require as time goes on more mature machines with better company support. I believe Atari is more than capable to support ths mature level of modern computer business, but it is something that might take time.

Our dealership is based on Atari business, it being our main line. This might have been a mistake, due to the lack of hardware to sell. But, we took the risk, cause we believed in Atari and Tramiel. We think it can be done. But every month that goes by that we cannot sell a machine cause Atari doesn't send us any, is another month that pushes us closer to re-consider our dream. We are right now receiving strong pressure from our investors to carry another line of computers as our main line,

one which we can have over_stock. Not "any time soon". We are honestly
trying to hold out for Atari, the market in our area is perfect for it.
(College Students left and right, about 100,000 of them, and we are
 the only Atari Dealer). But we need hardware, not promises. They do not
pay bills. I hope that something does work out.

Silver,
SILVER%UMASS.BITNET

From 4657656942489171655
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 08:17:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!decwrl!amdcad!cae780!
leadsv!lefko
From: lefko@leadsv.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <1068@leadsv.UUCP>
Date: Tue, 19-Aug-86 11:17:45 EDT
Article-I.D.: leadsv.1068
Posted: Tue Aug 19 11:17:45 1986
Date-Received: Thu, 21-Aug-86 01:29:40 EDT
References: <1204@mhuxo.UUCP> <12226870831.27.LAWRENCE.AUGER@IC2060>
<1664@ihlpa.UUCP>
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 17

In article <1664@ihlpa.UUCP>, droch@ihlpa.UUCP (Kraft) writes:

>   I've had an Avatex 1200 hooked up to my Amiga (egads!) for
> nearly four months now without any problems. My only complaint is
> that there is no speaker and you can't tell if the line was busy or
> never picked up (if you're a wimp you can always pick up the phone :-).
>

I just bought a 520st mono system and Avatex modem. I have no problems with
it except the one mentioned above. If your not dialing long distance you
can use pulse mode insted of tone mode and hear the number dialing.

--

 {(ucbvax!dual!sun) (ihnp4!qubix)}!sunncal!leadsv!lefko
 {{allegra ihnp4 dual}!fortune decvax!decwrl}!amdcad!cae780!leadsv!lefko

From 1470387565133097104
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3089728f2faefbf6

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 08:24:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!meccts!dicome!rosevax!rose3!rick
From: rick@rose3.UUCP (Richard R. Sharpe)
Newsgroups: net.micro.atari16
Subject: Re: Question on Cartridge
Message-ID: <190@rose3.UUCP>
Date: Tue, 19-Aug-86 11:24:02 EDT
Article-I.D.: rose3.190
Posted: Tue Aug 19 11:24:02 1986
Date-Received: Thu, 21-Aug-86 02:33:22 EDT
References: <4392@pur-ee.UUCP> <411@atari.UUcp>
Reply-To: rick@rose3.UUCP (Richard R. Sharpe)
Organization: Rosemount Inc., Minneapolis, MN
Lines: 22
Keywords: Cartridge port, PROMS
Summary: Bad news ?

[Eat this !!]

I had great problems developing applications for use with the
cartridge port. Everything seemed to give me bombs right away.
I finally got a directory up when I built a cart with just names
and "rts"s. I called R Frick's number at atari. I got passed
around for a while but eventually got to someone that appeared to
know what was happening (unfortunately, I forget his name).

He said that application-type cartridges have never worked under any
rev of TOS!!! This kinda shook me up and I questioned him further but
he wouldn't change his story. There is some way around the problem,
that involved booting without disks attached or something but I wasn't
able to figure it out.

Has *anyone* been able to get an application cartridge running ?

Rick Sharpe at Rosemount Inc, Burnsville MN
(612)-885-2017   ihnp4!quest!rose3!rick
(612)-423-9096   ihnp4!stolaf!umn-cs!rosevax!rose3!rick

PS. Landon, Claudia says HI!

From 5010658288867677464
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 09:08:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!uwvax!puff!scott
From: scott@puff.UUCP (Scott Aschenbach)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <162@puff.UUCP>
Date: Tue, 19-Aug-86 12:08:31 EDT
Article-I.D.: puff.162
Posted: Tue Aug 19 12:08:31 1986
Date-Received: Wed, 20-Aug-86 08:23:42 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP>
Organization: U of Wisconsin CS Dept
Lines: 27
Keywords: 68000 atari amiga 68k mmu
Summary: you can auto-allocate stack space
Xref: mnetor net.micro.atari16:1641 net.micro.amiga:4321 net.micro.68k:1143

In article <767@ark.UUCP>, gijs@ark.UUCP (Gijs Mos) writes:
> In article <508@elmgate.UUCP> jdg@elmgate.UUCP writes:
> ...
> >If memory serves me correct the 68000 can not restart/resume a bus faulted
> >instruction. So regardless of what mkind of MMU you try to hang on it, it
> >can not overcome this problem.   ...
>
> You cannot do virtual memory, you cannot auto-allocate stack space, but you
> *can* do multitasking.
>
> --
> Gijs Mos
You can auto-allocate stack space if you always allocate it the same way
so you know how to recover when you get a fault. For example, always
update the stack/frame pointers and then clear a memory location before
actually using it. A bit wasteful, but it may be worth the effort.

I though I heard of someone using pairs of 68000's before the 68010s
came out. One was set to run just a bit ahead of the other, so that
the first faulted, and the second was in the state the first one should
be in when it was restarted.

It may not be cheap, but don't say it can't be done.

--
W. Scott Aschenbach (Deputy Directory of Computing Facilities)
uwvax!scott   scott@rsch.wisc.edu

From -7388901369216591384
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4eb5834633fa1d9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 09:53:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!DS0RUS51.BITNET!ZRFA1
From: ZRFA1@DS0RUS51.BITNET

Newsgroups: net.micro.atari16
Subject: Network for ATARI-ST
Message-ID: <8608191653.AA09655@ucbvax.Berkeley.EDU>
Date: Tue, 19-Aug-86 12:53:57 EDT
Article-I.D.: ucbvax.8608191653.AA09655
Posted: Tue Aug 19 12:53:57 1986
Date-Received: Wed, 20-Aug-86 04:44:16 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

We are thinking about students education on one or more
groups of Ataris which are connected by a network. To find
out whether this is usefull we need answer for questions
like:

How many machines can be connected? How is the performance
of the network? Does fileserving, printserving, plotserving
exist? Are there gateways to other networks? Where are the
limits of such networks? Who is producing such networks?

Does anybody have any experience with a network for ATARI-STs?
If so, could you please send me mail explaining your experiences
or answering some of the questions.

Ulrich Lang (ZRFA1@DS0RUS51.BITNET
or ZRFA@DS0RUS1I.BITNET)
University of Stuttgart Computer Center

From 5349482123760985870
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 10:42:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!cit-vax!amdahl!dmsd!bass
From: bass@dmsd.UUCP (John Bass)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <270@dmsd.UUCP>
Date: Tue, 19-Aug-86 13:42:29 EDT
Article-I.D.: dmsd.270
Posted: Tue Aug 19 13:42:29 1986
Date-Received: Wed, 27-Aug-86 20:55:31 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <653@cbmvax.cbmvax.cbm.UUCP>
Organization: DMS Design, San Luis Obispo Office, CA

Lines: 23
Keywords: 68000 atari amiga 68k mmu
Summary: Cost ... MMU's are cheap
Xref: mnetor net.micro.atari16:1729 net.micro.amiga:4406 net.micro.68k:1165

In article <653@cbmvax.cbmvax.cbm.UUCP>, grr@cbmvax.cbm.UUCP (George Robbins)
writes:
> A reasonable attitute, but remember that both the Amiga and Atari were
> intended to be affordable machines. To this end, they contain only those
> things that were considered to be needed - no 'it sure would be nice...'
> type goodies.

Consider that a simple paging mmu is a pal and two highspeed 16k static rams,
a production cost of under $10 in ST quantities, furthermore parity is under
$5 -- at a 3:1 retail price to parts cost ratio we are talking under $45 at
the shelf. This is the difference between the ST being a game machine and
having the support for process issolation and error detection for a strong
bussiness machine. The additional market share should justify it, except for
the mindset of being in the highly competitve game market. If both of these
we included in the custom vlsi, the cost would have been cheaper.

Sorry ... but Atari just screwed up ... this machine is not just another
400/800 in the market place -- it is big enough to go places, but remains
cripled by it's designers.
--

John Bass (DBA:DMS Design)
DMS Design (System Design, Performance and Arch Consultants)
{amdahl,fortune,polyslo}!dmsd!bass

From 7066071512192135070
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce4ce88283a5e916,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 11:04:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: NOTE from K538915
Message-ID: <8608202147.AA07207@ucbvax.Berkeley.EDU>
Date: Tue, 19-Aug-86 14:04:22 EDT
Article-I.D.: ucbvax.8608202147.AA07207
Posted: Tue Aug 19 14:04:22 1986
Date-Received: Thu, 21-Aug-86 02:16:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 117

OPTIONS: ACK   LOG   LONG   NOTEBOOK ALL

Date: 19 August 1986, 15:43:57 GMT
From: Simon Poole K538915 at CZHRZU1A
To: INFO-ATARI16 at SU-SCORE

Subj.: TDI-Modula II/Key Caps/VT100 Emulator

I. TDI Modula II

Yesterday afternoon we received 12 1040 ST's at our institute, which are intended to be used as terminals (and to provide some local processing power). As a programming language we decided to try out the new version of TDI's Modula II. I spent last evening playing around with it and since I can compare it with the old release, its probably a good idea to do a short review.

To start with the positive things: the handbook is better, in an appendix there is a short explantion of Transfer and IOTransfer (but no working examples) and it seems to go a bit more in to the details of the implementation. There are some things missing like good configurations for work with the ramdisk.
There are a BIOS and XBIOS interface included in the libary now and if you buy the toolkit you get some higher level GEM routines plus the MegaMax resource construction program, a GEM version of the ETH debugger and the Versions of the ETH sym and lnk file decoder.

So after a look in the handbook and the moving of all the files to a double sided diskette, I decided to compile the sample definition and implementation modules on the disk. I started the ramdisk that comes with the package and copied all files except the ramdisk and the options accessory to it. I made the ramdisk 700 kB large, that did leave some free space on the disk. To set the search paths for the compiler, editor, linker and debugger (if you have the toolkit) you use the options desk accessory, it allows you to set 4 directorys to be searched for files in the order you specify:

```
Example: 1 D:
         2 D:GEMLIB
         3 D:STDLIB
         4 A:
```

Additionlly you can set compiler and linker options, like dump,debug,optimize, but there is no way to save these settings to disk. The desk accessory does look at a file to determine the default pathes when it is booted, but you have to create this file with a separate editor. So after setting these options I started the Modula desktop program. It looked quite nice, with icons to start the compiler etc. but where were my sample files? Acording to the handbook they should have been listed with name and an icon for every type of file (mod,def, lnk,sym,prg). Ok they were in a folder, so there should be a possibilty to change the path for the source, but it dosen't seem as the option program can set this path. So I copied the sample files in to the main directory and erased the folder. Back in the desktop program, hey presto, there were the icons. To start the compiler (linker etc.) you click in the field where you would like to create a file, so to create the sym file of a definition module TEST you click in the row with TEST as name and in the column under SYM. I did this for all definition files on the disk, the compilation speed doesn't seem

different to the old version and then I compiled the implementation module of the main progam. Result: 4 BOMBS, probably the compiler ran out of stack, but errors like this one MUST be trapped for the compiler to be of any use. Writing the VT100/Tek4010 emulator with CCD/OSS pascal this happened to me once in 4 weeks and then I was at least using a more obscure feature than just compiling a program. Well at least I didn't have to reboot.

After this experience I decided to write a small program of the 'Hello World' type to test the rest of the system. To create a new file in the desktop you have to start the editor by double clicking the editor icon, this works but the desktop does seem a bit unresponsive to the mouse button. The editor does have more functions than the old one and it does create a proper end of file now even if the eof marker isn't on a line alone. But otherwise it still is utterly useless except for correcting errors, my god have they never seen GST-Edit? The cursor movement and delete functions are slower than my terminal emulator on a 9600 baud line using VM/CMS on an overloaded 3083. I wonder how they delete, bit for bit perhaps? Leaving the editor is still funny, if I remember correctly the old version always stoped saving a file, now you have to save the file salect abandon and click cancel on the file selector dialog that pops up then.

Otherwise it is quite straightforward to compile and link a small program. When you leave the editor you click under prg and it automaticallys compiles and links the file. To run it, you have to select Execute Program from a drop-down menu, TOS or TTP programs can't be started this way because there is no way of renaming a file from the desktop.

Summary: well I haven't done any serious work with TDI's Modula and as long as the desktop dosen't get better I don't intend to. TDI do have good ideas, they are just implemented so bad I can't belive it (an other example the desktop itself is drawn exactly one pixel to high, that means it gets messed up every time you use a drop-down menu).

What really makes me furious is that the compiler itself is probably very much the original multipass compiler used for work on the Lilith computer at the ETH Zuerich and of all adaptions of that compiler TDI's is the worst.

The original compiler ran on PDP-11 with RT-11 and two friends of mine fixed it to work with RT-11 V0.5, except when fiddling with the actually kernal of the compiler it never died on them!!!! I know this is rather destuctive, but this product is buggy and unfinished, but you have to pay money for it and I think you should know what to expect!

II Key caps

As I said, we are using the ST's mainly as terminals and this leads to one problem: we would like to use a US querty keyboard layout (if you have ever seen the german keyboard you know why). The general distributer in Switzerland flatly denied even the existence of different versions then what we get here. Loading a different keyboard table is no problem, but if possible we would like to avoid sticking labels on the keys. Does anyone know if you can get sets of replacement key caps and has anyone actually changed them?

III PD VT100/Tek4010 emulator

The terminal emulator is finished and I will send the uuencoded executable

and documentation to anybody who asks, but I will not post 100kB worth of files
to the net if nobody wants the program (the response to my last posting was
1 piece of mail).

Simon Poole

Institute of Physics of the University Zuerich
'just an excuse to play with computers the whole day'

From -97731094859124538
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34b9297e526b1f88,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 11:26:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decwrl!peters@pulman.dec.com
From: peters@pulman.dec.com (Don Peters, APO-1/F8, 289-1242)
Newsgroups: net.micro.atari16
Subject: ST disk speed
Message-ID: <4882@decwrl.DEC.COM>
Date: Tue, 19-Aug-86 14:26:27 EDT
Article-I.D.: decwrl.4882
Posted: Tue Aug 19 14:26:27 1986
Date-Received: Wed, 20-Aug-86 08:36:25 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 47

There have been several comments regarding the speed of reading and
writing on the ST floppy drives. One person who has looked into the
problem and done something about it has commented on it within our
internal notes files here at Digital. He has been involved in the
development of Sedt (now in Beta test), a screen editor that is a
superset of the Digital supported EDT text editor.

Exerpts from his notes follow...

.
.
.

I have spent a lot of time trying to improve the speed that Sedt loads and saves files at. By now it's getting pretty decent. I did discover that the problems indeed are the ones covered in the previous notes.

The first problem is that it's DEATH to use the higher levels of C file routines in ALCYON C. Stream I/O runs incredibly slow. I currently use the next lower level and will migrate to the lowest (firmware).

The other problem is interleaving. I bought a SUPRA 20meg disk which they had mistakenly formatted with an interleave factor of 2. Last weekend I reformatted it with 3 and saw a

marked improvement in speed. I guess that when you only get one sector per revolution it really is slow. It must be the same problem with the floppies.

.
.
.

By doing all the formatting myself and experimenting with different transfer buffer sizes I was able to greatly improve the floppy read/write times. Sedt now loads and saves files from floppies between two and three times faster than Micro EMACS. For any kind of read/write to or from floppies transfer rates drop dramatically as the buffer length increases and then flattens out around 6K buffers. After that is has a tendency to go up and down a bit because of interleave delays. From this I am 100% certain that the performance problems are caused by poor interleaving of sectors on the floppy.

Anker

/Don Peters, Digital, 617-689-1242/

...decvax!decwrl!dec-rhea!dec-pulman!peters

From -1695814803960955041
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e18fa8ce5d9322c0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 13:25:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefk!frankg
From: frankg@nikhefk.uucp (Frank Geerling)
Newsgroups: net.micro.atari16
Subject: Re: Add to list
Message-ID: <31@nikhefk.UUCP>
Date: Tue, 19-Aug-86 16:25:54 EDT
Article-I.D.: nikhefk.31
Posted: Tue Aug 19 16:25:54 1986
Date-Received: Thu, 21-Aug-86 01:28:52 EDT
References: <8608130649.AA24404@ucbvax.Berkeley.EDU>
Reply-To: frankg@nikhefk.uucp (Frank Geerling)
Organization: NIKHEF-K, Amsterdam
Lines: 17
Apparently-To: rnews@mcvax

In article <8608130649.AA24404@ucbvax.Berkeley.EDU> HOWESDW@WSUVM1.BITNET.UUCP writes:
>Please add my name to the 16 bit Atari distribution list. Thanks.

Could you add my name too? Thanks

--
Frank Geerling
(frankg@nikhefk.uucp)

Usenet: {seismo, philabs, decvax}!mcvax!frankg@nikhefk

Normal mail: Frank Geerling
NIKHEF-K (PIMU)
Postbus 4395
1009 AJ Amsterdam
The Netherlands

From -5284585973718771196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 14:40:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <3260@ism780c.UUCP>
Date: Tue, 19-Aug-86 17:40:32 EDT
Article-I.D.: ism780c.3260
Posted: Tue Aug 19 17:40:32 1986
Date-Received: Thu, 21-Aug-86 02:18:34 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 26
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1657 net.micro.amiga:4344 net.micro.68k:1147

In article <767@ark.UUCP> gijs@vu44.UUCP (Mos Gijs) writes:
> ...
> Although this information is not sufficient in general to effect full
> recovery from the bus error, it does allow software diagnosis.
> ...
>You cannot do virtual memory, you cannot auto-allocate stack space, but you
>*can* do multitasking.
>

Actually, with a small compiler hack, you *can* auto-allocate stack
space. The trick is that while in general you can't restart, there
are specific instructions that can be restarted. tstb is one such
instruction. The hack to the compiler is to make it generate a

tstb in the function entry code to access the lowest stack address
that the function will use.

I have heard people claim that there is enough information around
after a bus error (or address error) to restart most instructions,
if the bus error handler is willing to be clever. However, I haven't
seen any actual code... Anyone know if this is true? If so, what
are the instructions that can't be restarted?
--
"I *DO* believe in Mary Worth"

Tim Smith   USENET: sdcrdcf!ism780c!tim || ima!ism780!tim
         Compuserve: 72257,3706   Delphi || GEnie: mnementh

From -6081762078528721651
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 15:30:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!think!nike!cit-vax!elroy!smeagol!usc-oberon!
sdcrdcf!ucla-cs!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <726@curly.ucla-cs.ARPA>
Date: Tue, 19-Aug-86 18:30:32 EDT
Article-I.D.: curly.726
Posted: Tue Aug 19 18:30:32 1986
Date-Received: Fri, 22-Aug-86 22:07:03 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 16
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1681 net.micro.amiga:4363 net.micro.68k:1153

In article <64@mit-prep.ARPA> tmb@prep.UUCP (Thomas M. Breuel) writes:
>
>I consider it a grave mistake not to have included even a rudimentary kind
>of address remapping on the Amiga; even just an adder on the address lines
>of the 68000 would have simplified the system software and allowed some
>kind of swapping to be hacked.
>   Thomas.

A reasonable attitute, but remember that both the Amiga and Atari were
intended to be affordable machines. To this end, they contain only those
things that were considered to be needed - no 'it sure would be nice...'

type goodies.
--
George Robbins - now working with, uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department fone: 215-431-9255 (only by moonlite)

From 6733656111697806686
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 19:24:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: 1040 hardware notes
Message-ID: <905@batcomputer.TN.CORNELL.EDU>
Date: Tue, 19-Aug-86 22:24:08 EDT
Article-I.D.: batcompu.905
Posted: Tue Aug 19 22:24:08 1986
Date-Received: Thu, 21-Aug-86 04:44:03 EDT
References: <8608051143.AA13767@ucbvax.Berkeley.EDU> <2689@mit-hermes.ARPA>
<82@eneevax.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 81

[]

An Atari dealer has kindly shown me a note from Atari, explaining
how to fix the high-pitched whine the 1040 makes. More on that
in the next posting. Here I want to report on some other hardware
related things I found when I finally opened the box, and a story
about lightning, with a moral.

I have an Atari 1040STf, and the mother board says "revision B".
It was shipped in April, 1986.

A few days ago I left home, and unplugged the computer system from
the power lines as usual. But the computer was still connected to
the phone line, through the modem. I came back after some heavy
thunderstorms, and the modem was dead. Investigation revealed that
the computer itself was also damaged: the 1488 chip that drives the
RS232 output was blown, and inflicted 12 volts on the mammoth 68901
MFP chip that drives it, a 5V device. Luckily, the MFP is OK.

The moral of the story: Put surge suppressors on the phone line,
and unplug that line too in inclement weather.

What I also found inside the box:

The CPU and RAM chips are NOT socketed. Only the ROMs are.

There is no socket for the (future) graphics chip, and only about
a half-inch space above the CPU (and under the metal shield)
for piggy-backing (and heat dispersion). (I have used my unmodified
1040 for hours on end (with the disk drive mostly idle) in 95 degrees
Farenheit, with no ill effects. To be extra safe, I _have_ later
installed a very small fan above the middle of the grating area on top,
blowing _up_. It is very effective. I use it only when the weather
is very hot.)

In the middle of the back area, between the disk drive and the power
supply module, there is an empty spot about 3 inches square. It was
clearly intended for the RF modulator, and some enterprising soul
could market a modulator to plug in there! (There is a hole in the metal
shield (but not the plastic case) for the RF connector, and a row of
holes in the PCB in the "south" end of the area). I am still mad at
Atari for promising the modulator and then backing out. Could the reason
be heat? RF emissions? Cynical marketing policies?

There is hope for those who wanted a composite video output, though:
in the same space intended for the modulator, there are traces in the
PCB, plus markings such as "R110", for 4 resistors, one capacitor and
one transistor. It seems to be for an emitter-follower buffer, with both
input and output connected to the video-jack area. Maybe somebody reading
this can tell us what it does, and the values of the components (by reverse
engineering or by an unbelievable act of corporate openness :-).
(Somebody told me that an MC1374 chip can be used to convert RGB to
composite. Experts: any comments?)

If you don't install a modulator inside, the space may be useful for
other add-ins (a FP coprocessor is my favorite dream). Unfortunately,
the space is sliced horizontally by the metal shield, so that there is
little more than a half-inch above and the same below.

Now a plea: Does anybody know where I can obtain the National Semiconducters
FP chip, the 32081? Price? Documentation? (This chip HAS been used with
the 68000, namely by Digital Acoustics, in their "Dtack grounded" add-on
boards for Apple]['s.) (Alternatively, we may have to wait for the "TT",
but when? How many $$?) (The 68000-32081 combo is not that much slower
than the 68020-68881 (or the VAX...) (I only count orders of magnitude),
and should be much cheaper (?). The only real advantage of the TT will be
the possibility of running the 68020 (number crunching) and the 68000
(I/O) _simultaneously_.)

Another plea, to Megamax (I wrote them twice but no answer): Does the
source code offer (for $50) include the FP (assembly-language) source?

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

braner@amvax.tn.cornell.edu (ARPANET)
braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
{decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From 4664693944923221837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 19:27:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Fixing the 1040 whistle
Message-ID: <906@batcomputer.TN.CORNELL.EDU>
Date: Tue, 19-Aug-86 22:27:39 EDT
Article-I.D.: batcompu.906
Posted: Tue Aug 19 22:27:39 1986
Date-Received: Thu, 21-Aug-86 04:44:19 EDT
References: <8608051143.AA13767@ucbvax.Berkeley.EDU> <2689@mit-hermes.ARPA>
<82@eneevax.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 45
Summary: It's official and easy

[]

Atari has issued a technical note to its dealers about the high-
pitched whine in the 1040. I hope I am not stepping on anybody's
toes in posting this here.

The whine is at about 16 KHz, which most people who grew up with TV
cannot hear. I love the SM124 B/W monitor because it's silent (35 KHz
scan rate), but the whine from the computer still bothered me.
I thought it comes from the main power-supply, but the note says it's
from the circuit around the "converter" chip on the mother board (U62).
This chip makes negative voltage from the positive (using an oscillator and
a "multiplier" rectifier arrangement?). The fix for the whine is to raise
the frequency, by RAISING the values of a resistor, a capacitor and an
inductor. The latter claim is against all my electronic instincts, but I
tried it and it works. Here is how you do it:

Obtain a 5 ohm 1/4 W resistor, a 330 pF capacitor, and a small, axial,
220 microH inductor. Take the top cover off the 1040ST (unscrew the short,
self-tapping screws from the bottom). Take the metal cover off the
power-supply module (one little screw holds it down) and remove the module
itself (two screws at the two corners on the keyboard side).
Just "north" of the power-supply-module connector you will find U62.
Locate R17 (north of U62, 1 ohm), C28 (third component on the west, 100 pF,
looks like a resistor), and L4 (east, 100 microH, looks like a big resistor).
Replace them with the new components. That's it.

There is a pair of wires, blue and red, going from the U62 area towards the
RS232 interface area. The red wire carries +8V or so, relative to ground.
The blue carries the negative, and I measured -7V on it after the fix.
(I expected -12V, but 7 is close to 8 and the computer works fine...).
If you don't get good negative voltage on the blue wire, relative to
ground (not the red wire), you may have stopped the oscillations in U62.
Try a different L4, perhaps?

- Moshe Braner

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For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From 3640536586322768967
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4754c8c9bf8a4075,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 19:46:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: System+ikbd time, battery backup etc. LONG
Message-ID: <1874@utecfa.UUCP>
Date: Tue, 19-Aug-86 22:46:21 EDT
Article-I.D.: utecfa.1874
Posted: Tue Aug 19 22:46:21 1986
Date-Received: Wed, 20-Aug-86 01:12:04 EDT
Organization: Engineering Computing Facility, University of Toronto
Lines: 439

     I have been hacking away at trying to discover the workings
keyboard and system clocks since I was interested in battery-backing
the keyboard and having it maintain my time. Even though most of the
facts in this article may not be new, I thought I would summarize
what I have discovered since others seem to be interested in doing this
as well.

     The clocks:

          There are two clocks in the ST. One of them is the
intelligent keyboard (ikbd) clock which is maintained in hardware by
the Hitachi HD6301 microcomputer which is the keyboard chip. The other

is the system clock which, I believe, is maintained in RAM by the operating system. The ikbd clock can be read by the _xbios_ call Gettime(). This function returns both the date and the time as a single longword result. The time and the date are packed in the low and high words respectively in the format described below. The system clock (the one maintained by TOS) can be read by the _gemdos_ calls Tgettime() and Tgetdate(). Each of these calls return a word (16 bits) and each word is packed in the same format as for Gettime() which is described below:

```
     TIME
bits    0-4 (inclusive) :   seconds divided by 2
,,   5-8 (  , ,    ) :  minutes
,,      9-15(  , ,    ) :   hours

     DATE
bits    0-4 (inclusive) :   day
,,      5-8 (  , ,    ) :   month
,,      9-15(  , ,    ) :   year  offset from 1980
```

Since the longword result from Gettime() contains both time and the date, the longword can be broken into 2 16-bit words and analysed as above.

For example, the word (in binary)
%0000110100001110
represents August 14, 1986

and
%0101000001110100
represents 10:03:40

(Note the date is offset from 1980 and the seconds are divided by two)

The system and keyboard clocks can be set by the corresponding functions Tsetdate() and Tsettime() for the system, and Settime() for the ikbd clock. The arguments must be passed with the date and time compressed as described above.

Since the clocks run quite independently of each other, they do not have to be in sync, and unless are made so, are guaranteed to by out of sync. In fact, this feature could be used to maintain dual-time :-). The system time, by virtue of the fact that it sits in RAM and is maintained by TOS, is not maintained across resets (because my version of TOS clobbers it and sets it to some magic date in 1985) and cannot be maintained on power-down. The intelligent keyboard contains its own on-chip RAM, which is not erased when the system is reset. By keeping the keyboard powered up even when the system is down, it is possible to keep the time and date alive in the machine. Since many programs read the system clock for their time and date information, BOTH clocks must be maintained on time. However, because my

system time is clobbered across resets, I have a small startup program (posted after this article) that checks to see if the keyboard time is valid (if the date <> 1980 and month <> 0 it is considered to be valid) and if it is, it copies it into the system time. If it is not valid, it will prompt the user to enter the time and date. Calling the program with a -f argument will force it to ask you for the date and time and it will set both clocks with this date and time.

Finally some comments:

No, the HD6301 has not been through any revisions in the recent past.

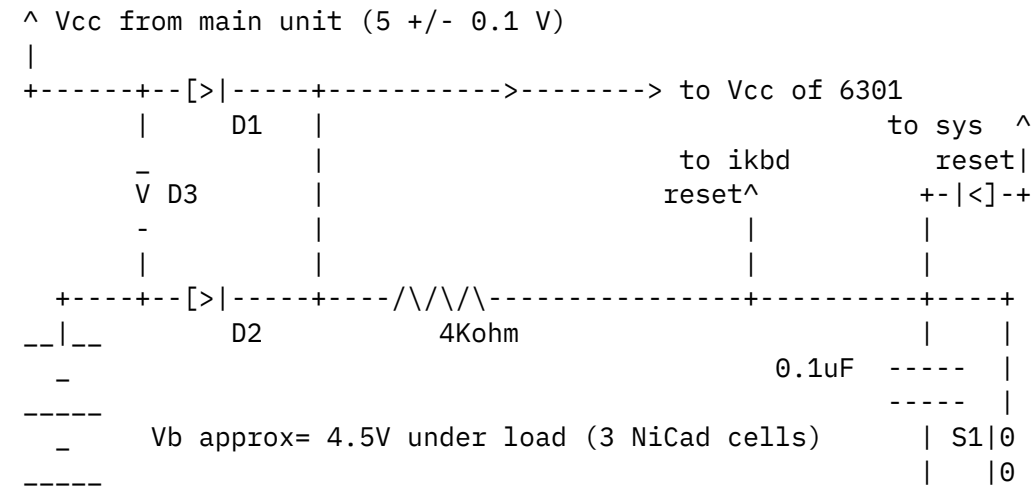
However, Atari may have had the software modified in the on-chip ROM, or perhaps the earlier versions were shipped with EPROM-med software. (Comments Neil?)

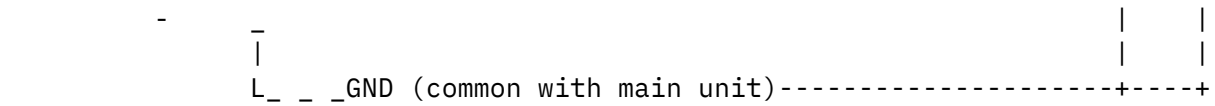
If after a cold-start your keyboard clock reads 00:00:00 00/00/80 or some date like this, it will NOT TICK (mine doesn't). To get it to start ticking, put a valid time in it (run the program given below). Your chip may be different of course, but my computer is a VERY early machine so it should have a very early chip!

Hardware:

The following little modification can be used to battery backup the keyboard clock. Bear in mind though that this mod will void your warranty and probably will require you to put the Nicad rechargeable cells in some very cramped quarters in the ST case.

****
Note, in a subsequent posting, I have sent the same circuit diagram as a squeezed an uuencoded Degas picture which is far more legible than the one below.





Diodes D1 and D2 are germanium diodes, while D3 is a 1N914 switching diode. I'm not sure if 1N914s can be used throughout, but going by the Hitachi specs I have here, it can be flakey!

The current drawn from the Ni-Cad cells is not too much because the HD6301 has a maximum operating current of 10mA, and together with the little LED provided and some of the other discretes, the current consumption goes up to about 15mA (guess) which will still give you a battery life of 3*450/15 = 90 hours (my el-cheapo Radio Shack AA nicads are rated at 450mAh).

Theory of operation: When the main unit is powered up, Diode D3 provides current to the Nicad cells to keep them charged, and D1 provides power to the keyboard, crystal-oscillator, LED and other things. Because the Ge diodes have a small Vd, diode D2 will be nearly reverse-biased and hence the Nicads will not source any current. When the main unit is powered off, diodes D1 and D3 will prevent the Ni-cads from driving the main-unit, while D2 will provide the current to the keyboard, clock and LED.

To do the mod, get hold of one male and one female header plug, some wire-wrap wire, the diodes, the resistor and capacitor shown above, an SPST switch to make an secondary reset button, and a battery holder for the Ni-cads. Make direct connections from the male to the female header plug for all except the following pins:

13 (Vcc line from main-unit)
16 (reset line)
1 (GND)

(count pins such that the key (missing pin) is pin-2)

The following is a little program that you can stick in your auto folder and forget:

------------SNIP-------CUT------------in your mother tongue now------

```
/* This program was written by: Bob Ritter - January 18, 1986      */
```

```
/*    Link with: gemstart,osbind,gemlib,libf  --- in that order.   */
/*       Put on startup disk in the folder named "auto".          */

/*
 *   clock.c version 1.0 August 18, 1986 Anees Munshi
 *
 *   Original program was modified to
 *   1. set ikbd time.
 *   2. copy ikbd time into system time if system time is valid.
 *   3. accept command line argument to force time set.
 *
 *   Also, generally cleaned up and linted the code.
 */

#include <stdio.h>
#include <osbind.h>

#define TRUE  1
#define FALSE 0

/* some character constants */
#define BS    (char) (8)
#define LF    (char) (10)
#define CR    (char) (13)
#define SP    (char) (32)
#define DEL   (char) (127)


/* these definitions are not really required, but just in case  */
/* your osbind.h is damaged ...                      */
#define settime(x) xbios(0x16,(long)x)
#define gettime()  (long)xbios(0x17)


/* this could be done by massaging Cconrs() */
read_line (buffer)
char buffer[];
{
     char c;
     int i = 0;
     do
         {
          c = Cconin();
          if ( (c != BS) && (c != DEL) )  /* if not oops */
          {
               buffer[i] = c;
               ++i;
          }
          else /* erase a mistake */
          {
               --i;
               Cconout(SP);  /* blank out previous character */
               Cconout(BS);   /* backspace */
```

```
          }
     }
     while ( (c != CR) && (c != LF) );
     buffer[i-1] = (char)0; /* throw in the null-termination */

     printf("\n"); /* echo an LF */

}



/* for those systems which lack a decent atoi() */
int stoi(string)
char string[];
{
     int i, int_val, result=0;
     for (i=0; string[i] >= '0' && string[i] <= '9'; ++i){
          int_val = string[i] - '0';
          result = result * 10 + int_val;
     }
     return(result);
}




main(argc, argv)
int argc;
char *argv[];
{
     int x;
     int i, j, k;
     char  cc[20], xx[20];
     unsigned hrs, mins, secs, yy, mm, dd;
     unsigned sys_date, sys_time;          /* date and time words */
     unsigned long date_time;         /* date and time longword */
     int counter;
     int valid = TRUE;  /* time and date in keyboard default to TRUE */

     if (argc > 2) {
          fprintf(stderr, "Clock: usage: No arguments, normal use.\n");
          fprintf(stderr, "              `-f' to force set time.\n");
          exit(0);
     }
     if (argc == 2) valid = FALSE;    /* force set time, not -f, I know */

     Cconws("\033E\033e");  /* clear screen, turn on the cursor */
     sys_time = (unsigned)gettime();       /* read ikbd clock, set time */
     sys_date = (unsigned)(gettime() >> 16); /* set date variable */
     yy = (sys_date >> 9 & 0x7F) + 80;     /* calculate yr (in 2 dig.) */
     mm = sys_date >> 5 & 0xF;        /* calculate month */
     dd = sys_date & 0x1F;            /* calculate day */
     hrs = sys_time >> 11 & 0x1F;          /* calculate hour */
```

```
mins = sys_time >> 5 & 0x3F;          /* calculate minute */
secs = (sys_time & 0x1F) << 1;        /* calculate seconds */

/* decide if date is valid based on month and year entry */
printf("The current date is: ");
if (mm == 0 || dd == 0 || yy == 80){
     printf("INVALID\n\n\n");
     valid = FALSE;
}
else {   /* print date in keyboard clock */
     switch(mm) {
     case  0:
          printf("Wow! Nonsense!\n");
          break;
     case  1:
          printf("January ");
          break;
     case  2:
          printf("February ");
          break;
     case  3:
          printf("March ");
          break;
     case  4:
          printf("April ");
          break;
     case  5:
          printf("May ");
          break;
     case  6:
          printf("June ");
          break;
     case  7:
          printf("July ");
          break;
     case  8:
          printf("August ");
          break;
     case  9:
          printf("September ");
          break;
     case 10:
          printf("October ");
          break;
     case 11:
          printf("November ");
          break;
     case 12:
          printf("December ");
          break;
     }
     printf("%d, %d\n", dd, yy + 1900);
     fflush(stdout);
```

```
}

if (valid == FALSE) {
     printf("Enter the new date (dd/mm/yy): ");
     fflush(stdout);

     read_line(cc);
     i = strlen(cc);

     for (j=k=counter=0 ; j<=i ; ++j){
          if (cc[j] >= '0' && cc[j] <= '9'){ /* while numeric */
               xx[k] = cc[j];
               ++k;
          }
          else {
               xx[k] = '\0';
               x = stoi(xx);
               k = 0;
               ++counter;
               switch(counter){
               case 1: /* set day */
                    if (x <= 31 && x > 0) dd = x;
                    break;
               case 2: /* month */
                    if (x <= 12 && x > 0) mm = x;
                    break;
               case 3: /* year */
                    if (x >= 80) yy = x;
                    break;
               } /* switch */
          } /* else */
     } /* for */
} /* if */

cc[0] = (hrs/10) + '0';
cc[1] = (hrs%10) + '0';
cc[2] = ':';
cc[3] = (mins/10) + '0';
cc[4] = (mins%10) + '0';
cc[5] = ':';
cc[6] = (secs/10) + '0';
cc[7] = (secs%10) + '0';
cc[8] = (char)0;

printf("The current time is: ");
printf("%s\n",cc);
fflush(stdout);

if (valid == FALSE) {
     printf("Enter the new time: ");
     fflush(stdout);

     read_line(cc);
```

```
          i = strlen(cc);

          counter = 0;
          k = 0;
          for (j=0; j<=i; j++){
               if (cc[j] >= '0' && cc[j] <= '9'){
                    xx[k] = cc[j];
                    ++k;
               }
               else {
                    xx[k] = '\0';
                    x = stoi(xx);
                    k = 0;
                    ++counter;
                    switch(counter){
                    case 1:
                         if (i!= 0 && x <= 23 && x >= 0) hrs = x;
                         break;
                    case 2:
                         if (x <= 59 && x >= 0) mins = x;
                         break;
                    case 3:
                         if (x <= 59 && x >= 0) secs = x;
                         break;
                    }
               }
          }

     }

     sys_time = (hrs << 11) + (mins << 5) + (secs >> 1);
     sys_date = ((yy - 80) << 9) + (mm << 5) + dd;

     if (valid == FALSE) {
          date_time = (((long)sys_date) << 16) + (long)sys_time;
          settime(date_time);
     }

     Tsettime(sys_time);    /* set the gemdos time as well */
     Tsetdate(sys_date);    /* set the gemdos date as well */


}

--------------------------Again, please---------------------------------


     Regards,
      anees

--
     Anees Munshi
     @ University of Toronto Engineering Comp. Facility :A
```

{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfb!munshi

From -4563657656615116767
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df54f9e310f88aaa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 21:15:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Line-A, TextBlt, and the contest!!!!!!!!!!!
Message-ID: <12232209915.25.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Wed, 20-Aug-86 00:15:55 EDT
Article-I.D.: DEEP-THO.12232209915.25.UC.BRI
Posted: Wed Aug 20 00:15:55 1986
Date-Received: Wed, 20-Aug-86 23:28:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 207

I know this is long, but if you have any knowledge of line-A stuff, I would appreciate you looking this over. Think of it as a contest. Whoever gets this working first will get netwide recognition...(or whatever will make you give me the solution...)

```
o o
 o   "The problem follows..."
\_/
```

Okay. I need some help badly! I have been trying for weeks (or at least days) to get the line A TextBlt routine to work. I need this for a project I am doing and have to finish by the end of the summer. I am writing a GEM application, and I want to write an assembly binding to be called from C to do the TextBlt stuff.

I have most of the font information I need. The font data I have organized in a raster form , and is described by an MFDB called FontActualMFDB.

Here is the C calling routine I use. The routine TypeChar is called with x and y coordinates an an integer value for the character. There are some external routines and globals variables, but they should be okay. The assembly routine that is called is AsmTextBlt.

```
          ------------------------

    VOID TypeChar(x,y,c)
    WORD x,y,c;
    {

    /*
     * effects: This routine types the character <c> at [x,y]
     *
     */
        WORD sx,sw,sh;

        sx = GetOffset(c);
        sw = GetOffset(c + 1) - sx;
        sh = Font_header.form_height;
        AsmTextBlit(FontActualMFDB.fd_addr,
             FontActualMFDB.fd_wdwidth * 2,sx,0,x,y,sw,sh,
             color,Font_header.light_mask,
             Font_header.skew_mask,Font_header.thickening,
             0,0,0,Samp_vregf_buffer,
             1024,Clip_on,Clip_x1,Clip_y1,Clip_x2,Clip_y2);
        return;
    } /* End TypeChar */

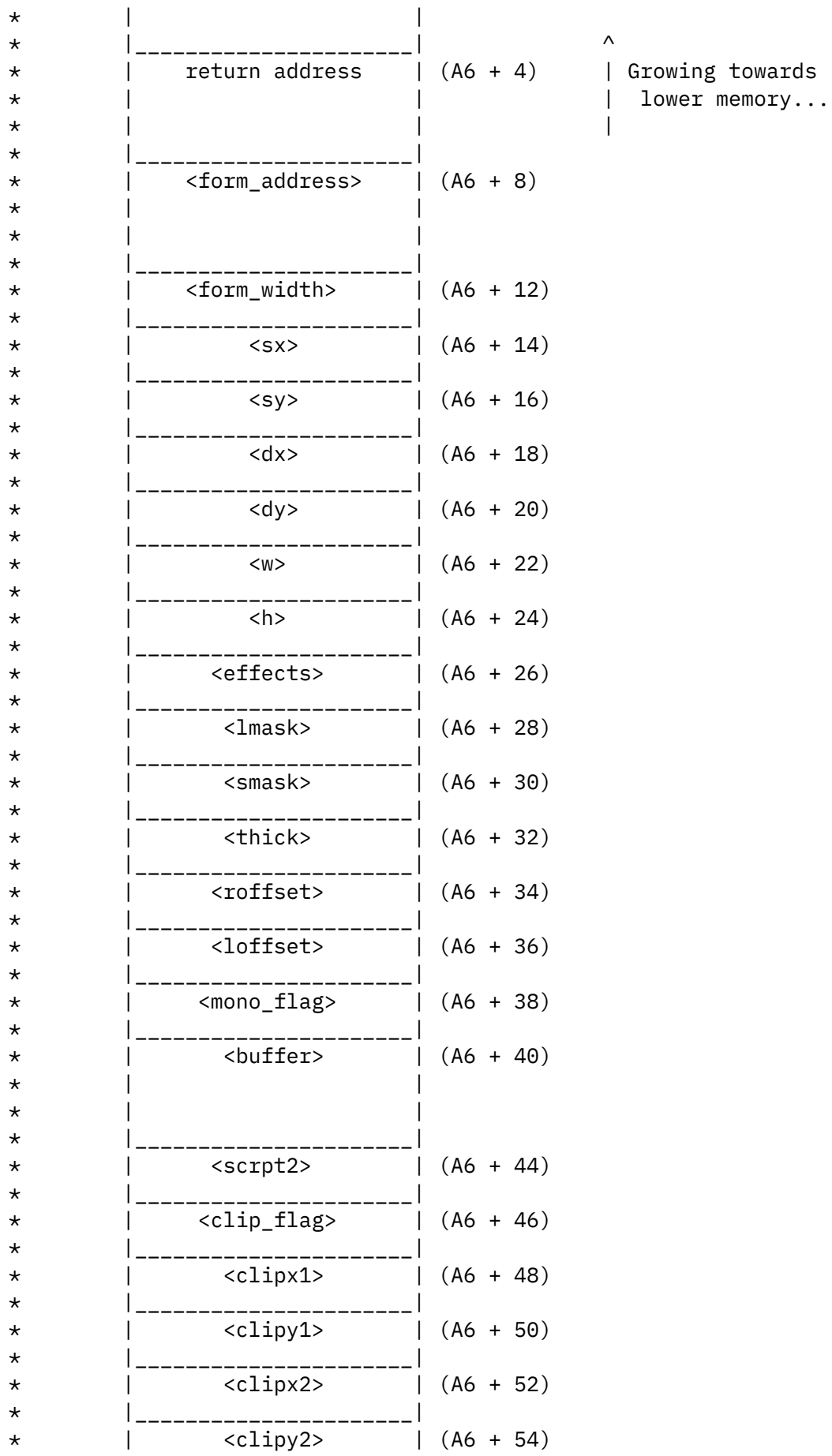
          -------------------------
```

Okay, now here is the assembly stuff. I don't really know what the Alcyon calling conventions are, so most of this is just extrapolation from other people's code. Likewise, I don't know what registers must be saved, etc. If someone can tell me why this doesn't work, or, if they can send me some working sample code, I would be ENORMOUSLY appreciative!!!!!!!!!!

```
          -------------------------
.globl _AsmTextBlit


*****************************************************************
*                                                               *
*    AsmTextBlit(form_addr,form_width,sx,sy,dx,dy,w,h,          *
*                effects,lmask,smask,thick,roffset,loffset,     *
*                mono_flag,buffer,scrpt2,clip_flag,             *
*                clipx1,clipy1,clipx2,clipy2)                   *
*                                                               *
*****************************************************************

*
* stack frame
* -----------
*
* SP --> |_____________________|
* A6 --> |       old A6        | (A6 + 0)
*        |                     |
```


return address
(A6 + 4)
Growing towards
lower memory...
<form_address>
(A6 + 8)
<form_width>
(A6 + 12)
<sx>
(A6 + 14)
<sy>
(A6 + 16)
<dx>
(A6 + 18)
<dy>
(A6 + 20)
<w>
(A6 + 22)
<h>
(A6 + 24)
<effects>
(A6 + 26)
<lmask>
(A6 + 28)
<smask>
(A6 + 30)
<thick>
(A6 + 32)
<roffset>
(A6 + 34)
<loffset>
(A6 + 36)
<mono_flag>
(A6 + 38)
<buffer>
(A6 + 40)
<scrpt2>
(A6 + 44)
<clip_flag>
(A6 + 46)
<clipx1>
(A6 + 48)
<clipy1>
(A6 + 50)
<clipx2>
(A6 + 52)
<clipy2>
(A6 + 54)

```
*        |_____________________|
*

     .text

_AsmTextBlit:

     link A6,#0
     move.l A0,-(SP)         * save A0
     move.l A1,-(SP)         * save A1
     move.l A2,-(SP)         * save A2
     move.l D1,-(SP)         * save D1
     move.l D2,-(SP)         * save D2
     move.l D3,-(SP)         * save D3

     dc.w $a000         * trap to init line A

     move.w #0,36(A0)   * WMODE = 0
     move.w #1,106(A0)  * TEXTFG = 1
     move.w #0,114(A0)  * TEXTBG = 0
     move.l 8(A6),84(A0)     * FBASE = form_addr
     move.w 12(A6),88(A0)    * FWIDTH = form_width
     move.w 14(A6),72(A0)    * SRCX = sx
     move.w #0,74(A0)   * SRCY = 0
     move.w 18(A6),76(A0)    * DSTX = dx
     move.w 20(A6),78(A0)    * DSTY = dy
     move.w 22(A6),80(A0)    * DELX = w
     move.w 24(A6),82(A0)    * DELY = h
     move.w 26(A6),90(A0)    * STYLE = effects
     move.w 28(A6),92(A0)    * LITEMASK = lmask
     move.w 30(A6),94(A0)    * SKEWMASK = smask
     move.w 32(A6),96(A0)    * WEIGHT = thickening
     move.w 34(A6),98(A0)    * ROFF = roffset
     move.w 36(A6),100(A0)   * LOFF = loffset
     move.w 38(A6),70(A0)    * MONO = mono_flag
     move.l 40(A6),108(A0)   * SCRTCHP = buffer
     move.w 44(A6),112(A0)   * SCRPT2 = scrpt2
     move.w #$8000,64(A0)    * XDDA = $8000
     move.w #256,66(A0) * DDAINC = 256
     move.w #0,68(A0)   * SCALEDIR = 0
     move.w 46(A6),54(A0)    * CLIP = clip_flag
     move.w 48(A6),56(A0)    * XMINCL = clipx1
     move.w 50(A6),58(A0)    * YMINCL = clipy1
     move.w 52(A6),60(A0)    * XMAXCL = clipx2
     move.w 54(A6),62(A0)    * YMAXCL = clipy2
     move.w #0,102(A0)  * SCALE = 0
     move.w #0,104(A0)  * CHUP = 0

     dc.w $a008         * trap to TextBlt

     move.l (SP)+,D3         * restore D3
     move.l (SP)+,D2         * restore D2
     move.l (SP)+,D1         * restore D1
```

```
     move.l (SP)+,A2        * restore A2
     move.l (SP)+,A1        * restore A1
     move.l (SP)+,A0        * restore A0

     unlk A6
     rts

     .end
```

     Thank you for putting up with this. I really am about ready to give up.

                              --- Bri

                         uc.bri@deep-thought.mit.edu
                         ...!mit-eddie!bri

From 2240704622363031247
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-19 22:47:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <412@atari.UUcp>
Date: Wed, 20-Aug-86 01:47:33 EDT
Article-I.D.: atari.412
Posted: Wed Aug 20 01:47:33 1986
Date-Received: Wed, 20-Aug-86 23:21:46 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 33
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1649 net.micro.amiga:4331 net.micro.68k:1145

In article <767@ark.UUCP>, gijs@ark.UUCP (Gijs Mos) writes:
> You cannot do virtual memory, you cannot auto-allocate stack space, but you
> *can* do multitasking.

You can TOO do auto-allocation of stack space with a vanilla 68000, an MMU, and appropriate compiler support. Sun did this (I think) in the Sun-1. Forgive me if this is pedantic:

Part of each procedure setup (along with the LINK) is a "probe"
instruction (TST.B, say) that tests to see if enough stack is
available to hold the entire local stack frame plus a reasonable
number of arguments. If there is enough, the TST.B works. If there
isn't enough stack space, the TST.B will generate a bus error which
signals the OS to increase the stack. The TST instruction can be
thrown away, since nothing else depends on it.

```
     _foo:    link a6,#8         ; make room for local args
          tst.b    -208(sp)  ; ensure enough stack
          .
          .
          .
```

Of course this isn't very transparent if you are programming in
assembly language. But in that case you deserve to suffer. :->

--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

```
/-----------------------------------------------\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. |  I'm a Prisoner of Business!"
\-----------------------------------------------/
```

From 3810654988720380416
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97bf8761fa936cae,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 07:41:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!fischer
From: fischer@YALE.ARPA (Michael Fischer)
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <8608201441.AA26014@Yale-Bulldog.YALE.ARPA>
Date: Wed, 20-Aug-86 10:41:24 EDT
Article-I.D.: Yale-Bul.8608201441.AA26014
Posted: Wed Aug 20 10:41:24 1986
Date-Received: Thu, 21-Aug-86 21:16:16 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

    I got this on the STarter kit from John Franco, and I think
    it is so great (and short) that I have to post it! It is a
    RAMdisk program, written by John Harris, and done right at last!
    It is NOT a desk accessory. It has no graphics. It is just

an autobooting RAMdisk that will survive system resets!!!

It works as advertised, and the ability to survive system resets
is really nice. Unfortunately, I have had to stop using it ever
since I got my hard disk because both it and the hard disk use drive
D, and it seems to preempt the hard disk interrupt vectors for its
own use.

I'd like to fix it to work with the hard disk, but having the source
would make life much easier. Does anyone out there have the source
and would be willing to post it to the net? Or at least, does anyone
know who the author is so that I could contact him directly?

--Mike Fischer

Address: Fischer@Yale.ARPA

From 4981138944762051506
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-20 08:54:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!jeff
From: jeff@gatech.CSNET (Jeff Lee)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <4374@gatech.CSNET>
Date: Wed, 20-Aug-86 11:54:43 EDT
Article-I.D.: gatech.4374
Posted: Wed Aug 20 11:54:43 1986
Date-Received: Thu, 21-Aug-86 04:00:48 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
Reply-To: jeff@gatech.UUCP (Jeff Lee)
Organization: School of Information and Computer Science, Georgia Tech, Atlanta
Lines: 35
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1659 net.micro.amiga:4346 net.micro.68k:1148

>> The fact that it is difficult to restart an instruction that received
>> a bus fault on the 68000 makes it difficult to implement paging.

>I can see where a MMU that provides protection only would be useful but
>address mapping is still of no use. Not without a 68010, admittedly an
>easy upgrade, but not provided. If you mapped a some address block to
>another would you not HAVE to ensure it was a legal RAM/ROM address? One
>faulty address and your back to GURU type crashes, yes?

Just because you are implementing "paging" does not mean that you must implement "demand paging". The PDP-11 had memory mapping registers but did not allow demand paging. Before a process ran you had to ensure that all the memory they were allowed to access was resident. You could do the same with a 68000. With a couple of 35ns rams and some address decoding (to map them into memory) you can implement a similar type of MMU. For system level access, you bypass the rams and physical and logical memory are the same. The OS loads the memory mapping rams with the appropriate address and dispatches the process. While in user mode, the high order bits are remapped into different physical locations (going through the MMU rams). You access something that you are not supposed to and you take a bus error. The OS kicks you in the butt and drops your process, or gives you a signal with the caveat that you may not return to where you took the signal. Others have already commented that with the appropriate code you really can take bus errors for stack accesses and recover, as long as the access is at the beginning of the routine to "feel out" the size. This is paging, but the pages must essentially be preloaded. During another process, there is nothing that prevents just a portion of your program being swapped out, but it isn't necessary to swap it all out.

    Enjoy...
--
Jeff Lee
CSNet: Jeff @ GATech   ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

From -5666264194142660755
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 09:51:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!oliveb!glacier!bridge2!pvf
From: pvf@bridge2.UUCP (Paul V. Fries)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <209@bridge2.UUCP>
Date: Wed, 20-Aug-86 12:51:59 EDT
Article-I.D.: bridge2.209
Posted: Wed Aug 20 12:51:59 1986
Date-Received: Thu, 21-Aug-86 04:09:37 EDT
References: <93@uwmacc.UUCP> <202@vlsvax1.UUCP>
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 38

I have been using the Micro C-Shell (v2.61) for a few months now and for the most part agree with the previous comments about it. It is a good product and is worth the cost. The features closely mimic the features found on the "real" computers at work, so it is easy to get it to do what you are familiar with in more sophisticated

environments.

One aspect that I do not like very much is that it has does not very well handle the initiation of GEM programs. As long as you are executing TOS or TTP programs (i.e. ASCII terminal oriented), all is fine. In order to run GEM programs, you must issue the command in the form:

```
gem <command-name>
```

The shell seems not to want to look for .PRG files when it is looking for commands and will not, on its own, perform the setup required for the GEM program to operate. It would seem that the gem command was added as an afterthought for ST use. Making the user select explicitly which programs will be run with the mouse and stuff makes it easier for the shell.

Not intuitively obvious is the fact that command-line arguments are NOT supported. Not a BIG deal, but it means that I do not immediately have the ability to call my Megamax editor with the names of files to be editted. Annoying, but fairly easy to work around.

To solve the problem, I wrote myself a program called "gemrun.tos". It operates seemingly identically to the gem function of the shell, but additionally passes the arguments to the system when doing the EXEC. Of course, it must be read fron the disk, so it is a bit slower (on floppies) than the standard function that it replaces.

Another anomaly I have found is in the handling of the "no match" situation on wildcard file specifications. Unlike the true csh which will eliminate the pttern word that has no match, Micro C Shell is more like the Bourne Shell in that it leaves the unsubstituted pattern word in the argument list.

From 6872057217797232470
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-20 10:27:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!im4u!oakhill!tomj
From: tomj@oakhill.UUCP (Tom Johnson)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <753@oakhill.UUCP>
Date: Wed, 20-Aug-86 13:27:29 EDT
Article-I.D.: oakhill.753
Posted: Wed Aug 20 13:27:29 1986

Date-Received: Thu, 21-Aug-86 01:30:23 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP> <162@puff.UUCP>
Reply-To: tomj@oakhill.UUCP (Tom Johnson)
Organization: Motorola Inc. Austin, Tx
Lines: 37
Keywords: 68k mmu
Summary: Using 2 68K's for memory management
Xref: mnetor net.micro.atari16:1655 net.micro.amiga:4339 net.micro.68k:1146

In article <162@puff.UUCP> scott@puff.UUCP (Scott Aschenbach) writes:
>In article <767@ark.UUCP>, gijs@ark.UUCP (Gijs Mos) writes:
>> In article <508@elmgate.UUCP> jdg@elmgate.UUCP writes:
>> ...
>> >If memory serves me correct the 68000 can not restart/resume a bus faulted
>> >instruction...
>...
>I though I heard of someone using pairs of 68000's before the 68010s
>came out. One was set to run just a bit ahead of the other, so that
>the first faulted, and the second was in the state the first one should
>be in when it was restarted.

Close. Actually, one of the processors is set-up as the "run" processor,
and the other as the "fault" processor. The run processor executes all
normal program instructions, and has its bus cycles terminated with a
DTACK*. If a bus cycle faults, the BERR* signal goes only to the fault
processor. It then issues a "relinquish and retry" (BERR*, HALT*, BR*) to
the run processor which immediately terminates the "faulted" bus cycle,
saves the access address internally for later use, and issues a BG*. The
fault processor, upon receipt of the BG*, issues BGACK*, and releases BERR*
and HALT*. Then, with the aid of a little external glue (address latches,
etc), the fault processor fixes the memory image at the faulted address, and
releases the BGACK* line. The run processor will rerun the faulted cycle
using the same address, data, control signals, etc.

Actually, with this method, even a very complex management scheme can be
designed. And, with the price (1000 pc qtys) of 8 MHz 68K's being about
1/4 that of 68451 MMU's, the price *disadvantage* of using a fault processor
is almost non-existant. (remember that all mapping circuitry will have
to be added). Also, assuming the mapping can be made sufficiently fast, this
method has some neat advantages.
****
Disclaimer: The opinions expressed herein are all mine. Motorola pays me
          to think, but not to express corporate policy.
****

Tom Johnson

From -1309060764017972860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b9a53e958c2de5c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 15:03:26 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: Re: Ethernet for the 1040ST???
Message-ID: <366@cernvax.UUCP>
Date: Wed, 20-Aug-86 18:03:26 EDT
Article-I.D.: cernvax.366
Posted: Wed Aug 20 18:03:26 1986
Date-Received: Thu, 21-Aug-86 21:23:19 EDT
References: <8608170513.AA15863@ucbvax.Berkeley.EDU>
Reply-To: jmg@cernvax.UUCP ()
Organization: CERN, Geneva/Switzerland
Lines: 28
Keywords: ethernet, tcp/ip, unix

In article <8608170513.AA15863@ucbvax.Berkeley.EDU> HELLER%cs.umass.edu@CSNET-RELAY.ARPA (Stride 440 User) writes:
>I have a hardware question about Atari 1040ST's: Does there exist an
>Ethernet interface for this machine? And if so, what software is available?

There is a company called Logic Replacement Technology, in England, which
has announced what they call an Etherterm, which is in fact an ST520
with an Ethernet interface: their blurb is below. I called them, and
they say that it is currently not possible to use the thing as a normal
ST, but they are thinking about it. They are also thinking about the
use of the 1040ST, where there could be a physical problem in fitting
the interface into the ST.

Another British company, called Software Punch, offers networking (both
simple rs232 and ethernet apparently), but I have no definite
information yet.

Herewith follows LRT company blurb: usual disclaimer, although we have
bought quite a few of their Ethernet-VME boards and they work.
<
EtherTERM is a low-cost windowing terminal (995 Pounds Sterling) with
integrated TCP/IP networking protocol which can be connected into an
Ethernet. It is capable of opening multiple shells on single or multiple
host computers with TCP/IP such as 4.2BSD or Uniplus+System V.
Opened shells can be monitored on up to four windows, controlled and
switched by the mouse. Each window provides vt100 emulation, with
input directed to the foreground window. The terminal supports standard
Ethernet and Cheapernet, and a local host connected via rs232 port.
>

From -1494603659723054817
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5acce6973cde0557
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 17:19:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: hard disk, battery clock (to Neil@Atari)
Message-ID: <413@atari.UUcp>
Date: Wed, 20-Aug-86 20:19:04 EDT
Article-I.D.: atari.413
Posted: Wed Aug 20 20:19:04 1986
Date-Received: Thu, 21-Aug-86 04:08:18 EDT
References: <207@bridge2.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 58

In article <207@bridge2.UUCP>, pvf@bridge2.UUCP writes:
> Hooray, I finally saw a hard drive in the store. Looks pretty good
> to me, but I have a few questions (for Neil@Atari, I suppose).
>
> 1) Will there be a version of TOS in ROM that will know how to access
>   the hard disk as the boot drive?

Surprise! It's already in the ROMs. All you need is the program that writes a boot sector on the hard disk. We're using beta versions of the program here at Atari and if we have no disasters, we'll let it out the door.

> 2) (I forgot to check) are desk accessories fetched off the floppy or
>   the hard drive?

Off the hard drive.

> 3) What is going on between the cartridge-port clock device and the
>   hard disk? (I recall a recent posting from Atari.) Incidentally,
>   will Atari ever put a battery (or other type that will hold time
>   across powerdowns) clock in the ST family? Given that the machine
>   is really good now, this feature would give it a load of class.
>   It is one of the convenience features that every serious computer
>   should have.

I lost 2 of the 3 partitions in my hard disk within days of adding the Logikhron clock card to my ST. They sent us the source code to the clock boot program, which we're examining to find the cause of the problem.

In the meantime, there's a company called "No Solder Required" that makes a clock gizmo that I like much better. It looks like a ROM socket, and to install it you remove the U2 ROM (TOS ROM in the closest socket to the rear of the ST), plug in the clock gizmo, then plug the ROM into it. There are batteries inside it, supposedly good for 10 years. The disk that comes with it contains a program to initialize the clock and another one that goes into the AUTO folder to set the system clock at bootup.

Caveat -- there's no clearance over the ROMs in a 1040ST, so I couldn't install it there, only in a 520ST. Someone handy with a soldering iron

ought to be able to desolder the original U2 ROM socket and install this
in its place.

I don't know the price, it's called the Timesaver and the company is in
Cambridge, MA.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -1552760140848837383
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c19fd8270780268
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 17:20:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Rumors
Message-ID: <414@atari.UUcp>
Date: Wed, 20-Aug-86 20:20:49 EDT
Article-I.D.: atari.414
Posted: Wed Aug 20 20:20:49 1986
Date-Received: Thu, 21-Aug-86 04:08:31 EDT
References: <860811184615.000027EC.APYP.MA@UMass>
Organization: Atari Corp/Mktg
Lines: 19

In article <860811184615.000027EC.APYP.MA@UMass>, Flash@UMass.BITNET (Rick
Flashman) writes:

> Questions for Niell and others:

Anyone who spells my name like that doesn't get any answers.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS

GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -7373221085863247378
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c19fd8270780268
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 17:23:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Rumors
Message-ID: <415@atari.UUcp>
Date: Wed, 20-Aug-86 20:23:37 EDT
Article-I.D.: atari.415
Posted: Wed Aug 20 20:23:37 1986
Date-Received: Thu, 21-Aug-86 04:08:43 EDT
References: <860811184615.000027EC.APYP.MA@UMass>
Organization: Atari Corp/Mktg
Lines: 40

In article <860811184615.000027EC.APYP.MA@UMass>, Flash@UMass.BITNET (Rick Flashman) writes:
> I just heard some interesting rumors.
>
> 1. The IBM emulator is finished and is going into production and should
>   be out by X-Mass at a price of $300. Plugs into the cartridge port.

Plugs into the DMA port. Not yet finished (Real Soon Now).
>
> 2. The Atari TT is going right on schedule and should be announced and
>   shown at COMDEX in November. It is a 68020 based system with 4 megs RAM.
>   It also supports a 1024x1024 resolution screen.

Lots of incorrect info here.

> 1. I heard that the IBM emulator does NOT support graphics. Will it ever?
>   If it does, when?

It does too.

> 2. Does the TT run UN*X? I do know that Atari DID liscence it (UN*X).
>   Is it an upgrade for the 1040/520 or is it a separate machine?
>   What price range am I looking at? I heard that it's release date is
>   January, how correct is it?

We did license UNIX system V. Expect to see it or something similar in
a 68020-based product.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -6697051030274418892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,550a1cc8437f909d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 17:26:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-
THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: graf_movebox
Message-ID: <12232430347.25.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Wed, 20-Aug-86 20:26:47 EDT
Article-I.D.: DEEP-THO.12232430347.25.UC.BRI
Posted: Wed Aug 20 20:26:47 1986
Date-Received: Thu, 21-Aug-86 05:45:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

     So is graf_movebox broken?

                              --- Bri

From -263476963064351304
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,203e9fdf3c547de5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-20 17:28:08 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: "Microsoft supports the ST
Message-ID: <416@atari.UUcp>
Date: Wed, 20-Aug-86 20:28:08 EDT
Article-I.D.: atari.416
Posted: Wed Aug 20 20:28:08 1986
Date-Received: Thu, 21-Aug-86 04:08:57 EDT
References: <860814210010.000009AF.ANJV.MA@UMass>
Organization: Atari Corp/Mktg
Lines: 42

In article <860814210010.000009AF.ANJV.MA@UMass>, MCOHAN@UMass.BITNET (Michael Cohan, U of writes:
> I read in the 7/14 issue of InformationWEEK, and in another newspaper
> (I think it was Computerworld) that Microsoft has ported the Macintosh
> version of Microsoft Word to the Atari ST, and that Atari has signed
> a contract with Microsoft giving Atari exclusive world-wide marketing
> rights to the program. The ST version is called Microsoft Write.
>   Does anyone out there know more about this deal? such as...
>
> 1) Price

$129.95

> 2) Availability

Late Fall is a fair guess. I have a beta 1 version now.

> 3) Implementation-- both the articles I read on Microsoft Write specifically
> said it was an ST version of the MACINTOSH Microsoft Word. This means
> it uses windows, mouse etc. I find it very hard to believe that Microsoft
> would be willing to start writing GEM programs! Is there any chance that
> we can see WINDOWS on the ST?? If Microsoft is now supporting the ST,
> have they ported Windows to it to use with Write? Or what are they using?

It does in fact run under GEM.
>
> 4) Is Microsoft planning to put any other software on the ST besides Word?

If everyone buys this, I would expect to see lots of Microsoft programs for the ST. We'll see...
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.

1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 3062491960977333751
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e18fa8ce5d9322c0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 00:51:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!warwick!rlvd!kp
From: kp@rlvd.UUCP (Keith Poole)
Newsgroups: net.micro.atari16
Subject: Re: Add to list
Message-ID: <1612@rlvd.UUCP>
Date: Thu, 21-Aug-86 03:51:14 EDT
Article-I.D.: rlvd.1612
Posted: Thu Aug 21 03:51:14 1986
Date-Received: Wed, 27-Aug-86 10:17:23 EDT
References: <8608130649.AA24404@ucbvax.Berkeley.EDU> <31@nikhefk.UUCP>
Reply-To: K.Poole%rl.gk@rlvd.UUCP (Keith Poole)
Organization: Rutherford Appleton Laboratories, Atlas Buildings, U.K.
Lines: 7

In article <31@nikhefk.UUCP> frankg@nikhefk.uucp (Frank Geerling) writes:
>Please add my name to the 16 bit Atari distribution list. Thanks.

>Could you add my name too? Thanks

Keith Poole.

From -6710510358639776436
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159752,fb6457c4c361440c,start
X-Google-Attributes: gid159752,public
X-Google-Thread: 159349,fb6457c4c361440c,start
X-Google-Attributes: gid159349,public
X-Google-Thread: 140593,fb6457c4c361440c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 06:11:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!reading!minster!martin
From: martin@minster.UUCP (martin)
Newsgroups: net.sources,net.sources.bugs,net.micro.atari16
Subject: PD make: 2 bugs with 1 fix!
Message-ID: <884@minster.UUCP>
Date: Thu, 21-Aug-86 09:11:11 EDT
Article-I.D.: minster.884
Posted: Thu Aug 21 09:11:11 1986

Date-Received: Fri, 22-Aug-86 06:51:00 EDT
Reply-To: martin@minster.UUCP (martin)
Organization: University of York, England
Lines: 74
Xref: mnetor net.sources:3080 net.sources.bugs:772 net.micro.atari16:1673

I have found two problems in the version of make which was posted to
net.sources recently. These problems are also present in the port of this
program to the Atari ST, and the same fix can be used.
(I originally found this problem on the Atari)

The first problem is that the first rule in the makefile is taken to be the
default target to be built. However the definitions of default rules
are not distinguished, so that the wrong default target is seen.
An example makefile:

```
     .SUFFIXES:
     .SUFFIXES: .b .a

     .a.b:
          cp $*.a $*.b

     fred.b:  fred.a
```

When make is run, the following is output:

```
     make: Don't know how to make .c
```

Real make happily makes fred.b, by copying fred.a.
(I don't know where the `.c' comes from, perhaps a built in default rule?)

This can be fixed by changing the function `input' in the file `input.c'
from:

```
          while ((p = gettok(&q)) != (char *)0) /* Get list of targ's */
          {
               np = newname(p);       /*  Intern name  */
               newline(np, dp, cp);
               if (!firstname)
               {
                    if(!Is_special(p))
                        firstname = np;
               }

          }
```

to:

```
          while ((p = gettok(&q)) != (char *)0) /* Get list of targ's */
          {
               np = newname(p);       /*  Intern name  */
               newline(np, dp, cp);
               if (!firstname)
               {
                    if(!Is_special(p) && p[0] != '.')
                        firstname = np;
               }
```

```
        }
```
Note that only one line is changed, but I gave more for context since
I can't easily find the line numbers. This is a rather kludgy fix, but I am
informed that the `real' make dosn't do anything more, and a quick
experiment appears to support this!

In writing this article I also found another problem, but as yet have no fix.
I tried the makefile:

```
     .c.o:
          echo making $*.o
          cc $(CFLAGS) -c $*.c

     fred.o: fred.c
```

and got the error message:

```
     make: Commands defined twice for target .c.o on line 5
```

Real `make' allows the redefinition of `.c.o' to remove the previous one.
(This still dosn't work, even if a null `.SUFFIXES:' rule is added)

Apart from these difficulties I am very pleased with this make,
and would like to take this opportunity to thank both the original
poster, Neil Russell, and Jwahar Bammi, who ported it to the Atari.

```
     Martin C. Atkins
usenet: mcvax!ukc!minster!martin
```

```
From -1698612119348856549
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-21 08:53:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <417@atari.UUcp>
Date: Thu, 21-Aug-86 11:53:05 EDT
Article-I.D.: atari.417
Posted: Thu Aug 21 11:53:05 1986
Date-Received: Fri, 22-Aug-86 05:58:59 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<4374@gatech.CSNET>
Organization: Atari Corp., Sunnyvale CA
Lines: 31
Keywords: 68000 atari amiga 68k mmu
```

Xref: mnetor net.micro.atari16:1672 net.micro.amiga:4354 net.micro.68k:1150

In article <4374@gatech.CSNET>, jeff@gatech.CSNET (Jeff Lee) writes:
> You could do
> the same with a 68000. With a couple of 35ns rams and some address
> decoding (to map them into memory) you can implement a similar type of
> MMU. For system level access, you bypass the rams and physical and logical
> memory are the same. The OS loads the memory mapping rams with the
> appropriate address and dispatches the process. While in user mode, the
> high order bits are remapped into different physical locations (going
> through the MMU rams). You access something that you are not supposed
> to and you take a bus error.

It's a nice idea in general . . . but not on the ST. Address
timing is *so* critical that running the address lines through a
35ns RAM would result in missing RAS and/or CAS windows on the
DRAMs. Bad things happen.

The other gotcha is that by the time the lookup RAM can indicate
if a location should generate a bus error, the memory controller
is already comitted to the read or write cycle. You'd have to
map every unused page to some piece of scratch RAM.

We looked at this many months ago, and went a different route....

--

-Landon Dyer, Atari Corp. {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 1842488287761234052
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87cca84f1fbc9ce1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 10:17:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ptsfa!varian!vaxwaller!cw
From: cw@vaxwaller.UUCP (Carl Weidling)
Newsgroups: net.micro.atari16
Subject: Slow response to the mouse left button
Message-ID: <525@vaxwaller.UUCP>
Date: Thu, 21-Aug-86 13:17:15 EDT
Article-I.D.: vaxwalle.525
Posted: Thu Aug 21 13:17:15 1986
Date-Received: Fri, 22-Aug-86 21:01:19 EDT
Distribution: net
Organization: Varian, Walnut Creek, CA
Lines: 19

A couple of postings have mentioned programs that responded slowly to the mouse's left button. My version of Degas is notorious. When I am trying to quit, it ask's are you sure and has a little OK box. I'll click and click on that box before it responds. Then, when it does responds and puts up the regular menu, I may still be clicking furiously away and click on some other command by mistake.

Well, I remembered reading something about keyboard sequences that correspond to mouse functions in the manual that came with my computer. ALT INSERT correspond to clicking that button. With some experimentation I found that, after positioning over the OK box, if I hold those keys down for a second, when I let up, the program responds.

I just thought I'd pass this on for anybody who has any program with this little glitch in it.

Regards,
Carl Weidling

--
Cleave yourself to logodaedaly and you cleave yourself from clarity.

From -6429695338783340667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67ed58cfcd4cb010
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 10:24:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site hcrvx1.UUCP
Path: utzoo!hcrvx1!hugh
From: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Newsgroups: net.micro.atari16
Subject: Re: Yet another Megamax C bug
Message-ID: <1392@hcrvx1.UUCP>
Date: Thu, 21-Aug-86 13:24:18 EDT
Article-I.D.: hcrvx1.1392
Posted: Thu Aug 21 13:24:18 1986
Date-Received: Fri, 22-Aug-86 03:34:10 EDT
References: <1557@cwruecmp.UUCP>
Reply-To: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Distribution: world
Organization: Human Computing Resources, Toronto
Lines: 21
Keywords: MEGAMAX C PREPROCESSOR
Summary: not a bug

In article <1557@cwruecmp.UUCP> bammi@cwruecmp.UUCP (Jwahar R. Bammi) writes:
>
>I came across the following bug in Megamax C's pre-processor. It does not
>substitute arguments enclosed in single quotes ('x'). My understanding
>is that the pre-processor should not substitute arguements in strings
>(ie within double quotes (")).
>

>For Example:
>#define BROKEN(x) putc('x', stdout); putc('\n', stdout)
>   BROKEN(A);
>will always print the character x no matter what the argument to BROKEN is.
>Alcyon (v 4.14) and Vax (bsd 4.3) print out the character A as i expect.

A compiler that substitutes for parameters within either kind of
quote will violate the current working draft of the X3J11 committee
of ANSI. The Reiser pre-processor (used in most UNIX systems) does
do this substitution. It is safest not to write anything that would
be treated differently by these interpretations.

Hugh Redelmeier (416) 922-1937
{utzoo, ihnp4, decvax}!hcr!hugh

From -3412066402970552046
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b94ca44873a4b2d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 12:01:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdaisy.UUCP
Path: utzoo!watmath!watnot!watdaisy!gsschaffer
From: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Newsgroups: net.micro.atari16
Subject: Calling gemdos() in Lattice C.
Message-ID: <7859@watdaisy.UUCP>
Date: Thu, 21-Aug-86 15:01:06 EDT
Article-I.D.: watdaisy.7859
Posted: Thu Aug 21 15:01:06 1986
Date-Received: Fri, 22-Aug-86 05:15:30 EDT
Reply-To: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Organization: Computer Science Dept., University of Waterloo
Lines: 14

I am trying to write a program which will create a directory(folder), if it does
not already exist. I've tried to use   Fattrib (filename, 0, 0) to tell
me what type of file it is (or -33 if not found), but it returns -33
whether the folder exists or not. In looking more closely at the Lattice C
manual, I find that all the arguments to gemdos() are integers (32 bits),
and that all char & short function arguments are expanded to int.
But according to ST INTERNALS some of the gemdos args are supposed to be
words (16 bits). Has anyone figured out how the gemdos() [in Lattice]
sets up its arguments for Gem? Help!

---
gsschaffer%watdaisy@waterloo.csnet   Greg Schaffer
gsschaffer%watdaisy@waterloo.csnet@csnet-relay.arpa   CS Dept. U. Waterloo
{decvax|ihnp4|allegra|utzoo}!watmath!watdaisy!gsschaffer   Waterloo,ONT N2L 3G1

From -4623549505679597523

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-21 14:08:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/15/85; site spectrix.UUCP
Path: utzoo!mnetor!spectrix!clewis
From: clewis@spectrix.UUCP (Chris Lewis)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <122@spectrix.UUCP>
Date: Thu, 21-Aug-86 17:08:12 EDT
Article-I.D.: spectrix.122
Posted: Thu Aug 21 17:08:12 1986
Date-Received: Thu, 21-Aug-86 17:53:06 EDT
References: <508@elmgate.UUCP> <767@ark.UUCP> <162@puff.UUCP> <753@oakhill.UUCP>
Reply-To: clewis@.UUCP (Chris Lewis)
Organization: Spectrix Microsystems Inc., Toronto, Ontario, Canada
Lines: 66
Keywords: 68k mmu
Xref: mnetor net.micro.atari16:1668 net.micro.amiga:4349 net.micro.68k:1149

In article <753@oakhill.UUCP> tomj@oakhill.UUCP (Tom Johnson) writes:
>In article <162@puff.UUCP> scott@puff.UUCP (Scott Aschenbach) writes:
>>In article <767@ark.UUCP>, gijs@ark.UUCP (Gijs Mos) writes:
>>> In article <508@elmgate.UUCP> jdg@elmgate.UUCP writes:
>>> ...
>>> >If memory serves me correct the 68000 can not restart/resume a bus faulted
>>> >instruction...
>>...
>>I though I heard of someone using pairs of 68000's before the 68010s
>>came out. One was set to run just a bit ahead of the other, so that
>>the first faulted, and the second was in the state the first one should
>>be in when it was restarted.
>
>Close. Actually, one of the processors is set-up as the "run" processor,
>and the other as the "fault" processor. The run processor executes all
>normal program instructions, and has its bus cycles terminated with a
>DTACK*. If a bus cycle faults, the BERR* signal goes only to the fault
>processor. It then issues a "relinquish and retry" (BERR*, HALT*, BR*) to
>the run processor which immediately terminates the "faulted" bus cycle,
>saves the access address internally for later use, and issues a BG*. The
>fault processor, upon receipt of the BG*, issues BGACK*, and releases BERR*
>and HALT*. Then, with the aid of a little external glue (address latches,
>etc), the fault processor fixes the memory image at the faulted address, and
>releases the BGACK* line. The run processor will rerun the faulted cycle
>using the same address, data, control signals, etc.

As I remember the paper (though it may very well mean the same thing - I'm

not an expert on 68k pins - this may be more understandable tho) - when
the "run" processor attempts to perform a memory access that will fault,
it is HALTED in the midst of the access instead of bus error'd. Then the
"fault" processor wakes up, examines the state of the various control
signals, and stuffs the proper page "underneath" where the "run" processor
is accessing. Then the fault processor turns off HALT to the run processor,
and goes back to sleep. The run processor then merely finishes the access
(possibly a longggggg time later). The cycle wasn't interrupted at all.

>Actually, with this method, even a very complex management scheme can be
>designed. And, with the price (1000 pc qtys) of 8 MHz 68K's being about
>1/4 that of 68451 MMU's, the price *disadvantage* of using a fault processor
>is almost non-existant. (remember that all mapping circuitry will have
>to be added). Also, assuming the mapping can be made sufficiently fast, this
>method has some neat advantages.

As I remember it there are two major disadvantages:

1) the circuitry is likely to use up an awful lot of board
   real-estate. And if you don't think that's a problem, take
   a look at a MVME117 or 131 or one of our CPU boards one day....
   (talk about stuffed!)
2) During page fault handling, the run processor is hung.
   That means, for instance, while the fault processor is spending
   it's 50 some-odd milliseconds trying to read a page in,
   the run processor is missing all interrupts, unable to task
   switch, unable to do *anything*... In a paging system, being
   able to run another task while a page fault is being handled
   is essential for any reasonable level of performance.
   If you ever started to thrash, the run processor would hardly
   ever run.

It was a neat idea, and a few machines were built, but I don't think that
the result was very useful when compared to a machine with a "real" MMU
(that is, *not* a '451).
--
Chris Lewis
UUCP: {utzoo|utcs|yetti|genat|seismo}!mnetor!spectrix!clewis
Phone: (416)-474-1955

From -457215016801104794
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88adeddf10298f15,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 17:16:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: B.I. I*S Talk
Message-ID: <860821201605.00000BD1.ABTA.MA@UMass>
Date: Thu, 21-Aug-86 20:16:05 EDT

Article-I.D.: UMass.860821201605.00000BD1.ABTA.MA
Posted: Thu Aug 21 20:16:05 1986
Date-Received: Fri, 22-Aug-86 21:12:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 62

Greetings,

As some of you will remember, I purchased 3 weeks ago a copy of I*S Talk. I informed you of how it did NOT run and bombed all over the place. Well, after having sent the program to B.I. 3 weeks ago, and 4 phone calls, I have some info to say.

First of all, B.I. was AWARE that their ENTIRE first shipment of I*S Talk did NOT run. Their head of Costumer Support admitted this to me today. They just decided to ship it, and allow all the registered owners to UPGRADE to a working copy. Now, you tell me if that is not slimy. The WORKING version is scheduled to be released in 2 weeks, and will be shipped to ALL I*S Talk owners who have registered their products. Now, that's terrible.

To sell a product with bugs in it, I hate, but can see. But to sell a product that just doesn't plain do what it is advertised to do, is an outright ripoff. Isn't there some sort of Costumer Protection Plan or organization out there to prevent this same happening? What about Atari, Neill? Do you guys care of what is happening out there? Tramiel claims that the only program he ever uses on the ST is a program by the SAME company I am talking about. This isn't some small in-house software hack them company. This is just about one of the LARGEST ST dedicated software company. Is this a sign of things to come?

I was also told by the same person, that Degas Elite is still 6-8 weeks away. And Paperclip Elite, you will be lucky to see it by X-Mass.

Do NOT buy I*S Talk. NONE of the copies available at the present moment WORK correctly. They all suffer the SAME problems I mentioned before.

BTW, I met the writer of Final Word from Mark of the Unicorn this week. Do NOT expect many new enhancements for the ST or a GEM version of that program. He said after writting version 1.7 for the ST, he doesn't feel like doing anything else. He prefers IBM. He just finished version 2.0 for the IBM. If I was you, I would shop elsewhere for a good wordprocessor. Also, I heard that Microsoft's Write is at a suggested retail of $129.95. It supports multiple fonts, and proportionally spaced fonts. It will also support various laser printers, like the canon. The version ported to the ST was Word Version 1.00 from the Mac (Does that mean they took extra care in porting the bugs too? :-).

BTW, you guys who keep talking about the internal keyboard clock card. I hate to tell you, a company has had it for sale for about 2 months now. Cost $49.95 suggested retail. Check your local dealer. It consist of a

pair of rechargable batteries that plugs into the keyboards chip. They recharge when the ST is on, and keep the chip running when the power is down. Easy as Pie.

For those who use OSS Pascal, I had a long talk with their head of costumer support and one of their cheif programmers. They recommend anyone who is serious about OSS, to download the TECHNICAL NOTES from their BBS. He also mentioned to me that you are looking at POST-X-MASS for a new update. (Version 2.00) This version will have a new manual and extra GEM calls. They are very small, and he described me that their hardware consisted of two 1040's. They are number 10 of the software best selling list.

Bye for now,
Rick Flashman

From 7655671586681784945
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 18:07:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <1317@lsuc.UUCP>
Date: Thu, 21-Aug-86 21:07:48 EDT
Article-I.D.: lsuc.1317
Posted: Thu Aug 21 21:07:48 1986
Date-Received: Thu, 21-Aug-86 21:46:36 EDT
References: <1204@mhuxo.UUCP> <12226870831.27.LAWRENCE.AUGER@IC2060>
<1664@ihlpa.UUCP> <1068@leadsv.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 38
Summary: Various Cheap modems

I have tried a few cheap modems lately and have found the following:

The GVC modem has problems with reliability. The first one I had would overheat after the 1st hour. An auto answer modem which can't be left on 24 hrs./day is not much good. You'd have to turn it on manually to answer the call just before the call was made. My 2nd GVC just died outright. I have no idea what happened to it. It is going back to the manufacturer shortly. That's 2 out of 2 modems failed.

The Tandy 2212 is wonderfully reliable. Did I mention that the signal quality of the GVC mentioned above was maginal and it had data-errors consistently at

11200 baud for uploads thus limiting me to 300 baud uploads? Don't expect all cheap modems to have adequate signals. The Tandy modems seem to have excellent signal quality (I borrowed one before and bought one later, so they have had 2 out of 2 winners -- the opposite of GVC). The command system in the Tandy is BETTER than Hayes. It is simpler than Hayes (i.e. not Hayes compatible if you are a true invalid) and maintains the last number for redial. IF you buy it on a sale you have an excellent modem fairly cheap.

The USR Password is a Hayes compatible with an excellent reputation. I tried one and almost bought it. Signal quality is good. The only slight drawback I *think* it had (memory a bit poor on this point because I tried a few modems) was that it had to have its commands entered in upper case only. This is common and I think even the real Hayes 1200 baud had this problem. Strange in the Hayes when you think about the cost.

The Avatex 1200 seems to have good signal quality (I haven't tried 1200 baud uploads yet). It requires commands to be entered in Upper Case only. You cannot use the Hayes +++ command. Forced disconnect, baudrate selection on originate and voice/data control are all manual. Baudrate selection is automatic on Auto-Answer, which suits me fine..

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 6270716492495460388
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c55cad70205123d9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-21 20:05:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: uEmacs Source?
Message-ID: <8608220442.AA08796@ucbvax.Berkeley.EDU>
Date: Thu, 21-Aug-86 23:05:54 EDT
Article-I.D.: ucbvax.8608220442.AA08796
Posted: Thu Aug 21 23:05:54 1986
Date-Received: Fri, 22-Aug-86 08:13:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 17

First of all, thank you for all the replys on getting STKermit (there really are some people out there)!!! I got all the many parts with no problem, however, I can not get any of the UUE files to decode correctly. I compiled the source for UUdecode and I can't get it to decode correctly. The problem seems to be that the gateway adds spaces at the end of every line to make all

lines 80 characters, and I know that tabs are being expanded, too (but I don't think that is the problem). No biggee, I just needed the source.

Now, where or who can I get a copy of the source for ST MicroEmacs from?

And to answer all the people in netland wondering about the keyboard mod to keep the system time running. I am the one who posted the note, but have been too lazy to put up the schematic (that and a few bugs to fix ... the charging circuit is weak, and my mouse started to drift after the mod). But we'll get it together soon, and share it with the rest of the universe.

Mike

From 5308033659064878695
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce4ce88283a5e916
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 03:18:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: NOTE from K538915
Message-ID: <8608221057.AA15553@ucbvax.Berkeley.EDU>
Date: Fri, 22-Aug-86 06:18:37 EDT
Article-I.D.: ucbvax.8608221057.AA15553
Posted: Fri Aug 22 06:18:37 1986
Date-Received: Fri, 22-Aug-86 20:54:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

OPTIONS: ACK   LOG   LONG   NOTEBOOK ALL

Date: 22 August 1986, 10:11:16 GMT
From: Simon Poole   K538915 at CZHRZU1A
To: INFO-ATA at SU-SCORE

Subj. My comments on TDI Modula II

Ooops, you can get out of the Modula II editor easier than I claimed. Select CLOSE in the drop-down menu. The editor then saves and presents the file-selector dialog. I played around with the debugger last night and I needed only 60s to crash it, TDI what about debugging the debugger? I do like Modula II by the way and I'm just waiting for a good implementation on the ST.

Simon Poole.

From -4610766401109557565
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97bf8761fa936cae
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 07:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <8608221041.AA15347@ucbvax.Berkeley.EDU>
Date: Fri, 22-Aug-86 10:17:00 EDT
Article-I.D.: ucbvax.8608221041.AA15347
Posted: Fri Aug 22 10:17:00 1986
Date-Received: Fri, 22-Aug-86 20:54:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 39

OPTIONS: NOACK   LOG   SHORT   NOTEBOOK ALL

Date: 22 August 1986, 09:16:52 EST
From: Ton van Overbeek   +31 1719 83041   TPC862   at ESTEC
To: FISCHER at YALE.ARPA
cc: INFO-ATARI16 at SCORE.STANFORD.EDU
Subject: Re: Floppy Disk Speed

>I'd like to fix it to work with the hard disk, but having the source
>would make life much easier. Does anyone out there have the source
>and would be willing to post it to the net? Or at least, does anyone
>know who the author is so that I could contact him directly?

I disassembled this ramdisk posted by Braner, and the mod you need
to change the ram disk drive to C or E or whatever is indicated below.
Here follow three lines from the original posting of this ramdisk:

D2 BC 00 00 00 12 23 C1 00 00 04 7E 30 39 00 00
04 C4 08 C0 00 03 33 C0 00 00 04 C4 2F 39 00 00 <-- change the 03
06 66 3F 3C 00 20 4E 41 5C 8F 42 67 4E 41 02 00

The C0 00 03 is the BSET #$03,D0 instruction that sets bit 3 (= drive D)
D0 is moved in the next instruction to $4C4 (the drvbits word).
So change the 03 to 02 if you want drive C or to 04 if you want drive E
to be the ramdisk.
Hope this helps.

Ton van Overbeek

European Space Research and Technology Centre (ESTEC)
Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From 3235519656448804644
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,672633111772cbe6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 10:20:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!gatech!akgua!mcnc!ecsvax!mjg
From: mjg@ecsvax.UUCP (Michael Gingell)
Newsgroups: net.micro.atari16
Subject: Re: Reading MS-DOS disks
Message-ID: <1949@ecsvax.UUCP>
Date: Fri, 22-Aug-86 13:20:59 EDT
Article-I.D.: ecsvax.1949
Posted: Fri Aug 22 13:20:59 1986
Date-Received: Sat, 23-Aug-86 20:11:22 EDT
References: <408@ektools.UUCP> <410@ektools.UUCP>
Distribution: na
Organization: UNC Educational Computing Service
Lines: 33

> In article <408@ektools.UUCP> bruce@ektools.UUCP I wrote:
> >
> >... Are there any programs available which can
> >
> >a) convert an ST disk to MS-DOS and vice-versa or
> >b) read and/or write an MS-DOS format disk on the ST
>
> First, I'd like to thank everone who took the time to send replies.
>
> Here is what I've found. Originally I was trying to read/write from MS-DOS
> disks written on an HP-150. It seems that the HP-150 uses 256 byte sectors
> instead of 512 byte like the ST. Since then, I located an IBM-PC with a
> 3.5 inch drive.
>
> The IBM-PC was unable to read disks formatted by the ST. However, the ST
> was able to read/write the PC-formatted disks, and the PC was able to read
> the disks after they had been to my ST and back. It seems that there are
> minor formatting considerations which the ST ignores but the PC enforces.
>
> My experience, then, is that as long as the PC controls the formatting,
> files are exchangable between the PC and the ST.
>
> Bruce Nelson

> ...rochester!kodak!ektools!bruce

Coming in on this a little late, I would like to add that there is
a program that runs on the PC that reads and writes many different
alien formats (275 is what they advertize). Included is the ST
format. Name of the program is XenoCopy II, from XenoSoft in
Berkeley, CA. $79.95

Mike Gingell   ..decvax!mcnc!ecsvax!mjg

From 4970488544385258611
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,497aeb1b828e0a59,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 10:35:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: keyboard clock
Message-ID: <8608230007.AA28185@ucbvax.Berkeley.EDU>
Date: Fri, 22-Aug-86 13:35:40 EDT
Article-I.D.: ucbvax.8608230007.AA28185
Posted: Fri Aug 22 13:35:40 1986
Date-Received: Fri, 22-Aug-86 23:49:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 14

The mod just posted is not the best way to get the keyboard chip to keep the
time. Youy must keep the reset pin high on the chip when the power is off, or
the time will just freeze. To do this, I have used a nand gate circuit.
Adding another reset button is silly (in my opinion) when it could be done with
the proper circuit. Also, the reset line must go low when you hit the rest
button, or the keyboard will not work correctly. I will post the mod this
weekend, so all can see.

And yes, their are two different versions of the chip, I have had two in my
hands, one says V01 and the other says V02. To me that is two different chips
Perhaps the little chip on the keyboard is different, but the appears to be
a simple buffer (the little chip by the 6301).

Mike

From 8144338115930115449
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,c65af58554a71727,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 12f221,c65af58554a71727,start

X-Google-Attributes: gid12f221,public
X-Google-Thread: 140593,c65af58554a71727,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,c65af58554a71727,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 15517a,c65af58554a71727,start
X-Google-Attributes: gid15517a,public
X-Google-ArrivalTime: 1986-08-22 10:47:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!tektronix!tekgen!
ralphc
From: ralphc@tekgen.UUCP (Ralph Carpenter)
Newsgroups: net.micro.pc,net.micro.68k,net.micro.atari16,net.micro.amiga,net.misc
Subject: Computer Aided Translation
Message-ID: <327@tekgen.UUCP>
Date: Fri, 22-Aug-86 13:47:06 EDT
Article-I.D.: tekgen.327
Posted: Fri Aug 22 13:47:06 1986
Date-Received: Sun, 24-Aug-86 20:49:43 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 22
Xref: mnetor net.micro.pc:6264 net.micro.68k:1159 net.micro.atari16:1697
net.micro.amiga:4380 net.misc:2569

    There have been several requests on the net for computer aided translation from Intel 8086/88/80186 processors to Motorola 680XX processors. I know of someone who developed software tools that accomplish this, and has been using them very successfully for the last two years. The object of the conversion was a communications package running (and being developed) on an IBM PC/XT and Tandy 2000 (80186), about 20+ thousand lines of assembly language code.

    If anyone is interested in this capability, they should talk directly to: Duane O'Shay, Software 66, 3119 E. Des Moines, Mesa Az. 85203, Telephone - 602+924-0704.

    I have known Duane O'Shay professionally for about five years, and have been quite impressed with all his work that I have seen.

    As usual, I have no financial or other vested interests. These are purely my personal opinions, and do not represent my employer in any way.

From 5268015584354609274
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7333275e54d9c475,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 15:25:57 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: info request
Message-ID: <8608222109.AA03280@mitre-bedford.ARPA>
Date: Fri, 22-Aug-86 18:25:57 EDT
Article-I.D.: mitre-be.8608222109.AA03280
Posted: Fri Aug 22 18:25:57 1986
Date-Received: Fri, 22-Aug-86 23:45:39 EDT
Sender: uucp@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

Can anybody give me the definition of the processing done by uudecode so I can
implement a version on a non-unix machine? It strikes me it would be handy to
download the encoded file and decode it directly on the target machine rather
than on the Vax. That way I wouldn't have to figure out how to transfer
binary files -- which is the whole reason for uuencode in the foist place.

-John Sangster
jhs@mitre-bedford.arpa

From 4342102493744325750
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-22 15:55:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!princeton!allegra!ulysses!mhuxr!mhuxt!
houxm!ihnp4!ihlpa!dhp
From: dhp@ihlpa.UUCP (Douglas H. Price)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <1722@ihlpa.UUCP>
Date: Fri, 22-Aug-86 18:55:05 EDT
Article-I.D.: ihlpa.1722
Posted: Fri Aug 22 18:55:05 1986
Date-Received: Sat, 23-Aug-86 10:24:05 EDT
References: <508@elmgate.UUCP> <64@mit-prep.ARPA> <510@elmgate.UUCP>
<4374@gatech.CSNET>
Organization: AT&T Bell Laboratories
Lines: 34
Xref: mnetor net.micro.atari16:1690 net.micro.amiga:4372 net.micro.68k:1155

> Just because you are implementing "paging" does not mean that you must
> implement "demand paging". The PDP-11 had memory mapping registers but
> did not allow demand paging. Before a process ran you had to ensure that

> all the memory they were allowed to access was resident.
>
> Jeff Lee
> CSNet: Jeff @ GATech ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
> uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

Wrongo, Oh Bit Breath! PDP-11s from an 11/44 on up can demand-page quite well, thank you, though rather inefficiently. I used to work for a firm called Datalogics, in Chicago, IL, which had a demand paged operating system called DURESS which had originally been written in about 1977 as a derivative of RT-11 and RSX-11D.

This operating system used all three address spaces (USER, SUPERVISOR and KERNEL) and was fully demand paged. In fact, you will find there is a service order available on the PDP-11/44 designed to correct a bug in the memory managment unit that we turned up when we first tried to port DURESS to it.

Another comment; DURESS could run proverbial rings around the available UNIX versions of that era. It made a PDP-11 look like a real machine to the user in terms of performance. On the other hand, it had a really grungy programmer interface, and a semi-flat file system (yuck!)

PDPs less than an 11/44 (11/23 through the 11/34) had a simplified memory manager which did away with SUPERVISOR space, and split I and D, which in my opinion severely crippled them.

--

Douglas H. Price
Analysts International Corp.
@ AT&T Bell Laboratories
..!ihnp4!ihlpa!dhp

From -1078594934147600837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88adeddf10298f15
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 16:07:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NOSC.ARPA!hallock%marlin
From: hallock%marlin@NOSC.ARPA (Michael J. Hallock)
Newsgroups: net.micro.atari16
Subject: Re: B.I. I*S Talk
Message-ID: <8608222307.AA12858@marlin.ARPA>
Date: Fri, 22-Aug-86 19:07:54 EDT
Article-I.D.: marlin.8608222307.AA12858
Posted: Fri Aug 22 19:07:54 1986
Date-Received: Fri, 22-Aug-86 23:47:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

The man's name is NEIL. I appreciate your informative comments, but the
man's name is NEIL.

Mike Hallock

From 5003719684810795501
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,33a80656bb294533
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 16:26:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: Atari and Dealer relations.
Message-ID: <2761@islenet.UUCP>
Date: Fri, 22-Aug-86 19:26:05 EDT
Article-I.D.: islenet.2761
Posted: Fri Aug 22 19:26:05 1986
Date-Received: Tue, 26-Aug-86 03:00:47 EDT
References: <860819014936.00000C3F.BDET.MA@UMass>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 50

In article <860819014936.00000C3F.BDET.MA@UMass> Silver@UMass.BITNET (I forgot
your name already.) writes:
>...I work for this Atari Dealer. And we seem to have some sort
>of problem in getting ANY Atari hardware in.
>... On a daily basis we lose sales to mail order, cause people
>cannot afford to wait for Atari. We have been waiting for "any day now"
>for about 2 months now. Sigh...
>... "We carry all these, plus the ST which is more powerfull
>than any IBM machine, but we dunno when we will get one. We DO have
>the IBM-Compatibles in stock, though" When people go computer shopping
>they like to get what they buy NOW, and not wait for some non-announced
>date.
>
>Silver,
>SILVER%UMASS.BITNET

I will have to agree here, as we are also a dealer here for
Atari ST's and compatibles.

Some answers would be GREATLY appreciated, as the number of calls
I've gotten recently on the 1040ST has doubled and tripled
because of the advent of wonderful software like Music Studio,
the Michtron software, OSS Personal Pascal and magazines like "STart"
by Antic and "Atari ST Disk & Magazine" by Compute (wonderful
creative name for a magazine, eh?)

Anyway, WE NEED ANSWERS!!!! Please, Neil, if you can help us, please do.

As Silver said, we are losing sales to PClones because people can SEE the hardware.

I have two basic questions:

1) Availability of hard disks (20 meg)

2) When is the IBM emulator due. (I need a realistic date -- it is totally unfair to lead people on if the product is 6 months away. If it will be 6 months, for Christ sake, SAY SO!)

I hope Atari understands this as positive enthusiasm for a spectacular product and not as something negative.

PEOPLE WANT TO BUY ATARI'S, I TELL YOU!

I WANT TO SELL THEM!

Aloha from Waikiki,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From 3317781030460947157
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a16bf45ef07dd487,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 18:49:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!utah-cs!sandra
From: sandra@utah-cs.UUCP (Sandra J Loosemore)
Newsgroups: net.micro.atari16
Subject: Hard disk
Message-ID: <3902@utah-cs.UUCP>
Date: Fri, 22-Aug-86 21:49:25 EDT
Article-I.D.: utah-cs.3902
Posted: Fri Aug 22 21:49:25 1986
Date-Received: Sat, 23-Aug-86 00:00:26 EDT
Organization: University of Utah CS Dept
Lines: 34
Keywords: fast but noisy

Well, I finally broke down and got an Atari hard disk for my ST. The good news is that it's fast and has lots of room. Programs that take 20-30 seconds to load from a floppy load in a second or two from the hard disk, so there's no more sitting there twiddling your thumbs waiting for it to read the files.

The bad news is that the disk is very noisy. I didn't notice it so much

when playing with the demo machine at my dealer's, perhaps because there was more background noise there. It's loud enough to be bothersome, though, so I'm going to experiment with some acoustic shielding for it. It's not possible to just move the disk farther away because the cable is very short, and using a longer cable is not recommended.

Here are a few other details on the disk. First of all, if you don't have TOS in ROM, forget about using the hard disk. You cannot boot from the hard disk either -- you need to load the device driver from a floppy.

The hard disk is divided up into "partitions" or "logical disks". You can have up to four of them, and you can configure their sizes. However, once you've configured the partitions, you can't reconfigure them without erasing the disk.

The hard disk driver seems to be hard-wired into using disks C, D, E, etc. I haven't been able to get the hard disk to coexist with the Intersect ramdisk because of this.

If you need more than 20 MB, you can connect up to 8 hard disks up to your ST at the same time. But there are limits on the total number of directories you can have, and the number of files that can appear in each directory. The manual has a whole page full of warnings about the various restrictions.

-Sandra Loosemore
sandra@utah-cs.arpa

From 5985963836599819142
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,758247b6fb48a729,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 19:45:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: HELP! 520ST parallel printer port doubles characters?
Message-ID: <1310@watdragon.UUCP>
Date: Fri, 22-Aug-86 22:45:52 EDT
Article-I.D.: watdrago.1310
Posted: Fri Aug 22 22:45:52 1986
Date-Received: Sat, 23-Aug-86 04:29:10 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 12

I just bought a db25->centronics connector to hook up my ST to an old Seikosha GP-100A printer (I believe it was also marketed by Commodore under a different name...this is the printer with a one dot print head).

Unfortunately, characters sent from the ST arrive ddoouubblleedd at the printer. This printer works correctly with other computers...is there something slightly out of spec about the ST printer port, or have I simply missed something?

Thank you for any help,

Jan Gray   jsgray@watdragon   University of Waterloo   519-885-1211 x3870

From -1768662923670746787
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 20:05:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <8608230248.AA07211@mitre-bedford.ARPA>
Date: Fri, 22-Aug-86 23:05:09 EDT
Article-I.D.: mitre-be.8608230248.AA07211
Posted: Fri Aug 22 23:05:09 1986
Date-Received: Sat, 23-Aug-86 02:12:24 EDT
References: <1317@lsuc.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 16

I think the Avatex will disconnect if you drop Data Terminal Ready. This can be done in software so need not be manual. However it cannot be done by typing on the keyboard while on-line, as I presume can be done with a real $350.00 Hayes. The Avatex will also drop back to command mode if you lose the carrier, which is the most usual occurrence when you log out of your host system.

On the other hand, if anybody should be sending binary files or encrypted text, they might find their Hayes not the best choice for the very reason that there are data strings that will dump it back into command mode.

All in all, I remain VERY pleased with the performance of my Avatex, especially considering the price of $80.00 that I paid for it.

-John Sangster
jhs@mitre-bedford.arpa

From 1196314685789069004
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d9afe51818d315a7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-22 20:38:38 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Neil Harris
Message-ID: <860822233838.00000EB8.AFWJ.MA@UMass>
Date: Fri, 22-Aug-86 23:38:38 EDT
Article-I.D.: UMass.860822233838.00000EB8.AFWJ.MA
Posted: Fri Aug 22 23:38:38 1986
Date-Received: Sat, 23-Aug-86 02:13:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

The following is provided as a net.apology.

NEIL NEIL NEIL NEIL NEIL NEIL NEIL NEIL

I believe there are two Neils there for every time I mispelled his name.
Viola, sorry about that. Maybe when I meet him I'll remember.

Rick

From -7188386628356218383
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8989b295fa687e48,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-23 00:59:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site yetti.UUCP
Path: utzoo!mnetor!yetti!mike
From: mike@yetti.UUCP (Mike Clarkson)
Newsgroups: net.micro.atari16
Subject: Atari 2080 ST and Laser Printer ?
Message-ID: <400@yetti.UUCP>
Date: Sat, 23-Aug-86 03:59:18 EDT
Article-I.D.: yetti.400
Posted: Sat Aug 23 03:59:18 1986
Date-Received: Sat, 23-Aug-86 09:12:45 EDT
Reply-To: mike@yetti.UUCP (Mike Clarkson)
Organization: York University Computer Science
Lines: 26

There are rumours abounding of a soon to be released 2080 ST, with
2 Meg of RAM, built-in floppy, a detachable keyboard (yeah!),
a port for an expansion bus, possibly a higher resolution monitor, and
support through the DMA port for the yet to be announced Atari Laser printer.
Price: uncertain; availability: Christmas ?

All of this sounds marvelous, but my question is: will the laser printer
ONLY work with the 2080, or will it also work with the 520/1040's. It

sounds like Atari is planning to use the RAM in the 2080 to drive the laser printer through the DMA, which might leave the 520/1040 owners out in the cold.

Can someone at Atari confirm or deny whether the planned Atari laser printer will work with the 520 or 1040 ST?
Neil?

--
Mike Clarkson,   ...!allegra \   BITNET:
     mike@YUYETTI or
CRESS, York University, ...!decvax   \   SYMALG@YUSOL
4700 Keele Street,   ...!ihnp4   > !utzoo!yetti!mike
North York, Ontario,   ...!linus   /
CANADA M3J 1P3.   ...!watmath /   Phone: +1 (416) 737-2100 x 7767

"...the most inevitable business communications system on the planet."
                              - ROLM magazine advertisement
 which planet?

From 3459718870014675966
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,575b0172b2b957c7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-23 05:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!exunido!at
From: at@exunido.UUCP
Newsgroups: net.micro.atari16
Subject: Lattice C: free memory ? - (nf)
Message-ID: <96100018@exunido.UUCP>
Date: Sat, 23-Aug-86 08:51:00 EDT
Article-I.D.: exunido.96100018
Posted: Sat Aug 23 08:51:00 1986
Date-Received: Sun, 24-Aug-86 04:59:19 EDT
Lines: 12
Nf-ID: #N:exunido:96100018:000:388
Nf-From: exunido!at   Aug 23 13:51:00 1986

     Lattice C : Help needed !

I need some code to get the overall free memory in Lattice C.
sizmem() returns only the amount of free memory in the pool, which is normaly not! the total free memory.
Have I to deal with the global pointers _mfirst, _mnext, _msize and _pool which are defined in the bindings?
I need it urgendly for a prolog interpreter. (PD)

     Andreas Toenne
     at@unido.UUCP

From -4561497991093049796
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,497aeb1b828e0a59
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-23 09:27:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: keyboard clock
Message-ID: <1884@utecfa.UUCP>
Date: Sat, 23-Aug-86 12:27:11 EDT
Article-I.D.: utecfa.1884
Posted: Sat Aug 23 12:27:11 1986
Date-Received: Sat, 23-Aug-86 13:51:43 EDT
References: <8608230007.AA28185@ucbvax.Berkeley.EDU>
Organization: Engineering Computing Facility, University of Toronto
Lines: 39

Someone writes:

> The mod just posted is not the best way to get the keyboard chip to keep the
> time. Youy must keep the reset pin high on the chip when the power is off, or
> the time will just freeze. To do this, I have used a nand gate circuit.
> Adding another reset button is silly (in my opinion) when it could be done with
> the proper circuit. Also, the reset line must go low when you hit the rest
> button, or the keyboard will not work correctly. I will post the mod this
> weekend, so all can see.

I don't want to start a my mod is better war, and I'm only replying to
the above to clear some misconceptions that the above article might
create. I don't care whose mod is used, and if I had known that someone
was going to post a mod, I would probably not have posted mine.
To reply to some specific points raise above:

> Yes the *RESET line should be kept high, and if you look at the
> circuit I posted, you will find that it *is* kept high. Conversely,
> when you press the reset button the line will go low. Please do
> not post erroneous information.
>
> The second reset button is the only one you need to use to reset
> the whole system. Yes, it is a bit of a hack, but personally I
> thought it was a reasonable solution given the constraints.
>
> BTW, the mod I posted is quite sufficient if you are going to be
> using the ST for most of the day, and will leave if off at night.
> If, on the other hand, you want to just use it for a few hours
> a day, you should think of getting larger capacity Ni-Cad cells,

and making a real charging circuit for higher charging rates.

Finally, the mod given above works. I have been using it
for about a week now.

anees

From -1343261430413594814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-23 12:09:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!
iuvax!ndmath!milo
From: milo@ndmath.uucp (Greg Corson)
Newsgroups: net.micro.atari16
Subject: Re: 1040 hardware notes
Message-ID: <132@ndmath.uucp>
Date: Sat, 23-Aug-86 15:09:51 EDT
Article-I.D.: ndmath.132
Posted: Sat Aug 23 15:09:51 1986
Date-Received: Sun, 24-Aug-86 05:13:23 EDT
References: <8608051143.AA13767@ucbvax.Berkeley.EDU> <2689@mit-hermes.ARPA>
<82@eneevax.UUCP> <905@batcomputer.TN.CORNELL.EDU>
Organization: Notre Dame University, Math Department
Lines: 26

A warning to those who would put surge suppressors on their phone lines...it is
VERY important that those suppressors be placed at the point where the phone
line enters the house (or as close as possible). Remember that surge
suppressors work by presenting a dead short to high voltage pulses...phone wire
is relatively high resistance stuff (compared to zip cord) and can get VERY
hot if a high voltage surge goes down it and is shunted to ground.

I saw some pictures in EDN magazine showing what happened to someone who
had these suppressors on his phone line...he took a lightening hit and the
phone cords leading to his modem (with surge protector) got so hot they left
black scortch marks in his rug! Phone lines without the protectors didn't get
hot at all. It probably takes a fairly close lightening hit to do this...but
not a direct hit (nothing else in the guy's house was damaged).

So if you install a surge protector...install it on the terminal block where
the phone line comes into your house...better safe than sorry.

Greg Corson
pur-ee!iuvax!kangaro!milo

P.S. I have 5 (yes F I V E) modems in my house...we have dual surge protection
installed for free by the phone company. Carbon point arrestors on the pole
and gas point ones on the service pannel in the house. I have never had any

problem with lightening.

P.S.S. Why 5 phone lines...I run a multi-line BBS system (219) 277-5825

From -7090236072645964707
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c79d7913e4242280,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-23 13:21:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Emulator question
Message-ID: <2764@islenet.UUCP>
Date: Sat, 23-Aug-86 16:21:16 EDT
Article-I.D.: islenet.2764
Posted: Sat Aug 23 16:21:16 1986
Date-Received: Tue, 26-Aug-86 03:00:59 EDT
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 16

Neil,

If one plugs the IBM emulator into the DMA port, where does
the hard disk plug into?

Does the emulator have an extension of the DMA on it? Or is there
something like a Y-connector off of the DMA port?

Does the approx. $300 for the emulator include a 5-1/4" drive?

Thanks for keeping us posted!

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons

From -3377602742592778234
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,49b3d0339126358d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 06:10:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!icdoc!qmc-cs!don
From: don@cs.qmc.ac.uk (Don Beal)
Newsgroups: net.micro.atari16
Subject: RTS/CTS problems in ST
Message-ID: <189@cs.qmc.ac.uk>

Date: Sun, 24-Aug-86 09:10:40 EDT
Article-I.D.: cs.189
Posted: Sun Aug 24 09:10:40 1986
Date-Received: Wed, 27-Aug-86 10:18:47 EDT
Reply-To: don@cs.qmc.ac.uk (Don Beal)
Organization: CS Dept, Queen Mary College, University of London, UK.
Lines: 30

Expires:

References:

Followup-To:

Distribution:

Keywords:

Help!
Does anyone understand the RTS/CTS problems on the Atari well enough to explain the problems below, and hopefully, offer a fix?

The Atari TOS has, as one of its options for the RS232 (modem) port, the option to use the RTS/CTS lines. I needed this for my modem because although the ST talks to the modem at 1200/1200, the modem communicates across the telephone line at 1200/75 (a British standard), and hence output from the ST needs to be flow-controlled by the modem which is "speed buffering" and sending at 75 baud.

My first attempt with the flow control actually worked (although see next paragraph), but had the extraordinary side effect of heavily corrupting the (non-flow-controlled) incoming data at 1200. Investigation proved this wasn't the modem, but pin 3 on the Atari (receive data) distorting the incoming signal!!!! (Yes, I know this is inconceivable, but it happens.) No distortion if TOS asked not to use flow control, or RTS/CTS is disconnected.

Further investigation revealed all sorts of other problems with the flow control. It wasn't working properly at all. Depending on the transmission rate of characters (i.e. gaps between characters versus no gaps), and whether or not simultaneous sending and receiving was in progress it would send 256 characters and then lock up, or send the first character, pretend to send the next 255 then lock up, or work ok.

The "ST internals" (abacus) book describes how TOS handles CTS incorrectly and this explains some of the symptoms, but not the incoming data corruption.

Is there anyone who knows enough to supply more detail and offer a fix?

From 3252018692753235149
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,43a45b35da52fbc7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 09:06:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!well!ptsfa!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Personal Pasc Source Request
Message-ID: <206@vlsvax1.UUCP>
Date: Sun, 24-Aug-86 12:06:59 EDT
Article-I.D.: vlsvax1.206
Posted: Sun Aug 24 12:06:59 1986
Date-Received: Thu, 28-Aug-86 21:33:58 EDT
Distribution: na
Organization: Voelker-Lehman Fremont CA
Lines: 11

[]

I am collecting source listings for PD utilities, desk accessories and
general stuff written in Pascal (particularly OSS Personal Pascal) for
a friend in an ST computer club in the Bay Area. If anyone can send
me such sources via e-mail, or can point to a source of sources, so
to speak, I would greatly appreaciate it. Thanks in advance, as the
saying goes.

Sweeney
...!qantel!vlsvax1!cms

From -3836403351275607697
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65f0eb474b23c417,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 11:52:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!Xerox.COM!Opstad.osbunorth
From: Opstad.osbunorth@Xerox.COM
Newsgroups: net.micro.atari16
Subject: Division problem with Lattice C
Message-ID: <860824-115320-1121@Xerox>
Date: Sun, 24-Aug-86 14:52:53 EDT
Article-I.D.: Xerox.860824-115320-1121
Posted: Sun Aug 24 14:52:53 1986
Date-Received: Sun, 24-Aug-86 19:48:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

  I discovered this little problem while writing a prime factorization
program. Consider the following fragment:

```
  unsigned long i;
  i = 16777216L;
  printf("%ld\n", i);
  i /= 2;
  printf("%ld\n", i);
```

  Imagine my surprise when the same number is printed by both printf calls! When I changed the fourth line to:

```
  i >>= 1;
```

  the program worked fine and printed the correct results. Has anyone else had problems with division using Lattice/Metacomco C? (I'm using version 3.03.04)

  Dave Opstad (Opstad.osbunorth@Xerox.COM)

From -5450248411322594613
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 16:38:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!amd!amdcad!decwrl!pyramid!hplabs!tektronix!uw-beaver!ssc-vax!uvicctr!collinge
From: collinge@uvicctr.UUCP (Doug Collinge)
Newsgroups: net.micro.atari16
Subject: Re: Fixing the 1040 whistle
Message-ID: <182@uvicctr.UUCP>
Date: Sun, 24-Aug-86 19:38:56 EDT
Article-I.D.: uvicctr.182
Posted: Sun Aug 24 19:38:56 1986
Date-Received: Wed, 27-Aug-86 21:41:01 EDT
References: <8608051143.AA13767@ucbvax.Berkeley.EDU> <2689@mit-hermes.ARPA> <82@eneevax.UUCP> <906@batcomputer.TN.CORNELL.EDU>
Reply-To: collinge@uvicctr.UUCP (Doug Collinge)
Organization: University of Victoria, Victoria B.C. Canada
Lines: 18

In article <906@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner) writes:
>Atari has issued a technical note to its dealers about the high-
>pitched whine in the 1040.
>...
>Replace them with the new components. That's it.

My friend just did this and it worked. No problems encountered.
Thanks Moshe!

--
         Doug Collinge

School of Music, University of Victoria,
PO Box 1700, Victoria, B.C.,
Canada, V8W 2Y2
decvax!nrl-css!uvicctr!collinge
decvax!uw-beaver!uvicctr!collinge
ubc-vision!uvicctr!collinge

From -7981185307627274803
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 21:13:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell: Megamax and IO redirection - query
Message-ID: <942@batcomputer.TN.CORNELL.EDU>
Date: Mon, 25-Aug-86 00:13:55 EDT
Article-I.D.: batcompu.942
Posted: Mon Aug 25 00:13:55 1986
Date-Received: Mon, 25-Aug-86 19:15:06 EDT
References: <93@uwmacc.UUCP> <202@vlsvax1.UUCP> <209@bridge2.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 19
Summary: Still unresolved

[]

Of greater annoyance to me is the fact that Megamax-compiled programs
crash if IO is redirected from inside Micro C-Shell. The SAME
program works fine if named PROG.TTP and invoked from the desktop,
entering ">OUTFILE" into the dialog box.   This is an old problem,
but I havn't heard from either company yet. (I don't know if it's
Megamax or Beckemeyer's "fault"). Contrary to recent claims, it does
not matter (from C-Shell) if I use ">outfile" or "> outfile".
It never works - I get two balls with lighted fuses.

Any solutions? Are the companies involved going to do something
about it? The products (Micro C-Shell and Megamax C dev. system)
are generally excellent, and sales of both would gain if they'd
work together better.

- Moshe Braner

Corson Hall, Cornell Univ., Ithaca NY 14853   (607) 272-3487

From -471604947379092607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c55cad70205123d9

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 21:30:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: uEmacs Source?
Message-ID: <943@batcomputer.TN.CORNELL.EDU>
Date: Mon, 25-Aug-86 00:30:50 EDT
Article-I.D.: batcompu.943
Posted: Mon Aug 25 00:30:50 1986
Date-Received: Mon, 25-Aug-86 19:15:23 EDT
References: <8608220442.AA08796@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 16
Summary: I got it, but it's not the 3.X version

[]

Once more: send me an ST-formatted single sided disk and an approriate
SASE, and I'll return it with my version of microEMACS, both source
and executable (and some doc). Note: my version is NOT related to
the 3.6, 3.7 etc. versions originating from Daniel Lawrence. My version
is much simpler, on purpose. It is designed for convenience when writing
program files on the ST. It's also good for data files, and short letters.
(word processing is possible with the proff formatter, also on the disk).
The source code will also compile on UN*X, VMS, CP/M, and MSDOS.
On the ST the function keys are used, but the original control-character
command invocations also work.

- Moshe Braner

Corson Hall, Cornell Univ., Ithaca NY 14853   (607) 272-3487

From 5783534508479931517
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-24 22:04:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <1318@lsuc.UUCP>
Date: Mon, 25-Aug-86 01:04:07 EDT
Article-I.D.: lsuc.1318
Posted: Mon Aug 25 01:04:07 1986
Date-Received: Mon, 25-Aug-86 02:23:34 EDT
References: <1317@lsuc.UUCP> <8608230248.AA07211@mitre-bedford.ARPA>

Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 39
Summary: Dropping DTR

In article <8608230248.AA07211@mitre-bedford.ARPA> jhs@MITRE-BEDFORD.ARPA writes:
>I think the Avatex will disconnect if you drop Data Terminal Ready. This can
>be done in software so need not be manual. However it cannot be done by
>typing on the keyboard while on-line, as I presume can be done with a real
>$350.00 Hayes. The Avatex will also drop back to command mode if you lose the

     Thanks for pointing that out John. What baffled me for a while was the fact that leaving the VT-52 emulator or leaving Flash doesn't drop DTR. David Betz on BIX has a new version of BMODEM which drops DTR on exit, but it would seem that this isn't the ideal situation yet because you cannot call a SHELL from within BMODEM at this time. This limits what you can actually do from within BMODEM. David is going to write the next version of BMODEM with a Disconnect command which will force DTR low from within BMODEM. This seems to be the best idea for now.
Those of you writing Comm packages should keep in mind that there are essentially two standard methods of forcing disconnection. The first is the DTR low, which fakes shutting off the "terminal". The second is 1/2 BREAK which is from Bell 103 and 212A modems. One or both of these should always be available to the user.

...
>
>All in all, I remain VERY pleased with the performance of my Avatex,
>especially considering the price of $80.00 that I paid for it.

     I agree. Although I've only had it for a couple of days now, I have successfully uploaded and downloaded at 1200 baud across Tymnet which failed with the GVC. Also, I have reports that real Hayes modems are not particularly reliable either (though likely not as bad as the GVC's), so there you have it. It seems you can do better than a real Hayes modem for much less.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -9026600983404689892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7f6e100b05b5f7f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 07:07:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!hslrswi!brantsch

From: brantsch@hslrswi.UUCP (Stefan Brantschen)
Newsgroups: net.micro.atari16
Subject: Latest version of megamax C ?
Message-ID: <156@hslrswi.UUCP>
Date: Mon, 25-Aug-86 10:07:36 EDT
Article-I.D.: hslrswi.156
Posted: Mon Aug 25 10:07:36 1986
Date-Received: Wed, 27-Aug-86 10:12:21 EDT
Organization: Hasler AG, Bern, Switzerland
Lines: 12

Can anyone out there point out what the latest version of
the megamax C package is ? I have seen the posting of
m5 @ megamax about some bug fixes, so I would like to buy
the newest version ...

m5 @ megamax ???

Thanks   Stefan Brantschen
         UUCP: ...cernvax!hslrswi!brantsch

From -6920152884035269264
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97bf8761fa936cae
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 08:11:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!FISCHER-MICHAEL
From: FISCHER-MICHAEL@YALE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <8608251511.AA06093@ucbvax.Berkeley.EDU>
Date: Mon, 25-Aug-86 11:11:47 EDT
Article-I.D.: ucbvax.8608251511.AA06093
Posted: Mon Aug 25 11:11:47 1986
Date-Received: Mon, 25-Aug-86 21:41:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: <FISCHER-MICHAEL@YALE.ARPA>
Organization: The ARPA Internet
Lines: 26

    Date: 22 August 1986, 09:16:52 EST
    From: Ton van Overbeek   +31 1719 83041   TPC862   at ESTEC

    >I'd like to fix it to work with the hard disk, but having the source
    >would make life much easier. Does anyone out there have the source
    >and would be willing to post it to the net? Or at least, does anyone
    >know who the author is so that I could contact him directly?

    I disassembled this ramdisk posted by Braner, and the mod you need
    to change the ram disk drive to C or E or whatever is indicated below.

Thanks for the reply, but simply changing the ram disk drive number is
not enough. The ram disk program is modifying some hard disk vectors
(apparently pretending to the system that it IS a hard disk), and this
disables the real hard disk. I don't think it would be difficult to fix
with the sources, but it would require a more thorough understanding of
the code than I can get after a quick browse with SID.

Which brings up the question: Does anyone know how to get printed output
from SID? When I try to redirect standard output, it crashes, and I am
not aware of any way of printing from within SID.

--Mike Fischer

From -7900603675180142703
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87cca84f1fbc9ce1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 08:59:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Slow response to the mouse left button
Message-ID: <918@druhi.UUCP>
Date: Mon, 25-Aug-86 11:59:19 EDT
Article-I.D.: druhi.918
Posted: Mon Aug 25 11:59:19 1986
Date-Received: Tue, 26-Aug-86 04:58:22 EDT
References: <525@vaxwaller.UUCP>
Distribution: net
Organization: AT&T Information System Labs, Denver, Co
Lines: 26

In article <525@vaxwaller.UUCP>, cw@vaxwaller.UUCP writes:
>
>   A couple of postings have mentioned programs that responded slowly
> to the mouse's left button. My version of Degas is notorious. When I am
> trying to quit, it ask's are you sure and has a little OK box. I'll click
> and click on that box before it responds. Then, when it does responds and
> puts up the regular menu, I may still be clicking furiously away and click
> on some other command by mistake.
>   Well, I remembered reading something about keyboard sequences
> that correspond to mouse functions in the manual that came with my computer.
> ALT INSERT correspond to clicking that button. With some experimentation
> I found that, after positioning over the OK box, if I hold those keys down
> for a second, when I let up, the program responds.
>   I just thought I'd pass this on for anybody who has any program with
> this little glitch in it.
> Regards,

> Carl Weidling
>
> --
> Cleave yourself to logodaedaly and you cleave yourself from clarity.

An easier solution to the problem is to hold the mouse button down for a second. That way you can avoid having to take your hand off the mouse, type, and then get the mouse again.

Barry Locklear

From 1297471110487557451
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 09:00:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!pyramid!nsc!csi!epimass!oliveb!
intelca!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <207@vlsvax1.UUCP>
Date: Mon, 25-Aug-86 12:00:53 EDT
Article-I.D.: vlsvax1.207
Posted: Mon Aug 25 12:00:53 1986
Date-Received: Thu, 28-Aug-86 09:20:28 EDT
References: <1204@mhuxo.UUCP> <12226870831.27.LAWRENCE.AUGER@IC2060>
<1664@ihlpa.UUCP> <1068@leadsv.UUCP> <1317@lsuc.UUCP>
Reply-To: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 46

In article <1317@lsuc.UUCP> jimomura@lsuc.UUCP (Jim Omura) writes:
>
>   I have tried a few cheap modems lately and have found the following:
>
>The GVC modem has problems with reliability. <more stuff about GVC>
>
>The Tandy 2212 is wonderfully reliable. <more stuff about Tandy>
>
>The USR Password is a Hayes compatible <more stuff about USR Password>
>
>The Avatex 1200 seems to have good signal quality <more about Avatek>
>--
>James Omura, Barrister & Solicitor, Toronto
>ihnp4!utzoo!lsuc!jimomura
>Byte Information eXchange: jimomura
>(416) 652-3880

In all the talk about various modems lately, especially low cost ones, I have been interested to see no mention of the Team Industries SMARTeam

modem. This could be because of distribution peculiarities or other things.
Anyway, I bought one at a swap meet in the SF Bay Area a few months ago.
The going price seems to be about $165 which is cheap compared to Hayes
and expensive compared to Avatek. But comparing to Avatek based on what
I have heard and read, it has a lot more in the way of features. It is
completely Hayes compatible meaning soft access to all registers and
features. It has an external speaker (soft controllable - you can shut
it off all together, leave it on constantly, or leave it in default mode
where it shuts itself off when it receives carrier. It is 300/1200 baud
(with 1200 being default) and I have had *no* problems with signal quality
in transferring many megabytes both ways (both binary and ascii). I
even had a good experience with customer service. A few weeks ago I
started having problems getting connected to a couple of BBS' and the
VAX at work when it had been working flawlessly before. I tried different
RS232 settings from the desktop and nothing changed. I tried a different
cable and concluded that the modem was bad. I called the US distributor,
they told me to send it in. I got an *exchange* modem back in 7 working
days, no questions asked. When it didn't work, I discovered that the
problem was with me and my software, not the modem. The modem never
was broken, but the company was responsive anyway. I like it.

I haven't seen this modem advertised, but it seems to be around and I'm
convinced it's a good buy. The only thing it's missing that I would like
to see is a clock, but overall, I'm very happy with it. Check it out.

Sweeney
qantel!vlsvax1!cms

From -6952534083028185138
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,efe45e068b6b26d6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 10:32:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!husc6!panda!genrad!mit-eddie!bri
From: bri@mit-eddie.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: St questions...
Message-ID: <3003@mit-eddie.MIT.EDU>
Date: Mon, 25-Aug-86 13:32:37 EDT
Article-I.D.: mit-eddi.3003
Posted: Mon Aug 25 13:32:37 1986
Date-Received: Mon, 25-Aug-86 22:06:11 EDT
Reply-To: bri@mit-eddie.UUCP (Brian Totty)
Organization: MIT, EE/CS Computer Facilities, Cambridge, MA
Lines: 38

Okay, here comes my next salvo of St questions...

1)   This is a strange one. I wrote a routine that works like
     graf_dragbox (Drags a rectangle within a bigger rectangle

until the button is lifted.) The difference is that I had it draw a raster image instead of a rectangle. (I am doing cut and paste stuff, and this is how I paste, by dragging the bits and stop when I PRESS the button (instead of lifting it.)) I use vq_mouse to monitor the mouse coordinates and the button state. The problem is that when I click the button, the AES queues an event. I tried just flushing the button click event by doing an evnt_button afterwards, but the event is not always a click. If the mouse happened to be positioned over a "full box" on a window, the AES would queue a window full request. So, the question is, is there any way to stop the event accumulation? How is graf_dragbox written?

2) I want to patch an Alt-Help driver into memory. Someone told me that the Alt-help vector was at $502. I figured the best way was to use a terminate and stay resident program that would set the vector, and sit around. BUT I DON'T KNOW HOW TO USE PTERMRES()! How do I find the value of the amount of memory to keep? Help!

3) I'm still looking for line-A TextBlt code. Any example of TextBlt that works will be GREAT!

--- Bri

--

Brian Totty

o o
 o
_/

450 Memorial Drive
Room D113
Cambridge, MA 02139

uc.bri@deep-thought.mit.edu
...!eddie!bri

From -391983262960649635
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87cca84f1fbc9ce1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 11:55:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site dciem.UUCP
Path: utzoo!dciem!ski
From: ski@dciem.UUCP (Dave Eaton)
Newsgroups: net.micro.atari16
Subject: Re: Slow response to the mouse left button
Message-ID: <1929@dciem.UUCP>
Date: Mon, 25-Aug-86 14:55:22 EDT
Article-I.D.: dciem.1929
Posted: Mon Aug 25 14:55:22 1986
Date-Received: Mon, 25-Aug-86 16:14:21 EDT
References: <525@vaxwaller.UUCP>
Reply-To: ski@dciem.UUCP (PUT YOUR NAME HERE)

Distribution: net
Organization: D.C.I.E.M., Toronto, Canada
Lines: 23
Summary:

In article <525@vaxwaller.UUCP> cw@vaxwaller.UUCP (Carl Weidling) writes:
>
>that correspond to mouse functions in the manual that came with my computer.
>ALT INSERT correspond to clicking that button. With some experimentation
>I found that, after positioning over the OK box, if I hold those keys down
>for a second, when I let up, the program responds.

If you hold down the mouse button you will get the same results...

>   I just thought I'd pass this on for anybody who has any program with
>this little glitch in it.

Is it a glitch or is there a purpose for it? Maybe someone at
Batteries Included can give us some insight...

Dave Eaton

D.C.I.E.M.
Toronto, Ontario
CANADA

From 4025048422726092095
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87cca84f1fbc9ce1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 13:18:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!apratt
From: apratt@atari.UUcp (Allan Pratt)
Newsgroups: net.micro.atari16
Subject: Re: Slow response to the mouse left button
Message-ID: <419@atari.UUcp>
Date: Mon, 25-Aug-86 16:18:10 EDT
Article-I.D.: atari.419
Posted: Mon Aug 25 16:18:10 1986
Date-Received: Tue, 26-Aug-86 02:55:19 EDT
References: <525@vaxwaller.UUCP>
Distribution: net
Organization: Atari Corp., Sunnyvale CA
Lines: 30
Summary: Hold the left mouse button DOWN!

There has been some talk lately about slow responses to the mouse buttons.
I would like to clear some of that up.

When you press a mouse button, GEM starts a delay timer. It waits for that timer to expire before returning the mouse event to the application. During that time, GEM is checking for things like double-clicks and chords (multiple mouse buttons down simultaneously). At the end of the delay, it compiles an idea of what the user did, and returns from the wait if the waited-for condition happened.

The user can set this delay time from the Control Panel: that's what the "sleeping/running" mouse icons mean. The higher the number, the shorter the delay time.

To demonstrate this, open your Control Panel and click on the 0 box. Now go down to the keyclick box and click on it a couple of times. Notice the delay between your click and the change in the box. Go back and select 4 instead of 0, and click on the keyclick box again. The delay was shorter this time, wasn't it? The delay is the amount of time you have to double-click before GEM gives up and registers a single-click.

Now about Degas: I believe the author of Degas wrote his own dialog handler. In any case, the apparent delay time between button-down and action is a LONG time. Multiple-clicks won't help. The way out of a Degas dialog is to HOLD THE BUTTON DOWN over Ok/Cancel/whatever.

```
/-----------------------------------------------\
| Opinions expressed above do not necessarily  |  -- Allan Pratt, Atari Corp.
| reflect those of Atari Corp. or anyone else. |     ...lll-lcc!atari!apratt
\-----------------------------------------------/
```

From 6758623504548310983
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,250b91f2158cca12,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 13:37:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Q for Atari: the Home Planetarium
Message-ID: <420@atari.UUcp>
Date: Mon, 25-Aug-86 16:37:54 EDT
Article-I.D.: atari.420
Posted: Mon Aug 25 16:37:54 1986
Date-Received: Tue, 26-Aug-86 02:55:31 EDT
References: <201@uwmacc.UUCP>
Organization: Atari Corp/Mktg
Lines: 35

In article <201@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:
> A question for "the gang from Atari:"
>
> The "Atari Planetarium" has been promised for over 6 monthes now

> Any release date, gang? Also, is there anything you can tell me about
> the package:
>   - does it make use of GEM and the mouse, etc
>   - can I load/build my own databases
>   - what type of database does it come from?
>   - etc

No firm release date yet. The developers of this package still have to finalize the ST version. The 8-bit Atari version has been out for a few months now.

It does use the mouse and drop-down menus. The database includes all 88 constellations and every star down to some magnitude (not sure at the moment, but lots). It includes all the planets and this past visit by Halley's comet. Deep sky objects like galaxies are also included. For every object displayed on the screen, there is a text entry that can be called up by clicking the right mouse button. A very impressive program.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 2628456110421696443
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,be2e9a6bb6ec82c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 13:53:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Timesaver
Message-ID: <421@atari.UUcp>
Date: Mon, 25-Aug-86 16:53:37 EDT
Article-I.D.: atari.421
Posted: Mon Aug 25 16:53:37 1986
Date-Received: Tue, 26-Aug-86 02:55:44 EDT
Organization: Atari Corp/Mktg
Lines: 49
Keywords: clock

~~~~~~
~~~~~~

I know everyone on this net delights in soldering arcane goodies inside their machines. This message won't please you.

There is a new way to save the time in your 520ST without any soldering or other dangerous hacking. Perfect for people like me who have been contaminated by working in the Marketing Dept.

The device is called the Timesaver and comes from a company called No Solder Required. It looks like a ROM socket with a chip buried inside it. Upon close inspection you'll notice that there is a pair of batteries somewhere in there too. According to our R&D people, this is an off-the-shelf part from Dallas Semiconductor. The No Solder Required folks added an ST disk with two key programs: one to set the clock the first time and the other to go into the AUTO folder and set the system clock at bootup.

Installation is a pleasure. Open up the 520ST and pull off the ROM in the U2 socket. Plug in the Timesaver, and then put the ROM back in. Close up the unit and you're ready to go.

Notice that I specified a 520ST. There's not enough clearance between the 1040ST ROMs and the power supply to fit this in. I'd bet you could desolder the ROM socket and put this in its place -- say, I guess there is something in this message for you hardware hackers!

The company's address:

No Solder Required
351 Mass. Ave.
Cambridge, MA 02139

No phone number or price was provided to me with the sample I got. It's been in my 520ST for a couple of weeks now with no problems. And the batteries are supposed to last for 10 years! Nice product.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -6742541752048210197
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7140e46d037744b6,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 17:44:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!UMass.BITNET!ATARI
From: ATARI@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: VT52 emulator locks up serial port
Message-ID: <860825204410.000018D7.APEG.MA@UMass>
Date: Mon, 25-Aug-86 20:44:10 EDT
Article-I.D.: UMass.860825204410.000018D7.APEG.MA
Posted: Mon Aug 25 20:44:10 1986
Date-Received: Tue, 26-Aug-86 18:47:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 22

When I accidently hit two keys at the same time on my 1040ST, while
using the VT52 emulator desk accessory, the serial port sometimes locks up.
It will not send and most (but not all) of the time will not receive. On
occasion, the host computer has continued to send data but my ST would not
send, but on almost all (I would estimate 95% of the time) occasions
both directions lock up. The system otherwise functions normally. The
only way to solve the problem is to reboot.
   I have never had this happen with any ST telecommunications program
other than the VT52 emulator, though I have on many occasions sat there
banging away on two keys to try and make it happen.
   It is a repeatable problem with the VT52, however.
   Does anyone know why this happens? Has anyone else had this problem
or is there something wrong with my machine? (unlikely, because all
other programs work fine.) Is there a fix for this, like a new version
of the VT52?
  Thanks...

Mike Cohan   MCOHAN%UMASS.BITNET@WISCVM.ARPA or MCOHAN@UMASS.BITNET
or MCOHAN%UMASS.BITNET@WISCVM.WISC.EDU

"Indecision is the basis of flexibility."

From 7894696974722566676
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c61e6f52e08967,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-25 17:46:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: oops...
Message-ID: <860825204619.00001A33.APEG.MA@UMass>
Date: Mon, 25-Aug-86 20:46:19 EDT
Article-I.D.: UMass.860825204619.00001A33.APEG.MA

Posted: Mon Aug 25 20:46:19 1986
Date-Received: Wed, 27-Aug-86 10:24:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

after I sent that previous message about the VT52 locking up, I realized
that I send it out under the wrong network name-- IE "Atari" (which is
the mailing address of my users group), rather than "MCOHAN" which is
my personal address. Please do not reply directly to the previous
message, but rather use the addresses I gave at the bottom of the letter.

BTW, COMPUTE!'s Atari ST Magazine and Disk is out-- I picked up a copy
today at my local magazine store.

From -435472540434988691
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65f0eb474b23c417
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 00:37:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Re: Division problem with Lattice C
Message-ID: <199@nikhefh.UUCP>
Date: Tue, 26-Aug-86 03:37:06 EDT
Article-I.D.: nikhefh.199
Posted: Tue Aug 26 03:37:06 1986
Date-Received: Wed, 27-Aug-86 10:13:04 EDT
References: <860824-115320-1121@Xerox>
Reply-To: gert@nikhefh.uucp (Gert Poletiek)
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 40
Apparently-To: rnews@mcvax

In article <860824-115320-1121@Xerox> Opstad.osbunorth@Xerox.COM writes:
>
> I discovered this little problem while writing a prime factorization
>program. Consider the following fragment:
>
> unsigned long i;
> i = 16777216L;
> printf("%ld\n", i);
> i /= 2;
> printf("%ld\n", i);
>
> Imagine my surprise when the same number is printed by both printf
>calls! When I changed the fourth line to:
>
> i >>= 1;

>
> the program worked fine and printed the correct results. Has anyone
>else had problems with division using Lattice/Metacomco C? (I'm using
>version 3.03.04)
>
> Dave Opstad (Opstad.osbunorth@Xerox.COM)

How about it ?

This bug was mentioned on the distribution leaflet as a KNOW BUG in Lattice 3.03.04.

If memory serves me right all factor of two divisions are converted to a shift, but the shift count is one too small; ie. /2 becomes >>0 and /4 becomes >>1

Nice Uh ?

Gert Poletiek
Dutch Nation Institute for High Energy Physics
Amsterdam
The Netherlands

From -547512170253890885
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 01:28:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell: Megamax and IO redirection - query
Message-ID: <200@nikhefh.UUCP>
Date: Tue, 26-Aug-86 04:28:19 EDT
Article-I.D.: nikhefh.200
Posted: Tue Aug 26 04:28:19 1986
Date-Received: Wed, 27-Aug-86 10:13:47 EDT
References: <93@uwmacc.UUCP> <202@vlsvax1.UUCP> <209@bridge2.UUCP>
<942@batcomputer.TN.CORNELL.EDU>
Reply-To: gert@nikhefh.uucp (Gert Poletiek)
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 151
Apparently-To: rnews@mcvax

In article <942@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP (braner) writes:
>[]

>
>Of greater annoyance to me is the fact that Megamax-compiled programs
>crash if IO is redirected from inside Micro C-Shell. The SAME
>program works fine if named PROG.TTP and invoked from the desktop,
>entering ">OUTFILE" into the dialog box.   This is an old problem,
>but I havn't heard from either company yet. (I don't know if it's
>Megamax or Beckemeyer's "fault"). Contrary to recent claims, it does
>not matter (from C-Shell) if I use ">outfile" or "> outfile".
>It never works - I get two balls with lighted fuses.
>
>Any solutions? Are the companies involved going to do something
>about it? The products (Micro C-Shell and Megamax C dev. system)
>are generally excellent, and sales of both would gain if they'd
>work together better.
>
>- Moshe Braner
>
>Corson Hall, Cornell Univ., Ithaca NY 14853   (607) 272-3487

The fault is with Megamax, not Beckemeyer. Its even more strange
because Magamax manuals frequently refer to the Beckemeyer shell as an
alternative to their useless 'graphic shell'; an even worse imitation of the
Gem Desktop.

What happens is the following.

The Megamax compiler treats the function main as a special case, and if it
sees any arguments in its function header, it generates a reference to an
external label called _initargcv. If no argumenents to main are found, then
the compiler generates a global label _initargcv in the module containing
main, and it consists only of an RTS instruction.

So the problem arises in the _initargcv in the SYSLIB library.
What _initargcv does is the following:

It initializes the argv, argc variables (At Megamax they sure don't read the
GemDos manuals: they don't initialize the **envp pointer). When the
_initargcv routine comes across an argument line token starting with
'>' , '<' or '>>' they do their own crazy i/o redirection.

The i/o redirection in Megamax works as followes:

Megamax probably didn't like GemDos' not opening a standard error file,
and therefor desided to do it themselves. GemDos DOES open standard input
and output though, even the filedescriptor numbers of those two files are the
same as in unix, (0 and 1), but the filedescriptor 2 is missing (that one
refers to the RS232 port, Sigh). If you write a short program with Megamax
that prints out the filedescriptor numbers of stdin,out and err, you will see
the following numbers appear on the screen:

     -32000

```
     -32000
     -32000
```

Now every time you do a read or a write your filedescriptor is compared with -32000 (SPEED!!!). _Initargcv will substitute the -32000 with a REAL gemdos file descriptor if the commandline from the DESKTOP (not the Beckemeyer shell) contains one of the redirection characters.

I came across this bug when writing my own C-shell, that does the io redirection BEFORE the commandline is passed to the program called. I do the i/o redirection with the gemdos equivalents of the UNIX systecalls dup and dup2, the same way i think as the Beckemeyer shell does the io redirection.

Shortly I will post the follwing to this newsgroup:

- Newly coded _initargcv to accomplish REAL io redirection, at the price of loss of the standard error channel.

- Code to catch the Gemdos kill character (^C), which is less trivial because Megamax produces position independent code.

- A prerelease of my idea of a handy C-shell like command interpreter, (in about a month from now) that will include (at least) the follwing features:

  - real io redirection
  - shell script execution (batch.ttp can be thrown away), including parameter passing to shell scripts.
  - aliasing
  - shell variables
  - history mechanism
  - real UNIX pathnames (as the backslash will be the escape character)

  -Commands:

```
  alias             define a shorthand
  cat               list a file
  cd                change working directory
  chmod                  change file flags
  clear                  clear the screen
  cmp           compare files
  cp   [-f]     copy a file
  date                   get / set  date and time
  df                     show free space on drive
  diff          get file differences
  echo [-n]     print arguments
  history                see previous commands
```

```
logout                  exit from GP-shell
lpr           send to line printer
ls   [-lt]          show files
mkdir                   create a directory
more                list a file
mv   [-f]           rename or move a file
od   [-coh]         dump file
pwd                 working directory name
read                read variable
rm   [-i]           delete file
rmdir    [-i]           delete a directory
set                 set/show shell variable
touch                   update file time & date
unalias                 undefine a shorthand
unset                   clear shell variable

- internal variables:

color               to set the screen color (now black or white)
blink               set the cursor blink rate
delay               set initial keyboard delay
repeat              set keyboard repeat speed
path           search path
home           home directory
prompt              your personal prompt
ignoreeof      control-D acceptance as logout

(the first four vars will render the control panel useless)


If anybody has additional ideas for commands and the like, tell me,
and i will include it.

(This shell is not a port of any existing shell, and was written for
the ST in the first place)
```

Gert Poletiek
Dutch National Institute for High Energy Physics
Amsterdam
The Netherlands

From -5604284464239624730
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b37ad30da2ffe329,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 03:26:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)

Newsgroups: net.micro.atari16
Subject: Catching The Kill Character Using Megamax C
Message-ID: <201@nikhefh.UUCP>
Date: Tue, 26-Aug-86 06:26:30 EDT
Article-I.D.: nikhefh.201
Posted: Tue Aug 26 06:26:30 1986
Date-Received: Wed, 27-Aug-86 10:14:57 EDT
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 62
Apparently-To: rnews@mcvax

It took me some time before i realized why the code i used with other C compilers to catch the ^C Kill character wouldn't work with Megamax.

At last i found that the code the Megamax compiler generates is position indepentent, and the data is referred to using an offset from register A4.

So when a control C is typed the first thing you have to do is restore the value of a4 to gain access to the global variables.

The value of a4 must be saved so that it can be retrieved not using a a4 offset. This leaves only ta location in the code segment, which can be accessed using a PC relative addressing mode.

This is the code i use now:

```
/*
 *  Next routine is really a dirty trick to get some storage
 *  that is not accessed using a4 offset.
 */

extern _store_a4();
asm{
_store_a4:
     dc.l 0
}


KillHandler ()
{
     asm{
          movea.l   _store_a4(PC),A4
     }
     longjmp ( whereveryouwanttogo, 1 );
}


SetNoKill ()
{
```

```
    asm{
     lea  _store_a4(PC),A0
     move.l   A4,(A0)
    }
     OldKill = Setexc ( 0x102, KillHandler );
}

ResetKill ()
{
     Setexc ( 0x102, OldKill );
}
```

Gert Poletiek
Dutch National Institute for High Energy Physics
Amsterdam
The Netherlands.

From 7504633500183856703
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1bf23a4c7f3d688d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 07:30:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UTARLVM1.BITNET!C020CB
From: C020CB@UTARLVM1.BITNET (Chris Burns)
Newsgroups: net.micro.atari16
Subject: Cursor keys
Message-ID: <8608270102.AA06029@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 10:30:27 EDT
Article-I.D.: ucbvax.8608270102.AA06029
Posted: Tue Aug 26 10:30:27 1986
Date-Received: Wed, 27-Aug-86 20:31:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Several questions (using a 520ST):

1. Is there any way to read the cursor keys from a BASIC program. From what I've tried, they appear to be somewhat 'local', except that the BASIC editor uses them.
2. Again, the cursor keys, but this time using the VT52 emulator. I signed onto a VAX and got into full screen edit and found I couldn't move around the screen. What can I do?
3. Can I set the function keys? How?
4. I have Haba-Hippo C and BASIC. I want to use random disk files (or indexed, like BASICs 'random' file). I would prefer to use a

compiled program. Is there any description of using random files, generally?

  If someone could answer or point me to some inexpensive information (I can't afford the $300 Developer's kit).

Chris Burns
C020CB@UTARLVM1.BITNET (<- I'm new at this, but I think that's the right format.)

From -8585958437415081965
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1bf23a4c7f3d688d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 07:30:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UTARLVM1.BITNET!C020CB
From: C020CB@UTARLVM1.BITNET (Chris Burns)
Newsgroups: net.micro.atari16
Subject: Cursor keys
Message-ID: <8608262027.AA02280@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 10:30:27 EDT
Article-I.D.: ucbvax.8608262027.AA02280
Posted: Tue Aug 26 10:30:27 1986
Date-Received: Wed, 27-Aug-86 11:30:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

  Several questions (using a 520ST):
   1. Is there any way to read the cursor keys from a BASIC program. From what I've tried, they appear to be somewhat 'local', except that the BASIC editor uses them.
   2. Again, the cursor keys, but this time using the VT52 emulator. I signed onto a VAX and got into full screen edit and found I couldn't move around the screen. What can I do?
   3. Can I set the function keys? How?
   4. I have Haba-Hippo C and BASIC. I want to use random disk files (or indexed, like BASICs 'random' file). I would prefer to use a compiled program. Is there any description of using random files, generally?

  If someone could answer or point me to some inexpensive information (I can't afford the $300 Developer's kit).

Chris Burns
C020CB@UTARLVM1.BITNET (<- I'm new at this, but I think that's the right format.)

From 6019880994009330017

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d269d2326266f3c2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 10:53:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: VT100/Modula II/Header
Message-ID: <8608271947.AA04788@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 13:53:35 EDT
Article-I.D.: ucbvax.8608271947.AA04788
Posted: Tue Aug 26 13:53:35 1986
Date-Received: Thu, 28-Aug-86 22:54:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

I VT100 emulator
The next 5 postings will be the uuencoded executable and the documentation
for my VT102/Tek4010 emulator. It is rather big and uses a LOT of memory,
actually there is some dead code in it which is of no use right now: the
primary decoding of 4105 commands is already done and is just waiting for
for me to finish it.

Thanks for all the requests for the program, I haven't decided yet if I
should make the source available, it's written in CCD/OSS Pascal with a bit
of assemmbler and is very long (last count: 218 kB). I do intend to support
the program and any bugs etc. will be fixed as soon as possible.

II TDI Modula II
I know my remarks were rather drastic, on the other hand I did want to provoke
responses. If this release had been the initial version I would be quite
pleased, but TDI has had nearly a year now to work on the program since the
first version and I just think it could be better. There are worse firms!
(I just forgot the name of the manufacturers of that database program for
the ST which loses records at random)

III Headers on my mail

Would some kind soul tell me if this kind of header is better?!

Simon Poole

From 7737014634757546266
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,55c027c4fbbfb5da,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 11:25:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!amd!amdcad!decwrl!sun!saber!

imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: YAMCB (yet another Megamax C bug)
Message-ID: <482@imagen.UUCP>
Date: Tue, 26-Aug-86 14:25:38 EDT
Article-I.D.: imagen.482
Posted: Tue Aug 26 14:25:38 1986
Date-Received: Wed, 27-Aug-86 21:36:42 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 42

~~~~~~~~~~~~~~~\ lineater \~~~~~~~~~~~~~~~~

i found what i believe is a bug in the megamax C preprocessor...

```
     if( a == b &&
#if FRED
     c == 'B' || d == 'E' ||
#endif
     b == 'b' || d == 'e')
          some action;
```

causes megamax to give the error:

```
     c == 'B' || d == 'E' ||
error in constant expression
```

however

```
#if FRED
     if( a == b &&
     c == 'B' || d == 'E' ||
     b == 'b' || d == 'e')
          some action;
#else
     if( a == b &&
     b == 'b' || d == 'e')
          some action;
#endif
```

compiles correctly
--

          It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
~~~~~~~~~~~~~~~

CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 4380224543036294343
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 11:34:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!amd!amdcad!decwrl!sun!saber!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Re: Micro C-Shell: Megamax and IO redirection - query
Message-ID: <483@imagen.UUCP>
Date: Tue, 26-Aug-86 14:34:07 EDT
Article-I.D.: imagen.483
Posted: Tue Aug 26 14:34:07 1986
Date-Received: Wed, 27-Aug-86 21:36:56 EDT
References: <942@batcomputer.TN.CORNELL.EDU>
Organization: The Houses of the Holy
Lines: 33

> Summary: Still unresolved
>
> []
>
> Of greater annoyance to me is the fact that Megamax-compiled programs
> crash if IO is redirected from inside Micro C-Shell. The SAME
> program works fine if named PROG.TTP and invoked from the desktop,
> entering ">OUTFILE" into the dialog box.   This is an old problem,
> but I havn't heard from either company yet. (I don't know if it's
> Megamax or Beckemeyer's "fault"). Contrary to recent claims, it does
> not matter (from C-Shell) if I use ">outfile" or "> outfile".
> It never works - I get two balls with lighted fuses.
>
its a megamax C problem, uCsh is using the Force call to 'steal' i/o
handle 1 (stdout) and force it to a file, this works fine as long as
the 'redirected' program only uses Fwrite to do the output. sadly
the printf routine in megamax C does not, hence the the 2 bombs.

the worst news is that there is no fix for it (except from Megamax
hint...hint...) i had to leave redirection out of uEmacs 3.7 because
of it. i spoke to some people at atari about this and they were not
sure that DRI C's printf would fare any better.
--

         It aint life that gets me down, it's gravity

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101

AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 8071233936918605091
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97bf8761fa936cae
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 12:45:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ucbvax!DOCKMASTER.ARPA!
Pase
From: Pase@DOCKMASTER.ARPA (Bill Pase)
Newsgroups: net.micro.atari16
Subject: Floppy Disk Speed
Message-ID: <860826194540.510996@DOCKMASTER.ARPA>
Date: Tue, 26-Aug-86 15:45:00 EDT
Article-I.D.: DOCKMAST.860826194540.510996
Posted: Tue Aug 26 15:45:00 1986
Date-Received: Thu, 28-Aug-86 22:53:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

The September issue of Analog has an article called Format+. It is a
Basic program which patches the ram verion of gem so that the disk
formater works differently. Disks which are then formated and used with
the standard gem perform io at double the speed of the normal formatted
disk. The transfer rate is near the theoritical maximum. I haven't
actually tried it yet but will let you know what I find out. /bill

From -3089941190796471696
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9bff1c725c6405be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 12:51:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: KERMIT UPLOAD PROBLEM WITH AVATEX MODEM
Message-ID: <8608261651.AA01583@ucbvax.Berkeley.EDU>
Date: Tue, 26-Aug-86 15:51:42 EDT
Article-I.D.: ucbvax.8608261651.AA01583
Posted: Tue Aug 26 15:51:42 1986
Date-Received: Wed, 27-Aug-86 10:27:04 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet>
Organization: The ARPA Internet
Lines: 33

I had one failure in capability of an Avatex 1200 bps modem that I'd like to share with the net. The Avatex was unable to complete a text file transfer from the ST to a VAX, using Kermit. When the Avatex was replaced with a Hayes Smartmodem 1200, the file uploaded with no problems.

For almost 2 weeks, the Avatex worked fine for interactive modem communications. It's a minor annoyance not to have a speaker to monitor for busy signals (although a jack for a spare telephone is provided). The Avatex runs slightly warmer than the Hayes, but not excessively so. I have line noise problems when dialing into work with the Hayes; the Avatex had the same behavior. When dialing BBs with no line noise (based on use of the Hayes), the Avatex also performed flawlessly.

So, no problems: Hayes performance at 1200 bps with an $89 price! That is, until I tried a text file upload from home to the VAX at work (520 ST, 1 megabyte memory, PC InterComm terminal program at home). Using Kermit, the file transfer started, but then just stopped (in one case, after uploading 2 blocks, in another, after 7 blocks). It's as if Kermit was waiting for some kind of handshake from the Avatex, but never got it. Making no other changes, I switched from the Avatex to the Hayes, and the entire text file uploaded correctly.

Anyone else seen this behavior with an Avatex modem?

By the way, the new model Avatex (100 % Hayes compatible, approx. $130) is available. I *THINK* it has a built-in speaker. I wonder what else it does to justify an almost-50% increase in price!

Bob Menton KG3J
MENTON@NRL-ACOUSTICS

From 2851057461407997615
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-26 13:03:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <7072@utzoo.UUCP>
Date: Tue, 26-Aug-86 16:03:06 EDT

Article-I.D.: utzoo.7072
Posted: Tue Aug 26 16:03:06 1986
Date-Received: Tue, 26-Aug-86 16:03:06 EDT
References: <508@elmgate.UUCP>
Organization: U of Toronto Zoology
Lines: 18
Keywords: 68000 atari amiga 68k mmu

> If memory serves me correct the 68000 can not restart/resume a bus faulted
> instruction. So regardless of what mkind of MMU you try to hang on it, it
> can not overcome this problem.

That's right. On the other hand, being unable to restart a faulted
instruction (in the general case) only means you can't do demand paging,
or similar schemes where you want to pretend memory is always there when
it sometimes isn't. The inability to do this is a wart, but it does not
preclude doing useful things like running Unix. This message is being
typed on a PDP-11/44 running V7, which doesn't do virtual memory but is
still a fine system if you don't want to run huge programs. The MMU on
the 44 can actually do demand paging, although it's not clear that it's
worthwhile given various complications, but V7 doesn't use it that way.
Relocation and protection is all you need to run a multiprogramming system
simply and well.
--
Henry Spencer @ U of Toronto Zoology
{allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -2777408179902983562
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f0bcbe91c662349b
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f0bcbe91c662349b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 12:27:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!apratt
From: apratt@atari.UUcp (Allan Pratt)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: Problem with proportional gadget
Message-ID: <410@atari.UUcp>
Date: Mon, 11-Aug-86 15:27:22 EDT
Article-I.D.: atari.410
Posted: Mon Aug 11 15:27:22 1986
Date-Received: Tue, 12-Aug-86 17:19:59 EDT
References: <110@scubed.UUCP> <605@cbmvax.cbmvax.cbm.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 8
Summary: please move this discussion to net.micro.amiga
Xref: mnetor net.micro.amiga:4220 net.micro.atari16:1567

This discussion of gadgets is interesting, but does not belong in
net.micro.atari16. I am not an Amiga-phobe, just a part-time

net.police-man. Thanks.

```
/-----------------------------------------------\
| Opinions expressed above do not necessarily  |  -- Allan Pratt, Atari Corp.
| reflect those of Atari Corp. or anyone else. |     ...lll-lcc!atari!apratt
\-----------------------------------------------/
```

From 1126858134699907223
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7fbafb5eb5f56ce0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 12:28:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!burl!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: September 1986 ANTIC TOC
Message-ID: <1403@ihuxi.UUCP>
Date: Mon, 11-Aug-86 15:28:58 EDT
Article-I.D.: ihuxi.1403
Posted: Mon Aug 11 15:28:58 1986
Date-Received: Tue, 12-Aug-86 22:03:34 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 72

*****[Ignore header path]*****

The following information is the ST RESOURCE portion of ANTIC magazine
for the month of september. The complete TOC for this issue can
be found in net.micro.atari8 for those that are interested. I have
posted only the parts of interest to the ST community in this news
group. -Kit-

September 1986 ANTIC TOC
Theme: Weather

page article

**********THE ST RESOURCE**********

54 ST WEFAX DECODER
This is the software program that you will need to be able to convert radio signels to information your ST Atari can use to display weather pictures. You will also need the WEFAX interface described on page 24. NOTE: You will also need an MC68000 assembler such as the one included with the developers kit or the one from Metacomco or Haba Hippo C assembler. You may have to fine tune it to work

with any besides the one that comes with the developers kit.
58 THE MANAGER
A review of the database from BMB Compuscience Software.
It takes advantage of the ST color capability but not
the GEM interface.
63 ST PRODUCT NEWS AND REVIEWS
Software
Financial Cookbook (Electronic Arts)
Cards (MichTron)
New Products (description only)
Helpmate (Royal Software)
STCalc (Royal Software)
HelpCalc ST (Royal Software)
Sidecar (Migraph)
Volksmodem VM520 (Anchor Automation)
Softworks BASIC (Softworks)
ST 3D Graphics (Abacus Software)
Cinemaware (Mindscape)
Electro Page (SoftLogick Corp)
Little Computer People Project (Activision)
ST Net (Quantum Microsystems)
Make It Move (Avila Associates)
Print-Technik Video Digitizer (Print-Technik)
68000 Disassembler (SCI Software Development)
Earthspace (Digital Reality)
Bonnie Blue (Paperlogic Ltd)
Microhost (Computer Ciriculum Corp)
MicroApl APL.68000 (Spencer Organization Inc)
67 MEGAMAX C
A review of Megamax's C complier that ANTIC describes as
the best available for the ST computers.

****

Coming next month: Hard Disks for the 8-bit and ST computers; Review of P:R:; Atari in the classroom; Castle, an educational game for the 8-bit or ST.

Comments: This issue is particularly interesting for anyone interested in weather and forecasting.

Kit Kimes
AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

From 8350242810759973215
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb4cf0e6f0e5cc39,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-08-11 15:22:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: more I*S Talk problems.
Message-ID: <860811182234.00000B50.APXY.MA@UMass>
Date: Mon, 11-Aug-86 18:22:34 EDT
Article-I.D.: UMass.860811182234.00000B50.APXY.MA
Posted: Mon Aug 11 18:22:34 1986
Date-Received: Tue, 12-Aug-86 23:18:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I talked to a salesman at a computer store near Boston which sells lots
of ST's/software. He said that customers have been complaining about
I*S Talk having major bugs and some brought it back demanding a refund
(which was granted.) He also told me that he bought I*S Talk for his
own ST at home, and found problems just like what Rick Flashman described:
IE Cut+Paste bombs the program etc. He was quite disappointed, as this
program would be absolutely GREAT if it worked properly-- which it
doesn't.   Batteries Included had better get their act together if they
want to keep their reputation in one piece.

From -1851647054654346456
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c19fd8270780268,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 15:46:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Rumors
Message-ID: <860811184615.000027EC.APYP.MA@UMass>
Date: Mon, 11-Aug-86 18:46:15 EDT
Article-I.D.: UMass.860811184615.000027EC.APYP.MA
Posted: Mon Aug 11 18:46:15 1986
Date-Received: Tue, 12-Aug-86 23:31:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

I just heard some interesting rumors.

1. The IBM emulator is finished and is going into production and should
   be out by X-Mass at a price of $300. Plugs into the cartridge port.

2. The Atari TT is going right on schedule and should be announced and
   shown at COMDEX in November. It is a 68020 based system with 4 megs RAM.
   It also supports a 1024x1024 resolution screen.

Questions for Niell and others:

1. I heard that the IBM emulator does NOT support graphics. Will it ever?
   If it does, when?

2. Does the TT run UN*X? I do know that Atari DID liscence it (UN*X).
   Is it an upgrade for the 1040/520 or is it a separate machine?
   What price range am I looking at? I heard that it's release date is
   January, how correct is it?

Rick Flashman

BTW, on I*S Talk, I finally got in touch with Batteries Included. They
told me that the programmer is WORKING on fixing *my* copy. I dunno what
they are up to up there, but they said that they would ship the fixed version
back to me this Friday.

From 8098700357889996930
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a954da44b57f6909
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 17:40:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!cit-vax!ll-xn!mit-amt!mit-eddie!genrad!
decvax!wanginst!spdcc!dyer
From: dyer@spdcc.UUCP (Steve Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Mac software on ST?
Message-ID: <381@spdcc.UUCP>
Date: Mon, 11-Aug-86 20:40:32 EDT
Article-I.D.: spdcc.381
Posted: Mon Aug 11 20:40:32 1986
Date-Received: Tue, 12-Aug-86 23:29:53 EDT
References: <860724-104707-2688@Xerox> <551@helm.UUCP> <203@vlsvax1.UUCP>
Reply-To: dyer@spdcc.UUCP (Steve Dyer)
Organization: S.P. Dyer Computer Consulting, Cambridge MA
Lines: 12
Keywords: Mac, ST, combination thereof

Inasmuchas the Mac ROMs are rather like the IBM PC BIOS (or, better,
what the BIOS should have been), isn't expecting Apple to license their
sale rather like asking IBM to sell its BIOS separately to clone makers?
This "product" leaves a bad taste in my mouth, if only because the producers
took the easy way out. Far better it would have been to reverse-engineer
the ROMs from the programming interface specification. This is a lot harder,
granted, but it also avoids many of the hassles that have been described in
the media.
--
Steve Dyer
dyer@harvard.HARVARD.EDU
{linus,wanginst,bbnccv,harvard,ima,ihnp4}!spdcc!dyer

From 1659124346108483621
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,587ee643ed5fe7d5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 23:52:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1Y049
From: XBR1Y049@DDATHD21.BITNET (Stephan Leicht _ c/o HRZ TH Darmstadt _ Tel.)
Newsgroups: net.micro.atari16
Subject: Re : Overheating ATARI ...
Message-ID: <8608120651.AA04856@ucbvax.Berkeley.EDU>
Date: Tue, 12-Aug-86 02:52:02 EDT
Article-I.D.: ucbvax.8608120651.AA04856
Posted: Tue Aug 12 02:52:02 1986
Date-Received: Tue, 12-Aug-86 23:26:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

I found that there is a great difference on which underground
the ATARI is located. On a metal-table the ATARI gets less hot
than on a thermical isolating material like wood. There is real
a great difference. An alu-plate of about 50 x 50 cm under the
ATARI will be enough to put the heat away.

Stephan Leicht

at Computer Center of Technical University of Darmstadt, Germany
Bitnet : XBR1Y049@ddathd21

From 8193801980140731328
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 157808,763bc7d66931a4c7,start
X-Google-Attributes: gid157808,public
X-Google-Thread: 124863,763bc7d66931a4c7,start
X-Google-Attributes: gid124863,public
X-Google-Thread: 140593,763bc7d66931a4c7,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c702,763bc7d66931a4c7,start
X-Google-Attributes: gid15c702,public
X-Google-ArrivalTime: 1986-08-12 04:51:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefk!frankg
From: frankg@nikhefk.uucp (Frank Geerling)
Newsgroups: net.music,net.micro.atari16,net.music.synth,net.audio
Subject: Digital delay and effects part1 and part2 wanted
Message-ID: <28@nikhefk.UUCP>
Date: Tue, 12-Aug-86 07:51:36 EDT
Article-I.D.: nikhefk.28

Posted: Tue Aug 12 07:51:36 1986
Date-Received: Wed, 13-Aug-86 01:33:35 EDT
Organization: NIKHEF-K, Amsterdam
Lines: 20
Xref: mnetor net.music:4145 net.micro.atari16:1581 net.music.synth:1404
net.audio:2395
Apparently-To: rnews@mcvax

References:The article of dave%smaug@houligan.uucp
        >message id<427@houligan.uucp>
Sender: frankg@nikhefk.UUCP (Frank Geerling)
Reply-To: frankg@nikhefk.UUCP (Frank Geerling)
Followup-To:
Distribution: net
Organization: NIKHEF-K, Amsterdam
Keywords:Digital delay and effects part 1 and 2

Sorry I know that this is not the place to a request to send some
articles again, but I can't mail dave with the path he gave in his
article. So dave when you read this could you mail me those two
articles, I would be very content if you would do this.
Or if somebody else has those two articles please mail them to me.

          Frank Geerling

--
                Frank Geerling
              (frankg@nikhefk.uucp)

From -3556394133635364170
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5c45a5341e95145,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 05:46:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: Modem Info
Message-ID: <8608121246.AA00671@ncsc.ARPA>
Date: Tue, 12-Aug-86 08:46:25 EDT
Article-I.D.: ncsc.8608121246.AA00671
Posted: Tue Aug 12 08:46:25 1986
Date-Received: Wed, 13-Aug-86 19:16:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 35

This may/may not be the place for it, but I've got a modem problem I hope some-
one can help me with:

My friend has a Datec 212SB modem with the following pin-outs (shown connected to the modem port of the ST):

```
ST             Datec
--             -----

GND ----------- GND
TXD ----------- RXD
RXD ----------- TXD
RTS ----------- CTS
CTS ----------- DTR
SIG ----------- SIG
DCD ----------- DCD
DTR ----------- DTR
RNG ----------- RNG
```

The ST apparently has no DSR, and the Datec has no RTS, hence the connection above. He gets no response with XMODEM (1200 baud, no parity). Any help will surely be appreciated.

I figure not too many people will be familiar with the Datec, so if you have a suggestion, please write! Don't assume "well, someone else will answer this poor dumb slob." I need all the help I can get!

Jim Moore
NCSC
Panama City, FL
(904) 235-5158 (voice & data)

(RS-232 STANDARD? WHAT *STANDARD*????)

From 3674969606651709055
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6633c5ffe4f2e82,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 06:50:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!yale!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: i'm learning, but slowly
Message-ID: <469@imagen.UUCP>
Date: Tue, 12-Aug-86 09:50:03 EDT
Article-I.D.: imagen.469
Posted: Tue Aug 12 09:50:03 1986
Date-Received: Thu, 14-Aug-86 06:02:53 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 35

~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~

i'm porting uE3.7 to the ST and have run into a few problems,
perhaps some kind soul could help me. I am using Megamax C to do it.

1) when i call a sub-command using Pexec(0,STcmd,STargs,STenv)
[assume they are all char *] the first character of STargs gets
dropped or more likely the ptr is getting incremented by 1, putting
a leading blank in STargs works but seems silly

2) when the program is called from another (i.e. the megamax shell)
the cursor does not appear, if it is called from the desktop all works
fine, i have tried calling Cursconf and naming the file .prg, .tos
or .ttp but to not avail

3) if Initmous(0,0,0) is used to disable the mouse (is that
correct?) i know that you use kbdvbase to get the address of the
system interrupt routine, but what about the param struct ? just
malloc some memory before exiting the program and pray ?

A t D h V a A n N k C s E (thats not mine but it was too good not to
steal)
--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1321477321671580298
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ea3a7863bf7be01e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 09:06:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!mhuxr!mhuxt!houxm!ihnp4!alberta!calgary!
brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.micro.atari16
Subject: Re: hack, uncompress
Message-ID: <307@vaxb.calgary.UUCP>
Date: Tue, 12-Aug-86 12:06:41 EDT
Article-I.D.: vaxb.307
Posted: Tue Aug 12 12:06:41 1986
Date-Received: Wed, 13-Aug-86 23:17:19 EDT
~~~~~~~~~~~~~~~~~~

References: <300@vaxb.calgary.UUCP>
Distribution: na
Organization: U. of Calgary, Calgary, Ab.
Lines: 10
Summary: never mind...

> Could some kind person out there send me a uuencoded binary or the source
> (if possible) of uncompress so I can play HACK? (binaries are of course
> for a VAX11/780 w/ UNIX). E-mail would be dandy; ...
>

  Please disregard this posting (if its not too late). Sombody in B.C.
Just offered to send me hack by mail. Thanks to all who have answered
or who were going to answer!

                                        Mark Brinsmead.

From 4005394645631299387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 09:48:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!yale!decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint (rubberband line)
Message-ID: <208@bridge2.UUCP>
Date: Tue, 12-Aug-86 12:48:56 EDT
Article-I.D.: bridge2.208
Posted: Tue Aug 12 12:48:56 1986
Date-Received: Thu, 14-Aug-86 06:03:32 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP>
Distribution: net
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 33
Xref: mnetor net.micro.mac:6600 net.micro.atari16:1596

The rubberband line effect is easy to get on the ST. GEM supports
an XOR writing mode, where each graphic that you place on the screen
is automatically XORed with the existing pattern. As a previous
followup pointed out, this is the way to do the job.

The rubberband line is a simple call to polyline with the XOR writing
mode enabled. All you have to do is draw the line from the fixed point
to the variable point, under XOR writing mode:

    1) When the variable point selector moves to a point, and,
    2) When the variable point selector moves off that point.

Of course, this means that each line is "drawn" twice. First, to
make it visible, then again to make it invisible.

I have implemented some input routines that coordinate the mouse with
a rubberband line, and they are surprisingly fast considering that
the rubberband line is drawn twice for each individual point to which
the mouse moves during the operation.

BTW an interesting effect is a multiple rubberband line where there are
several fixed points and a single variable point. A three point system
is simplest. Just issue a polyline call supplying three points. The
first and last are the fixed points, the second has the coordinates of
the variable point.

This can easily be expanded to handle the display a closed polygon
with rubberband lines showing where the lines would be if you closed
the polygon at any particular time.

By the way, bad as they may be (in some peoples opinions), all the above
info was found in the ABACUS books and a little thought, so while they
may not be the best, they can help.

From -4407351962164725586
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3a9366b76cf3acb1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 09:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: Make, Alcyon C 4.14 and libm
Message-ID: <8608121018.AA07397@ucbvax.Berkeley.EDU>
Date: Tue, 12-Aug-86 12:55:00 EDT
Article-I.D.: ucbvax.8608121018.AA07397
Posted: Tue Aug 12 12:55:00 1986
Date-Received: Wed, 13-Aug-86 01:11:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 60

Date: 12 August 1986, 11:55:08 EST
From: Ton van Overbeek   +31 1719 83041   TPC862   at ESTEC
To: INFO-ATARI16 at SCORE.STANFORD.EDU
cc: BAMMI%CASE at CSNET-RELAY.ARPA
Subject: Make, Alcyon C 4.14 and libm

I had some problems with implementing the Make program posted by
Jwahar Bammi using the Alcyon C compiler from the development set.
First my version did not know about the type void and second it did not
know unsigned char (got warning unsigned char not implemented, signed
assumed). After the necessary changes in h.h everything worked fine.

The Makefile was corrupted because somewhere along the line tabs were
converted to spaces. Commands to produce targets have to start with
a tab as the first char on the line. Furter I noticed that the colon
separating target and dependants has to be surrounded by spaces. A colon
directly after a target gives funny error messages and other things.
Use -p option to see what is happening.

Jwahar, thanks for a well done conversion job.
I also have the original posting from net.sources and was intending to
do the sam as Jwahar + the Case people did.

In the h.h and readme files there are references to Alcyon 4.14 and
the IEEE floating point library libm. See below.

From h.h:
```
>#ifdef MEGAMAX
>#define void        /* Alcyon 4.14 understands void */
>#undef Fdatime        /* Megamax has it incorrectly defined */
>#define    Fdatime(a,b,c)    gemdos(0x57,a,b,c)
>#endif /* MEGAMAX */
```

From readme:
```
>   /* Pass 1 flags           */
>   setmacro("C0FLAGS", "-f"); /* change to "" if you want to use IEEE
>                   * floating point and libm instead of libf
>                   * by Default. Otherwise simply redefine
>                   * C0FLAGS in your makefile to get the
>                   * IEEE floating option.
>                   */
```

Now my questions. Is Alcyon 4.14 a newer release from the development kit
C compiler ? (It accepts void and probably unsigned char) If so, where
do I get hold of it? Any info on differences with the Development kit
C compiler are appreciated.

Concerning floating point. Where is info on libm available? Where can
I get it?
Thanks for any info again.

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From -2818495977323628976
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,a954da44b57f6909
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 10:19:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Mac software on ST?
Message-ID: <860812-101956-2647@Xerox>
Date: Tue, 12-Aug-86 13:19:55 EDT
Article-I.D.: Xerox.860812-101956-2647
Posted: Tue Aug 12 13:19:55 1986
Date-Received: Wed, 13-Aug-86 19:13:38 EDT
References: <381@spdcc.UUCP>
Sender: serge@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Steve,

     It is illegal to "reverse-engineer" the roms. In order to write your own version of the O.S. which is functionally equivalent to the original you must have never have seen actual code from the original roms. If you have seen this code you may be accussed of having stollen some of it. Phoenix Software had to find programmers who had never seen the IBM PC bios before when they wrote their bios.

John

From -6401526679373993161
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2459fb9d5a777b6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 12:11:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Micro Emacs excutable wanted
Message-ID: <5546@topaz.RUTGERS.EDU>
Date: Tue, 12-Aug-86 15:11:54 EDT
Article-I.D.: topaz.5546
Posted: Tue Aug 12 15:11:54 1986
Date-Received: Wed, 13-Aug-86 01:31:00 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 10

Hi,
     I was wondering if someone out there would be kind enough to post microemacs executable for the ST or E-mail it to me. I have the

sources, but I don't have an assembler to assemble this one small file

Thanks,
Phil Paone

paone@topaz.rutgers.edu

From 2590692711511285510
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34201410a788b7ea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 12:33:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!drutx!tlz
From: tlz@drutx.UUCP (ZrustTL)
Newsgroups: net.micro.atari16
Subject: Want to convert SF354 to SF314 (SS to DS)
Message-ID: <873@drutx.UUCP>
Date: Tue, 12-Aug-86 15:33:34 EDT
Article-I.D.: drutx.873
Posted: Tue Aug 12 15:33:34 1986
Date-Received: Sun, 17-Aug-86 09:14:43 EDT
Organization: AT&T Information Systems Laboratories, Denver
Lines: 8
Keywords: single-sided to double-sided

I would like to convert my single sided drive that was bundled
with my ST to double-sided. I've heard there is a company that does
this for a nominal fee. Who is it and/or how can I do this
myself?
--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

From 8597761985210129121
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 12:38:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint
Message-ID: <3164@ism780c.UUCP>
Date: Tue, 12-Aug-86 15:38:38 EDT
Article-I.D.: ism780c.3164

Posted: Tue Aug 12 15:38:38 1986
Date-Received: Wed, 13-Aug-86 05:57:15 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Distribution: net
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 12
Xref: mnetor net.micro.mac:6588 net.micro.atari16:1585

In article <1232@trwrb.UUCP> sansom@trwrb.UUCP (Richard Sansom) writes:
>
>The technique used is called XOR (eXclusive-OR). What happens is this:
[description of XOR]

Nice theory. Too bad it's wrong! Take a close look next time you are
running Macpaint.
--
"I *DO* believe in Mary Worth"

Tim Smith   USENET: sdcrdcf!ism780c!tim || ima!ism780!tim
          Compuserve: 72257,3706   Delphi || GEnie: mnementh

From -555744354556336523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e4027c739d58dac4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 14:52:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!drutx!tlz
From: tlz@drutx.UUCP (ZrustTL)
Newsgroups: net.micro.atari16
Subject: RE: Spreadsheet availability
Message-ID: <876@drutx.UUCP>
Date: Tue, 12-Aug-86 17:52:45 EDT
Article-I.D.: drutx.876
Posted: Tue Aug 12 17:52:45 1986
Date-Received: Sun, 17-Aug-86 09:15:02 EDT
Organization: AT&T Information Systems Laboratories, Denver
Lines: 8

> Anyone seen a GEM version of VIP Professional yet?

Called VIP today (8/12/86). They say 6 weeks for GEM VIP. I
assume that's 6 "software delivery" weeks and not real time.
--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

From 4335124046195831261

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 20:56:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!pt.cs.cmu.edu!k.cs.cmu.edu!wrs
From: wrs@k.cs.cmu.edu (Walter Smith)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint
Message-ID: <1050@k.cs.cmu.edu>
Date: Tue, 12-Aug-86 23:56:49 EDT
Article-I.D.: k.1050
Posted: Tue Aug 12 23:56:49 1986
Date-Received: Wed, 13-Aug-86 09:12:29 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP>
Distribution: net
Organization: Carnegie-Mellon University, CS/RI
Lines: 29
Summary: MacPaint does not XOR
Xref: mnetor net.micro.mac:6589 net.micro.atari16:1586

In article <1232@trwrb.UUCP>, sansom@trwrb.UUCP (Richard Sansom) writes:
>
> In article <2693@mit-hermes.ARPA> jpexg@mit-hermes.ARPA (John Purbrick) writes:
> >One thing that the Mac does when running MacPaint is let you start a line
> >by clicking on a point, then flopping the other end around with the mouse
> >...
>
> The technique used is called XOR (eXclusive-OR).
> ...

Most programs do use XOR. MacDraw, for instance, leaves things in OR mode
until you start to manipulate an object, then redraws that object in XOR to
allow rubber-band feedback.

However, if you look closely at a line being drawn in MacPaint, you will see
that XOR mode is NOT being used. The line is solid black all the way
through, whatever the original contents of the screen. Apparently, MacPaint
saves the original bitmap not only for Undo, but also for redrawing the
screen contents during rubber-banding. The CopyBits is carefully
synchronized to the vertical retrace time for maximum smoothness.

Another example of attention to detail (there are a lot of them in
MacPaint), something Microsoft should probably investigate.

- Walt
--
         Walter Smith, CS undergraduate, Carnegie-Mellon University
       uucp: ...!seismo!cmu-cs-k!wrs   ARPA: wrs@k.cs.cmu.edu
           usps: 5139 Forbes Ave.; Pittsburgh, PA 15213

From -3398071773887780805
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,17dd052b79aeb227,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 22:23:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!WATDCS.BITNET!JLORD
From: JLORD@WATDCS.BITNET
Newsgroups: net.micro.atari16
Subject: assembler
Message-ID: <8608130443.AA22223@ucbvax.Berkeley.EDU>
Date: Wed, 13-Aug-86 01:23:40 EDT
Article-I.D.: ucbvax.8608130443.AA22223
Posted: Wed Aug 13 01:23:40 1986
Date-Received: Wed, 13-Aug-86 09:12:49 EDT
Sender: serge@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

****
****
I have a problem and perhaps one of you folks "out there" can
help me. I need an assembler for the 1040ST rather badly.
      I have a copy of the one in the "starter kit", but either
there is something wrong with it (unlikely) or there is something
wrong with the way I am using it (probably).
      Can someone out there either:
      a) send me directions (preferably pretty explicit) on how
to use the assembler I have;
      b) send me a PD assembler, preferably with (explicit)
instructions.
            OR
      c) tell me where I can find a good assembler. The only
one I have actually seen in a store costs an awful lot.

           Thanks in advance for the help.
                   Don DeSmet
   c/o   JLORD@WATDCS.BITNET
****

From -1645377658144990452
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e18fa8ce5d9322c0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-12 23:50:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!WSUVM1.BITNET!HOWESDW
From: HOWESDW@WSUVM1.BITNET (Don Howes)
Newsgroups: net.micro.atari16
Subject: Add to list
Message-ID: <8608130649.AA24404@ucbvax.Berkeley.EDU>

Date: Wed, 13-Aug-86 02:50:27 EDT
Article-I.D.: ucbvax.8608130649.AA24404
Posted: Wed Aug 13 02:50:27 1986
Date-Received: Wed, 13-Aug-86 19:14:13 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

Please add my name to the 16 bit Atari distribution list. Thanks.

From 2765702733861835443
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 04:53:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: 68000 Memory Managment
Message-ID: <508@elmgate.UUCP>
Date: Wed, 13-Aug-86 07:53:54 EDT
Article-I.D.: elmgate.508
Posted: Wed Aug 13 07:53:54 1986
Date-Received: Thu, 14-Aug-86 04:22:42 EDT
Organization: Eastman Kodak Co., Rochester, NY
Lines: 20
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1592 net.micro.amiga:4236 net.micro.68k:1127

With all the talk of the new CoCo's memory management system and the
discussions wondering why a 68000 was not used I have the following
thoughts (yes I have ONE now and again :^>)

If memory serves me correct the 68000 can not restart/resume a bus faulted
instruction. So regardless of what mkind of MMU you try to hang on it, it
can not overcome this problem. As I understand it, the 68000 does NOT
ensure the address pointed to on the stack, is the address of the fault
instruction. Therefore you can't restart the instruction and 68000 does
not dump it's micro-state, so you can't resume the faulted instruction. Is
this about right?   Motorola you out there? Guy Harris, this about the
scheme of things? Henry of UTZOO, this acurate?

BTW the 68010 fixes this.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg

Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 1532936674427463725
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 05:20:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint...XOR cursors patented!
Message-ID: <1291@watdragon.UUCP>
Date: Wed, 13-Aug-86 08:20:06 EDT
Article-I.D.: watdrago.1291
Posted: Wed Aug 13 08:20:06 1986
Date-Received: Thu, 14-Aug-86 02:06:14 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP>
Reply-To: jsgray@watdragon.UUCP (Jan Gray)
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 22
Xref: watmath net.micro.mac:7295 net.micro.atari16:1613
Summary:

In article <1232@trwrb.UUCP> sansom@trwrb.UUCP (Richard Sansom) writes:
>
>In article <2693@mit-hermes.ARPA> jpexg@mit-hermes.ARPA (John Purbrick) writes:
>>I have an Atari 1040ST, and I've been playing with its bit-mapped graphics.
>>One thing that the Mac does when running MacPaint is let you start a line
>>by clicking on a point, then flopping the other end around with the mouse
>>until you anchor it by clicking again.

>The technique used is called XOR (eXclusive-OR).

Some clever fellow patented the XOR cursor and line drawing method years
ago. He goes around to companies which write software which uses the
technique and demands a nominal licensing fee, which he often gets to
avoid legal battles.

(I just wanted to mention this fact. Please let's not discuss it, it was
beaten to death in net.graphics months ago...)

"You just watch yourself. We're wanted men. I have the death sentence
 on 12 systems!"

Jan Gray   jsgray@watdragon   University of Waterloo   519-885-1211 x3870

From -9190206717896271121
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3089728f2faefbf6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 08:28:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Question on Cartridge
Message-ID: <411@atari.UUcp>
Date: Wed, 13-Aug-86 11:28:08 EDT
Article-I.D.: atari.411
Posted: Wed Aug 13 11:28:08 1986
Date-Received: Thu, 14-Aug-86 22:07:26 EDT
References: <4392@pur-ee.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 16

In article <4392@pur-ee.UUCP>, beatyr@pur-ee.UUCP writes:
>   1) What is this? An icon for the cartridge port? If I plug something
>   in there that the ST can read will it show up in this window?

Yes, it's an icon for the cartridge port. The developer's kit
explains how to make a cartridge that will cause files to show up in
the cartridge icon's window.

--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 8481134557962437425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,672633111772cbe6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 09:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!ucbvax!ucbcad!nike!lll-crg!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson)
Newsgroups: net.micro.atari16
Subject: Re: Reading MS-DOS disks
Message-ID: <410@ektools.UUCP>
Date: Wed, 13-Aug-86 12:04:00 EDT
Article-I.D.: ektools.410
Posted: Wed Aug 13 12:04:00 1986
Date-Received: Thu, 14-Aug-86 01:29:47 EDT

References: <408@ektools.UUCP>
Reply-To: bruce@ektools.UUCP (Bruce D. Nelson (408))
Distribution: na
Organization: Eastman Kodak, Dept. 47
Lines: 24

In article <408@ektools.UUCP> bruce@ektools.UUCP I wrote:
>
>... Are there any programs available which can
>
>a) convert an ST disk to MS-DOS and vice-versa or
>b) read and/or write an MS-DOS format disk on the ST

First, I'd like to thank everone who took the time to send replies.

Here is what I've found. Originally I was trying to read/write from MS-DOS
disks written on an HP-150. It seems that the HP-150 uses 256 byte sectors
instead of 512 byte like the ST. Since then, I located an IBM-PC with a
3.5 inch drive.

The IBM-PC was unable to read disks formatted by the ST. However, the ST
was able to read/write the PC-formatted disks, and the PC was able to read
the disks after they had been to my ST and back. It seems that there are
minor formatting considerations which the ST ignores but the PC enforces.

My experience, then, is that as long as the PC controls the formatting,
files are exchangable between the PC and the ST.

Bruce Nelson
...rochester!kodak!ektools!bruce

From -3642879396433333030
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7899d85da58fd18c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 09:13:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!ucbvax!ucbcad!nike!lll-crg!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson)
Newsgroups: net.micro.atari16
Subject: GEMDOS calls from ST-BASIC
Message-ID: <411@ektools.UUCP>
Date: Wed, 13-Aug-86 12:13:20 EDT
Article-I.D.: ektools.411
Posted: Wed Aug 13 12:13:20 1986
Date-Received: Thu, 14-Aug-86 01:30:06 EDT
Distribution: na
Organization: Eastman Kodak, Dept. 47
Lines: 9

Is there an *easy* method to access GEMDOS calls (example: Tgettime)
from ST-BASIC. The ST-BASIC manual isn't very clear on whether this

can be done without writing some sort of assembler or C interface.

If an interface is required, would someone be kind enough to mail or
post an example.

Bruce Nelson
...rochester!kodak!ektools!bruce

From -5832275218767805369
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bf729b3332f9898f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 12:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: language question
Message-ID: <8608140513.AA17108@ucbvax.Berkeley.EDU>
Date: Wed, 13-Aug-86 15:17:00 EDT
Article-I.D.: ucbvax.8608140513.AA17108
Posted: Wed Aug 13 15:17:00 1986
Date-Received: Thu, 14-Aug-86 20:16:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Does anyone know of a pascal compiler for the st that allows passing
of function names as parameters? Has anyone had any experience with
fortran on the st? A review of f77 from prospero in either Antic or Analog
quoted benchmark times of about three seconds for c, about 14 minutes for
st basic and about 13 minutes for prospero f77. Thanks in advance,
                peter lorraine (qbzj @ cornella.bitnet)

From 5981785834813281438
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bac7489d36f4618f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 12:43:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: stkermit source
Message-ID: <8608140425.AA16528@ucbvax.Berkeley.EDU>
Date: Wed, 13-Aug-86 15:43:52 EDT
Article-I.D.: ucbvax.8608140425.AA16528
Posted: Wed Aug 13 15:43:52 1986
Date-Received: Thu, 14-Aug-86 20:14:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA

Organization: The ARPA Internet
Lines: 7

Could someone out in net land please send me the files for STkermit
which appeared on the net some time back. I received only the mailing
which had the stkermit receive and send, etc. files (I believe it was the
6th out of six mail items). I would greatly appreciate it.

Thanks,
Mike

From 5418725913156356967
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5c45a5341e95145
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 17:47:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Modem Info
Message-ID: <8608132230.AA09612@mitre-bedford.ARPA>
Date: Wed, 13-Aug-86 20:47:34 EDT
Article-I.D.: mitre-be.8608132230.AA09612
Posted: Wed Aug 13 20:47:34 1986
Date-Received: Thu, 14-Aug-86 10:14:30 EDT
References: <8608121246.AA00671@ncsc.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 77

Jim:

I believe you are confusing a "null modem" connection with a normal data
terminal to modem connection.

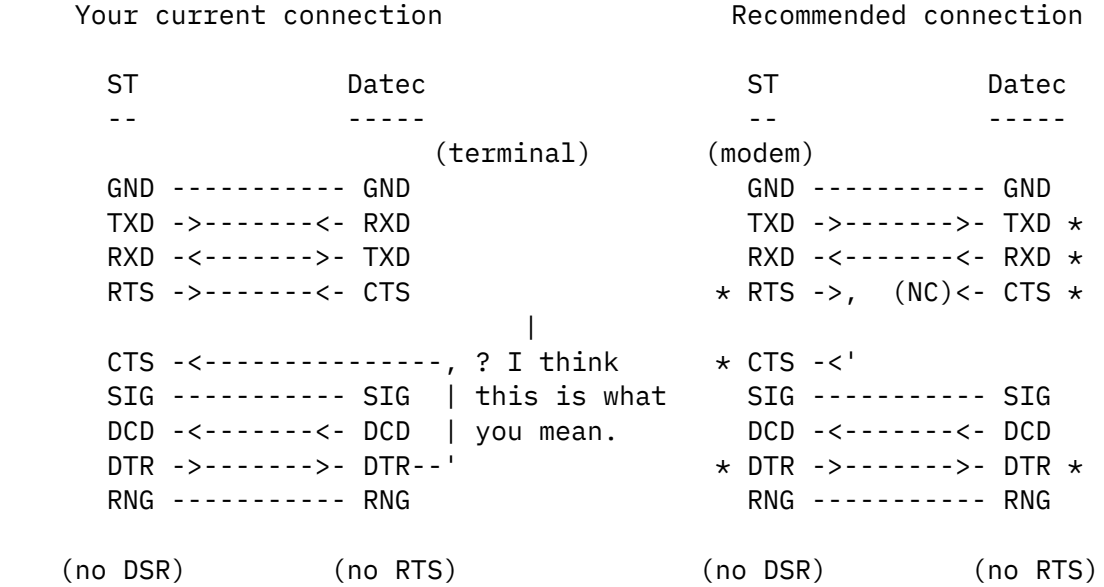
The kind of cross-connection you are using is appropriate when you are
connecting two terminals together, or a computer, which is a "smart" kind of
terminal, to an ordinary terminal. In that case you DO want each Receive Data
input to look at the other's Transmit Data output. A cross-connecting device
called a "null modem" is used for this purpose, and to cross-connect several
of the other control lines as you were trying to do in your setup. Basically,
a null modem acts like two back-to-back modems, which would have to be used if
the two terminals were not physically close enough to connect directly. But
of course it is A LOT CHEAPER than two modems, back to back or otherwise!

However, in your case, you don't have two terminals; you have one terminal and
one modem or "Data Set". And I believe that you want to connect the
terminal's (Atari's) Transmit Data output line to the Transmit Data INPUT of
the modem so it can transmit it (what else?!). Similarly, you want to connect
the modem's Receive Data OUTPUT to the Atari's Receive Data input.

Also, the ST's Request To Send output should not be connected glaring face to face with the modem's Clear To Send output. Each output on one side should go to some input on the other side. One output can go to several inputs, including one back on its own side if necessary. Since the modem apparently does have a Clear To Send (CTS) output, one possibility would be to tie that to the ST's Clear To Send output in the hope that both vendors are trying to do something standard. Tying DTR's together seems wise for the same reason. Since the modem is not a data terminal, this an input which it expects to see from the data terminal (Atari). This leaves the ST's Request To Send (RTS) dangling, assuming that as you indicate the modem has no input to receive it. If things don't work in this way, the other reasonable possibility I see would be to leave the modem's CTS line dangling and strap the ST's RTS back to its CTS input. I am reasonably sure that this will do the trick. In fact, I kinda like this better than using the modem's CTS line -- if you do it the second way, at least you KNOW the Atari will be given CTS permission if it ever requests it (RTS).

Once you have adhered to the above general rule of no two outputs tied together, the only other problem in the RS-232 "standard" is that sometimes both sides are waiting for the other to "assert" (turn ON) a signal, most often DTR and DSR. In such a case, you might have to strap a signal that you are SURE is on (by measuring it with a voltmeter!) to one of the inputs (after disconnecting that input from any other source to follow the above rule) that is waiting for a signal.

Anyway, my best guess for a workable arrangement would be as follows:



The *'s indicate pins affected by the change.

If I sound as though I know what I am talking about, don't be fooled: only the electrons know for sure!!!! Other connections are possible, as long as you follow the general rules mentioned above; in fact you may find a better one. But I hope this discussion helps you figure out how to get your setup working.

Good luck with it,

-John Sangster
jhs@mitre-bedford.arpa

From -8906279880739502239
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6633c5ffe4f2e82
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-13 23:46:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!miro.Berkeley.EDU!metcalf
From: metcalf@miro.Berkeley.EDU (Chris Metcalf)
Newsgroups: net.micro.atari16
Subject: Re: i'm learning, but slowly
Message-ID: <15247@ucbvax.BERKELEY.EDU>
Date: Thu, 14-Aug-86 02:46:06 EDT
Article-I.D.: ucbvax.15247
Posted: Thu Aug 14 02:46:06 1986
Date-Received: Thu, 14-Aug-86 20:18:38 EDT
References: <469@imagen.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: metcalf@miro.Berkeley.EDU (Chris Metcalf)
Organization: University of California, Berkeley
Lines: 43

In article <469@imagen.UUCP> turner@imagen.UUCP writes:
>i'm porting uE3.7 to the ST and have run into a few problems,
>perhaps some kind soul could help me. I am using Megamax C to do it.

I've just finished doing a port to the Atari with Megamax. Not entirely
straightforward. The problem with Pexec() is an annoying one. It's not
that the first character of the args is being dropped; rather, the
first character of the arg string is supposed to be the LENGTH of the
rest of the string (0-127). You can't specify a longer argument list
than that, and you have to tell Pexec() how long the arg list is. Remember,
we're dealing with an MS-DOS/CPM lookalike computer here, and the
"commandline" argument is simply copied into the new program's base
page starting at location 0x0080.

I didn't run into your other problem, with losing the cursor. I don't
know why that should happen; I get a cursor with mine. Certainly avoid
naming the file "emacs.prg", since you're guaranteed not to get a cursor
that way. I also don't know why you're using Initmous(); there's no mouse
pointer when I run emacs (is it for character input, or ...?).

One problem I ran into with porting to emacs is that calling Bconin() or
Crawcin() always return ^@ for "extended function" keys like the cursor keys.
I eventually got around this problem by calling appl_init() and appl_exit()
in ttopen() and ttclose(), and using evnt_keybd() to get characters from
the keyboard. Kind of ugly. But Bconstat() and Bconout() work fine for
typeahead detection and fast character output.

One possibly undocumented feature of the Atari's lowlevel VT52 emulation
is that it DOES support reverse field. If you output an ^[p the output
goes into reverse field; use ^[q to return to normal. Convenient! To
use it, fix up the vt52rev() function in vt52.c and add "revexist = TRUE"
to vt52open() (as well as defining REVSTA in estruct.h).

The only fix I still want to make to Atari emacs is to add a 50-line
mode for monochrome; once I've got that in place I'll submit some diffs
(probably to Lawrence, the emacs coordinator). I already hacked up a nice
Amiga version; I love that 80 x 50 line screen, and running Emacs on the
ST over the serial line as a background job on the Amiga isn't bad either...

Yours in MicroEMACS hacking,

Chris Metcalf (metcalf@yale.ARPA)   ..!decvax!yale!metcalf
          (metcalf@yalecs.BITNET)   ..!ihnp4!hsi!yale!metcalf

From -7005131629265616639
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bac7489d36f4618f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 02:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UW-JUNE.ARPA!rling
From: rling@UW-JUNE.ARPA (Robert Ling)
Newsgroups: net.micro.atari16
Subject: Re: stkermit source
Message-ID: <524396798.rling@uw-june.ARPA>
Date: Thu, 14-Aug-86 05:46:00 EDT
Article-I.D.: uw-june.524396798.rling
Posted: Thu Aug 14 05:46:00 1986
Date-Received: Thu, 14-Aug-86 20:35:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

The GEM version of Kermit is available for 'ftp' from Columbia
University (cu20b.arpa). The files are in the directory ps:<kermit>
and the file names are AST*.*.

- Robert Ling <rling@uw-june.arpa>

From 1236089199374311860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129fb9,f2fd262f46f661c5,start
X-Google-Attributes: gid129fb9,public
X-Google-Thread: 140593,f2fd262f46f661c5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 04:59:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.lang.mod2,net.micro.atari16
Subject: TDI Modula-2/ST DaTime problem
Message-ID: <2006@dalcs.UUCP>
Date: Thu, 14-Aug-86 07:59:05 EDT
Article-I.D.: dalcs.2006
Posted: Thu Aug 14 07:59:05 1986
Date-Received: Fri, 15-Aug-86 02:20:05 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 13

Has anyone figured out how DaTime works for the ST, or even IF it works
(I should think that they use it int the desktop!)? One obvious bug is
that if you try to get the date, you set it (if you try to set it, you
also set it!), and the value seems not to relate to the value in the
buffer. The get does not change the buffer, and with either the get or
set option the date gets changed to some unpredictable value.

After reading bammi's comments on Fdatime() in C, it appears that TDI
based the function on incorrect documentation and didn't bother to check
it -- but if the desktop uses it, they must be able to use it correctly.

Anyone know of any books or other GEM info for Modula-2 programmers out
there? The language is great, but the TDI documentation is pretty weak.

From -1012764002283778755
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 05:41:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!hp-sdd!ncr-sd!
ncrcae!ncsu!uvacs!edison!dca
From: dca@edison.UUCP (David Albrecht)
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <839@edison.UUCP>
Date: Thu, 14-Aug-86 08:41:04 EDT
Article-I.D.: edison.839
Posted: Thu Aug 14 08:41:04 1986
Date-Received: Sun, 17-Aug-86 05:48:59 EDT
References: <503@elmgate.UUCP> <8608061704.AA23758@ames-nas.ARPA>
Organization: General Electric Company, Charlottesville, VA
Lines: 19
Summary: Amiga crashes

In article <8608061704.AA23758@ames-nas.ARPA>, fouts@AMES-NAS.ARPA writes:
>   You claim that the Amiga's system software is at LEAST an order of
> magnitude more robust that the ST's. Thinking of the blind men and the

> elephant, I would like to comment that in four hours of playing with
> a friend's AMIGA, I got about a dozen crashs. My ST crashes about once
> a month, unless I have to reboot because the software I'm debugging has
> gone into an infinite loop.

If you decide to 'play around' with an Amiga let me give you a word to the
wise. The system tasks and the disk driver are separate in the Amiga and
the communication is not real tight. What this means is that the task may
prompt you to swap disks while the disk driver is still writing to it.
If you don't sit and stare at the disk light you will take the disk out
while the Amiga is writing to it. I had quite a number of crashes that
I blame on this. Once I 'trained' myself to not pull the disk until the
light is out no matter what the screen says crashes have been extremely
infrequent.

David Albrecht

From -8977397029302426381
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 07:37:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!princeton!allegra!ulysses!mhuxr!mhuxt!
houxm!ihnp4!ihlpa!droch
From: droch@ihlpa.UUCP (Kraft)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <1664@ihlpa.UUCP>
Date: Thu, 14-Aug-86 10:37:42 EDT
Article-I.D.: ihlpa.1664
Posted: Thu Aug 14 10:37:42 1986
Date-Received: Fri, 15-Aug-86 20:13:39 EDT
References: <1204@mhuxo.UUCP> <12226870831.27.LAWRENCE.AUGER@IC2060>
<293@orsvax1.UUCP>
Organization: AT&T Bell Laboratories
Lines: 16

> In article <12226870831.27.LAWRENCE.AUGER@IC2060>
> LAWRENCE.Auger%BIONET@SUMEX-AIM.ARPA (Ivan Auger) writes:
> >I had very bad experiences with AVATEX 1200 modems. Don't buy them...
> >We sent them back twice... Finally, to make a long story short,
> >our dealer exchanged them for Racal Vadic Maxwell 1200V modems.

    I've had an Avatex 1200 hooked up to my Amiga (egads!) for
nearly four months now without any problems. My only complaint is
that there is no speaker and you can't tell if the line was busy or
never picked up (if you're a wimp you can always pick up the phone :-).

                    David Roch
                    AT&T Bell Labs

--- You can't get there from here - REM ---

From -7077708342435034571
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,17dd052b79aeb227
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 08:29:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: assembler
Message-ID: <8608160206.AA28858@ucbvax.Berkeley.EDU>
Date: Thu, 14-Aug-86 11:29:35 EDT
Article-I.D.: ucbvax.8608160206.AA28858
Posted: Thu Aug 14 11:29:35 1986
Date-Received: Sun, 17-Aug-86 07:24:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I can recommend the K-Seka package from Antic catalog as a good
assembler. It assembles in memory, so its awfully fast (somthing
like 30,000 lpm is advertised). It comes with a symboic debugger etc,
and its relatively inexpensive $35. The main problem that i
have found with it is that it does'nt have a 'include' type directive. SO
even though you can develope a bunch of utility macros, they are
not easy to include (you have to do it manually using the editor). I personally
have switched to Hi-Softs Devpak St, but i am not sure if that is available
in the US. At least i have not seen it.

From 6337475164319465183
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db8b7fcde0d86ac9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 08:56:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!pyramid!decwrl!engberg@raynal.dec.com
From: engberg@raynal.dec.com
Newsgroups: net.micro.atari16
Subject: First try to send this
Message-ID: <4808@decwrl.DEC.COM>
Date: Thu, 14-Aug-86 11:56:28 EDT
Article-I.D.: decwrl.4808
Posted: Thu Aug 14 11:56:28 1986
Date-Received: Fri, 15-Aug-86 05:55:52 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 16

Reply to James M. Turner

> 1) when i call a sub-command using Pexec(0,STcmd,STargs,STenv)
> [assume they are all char *] the first character of STargs gets
> dropped or more likely the ptr is getting incremented by 1, putting
> a leading blank in STargs works but seems silly

I have found, by comparision with what the dialouge box produces,
that the STargs string is a counted string, ie the first byte contains
the length of the string. It looks like a documentation flaw to me.

Bjorn Engberg
Digital Equipment Corp
Telephone: (617)493-4817
Dec E-net: REGINA::ENGBERG

From -666467475653174393
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 10:52:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <625@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 14-Aug-86 13:52:48 EDT
Article-I.D.: cbmvax.625
Posted: Thu Aug 14 13:52:48 1986
Date-Received: Thu, 14-Aug-86 22:17:36 EDT
References: <508@elmgate.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 38
Xref: mnetor net.micro.atari16:1604 net.micro.amiga:4263 net.micro.68k:1130

> Keywords: 68000 atari amiga 68k mmu
> Xref: cbmvax net.micro.atari16:1562 net.micro.amiga:2159 net.micro.68k:186
>
> If memory serves me correct the 68000 can not restart/resume a bus faulted
> instruction. So regardless of what mkind of MMU you try to hang on it, it
> can not overcome this problem. As I understand it, the 68000 does NOT
> ensure the address pointed to on the stack, is the address of the fault
> instruction. Therefore you can't restart the instruction and 68000 does
> not dump it's micro-state, so you can't resume the faulted instruction. Is
> this about right?   Motorola you out there? Guy Harris, this about the
> scheme of things? Henry of UTZOO, this acurate?

>
> BTW the 68010 fixes this.

That basically it. The 68010 uses instruction continuation to support virtual
memory and/or MMUs. When an exception occurs, some processor internal
state information is pushed on the exception stack. This allows a bus error
exception handler to do whatever's necessary to get the desired address
into physical memory, then RTE, at which point the instruction that caused
the bus error will continue, recovering at the cycle that caused the fault.
This is more efficient than the method used by some processors, which
restart the instruction from its beginning. The 68000 doesn't save enough
exception stack information to accomplish this.
>
> --
> Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
> Eastman Kodak Company
> <Kodak won't be responsible for the above comments, only those below>
--
/\
Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     "I gained nothing at all from Supreme Enlightenment, and
      for that very reason it is called Supreme Enlightenment."
                                -Gotama Buddha

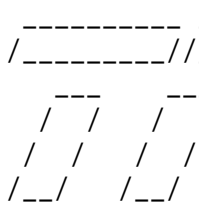
     These opinions are my own, though for a small fee they be yours too.
\/\

From -7793624395740676986
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-08-14 13:23:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!sri-spam!parcvax!hplabs!sdcrdcf!trwrb!
sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint
Message-ID: <1241@trwrb.UUCP>
Date: Thu, 14-Aug-86 16:23:19 EDT
Article-I.D.: trwrb.1241
Posted: Thu Aug 14 16:23:19 1986
Date-Received: Sun, 17-Aug-86 05:25:54 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP> <1050@k.cs.cmu.edu>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 31
Xref: mnetor net.micro.mac:6624 net.micro.atari16:1610

In article <1050@k.cs.cmu.edu> wrs@k.cs.cmu.edu (Walter Smith) writes:
>In article <1232@trwrb.UUCP>, sansom@trwrb.UUCP (Richard Sansom) writes:
>>
>> In article <2693@mit-hermes.ARPA> jpexg@mit-hermes.ARPA (John Purbrick) writes:
>> >One thing that the Mac does when running MacPaint is let you start a line
>> >by clicking on a point, then flopping the other end around with the mouse
>> >...
>>
>> The technique used is called XOR (eXclusive-OR).
>> ...
>
>Most programs do use XOR. MacDraw, for instance, leaves things in OR mode
>until you start to manipulate an object, then redraws that object in XOR to
>allow rubber-band feedback.
>
>However, if you look closely at a line being drawn in MacPaint, you will see
>that XOR mode is NOT being used...
>
>- Walt

Oops, I guess I spoke too soon. I was thinking about some of the programs
I had used in the past, and not specifically about MacPaint. Sorry if I upset
anyone out there.

--



Richard E. Sansom
TRW Electronics & Defense Sector
One Space Park Drive, R3/1028
Redondo Beach, CA 90278
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From -6531422574736353965
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 13:50:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ll-xn!mit-amt!mit-eddie!mit-hermes!mit-
prep!tmb
From: tmb@mit-prep.ARPA (Thomas M. Breuel)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <64@mit-prep.ARPA>
Date: Thu, 14-Aug-86 16:50:15 EDT
Article-I.D.: mit-prep.64
Posted: Thu Aug 14 16:50:15 1986

Date-Received: Fri, 15-Aug-86 20:16:48 EDT
References: <508@elmgate.UUCP>
Reply-To: tmb@prep.UUCP (Thomas M. Breuel)
Organization: The MIT AI Lab, Cambridge, MA
Lines: 26
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1609 net.micro.amiga:4275 net.micro.68k:1131

|With all the talk of the new CoCo's memory management system and the
|discussions wondering why a 68000 was not used I have the following
|thoughts (yes I have ONE now and again :^>)
|
|If memory serves me correct the 68000 can not restart/resume a bus faulted
|instruction. So regardless of what mkind of MMU you try to hang on it, it
|can not overcome this problem. As I understand it, the 68000 does NOT
|ensure the address pointed to on the stack, is the address of the fault
|instruction. Therefore you can't restart the instruction and 68000 does
|not dump it's micro-state, so you can't resume the faulted instruction. Is
|this about right?   Motorola you out there? Guy Harris, this about the
|scheme of things? Henry of UTZOO, this acurate?

The fact that it is difficult to restart an instruction that received
a bus fault on the 68000 makes it difficult to implement paging.
However, an MMU has other uses besides paging, e.g. to protect processes
from one another, to help utilise memory more efficiently, and
to allow swapping and process duplication (a la fork(1); you can't
implement fork(1), in general, on the 68000 without an MMU).

I consider it a grave mistake not to have included even a rudimentary kind
of address remapping on the Amiga; even just an adder on the address lines
of the 68000 would have simplified the system software and allowed some
kind of swapping to be hacked.

Thomas.

From 446859137809254849
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,203e9fdf3c547de5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 18:00:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: "Microsoft supports the ST
Message-ID: <860814210010.000009AF.ANJV.MA@UMass>
Date: Thu, 14-Aug-86 21:00:10 EDT
Article-I.D.: UMass.860814210010.000009AF.ANJV.MA
Posted: Thu Aug 14 21:00:10 1986
Date-Received: Fri, 15-Aug-86 20:15:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 22

I read in the 7/14 issue of InformationWEEK, and in another newspaper
(I think it was Computerworld) that Microsoft has ported the Macintosh
version of Microsoft Word to the Atari ST, and that Atari has signed
a contract with Microsoft giving Atari exclusive world-wide marketing
rights to the program. The ST version is called Microsoft Write.
   Does anyone out there know more about this deal? such as...

1) Price

2) Availability-- Previous Atari-distributed/written ST software seems
to have disappeared into a black hole! (Planetarium, CP/M Emulator,
GEM Draw,graph,paint etc., Joust, etc.) If Atari is distributing this,
I sure hope they actually DO distribute it! Any info?

3) Implementation-- both the articles I read on Microsoft Write specifically
said it was an ST version of the MACINTOSH Microsoft Word. This means
it uses windows, mouse etc. I find it very hard to believe that Microsoft
would be willing to start writing GEM programs! Is there any chance that
we can see WINDOWS on the ST?? If Microsoft is now supporting the ST,
have they ported Windows to it to use with Write? Or what are they using?

4) Is Microsoft planning to put any other software on the ST besides Word?

From 6764118951343374872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2cc31b3f3ef4968d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 18:26:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: disk directory lister and catalog maintainer
Message-ID: <1873@utecfa.UUCP>
Date: Thu, 14-Aug-86 21:26:22 EDT
Article-I.D.: utecfa.1873
Posted: Thu Aug 14 21:26:22 1986
Date-Received: Thu, 14-Aug-86 22:23:23 EDT
Organization: Engineering Computing Facility, University of Toronto
Lines: 467

     The following little program (disklist.c) is a simple disk directory
lister. I'm posting it for a friend.

     The program works as follows: upon startup, it will ask you
for the name of the source drive (which it will read and catalog),
and the name of the destination drive (on which it will create a file
called disklist which will contain directory listing). Every time

the directory listing is written out, it will prompt you to insert
another disk; hitting the "yummy" button will repeat the process and
hitting the "burp" button will get you out of the program. If the
disk being listed has no name, you will be prompted if you would
like to name it. The program will descend the directory tree and list
files under the
appropriate folders. The disklist file has the following format.

```
DIRECTORY LISTING  Created on - 86/08/14  at - 21:13:46

DISK NUMBER: 001   VOLUME: utilities3

   XLISP.TOS                                          60928  86/07/09  22:24:58
   COMLSP.LSP                                          8346  86/07/09  22:28:42
   DISKLIST.PRG                                        6328  86/08/12  21:32:38
   WTERM.PRG                                           9046  86/08/03  11:38:18
   KEYCODE.PRG                                         7092  86/09/08  20:34:48
   ... etc
```

Remember to set the time correctly before running the program
or the header line will be off.

Hope you find it useful in maintaining disk catalogs.

Regards,
anees munshi

------------------SNIP------CUT---kaatna hei to kaatyea------------------

```
#include "osbind.h"

struct dta {
                char  reserved[21];
                char  fab;
                unsigned time;
                unsigned date;
                long  size;
                char  name[];
           };

struct dta *dta_ptr;

struct line {
                char name[50];
                char size[10];
                char date[10];
                char time[10];
             };
```

```
struct line *line_ptr;

unsigned sys_time, sys_date;

int     contrl[ 12 ],
        intin[ 256 ], ptsin[ 256 ],
        intout[ 256 ], ptsout[ 256 ],
        workin[]={ 1,1,1,1,1,1,1,1,1,1,2 }, workout[ 57 ],
        handle,
        i, j,
        k = 0,
        file_handle,
        button,
        ret;

char    path[100],
        volume[100],
        drive[3],
        crlf[2],
        realdta[44],
        realline[81],
        out_filename[12],
        disk_no[4],
        alert0[120],
        alert1[]="[3][ Select the drive to read from...  ][ A | B | D ]",
        alert2[]="[3][ Select the drive to write to...  ][ A | B | D ]",
        alert3[]="[3][ Feed me disk #     ][ Yummy | Burp! ]",
        alert4[120];

long strlen(string)
  char *string;
  {
        char *string_pointer = string;

        while ( *string_pointer )
           ++string_pointer;

        return ((long) string_pointer - string );

  }

char * strcat(s, t)
  char s[], t[];
{
        int i, j;
        i = j = 0;
        while(s[i] != '\0')          /* find end of s */
           i++;
        while((s[i++] = t[j++]) != '\0');   /* copy t */
}

char strcpy(s, t)
```

```
  char *s, *t;
{
        while(*s++ = *t++);
}

strequ ( str1, str2 )
  char str1[], str2[];
    {
        int i = 0, answer;
        while( str1[i] == str2[i] && str1[i] != '\0'
                                  && str2[i] != '\0' )
          ++i;
        if( str1[i] == '\0' && str2[i] == '\0' )
          answer = 1;
        else
          answer = 0;
        return( answer );
    }

itoa (n, s)
  char s[];
  int n;
    {
        int i;
        i = 2;
        strcpy(s, "000");
        do {
            s[i--] = (n % 10) + '0';
            } while ((n /= 10) > 0);
    }

ltoa (n, s)
  char s[10];
  long n;
    {
        long n2;
        int i;
        n2 = n;
        i = 9;
        do {
            s[i--] = n2 - ((n2 / 10) * 10) + '0';
            } while ((n2 /= 10) > 0);
    }

itodate (idate, date)
  unsigned idate;
  char date[10];
  {
        unsigned yy, mm, dd;

        yy = (idate >> 9 & 0x7F) + 80;
        mm = idate >> 5 & 0xF;
        dd = idate & 0x1F;
```

```
        date[2] = (yy/10) + '\060';
        date[3] = (yy%10) + '\060';
        date[4] = '/';
        date[5] = (mm/10) + '\060';
        date[6] = (mm%10) + '\060';
        date[7] = '/';
        date[8] = (dd/10) + '\060';
        date[9] = (dd%10) + '\060';
  }

itotime (itime, time)
   unsigned itime;
   char time[10];
  {
        unsigned hrs, mins, secs;

        hrs = itime >> 11 & 0x1F;
        mins = itime >> 5 & 0x3F;
        secs = (itime & 0x1F) << 1;

        time[2] = (hrs/10) + '\060';
        time[3] = (hrs%10) + '\060';
        time[4] = ':';
        time[5] = (mins/10) + '\060';
        time[6] = (mins%10) + '\060';
        time[7] = ':';
        time[8] = (secs/10) + '\060';
        time[9] = (secs%10) + '\060';
  }

/************************************************/
main()
   {
        initialize();

        do
           {
                itoa(++k, disk_no);
                alert3[20] = disk_no[0];
                alert3[21] = disk_no[1];
                alert3[22] = disk_no[2];
                button = form_alert(1, alert3);
                if (button != 2) read_the_directory();
           }
         while( button != 2 );

        terminate();
   }
/************************************************/

/************************************************/
initialize()
```

```
{
  char today[10], totime[10];
     appl_init();
     handle=graf_handle( &i, &i, &i, &i );
     v_opnvwk( workin, &handle, workout );

     dta_ptr = &realdta;
     line_ptr = &realline;
     Fsetdta(dta_ptr);

     crlf[0] = 0x0d;
     crlf[1] = 0x0a;

     strcpy(alert0,"[1]");
     strcat(alert0,"[  Disk Directory Listing |");
     strcat(alert0, "         Utility |");
     strcat(alert0, " written by: Robert Ritter |");
     strcat(alert0, "        July, 1986 ]");
     strcat(alert0, "[Good Stuff]");
     form_alert(1, alert0);

     strcpy( alert4, "[3]" );
     strcat( alert4, "[ This disk is not labeled. |");
     strcat( alert4, " Do you want to enter one now? ][ Yes | No  ]");

     button = form_alert(1, alert1);
     switch(button){
       case(1):
         strcpy(drive, "A:");
         break;
       case(2):
         strcpy(drive, "B:");
         break;
       case(3):
         strcpy(drive, "D:");
         break;
     }

     button = form_alert(3, alert2);
     switch(button){
       case(1):
         strcpy(out_filename, "A:disklist");
         break;
       case(2):
         strcpy(out_filename, "B:disklist");
         break;
       case(3):
         strcpy(out_filename, "D:disklist");
         break;
     }

     file_handle = Fcreate(out_filename, 0);
```

```
        sys_time = Tgettime();
        sys_date = Tgetdate();
        itotime(sys_time, totime);
        itodate(sys_date, today);

        Fwrite(file_handle, 32L, "DIRECTORY LISTING  Created on - ");
        Fwrite(file_handle, 10L, today);
        Fwrite(file_handle, 7L, "  at - ");
        Fwrite(file_handle, 10L, totime);
        Fwrite(file_handle, 2L, crlf);
        Fwrite(file_handle, 2L, crlf);

   }
/***********************************************/


/***********************************************/
do_label(my_path)
  char *my_path;
   {
     char vol_name[13], path_name[15];
     int this_button;
     int i;
     char c;
     char line[80];
        ret = Fsfirst(my_path,0x08); /* get the volume label */
        Fwrite(file_handle, 13L, "DISK NUMBER: ");
        Fwrite(file_handle, 3L, disk_no);
        if(ret == 0)
          strcpy( vol_name, dta_ptr->name );
        else
          {
            strcpy( vol_name, "NOT NAMED" );
            this_button = form_alert(1, alert4);
            if (this_button == 1)
              {
                /* prompt and get the user's request */
                graf_mouse(256,0x0L);  /* hide the mouse   */
                Cursconf(0,0);  /* hide the cursor */
                Cursconf(2,0);  /* set cursor to blink */

                strcpy(line,"Enter the volume name: ");
                v_gtext(handle,240,180,line);
                strcpy( vol_name, "___________");
                strcpy( line, vol_name);
                v_gtext(handle,240,205,line);
                Cursconf(1,0);  /* show the cursor */
                vs_curaddress(handle,13,31);

                i = 0;
                while ( (c = evnt_keybd() & 0x7F) != 0x0D ) {
                   if ((c == 0x08)||(c == 0x7F)){
                        /* oops, user wants a correction */
```

```
                    i = i - 1;
                    vol_name[i] = '_';
                    }
                 else if ( i <= 11 ){
                    vol_name[i] = c;
                    i = i + 1;
                    }
                 strcpy(line,vol_name);
                 Cursconf(0,0);  /* hide the cursor */
                 v_gtext(handle,240,205,line);
                 Cursconf(1,0);  /* show the cursor */
                 vs_curaddress(handle,13,(31+i));
                 }
              vol_name[i] = '\0';

              graf_mouse(257,0x0L);  /* show the mouse  */
              Cursconf(0,0);          /* hide the cursor */

              strcpy( path_name, drive );
              strcat( path_name, vol_name );
              Fcreate( path_name, 0x08 );
            }
        }
      Fwrite(file_handle, 11L, "   VOLUME: ");
      Fwrite(file_handle, strlen(vol_name), vol_name);
      Fwrite(file_handle, 2L, crlf);
      Fwrite(file_handle, 2L, crlf);
   }
/************************************************/


/************************************************/
read_the_directory()
   {
     char thispath[100], cur_dir[100];
        strcpy(path, drive);
        strcpy( thispath, path );
        strcat( thispath, "\\*.*" );
        do_label(thispath);
        ret = Fsfirst(thispath,0x10); /* get the first item on the volume   */
        while (ret == 0)
          {
            if (dta_ptr->fab == 0x10)              /* found a directory     */
               {if (   (!strequ( dta_ptr->name, "." ))
                    && (!strequ( dta_ptr->name, ".." )) )
                 {
                   strcpy(cur_dir,dta_ptr->name);
                   dir_write(path,cur_dir);        /* follow the directory */
                   ret = Fsfirst(thispath,0x10);
                     /*return to start of previous path */
                   while ((ret == 0) && (!strequ(dta_ptr->name, cur_dir)))
                      ret = Fsnext();
                 }
```

```
              }
             else dta_write(drive);               /* write the filename    */

            ret = Fsnext();          /* now walk the rest of the structure  */
           }
        Fwrite(file_handle, 2L, crlf);
        Fwrite(file_handle, 2L, crlf);
   }
/***********************************************/



/***********************************************/
dta_write(path)
 char *path;
  {
        for(i=0; i<80; i++)
          realline[i] = ' ';
        strcpy(line_ptr->name, path);
        strcat(line_ptr->name, "\\");
        strcat(line_ptr->name, dta_ptr->name);
        line_ptr->name[0] = ' ';
        line_ptr->name[1] = ' ';
        line_ptr->name[2] = ' ';
        ltoa(dta_ptr->size, line_ptr->size);
        itodate(dta_ptr->date, line_ptr->date);
        itotime(dta_ptr->time, line_ptr->time);
        Fwrite(file_handle, 80L, line_ptr);
        Fwrite(file_handle, 2L, crlf);
   }
/***********************************************/


/***********************************************/
dir_write(cur_path,directory)
  char *cur_path, *directory;
    {
    auto char new_path[100], thispath[100], cur_dir[100];
        Fwrite(file_handle, 2L, crlf);
        Fwrite(file_handle, 12L, "  DIRECTORY: ");
        Fwrite(file_handle, strlen(directory), directory);
        Fwrite(file_handle, 2L, crlf);
        strcpy( new_path, cur_path );
        strcat( new_path, "\\" );
        strcat( new_path, directory );
        strcpy( thispath, new_path);
        strcat( thispath, "\\*.*");
        ret = Fsfirst(thispath,0x10);  /* get this new path started */
        while (ret == 0)
          {
            if (dta_ptr->fab == 0x10)              /* found a directory     */
               {if (   (!strequ( dta_ptr->name, "." ))
                    && (!strequ( dta_ptr->name, ".." )) )
```

```
                {
                  strcpy(cur_dir,dta_ptr->name);
                  dir_write(new_path,cur_dir);     /* follow the directory */
                  ret = Fsfirst(thispath,0x10);
                    /*return to start of previous path */
                  while ((ret == 0) && (!strequ(dta_ptr->name, cur_dir)))
                     ret = Fsnext();
                }
              }
            else dta_write(new_path);              /* write the filename    */

            ret = Fsnext();           /* now walk the rest of the structure  */
           }
        Fwrite(file_handle, 2L, crlf);
    }
/************************************************/


/************************************************/
terminate()

   {
        v_clsvwk( handle );
        appl_exit();
   }
/************************************************/

----------------------and again-------------fir-se---------------


--
     Anees Munshi
     @ University of Toronto Engineering Comp. Facility :A
     {allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
     {allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfb!munshi


From -5373479138025825112
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7988003781aa486c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-14 21:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Atari Rumor Mill
Message-ID: <MDCG.WAYNE.12230906071.BABYL@MIT-OZ>
Date: Fri, 15-Aug-86 00:53:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12230906071.BABYL
Posted: Fri Aug 15 00:53:00 1986
Date-Received: Fri, 15-Aug-86 06:44:16 EDT
```

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

From The New York Times, August 12, 1986, p. C5:

"In an interview in the first issue of Compute!'s Atari ST, a magazine from ABC Publications that will be on newsstands Aug. 26, Sam Tramiel, president of the Atari Corporation, says his company will introduce both 2-megabyte and 4-megabyte versions of the ST computer by the end of the year.... The company has no plans, he said, to design ways for current ST owners to upgrade their machines.

"Other projects, Mr. Tramiel said, include an 'EST,' for enhanced, ST model that will incorporate high-resolution color and monochrome graphics; a 'TT' (Thirty-Two, as in bits) computer that will use Unix-based software..., and a $200 to $300 device that will allow the ST to run I.B.M. PC software. Meanwhile, the Atari line may be redesigned to look more like the I.B.M. PC, he said...."

Wayne McGuire
(wayne@oz.ai.mit.edu)

From 2972647085431517956
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6633c5ffe4f2e82
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 02:12:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!gert
From: gert@nikhefh.uucp (Gert Poletiek)
Newsgroups: net.micro.atari16
Subject: Re: i'm learning, but slowly
Message-ID: <196@nikhefh.UUCP>
Date: Fri, 15-Aug-86 05:12:29 EDT
Article-I.D.: nikhefh.196
Posted: Fri Aug 15 05:12:29 1986
Date-Received: Sun, 17-Aug-86 06:13:52 EDT
References: <469@imagen.UUCP>
Reply-To: gert@nikhefh.UUCP (Gert Poletiek)
Distribution: net
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 74
Apparently-To: rnews@mcvax

In article <469@imagen.UUCP> turner@imagen.UUCP writes:
>~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~
>
>i'm porting uE3.7 to the ST and have run into a few problems,
>perhaps some kind soul could help me. I am using Megamax C to do it.

>
>1) when i call a sub-command using Pexec(0,STcmd,STargs,STenv)
>[assume they are all char *] the first character of STargs gets
>dropped or more likely the ptr is getting incremented by 1, putting
>a leading blank in STargs works but seems silly
>

Pexex does not work exactly like the unix execve, it has to be called
like this:

```
/* if MEGAMAX, DRI etc */
int success;
/* if LATTICE .. */
short succes;

succes = Pexec(0,STcmd,STargs,STenv)


Pexec ( mode, name, tail, envp )
int mode;
char *name;
PasChar *tail;
char *envp;
```

Now your problem pops up :
the tail parameter is not a standard C string (0 terminated) but
is a standard PASCAL string, the first byte is the character count,
and the string needs not be nul terminated.

try this before you pass the string to Pexec:

```
j = strlen ( tail );
for ( i=0; i<j; i++ )
     tail[i+1]=tail[i];
tail[0] = strlen ( &tail[1] );
```

>
>2) when the program is called from another (i.e. the megamax shell)
>the cursor does not appear, if it is called from the desktop all works
>fine, i have tried calling Cursconf and naming the file .prg, .tos
>or .ttp but to not avail
>

A program like emacs should have the .tos or .ttp extension.
If everything works fine from the desktop you should not worry,
MEGAMAX should.

>3) if Initmous(0,0,0) is used to disable the mouse (is that
>correct?) i know that you use kbdvbase to get the address of the
>system interrupt routine, but what about the param struct ? just
>malloc some memory before exiting the program and pray ?

>

> The easiest way to get rid of the mouse pointer is calling the
> AES routine "graf_mous". (But be sure to turn it back on
> when emacs quits, because there is a counter involved, that keeps
> track of the number of mouse hides in the system.

Hope this solves the problems..

Gert Poletiek
Dutch National Institute for High Energy Physics
Amsterdam
The Netherlands

From 7064290783276864511
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e49f71fa049a165e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 06:21:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utfyzx!harrison
From: harrison@utfyzx.UUCP
Newsgroups: net.micro.atari16
Subject: Cursors and *.PRG
Message-ID: <1986Aug15.092121.22604@utfyzx.uucp>
Date: Fri, 15-Aug-86 09:21:21 EDT
Article-I.D.: utfyzx.1986Aug15.092121.22604
Posted: Fri Aug 15 09:21:21 1986
Date-Received: Fri, 15-Aug-86 20:46:29 EDT
Reply-To: harrison@utfyzx.UUCP (David Harrison)
Organization: Dept. of Physics, Univ. of Toronto
Lines: 30

If one names the program FOO.PRG, then default is no cursor, as has been stated by many others. Naming it FOO.TOS will turn on the cursor, but if the program also contains windows and other GEM stuff from the RSC set it will usually hang. The solution for me, where sometimes I'm using windows and sometimes just naked printf's in the same program is to explicitly turn the cursor on and off. Also, GEM will fire up the cursor where it was left last time, so I usually home it and clear the screen. Then I can keep calling it FOO.PRG. Example:

```
        /* GEM stuff */
        ....
        /* regular stuff begins */
        graf_mouse(M_OFF, 0L);  /* turn off mouse */
        Cconout('\033'); Cconout('H');   /* home cursor */
        Cconout('\033'); Cconout('J');   /* clear to end of screen */
```

```
        Ccconout('\033'); Cconout('e');  /* enable cursor */

        printf("Hello world.\n");

        Cconout('\033'); Cconout('f');   /* cursor off */
        ...
```

Then, the link is:

```
link68 [u] foo.68k=gemstart,foo,vdibind,aesbind,osbind,gemlib,libf
```

--
    David Harrison, Dept. of Physics, Univ. of Toronto
    {ihnp4,utzoo}!utcs!utfyzx!harrison

From -6596924756573914912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6e709119b51df1c7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 07:45:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!cernvax!hslrswi!brantsch
From: brantsch@hslrswi.UUCP (Stefan Brantschen)
Newsgroups: net.micro.atari16
Subject: malloc() problem
Message-ID: <155@hslrswi.UUCP>
Date: Fri, 15-Aug-86 10:45:48 EDT
Article-I.D.: hslrswi.155
Posted: Fri Aug 15 10:45:48 1986
Date-Received: Wed, 20-Aug-86 08:26:33 EDT
Organization: Hasler AG, Bern, Switzerland
Lines: 34

Has anybody ever had problems with malloc() (DRI C)?
Consider the following piece of code:

```
long free_mem;

struct midi_event
{ int delay;
  char midi_msgs[3];
} buffer;

main()
{
  struct event *malloc();

  free_mem = (long)malloc(-1L);

  buffer = malloc(free_mem);

/*  error handling ..... */
```

```
  printf("%ld bytes free",free_mem);

  ........
  ........
}
```

What I get is "879000 bytes free" on a 1040 with a 600k RAM disk
installed....????

Any hint?

Thanks   Stefan Brantschen
         ...cernvax!hslrswi!hslraxe!brantsch

From 7756455126712979892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,36b2ec1eb05de976
X-Google-Attributes: gid159df4,public
X-Google-Thread: 10391f,40e7310383e8b605
X-Google-Attributes: gid10391f,public
X-Google-Thread: 142096,36b2ec1eb05de976
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,36b2ec1eb05de976
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 08:55:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!botter!ark!gijs
From: gijs@ark.UUCP (Gijs Mos)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: Re: 68000 Memory Managment
Message-ID: <767@ark.UUCP>
Date: Thu, 14-Aug-86 20:28:31 EDT
Article-I.D.: ark.767
Posted: Thu Aug 14 20:28:31 1986
Date-Received: Sun, 17-Aug-86 06:13:17 EDT
References: <508@elmgate.UUCP>
Reply-To: gijs@vu44.UUCP (Mos Gijs)
Organization: VU Informatica, Amsterdam
Lines: 25
Keywords: 68000 atari amiga 68k mmu
Xref: mnetor net.micro.atari16:1612 net.micro.amiga:4281 net.micro.68k:1133

In article <508@elmgate.UUCP> jdg@elmgate.UUCP writes:
...
>If memory serves me correct the 68000 can not restart/resume a bus faulted
>instruction. So regardless of what mkind of MMU you try to hang on it, it
>can not overcome this problem.   ...

The Motorola Programmers Reference Manual (page 45, MC68000/68008):
     ...
     Although this information is not sufficient in general to effect full

recovery from the bus error, it does allow software diagnosis.
...
You cannot do virtual memory, you cannot auto-allocate stack space, but you
can do multitasking.

--
Gijs Mos

EUNET: gijs@vu44 ({seismo,philabs,decvax}!mcvax!vu44!gijs)
BITNET: u00131@hasara5
MAIL: Gijs Mos
Vrije Universiteit
Biologisch Lab.
De Boelelaan 1087
1081 HV Amsterdam
PHONE: +31 20 5485705

From 3605772707673991145
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bf729b3332f9898f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 09:28:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: language question
Message-ID: <8608151628.AA24224@ames-nas.ARPA>
Date: Fri, 15-Aug-86 12:28:47 EDT
Article-I.D.: ames-nas.8608151628.AA24224
Posted: Fri Aug 15 12:28:47 1986
Date-Received: Sun, 17-Aug-86 05:42:23 EDT
References: <8608140434.AA26574@ames-nas.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

>> Does anyone know of a pascal compiler for the st that allows passing
>> of function names as parameters?

Yes. Personal Pascal from OSS. I checked last night, and both
procedures and functions may be passed as parameters.

From 5742189831854524397
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d300c2078c31841,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 09:49:00 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: memory upgrade question
Message-ID: <8608160220.AA29140@ucbvax.Berkeley.EDU>
Date: Fri, 15-Aug-86 12:49:00 EDT
Article-I.D.: ucbvax.8608160220.AA29140
Posted: Fri Aug 15 12:49:00 1986
Date-Received: Sun, 17-Aug-86 07:24:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Could someone please email me a copy of the memory upgrade instructions
posted to the network a while back? My 520st does not leave much
room for a ram-disk. Thank you
                    (peter lorraine qbzj@cornella.bitnet)

From 3408405229685035153
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,4789cfce880f0af3,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,4789cfce880f0af3,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,4789cfce880f0af3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 15:21:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!alberta!sask!callele
From: callele@sask.UUCP (David Callele)
Newsgroups: net.micro.68k,net.micro.atari16,net.micro.amiga
Subject: 68230 help
Message-ID: <420@sask.UUCP>
Date: Fri, 15-Aug-86 18:21:43 EDT
Article-I.D.: sask.420
Posted: Fri Aug 15 18:21:43 1986
Date-Received: Mon, 18-Aug-86 01:15:13 EDT
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 1
Xref: watmath net.micro.68k:1742 net.micro.atari16:1659 net.micro.amiga:4367

~r req.230

From -6893352734516664971
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,654231e89c1de197,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,654231e89c1de197,start
X-Google-Attributes: gid142096,public

X-Google-Thread: 140593,654231e89c1de197,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-15 15:26:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!alberta!sask!callele
From: callele@sask.UUCP (David Callele)
Newsgroups: net.micro.68k,net.micro.atari16,net.micro.amiga
Subject: 68230 help PLEASE!
Message-ID: <421@sask.UUCP>
Date: Fri, 15-Aug-86 18:26:42 EDT
Article-I.D.: sask.421
Posted: Fri Aug 15 18:26:42 1986
Date-Received: Mon, 18-Aug-86 01:15:29 EDT
Distribution: net
Organization: University of Saskatchewan, CANADA
Lines: 20
Xref: watmath net.micro.68k:1743 net.micro.atari16:1660 net.micro.amiga:4368

<line-munchies>

Let's try one more time ->

Hello world,

     I am in dire need of one or more examples of code illustrating the configuration process for the 68230. No matter how carefully I attempt to set it up, I can't even get a single bit to twiddle when I expect it to. I have had output a couple of times but this was when I was writing in a loop to check the timing and was NOT expecting anything to come out. The output was irregular and I was not able to successfully repeat it.
     Any or all help will be greatly appreciated.

David J. Callele
Department of Computational Science
University of Saskatchewan
Saskatoon, Saskatchewan
CANADA
S7N 0W0

From 4129620927776219188
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-08-15 21:02:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!mit-amt!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Re: Flopping line in MacPaint (rubberband line)
Message-ID: <2694@mit-hermes.ARPA>

Date: Sat, 16-Aug-86 00:02:26 EDT
Article-I.D.: mit-herm.2694
Posted: Sat Aug 16 00:02:26 1986
Date-Received: Sun, 17-Aug-86 10:29:52 EDT
References: <2693@mit-hermes.ARPA> <1232@trwrb.UUCP> <208@bridge2.UUCP>
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 23
Xref: watmath net.micro.mac:7353 net.micro.atari16:1647

> The rubberband line effect is easy to get on the ST. GEM supports
> an XOR writing mode, where each graphic that you place on the screen
> is automatically XORed with the existing pattern....
> The rubberband line is a simple call to polyline with the XOR writing
> mode enabled....

I got no less than 5 replies to my original posting, only one of which disagreed with the above. The problem is, if you XOR, then of course any existing line crossed by the rubber-band (or "flopping") line will get a hole in it where the new line crosses. I thought I looked at a friend's Mac while doing this, and saw no such hole, but I'll check again. Here's the lone dissenter--name removed as it was private mail:

 Actually, MacPaint keeps the old screen buffer and copies it back each
 time you move the line to restore the original image. It doesn't do
 XOR--if you notice, the line always looks like it will when you finish
 moving it. Bill Atkinson has a special routine that copies his "save"
 bitmap VERY quickly to the screen for just this kind of application,
 thus the fixed window size.

So what does everyone else think of this? To me, it has the ring of truth about it.

--jp

From -8434455161816734641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 10:04:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <8608061704.AA23758@ames-nas.ARPA>
Date: Wed, 6-Aug-86 13:04:48 EDT
Article-I.D.: ames-nas.8608061704.AA23758
Posted: Wed Aug 6 13:04:48 1986
Date-Received: Sat, 9-Aug-86 02:00:52 EDT
References: <503@elmgate.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 83

Well, I won't point by point your point by point of my point by point (:-) but I would like to comment on a couple of the places where we disagree.

You claim that the Amiga's system software is at LEAST an order of magnitude more robust that the ST's. Thinking of the blind men and the elephant, I would like to comment that in four hours of playing with a friend's AMIGA, I got about a dozen crashs. My ST crashes about once a month, unless I have to reboot because the software I'm debugging has gone into an infinite loop.

I suspect a more evenhanded evaluation would show that they are roughly as 'competent', but the Amiga has more bugs in the multitasking area, which is more complex code in the Amiga. The sad thing here is that the Amiga, being around longer SHOULD be more robust.

I think Atari has been reasonable about bugs. The ROM's didn't come out until after much debugging had been done in RAM and make the machine boot much faster. Also, putting much of the OS in ROM is becoming traditional.

Atari has fixed (and distributed free) both of the default disk accesories, as well as Basic and LOGO. We'll just have to wait and see on ROM upgrades.

As far as 'Blessed by ATARI,' $300 gets you a lot of (not well organized (:-) system documentation with a development system. Also, the 'official' documentation is due Real Soon Now (December, I'm told) However, I do agree that the documentation I've seen is better for the Amiga. Again, spending more money should buy you more.

I guess I don't know what OS choices the Amiga gives me (other than multitasking) that the ST doesn't that I would want. I would be interested in hearing more about the advantages of all the extra code the Amiga kernel carries along.

I was suprised when you mentioned "card cages", since the last time I talked to the local Amiga dealer, he said they were still expecting that box Real Soon Now. And without that, you can't upgrade the RAM to 8 meg. As far as the frame grabbers, digitizers, and related, they can be had for any system, including the Amiga and the ST, since most are available with RS232 or 'Centronix' interfaces.

I'm not sure of the status of the coprocessor board for the Atari. Does anyone know if there is currently a 68881 coprocessor?

I guess I don't seen how the 8087/80287 can be viewed as an advantage over the 68881.

You disagree with me about the ST PD software, and I am again reminded of the elephant. Almost everything I've seen which is public domain rather than ShareWare or "preview" is available with source code. This includes Uemacs, Xlisp, at least one forth, several ram disks, numerous games and applications. Much of which isn't distributed freely is available from the author for cheap.

There are some obvious exceptions. The binaries for Megaroids are PD, but the source can only be had as printout for 25$. Dave Betz' adventure writing system doesn't seem to be available in source.

However, I suspect that I was a little enthusiastic in saying that MOST of it is well written. I guess I should say that most of what I play with does what I expect it to.

I doubt that Amiga programer's as a group are more experienced C programmer's than ST programmers.

Actually, expansion doesn't come from the initial cost difference in the Amiga. You still have to buy the expansion box (for many dollars) before you can reasonably expand the system.

I do agree that the DMA port is not the same as the Amiga BUS. It allows fast devices to talk to each other and memory without hassling the CPU. This is a win in some applications and a lose in others.

I also like both the ST and the Amiga. I could buy only one. I've got an ST.

Marty

From -4270994956582606770
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c411ea4ce2cc386f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 11:53:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!husc6!harvard!panda!genrad!decvax!
cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Fdatime() Madness
Message-ID: <1547@cwruecmp.UUCP>
Date: Wed, 6-Aug-86 14:53:08 EDT
Article-I.D.: cwruecmp.1547
Posted: Wed Aug 6 14:53:08 1986
Date-Received: Sat, 9-Aug-86 08:59:40 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world

Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 62
Keywords: Fdatime Gemdos Documentation Brain Damage

The gemdos Fdatime() (function $57) is incorrectly documented in the Hitch Hikers Guide, in the original Dri Gem Dos spec manual AND in the Abacus St Internals book. I just could not believe my eyes when i realized that ALL 3 of them DOCUMENTED this function INCORRECTLY. The only document that documented Fdatime() correctly was the Gemdos Manual (the April 4 release by Landon Dyer, who is on the net - kudos!!).
The correct usage is:

```
#define Fdatime(a, b, c) gemdos(0x57, a, b, c)

Fdatime(Buffer, Handle, Set)
char *Buffer;
WORD Handle;
WORD Set;

Buffer ---> WORD Time;  /* Points to buffer containing */
            WORD Date;

Handle if a Fopen'ed file handle (open for read is fine).

Set == 0  get the file mod. time and date
Set == 1  set the file mod. time and date

The Hitch Hikers guide has the first two parameters backwards.
The Dri GemDos spec has the definition of Set backwards.
The St internals book also has the definition of Set backwards.
The St explored book does not document this function at all !!

More Megamax C madness:
  I guess the people over at Megamax C discoved the same mistake in the hitch hikers guide (first two parameters backwards). So what they did was in <osbind.h> they

#define Fdatime(a, b, c) gemdos(0x57, b, a, c)
```

reversed the first two parameters for us. You can imagine my surprise when my code started giving me bombs when compiled with Megamax. I looked everywhere but in Osbind.h, because the last thing you suspect to be wrong are the standard include files. If you look at the osbind.h supplied by megamax, it is written by Atari. So someone at Atari may be the culprit.

BTW Atari (Landon, Neil, Alan) when are you going to release the rest of the missing .h files [signal.h (yes the library does contain signal.o), setjmp.h, dir.h etc) and the rest of the utilities (ranlib, tsort, lorder - they are documented in the Alcyon document that you give out without bothering to even mention why the documented

functions are not provided - a simple we have'nt done it as yet will
put the mind to rest). The developers kit has been out for over a year
now and i feel that now its about time that at least standard
header files are distributed by Atari, if nothing else, to avoid a
zillion different versions of the same files, and the resulting
disaster. So don't just claim V7 library compatibility with the new
release of the kit (seen several message from atari that state this)
DO SOMETHING ABOUT IT. I'll step off now.
--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 6658288457774689423
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 12:06:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: New CoCo-III's Market Niche
Message-ID: <8608061815.AA20545@mitre-bedford.ARPA>
Date: Wed, 6-Aug-86 15:06:23 EDT
Article-I.D.: mitre-be.8608061815.AA20545
Posted: Wed Aug 6 15:06:23 1986
Date-Received: Sat, 9-Aug-86 02:07:02 EDT
References: <1040@ihwpt.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

The Coco sounds very intriguing, as the 6809 may be the ultimate evolution of
the 8-bit art form... but what's this nonsense about MSDOS machines being
more powerful than a 68000? That seems a gross overstatement at sent, at
least until the 80386 generation of machines comes out. From what I have
heard, a 68000 will blow away an 80286 every time! And of course it is silly
to even speak of an 8088 in the same breath.

-John Sangster
jhs @ mitre-bedford.arpa

"UNIBUS ARCHITECTURES FOREVER!!!"

From -6480064207221139923
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 142096,39358680d1b972f4

X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-08-06 17:40:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!shadow.Berkeley.EDU!
robinson
From: robinson@shadow.Berkeley.EDU (Michael Robinson)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche
Message-ID: <15144@ucbvax.BERKELEY.EDU>
Date: Wed, 6-Aug-86 20:40:13 EDT
Article-I.D.: ucbvax.15144
Posted: Wed Aug 6 20:40:13 1986
Date-Received: Sat, 9-Aug-86 02:35:35 EDT
References: <1040@ihwpt.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: robinson@shadow.Berkeley.EDU.UUCP (Michael Robinson)
Distribution: net
Organization: University of California, Berkeley
Lines: 26
Xref: watmath net.micro.6809:934 net.micro:15286 net.micro.atari16:1550
net.micro.amiga:4213

In article <1040@ihwpt.UUCP> knudsen@ihwpt.UUCP (mike knudsen) writes:
>Radio Shack marketing has found a nice gap in the market
>and filled it pretty well -- the space between the 8-bit
>home "toys" and the 68K machines (which MS-DOS users would
>call "toys" too).

Actually, they are quite justified in calling them toys. Just as much so as
someone who owns a Pinto is justified in calling both go-carts and
Porsche 944 Turbo's toys (admittedly, 944's usually don't cost less than
Pinto's).

If it's fun, it's a toy. MS-DOS machines are not fun.

>Mike J Knudsen __   ...ihnp4!ihwpt!knudsen

Disclaimer: UNIX is a trademark of Bell Laboratories
             Some assembly required
             All Thebans are liars
             The Surgeon General has determined that smoking is hazardous to
                   your health
             I was holding it for a friend
             "This has been another helpful hint for living from the commitee's
                   almanac."

Mike "programmer with a screwdriver" Robinson USENET: ucbvax!ernie!robinson
                                                ARPA: robinson@ernie.berkeley.edu

From -2529627767711338594
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80cd64ac064df218,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 21:58:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!harvard!panda!genrad!mit-eddie!mit-hermes!mit-prep!phr
From: phr@mit-prep.ARPA (Paul Rubin)
Newsgroups: net.micro.atari16
Subject: Re: ST Evaluation Requested
Message-ID: <61@mit-prep.ARPA>
Date: Thu, 7-Aug-86 00:58:26 EDT
Article-I.D.: mit-prep.61
Posted: Thu Aug 7 00:58:26 1986
Date-Received: Sat, 9-Aug-86 03:36:10 EDT
Organization: The MIT AI Lab, Cambridge, MA
Lines: 40

> From: cbbrowne@watnot.UUCP (Christopher Browne)
> Newsgroups: net.micro.atari16
> Date: 3 Aug 86 00:12:05 GMT
> Reply-To: cbbrowne@watnot.UUCP (Christopher Browne)
> Keywords: cd-roms unix monitors star-raiders foreplay sex
>
> [Stuff about a some vendor selling a CD-rom full of public domain software for $195...] Next, comes the part about suing. They cannot be sued for selling public domain software. They can be sued for selling copyrighted software without permission (big difference). GNU (the 'public domain' UNIX clone) cannot legally be sold for a profit, because it is copyrighted. It can be distributed free of charge (or, I think, with a minimal copying fee - you'll have to pay for the tape/disks you get it on) but not sold. ...

There is no problem with selling copies of GNU, or support services for it, at a profit. What GNU's copyright terms do not allow is trying to restrict further redistribution of any version of GNU that you sell. The vendor has to pass on the same rights to the recipient that s/he him/herself had (including the right to give away copies)--- that is, proprietary versions are not allowed. The only other restriction is that if any GNU-derived software is distributed in binary form (such as in ROMs), it must also be made available in machine readable source code form at nominal cost to anyone asking for it. (Also, the customer must be informed that the Free Software Foundation does not provide any warranty for the software.)

See the GNU Emacs General Public License for details of this. Other parts of the GNU system will be released under very similar terms. I will mail copies of the General Public License on request.

Paul Rubin
Free Software Foundation

P.S. As long as the contents of the CD-rom that that place is selling
is still PD, I don't find it too objectionable. As long as the people
selling the CD-rom do not try to prohibit others from copying it,
possibly also in CD-rom form, the price should fall pretty fast.

From 2702113356262211728
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 23:32:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!uwvax!husc6!harvard!panda!genrad!mit-eddie!
mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Heat problems with 1040s?
Message-ID: <2689@mit-hermes.ARPA>
Date: Thu, 7-Aug-86 02:32:25 EDT
Article-I.D.: mit-herm.2689
Posted: Thu Aug 7 02:32:25 1986
Date-Received: Sat, 9-Aug-86 03:20:12 EDT
References: <8608051143.AA13767@ucbvax.Berkeley.EDU>
Organization: The MIT AI Lab, Cambridge, MA
Lines: 12

> Some of the local users and one dealer
> have warned me of heat failures and design flaws in the 1040ST. Are these
> isolated problems or is this a chronic concern? If it is chronic, how can
> it be fixed (why didn't they put a fan in that skinny box?).
> thanks, Robert Royar

I've had a 1040 for a few months, and it gets warm over the power supply, but
the case isn't in danger of melting. I couldn't imagine survival with power
bricks and single-sided drives floating all over my desk.......

---John Purbrick

From 1995067667468765569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80acd8e23281dce4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 23:38:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!husc6!harvard!panda!genrad!decvax!
cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16

Subject: Re: Break control in the 68901
Message-ID: <1548@cwruecmp.UUCP>
Date: Thu, 7-Aug-86 02:38:49 EDT
Article-I.D.: cwruecmp.1548
Posted: Thu Aug 7 02:38:49 1986
Date-Received: Sat, 9-Aug-86 09:03:26 EDT
References: <8608052200.AA08360@ucbvax.Berkeley.EDU>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 56

In article <8608052200.AA08360@ucbvax.Berkeley.EDU> dkb-amos@HAWAII-EMH.ARPA writes:
>
>   Could anyone tell me how to assert a break on the 1040ST
>serial line. I assume this is done with some bit pattern in the
>68901 control register.
>
>Thanks in advance.
>-Dennis

I in fact did this a while back for a program, that i luckily have handy here on the system. Here is the relevant function from the program.

--
```
#include <osbind.h>
/* tsr_ptr points to the 8 bit TSR register of the 68901 */

static unsigned char *tsr_ptr = (char *)0x00fffa2d; /* See St internals      */
static long *hz_200 =  (long *)0x000004ba; /* Yes the Hitch Hikers Guide
                              is wrong!! */
/*
 * send a break
 * Modifies Bit 3 in the TSR (reg 23) of the Mfp
 */

sbreak()
{
     register long save_ssp;
     register long time;

     save_ssp = Super(0L);   /* Super Mode */

     /* set bit 3 of the TSR */
     *tsr_ptr |= (unsigned char)8;


     /* wait for 250 ms -- you can adjust the duration
      * 250 ms seems to be almost a universal figure for break
      * duration.
         */
     time = *hz_200 + 50;
```

```
     while(*hz_200 < time)
          /* wait */ ;

     /* reset bit 3 of the tsr */
     *tsr_ptr &= (unsigned char)~8;

     Super(save_ssp);   /* Back to user Mode */
}
--

--
                         Jwahar R. Bammi
                  Usenet:  .....!decvax!cwruecmp!bammi
                  CSnet:  bammi@case         Arpa:  bammi%case@csnet-relay
              CompuServe:  71515,155


From -603983860502384232
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,672633111772cbe6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 06:45:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!seismo!rochester!kodak!ektools!bruce
From: bruce@ektools.UUCP (Bruce D. Nelson )
Newsgroups: net.micro.atari16
Subject: Reading MS-DOS disks
Message-ID: <408@ektools.UUCP>
Date: Thu, 7-Aug-86 09:45:25 EDT
Article-I.D.: ektools.408
Posted: Thu Aug  7 09:45:25 1986
Date-Received: Sat, 9-Aug-86 08:21:59 EDT
Reply-To: bruce@ektools.UUCP (Bruce D. Nelson (408))
Distribution: na
Organization: Eastman Kodak, Dept. 47
Lines: 10


I noticed that the ST disk format and the MS-DOS disk format are
similar but different. Are there any programs available which can
(assuming compatible drives size and bit-wise):

a) convert an ST disk to MS-DOS and vice-versa or
b) read and/or write an MS-DOS format disk on the ST

Bruce D. Nelson
...rochester!kodak!ektools!bruce


From 6701858117394821398
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
```

X-Google-ArrivalTime: 1986-08-07 08:02:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <8608071453.AA20559@mitre-bedford.ARPA>
Date: Thu, 7-Aug-86 11:02:36 EDT
Article-I.D.: mitre-be.8608071453.AA20559
Posted: Thu Aug 7 11:02:36 1986
Date-Received: Sat, 9-Aug-86 04:23:37 EDT
References: <202@vlsvax1.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 7

How much does it cost to obtain Micro C-Shell for the ST (exclusive of the
ST!)?

-John Sangster
jhs@ MITRE-bedford.arpa

"She sells C-Shells at the C-Shore?"

From -7705232983333890076
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9ae7722d791b0110,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 08:19:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!princeton!allegra!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!drutx!tlz
From: tlz@drutx.UUCP (ZrustTL)
Newsgroups: net.micro.atari16
Subject: Copy protection and quality software
Message-ID: <819@drutx.UUCP>
Date: Thu, 7-Aug-86 11:19:57 EDT
Article-I.D.: drutx.819
Posted: Thu Aug 7 11:19:57 1986
Date-Received: Sun, 17-Aug-86 09:16:35 EDT
Organization: AT&T Information Systems Laboratories, Denver
Lines: 27

>>Call Accolade. Their copy protection does not work with some early 520ST
>>keyboard controller chips. They have a fix for this. That's what they get
>>for going beyond the bounds of what we say is OK to use.

>- That's what the BUYER gets for buying "copy protected" software.
>Please, let's all get together and refuse to do that! As things are now,
>the pirates copy anyway, and legitimate buyers have problems, not only
>with things like an old computer model, but simply with using RAM disks
>and hard disks. Would you pay for a book that can only be read under UV

>light, and that you're not allowed to read on more than one desk?

Fine. I guess that leaves me with a 520ST computer and a lot of
non-copy protected software that's not worth copying anyway.
While there are some excellent packages that are not protected,
most of the really useful stuff IS protected.
While boycotting vendors of copy protected software
may well teach THEM a lesson (or put them out of business),
it doesn't leave ME with much useful software.
Besides, it only teaches THEM a lesson if they know that the reason
their software is not selling is because of copy protection.

Did you buy your computer to teach people lessons or to use it?

--
Terry L. Zrust, AT&T Information Systems Laboratories
MS 30L49, 11900 North Pecos Street, Denver, CO 80234
     ihnp4!drutx!tlz   Voice: (303)-538-4547

From 7940453107239033357
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-08-07 08:55:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <580@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 7-Aug-86 11:55:39 EDT
Article-I.D.: cbmvax.580
Posted: Thu Aug 7 11:55:39 1986
Date-Received: Sat, 9-Aug-86 04:25:08 EDT
References: <1040@ihwpt.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 161
Xref: watmath net.micro.6809:935 net.micro:15291 net.micro.atari16:1558
net.micro.amiga:4224

> Xref: cbmvax net.micro.6809:182 net.micro:1278 net.micro.atari16:1481
net.micro.amiga:2051
>
> It's interesting to see how the new Coco III fits into the personal computer
> marketing niche...
>

> The Coco III has 128 to 512K, graphics nearly as good as the ST or Amiga...

Really? 640x400 pixels in 16 colors out of a palette of 4096? Bit blitter? Video coprocessor? Well, then, how about comparisons to the Atari. Lets see, the Atair gives you 640x400 monochrome. Nope, can't do that. 640x200 in 4 colors out of a palette of 512. I think the quoted resolution was 640x192 with 4 colors out of a palette of 64. Not bad, but if they're really going to the added expense of an RGB analog (over RGBI digital) monitor, why settle for just 64 colors (2 bits each of R, G, and B). Also, the 6809, while one of the nicest 8 bitters, is going to be hard pressed speedwise to do graphics at this resolution anywhere near the speed of the Atari, much less the Amiga. Of course, in this price range, you're directly competing with the C128 and (if anyone's actually buying them) the Atari 130. The graphics, is true as stated, are better in some ways than either of these. The Atari supports either 128 or 256 colors (can't recall offhand), but its limited to a display of around 40 characters. The C128 has 16 colors each screen (it can support both the 40 and 80 column screens simultaneously). The 40 column screen has a lower graphic resolution, but supports hardware sprites. The 80 column screen can do 80x25 text, 80x50 text (interlaced), and a 640x200 two color bit-map. Its also possible to exchange a few horizontal lines for a limited color bit-map, and the display can actually be set up for around 82 characters across. The 80 column display has some features (block moves and copies) that free up the processor, but there are other things about it that make it kind of slow for many things too. Overall, it sounds like the CoCo-III has an edge over the C128 in the display department.

> Tandy's line now seems to consist of a series of MS-DOS
> machines for the adult/business types at the high end,
> with the low end still handled by an 8-bit micro,
> the Coco's 6809. Some people may be disappointed that
> the Coco III is not a 68000 machine, but Tandy may be wise
> to stay out of the King Kong -vs- Godzilla war between
> Atari ST and Amiga -- maybe neither combatant will live
> to inherit the ruins of Tokyo. Tandy has straddled the
> 68K home market by landing salvos on both sides of it.

That's silly. The 68000 machines, any 68000 machine, is much more powerful than currently existing MS-DOS machines. The 6809 is in many ways a more advanced processor than the 8088, and at your 1.7MHz or whatever the CoCo-III is running faster memory cycles than a standard or XT PClone. If Motorola had the forsight to add on-chip banking like in the 8088, the 6809 would have had a good chance of catching on as THE 8/16 bit chip.

> ...possibly with the memory mapping and protection that the
> 68K pc's lack.

Has TRS announced an MMU chip for the CoCo-III? Last I heard, none of the 6809 suppliers (Motorola, Hitachi, etc.) had.

> ... the 68K machines (which MS-DOS users would call "toys" too).

And all UNIX users call MS-DOS a toy. Much of this comes from the knowledge that it truly is, since it runs on computers which (at least until the AT)

couldn't dream of supporting UNIX. Of course, all of the 68000 machines will be able to run UNIX quite nicely, along with OS-9 68K, the version of OS-9 for grownups. Show an MS-DOS user an Amiga running a Lotus clone using four megabytes of RAM for its spreadsheet, while at the same time a database, EMACS, and downloading E-Mail in the background, and he'll quickly change his tune. What's a "memory-resident" utility, anyway. Come on! MS-DOS is just an enhanced CP/M; even the 6809 versions of OS-9 are a more sophisticated and powerful solution to the operating system question.

> Commodore and Atari have tried to narrow this gap, with 128K editions of
> their home computers, but in terms of improvements over their 64K
> predecessors, the Coco III is a quantum leap compared to the other 128K
> 8-bitters. Of course any of these machines should have blown the Apple II
> away years ago, but some things defy explanation.

The Apple II was successful for exactly the same reasons that the IBM PC was successful (1) Open Architecture, and (2) the company (Apple or IBM, take your pick) managed to get a reputation for having a powerful "REAL" computer, despite opinions to the contrary. This is called MARKETING. CBM, TRS, and most others haven't quite caught on to the same degree yet.

> Sure, the Coco III could use even more keyboard improvement
> (you STILL need CTRL to get the C-language symbols, but at
> least there's real CTRL key *in the ight place*), 512K tops
> may seem limiting (but 6809 code is more compact than 68K binary,
> I'll bet)

Your're right on the code compactness. 68000 op-codes alone are 16 bits long, though of course, running the same bus speed, they're loaded just as fast as a 6809 instruction (8MHz 68000 == 2MHz 6809 for bus speed comparisons). Of course, if your're doing 32 bit arithmetic or many other things, the more advanced 68000 instruction set may produce a tighter solution (like a block move of any amount of memory in 2 instructions, etc. The 6809, at the very least, will have to stop to switch banks). Much of the size of the code will depend on whether a compiler or an assembler is used and if a compiler, how efficient it is.

> and the RS232 is probably still bit-banger software.

The C64 (and C128 because of it) use the same kind of deal for RS-232.

> But against Commodore 128s and Atari 130XEs, Coco III is heavy
> competition indeed. (If you believe that $220 tag; seems too
> good to be true -- I'd have guessed $400-$600 for a Tandy product).

Maybe reasonable competition for the C128, heavy competition for the Atari 130. The C128 still have a number of advantages. Not the least of which is the 6,000,000+ C64s that have been sold already (they estimate that about 600,000 C128s have been sold, though this estimate isn't that recent). The C128's 8502 at 2.04MHz will do some things faster than the 1.7MHz 6809 in the CoCo-III. The 6809 is a better processor, however, and doing some things, like memory moves, multiplys, etc. it'll be faster despite the slower bus. The C128's disk drive is more expensive, but it stores around 350K of data,

and can read MS-DOS and most CP/M disks. The CoCo, as mentioned here, is internally expandable to 512K, the C128 externally expandable for a total memory of 640K. The CoCo's directly addressable memory will be more useful, for general applications, than the C128's DMA addresses expansion memory. Though much of this usefulness depends on how the CoCo III banks its extra memory. The C128 has a very advanced mechanism for this via the MMU chip, the Atari's method (selecting 1 of 5 banks in one 16K segment) is weaker.

The C128 has one undeniable advantage, and that's the bulk of software available for it. There are over 1500 different titles of Educational software alone available for the C64, probably around 4000 games, lots of productivity packages, etc. Nearly every major consumer oriented software house writes a version of every product they sell for the C64. In C128 mode we already have several professional quality word processors, data base and spreadsheet programs, etc. CP/M, while certainly inferior to OS-9, was supported by most of the major business oriented companies that were around before MS-DOS, and, as such, there's lots of business and public domain stuff around for the C128. The CoCo-III will certainly be able to take advantage of the OS-9 software around, but there's much less of that available, and it may be awhile before OS-9 level 2 comes around to let you use any extra memory.

As for someone looking for power, the ST looks like a good deal. It offers a reasonable amount of hardware power, easily comparable to a MAC. The fact that it has an operating system far inferior to OS-9 will be overlooked by many, and will actually be a moot point as OS-9 68K is released, which will certainly blow away 6809 OS-9.

```
> --
> Mike J Knudsen  __   ...ihnp4!ihwpt!knudsen
>               / NO \
> Bell Labs    / BABY \   (312)-979-4132 (work)
>  (AT & T)   /ON BOARD\
>             \GO AHEAD/    BORED SAILORS
> IH 6D-319    \ & HIT/   go BOARDSAILING.
> x4132         \ ME /
>                 --
--
/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\
Dave Haynie    {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     "I don't feel safe in this world no more,
      I don't want to die in a nuclear war,
      I want to sail away to a distant shore
      And live like an ape man."
                  -The Kinks

     These opinions are my own, though for a small fee they be yours too.
\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\
```

From -1615486402567234907

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-ArrivalTime: 1986-08-07 09:51:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!mordor!lll-crg!lll-lcc!well!mitsu
From: mitsu@well.UUCP (Mitsuharu Hadeishi)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche
Message-ID: <1597@well.UUCP>
Date: Thu, 7-Aug-86 12:51:53 EDT
Article-I.D.: well.1597
Posted: Thu Aug 7 12:51:53 1986
Date-Received: Sat, 9-Aug-86 09:08:52 EDT
References: <1040@ihwpt.UUCP>
Reply-To: mitsu@well.UUCP (Mitsuharu Hadeishi)
Distribution: net
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 23
Keywords: MS-DOS, toy
Xref: watmath net.micro.6809:936 net.micro:15295 net.micro.atari16:1564
net.micro.amiga:4235
Summary: MS-DOS is a toy

++++____++++

In article <1040@ihwpt.UUCP> Mike Knudsen writes:
> the 68K machines (which MS-DOS users would call "toys" too).
68K machines are toys? HAHAHAHAHAHAHAHAHAHAHAHAHA
Hmm. I seem to be running three concurrent tasks in separate windows
here; must be I'm using an MS-DOS computer (only "real" computers
can do that, right?) Funny . . . and I thought I was using a toy.
              -Mitsu (mitsu@well.UUCP)
P.S. To those who are still blinded by the Big Three ('I', 'B', and
'M' . . .), I'd like to remark that when R.J. Mical began development
of the Sidecar MS-DOS coprocessor for the Amiga, he thought it would
take him 2-3 months to learn the IBM computer. He was pleasantly
surprised to find it took the span of 1 plane flight to learn all the
basic information he needed to know from a couple books he bought on the
subject. He remarked later: "I didn't know what I was expecting . . .
something really amazing, stupendous; what I found was the IBM PC is
just a better Apple II." Not that the II is a bad computer; but the
68000 dwarfs any 808X series microprocessor (and yes, is just a little
better designed than even the 80286). There is nothing amazing about
this; a 68000 can compute rings around an 8088 (and a 68020 can compute
rings around a VAX.)

From 2835511701346453932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b5330a751ea769cd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 09:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: avatek problem solved
Message-ID: <8608071848.AA18851@ucbvax.Berkeley.EDU>
Date: Thu, 7-Aug-86 12:52:00 EDT
Article-I.D.: ucbvax.8608071848.AA18851
Posted: Thu Aug 7 12:52:00 1986
Date-Received: Sat, 9-Aug-86 04:46:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Many thanks to all of those who wrote back about my problem getting
the avatek 1200 to dial long distance numbers! John Sangster correctly
identified the problem as me. What was happening was the following.
I would let the avatek pulse dial the number a few times and get back
the no carrier message. I would dial the number myself and get the modem
tone and then decide to listen in the next time the modem called.
What I heard was a warning from the phone company that I had misdialed.
I wasn't aware that pulse dial phones will not dial if one is off the
hook. So the bottom line is that when the modem placed the first few calls
it got a busy signal. I immediately assumed the worse possible scenario
and convinced myself the modem wasn't working. Not so, it works like a
charm and I finally got through to the bbs at 2:00am. Now my only
problem is staying awake so I can get through to these busy systems.
So my avatek works like a charm and based on my experience I reccommend
it heartily.
                        peter lorraine (qbzj@cornella)

From -8783574405053175196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 14:31:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!pyrnj!orsvax1!brent
From: brent@orsvax1.UUCP (Brent Chivers)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <293@orsvax1.UUCP>
Date: Thu, 7-Aug-86 17:31:30 EDT
Article-I.D.: orsvax1.293
Posted: Thu Aug 7 17:31:30 1986

Date-Received: Sat, 9-Aug-86 08:36:13 EDT
References: <1204@mhuxo.UUCP> <12226870831.27.LAWRENCE.AUGER@IC2060>
Reply-To: brent@orsvax1.UUCP (Brent Chivers)
Organization: ORS Automation, Inc., Princeton, NJ
Lines: 46

In article <12226870831.27.LAWRENCE.AUGER@IC2060>
 LAWRENCE.Auger%BIONET@SUMEX-AIM.ARPA (Ivan Auger) writes:
>I had very bad experiences with AVATEX 1200 modems. Don't buy them...
>We sent them back twice... Finally, to make a long story short,
>our dealer exchanged them for Racal Vadic Maxwell 1200V modems.

Perhaps this is a hasty conclusion. Another newsgroup has had numerous
postings saying US Robotics Courier (2400/1200/300) modems (this posting
will come through one, although at only 1200 baud, by the way) are
     (a) great|far better than average|noise-free|etc. or
     (b) terrible|unreliable|pure junk|noise-prone|etc.
The units that reach the field seem to fall at the extremes of usefulness.

I have had experince with 3 Avatex 1200's, one of which I own. Two
were fine. The third did not work, but it also did not pass its built-
in self-diagnostics. It was returned, and the replacement is fine.

Perhaps yours came from a bad lot. If so, then USR is not the only
company that can often (but not consistently) make a good modem.

Brent Chivers   {allegra|ihnp4}!princeton!orsvax1!brent or perhaps
ORS Automation, Inc   seismo!caip!topaz!pyrnj!orsvax1!brent
440 Wall St   Phone 609-924-1667
Princeton, NJ 08540   FAX   609-924-2413
USA   TELEX 4944924 ORSIN

Disclaimer:
     I have no connection with E&E Datacom (Avatex), USR, or
     Racal-Vadic. (Or Agent #86 :-) I am just a satisfied
     (especially for the price) customer/user.

"If there is any place on earth that needs light, it is certainly New York."

                           Felix August Bartholdy
--
Brent Chivers   {allegra|ihnp4}!princeton!orsvax1!brent or perhaps
ORS Automation, Inc   seismo!caip!topaz!pyrnj!orsvax1!brent
440 Wall St   Phone 609-924-1667
Princeton, NJ 08540   FAX   609-924-2413
USA   TELEX 4944924 ORSIN

Disclaimer: Our business may be vision, but my views are my own.

"If there is any place on earth that needs light, it is certainly New York."

                           Felix August Bartholdy

From 3986897289433633247
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 18:36:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: prices of monitors, 68020's, etc.
Message-ID: <590@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 7-Aug-86 21:36:11 EDT
Article-I.D.: cbmvax.590
Posted: Thu Aug 7 21:36:11 1986
Date-Received: Sat, 9-Aug-86 07:36:40 EDT
References: <5861@sun.uucp>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 22

In article <5861@sun.uucp> wmb@sun.uucp (Mitch Bradley) writes:
>Sun does not pay $1000 for thousand-line 19" monochrome monitors.
>When we first started shipping them several years ago, the price
>was in that ballpark (there was only one supplier), but not now.
>
>Mitch

As a further comment, there is quite a difference between a vendor like SUN buying components, mostly in the US for assembly here in maybe ~1000 unit/month quantitys, and someone like Atari or CBM buying parts in the Far East for sub-assembly there in ~25000 unit/month quantitys.

I wouldn't want to quibble about the numbers here, the point I want to make is that component pricing is based on quantity, location, quality, time, luck and negotiating prowess. One some parts SUN and Atari might pay nearly the same price, or others there might be a factor of 2-4 difference in cost.

--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -915482183287740282
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,542bc77ae8c8283d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-07 21:14:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!AMES-IO.ARPA!REISMAN%PLU
From: REISMAN%PLU@AMES-IO.ARPA

Newsgroups: net.micro.atari16
Subject: MacCartridge
Message-ID: <8608080416.AA26986@ucbvax.Berkeley.EDU>
Date: Fri, 8-Aug-86 00:14:11 EDT
Article-I.D.: ucbvax.8608080416.AA26986
Posted: Fri Aug 8 00:14:11 1986
Date-Received: Sat, 9-Aug-86 06:44:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 48

In response to Nelson Ng's request for info about a board that permits Mac software to run on an Atari ST:

Yes, the product, called Mac-Cartridge, does exist, but it is not yet available.

It is a simple, elegant design: Mac ROMs are mounted on the board, which is plugged into the ST cartridge port. It was a great attraction at the last West Coast Computer Faire and many people, including Andy Herzfeld, got to see a few Mac programs (MacWrite, MacPaint, etc.) run on the ST.

Many have speculated that Apple is, understandably, hesitant to let a company sell a board which contain Mac ROMs. The bare board, less ROMs (which are available from a variety of sources) will supposedly be sold for $99.00. At least that is the rumor.

The manufacturer, Data Pacific, Inc., has been promising to ship "next month" for the past few months, but as of my last phone call to them (in early July) they still had no firm shipping date. They may still be working on the legal considerations.

The Mac-Cartridge will *NOT* turn an ST into a Mac clone. In the prototype version (which is impressive) the following incompatabilities were evident: Any Mac-programmed sounds were incompatable, and since Mac disks (400/800 K) are significantly different from ST disks (360/720 K) due to hardware differences, all Mac programs must be serially transferred from Macs to STs to run under Mac-Cartridge. Of course this brings up another set of considerations: Is such a tranfer software piracy? How will this work with copy protected disks?

Since I'm not connected with Data Pacific I don't have the latest info. If you want to contact them:

Data Pacific, Inc.
609 E. Speer Blvd.
Denver, CO 80203
(303) 733-8158

I'm also told that San Leandro Computer Club is a good source of information on this product.

Ron Reisman
Link Flight Simulation
NASA-Ames Research Center

Note: the above opinions are entirely my own and not necessarily those of Link nor of NASA.

From 4320275519395916889
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3089728f2faefbf6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 06:33:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Question on Cartridge
Message-ID: <4392@pur-ee.UUCP>
Date: Fri, 8-Aug-86 09:33:56 EDT
Article-I.D.: pur-ee.4392
Posted: Fri Aug 8 09:33:56 1986
Date-Received: Sat, 9-Aug-86 11:22:12 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 50

<<<< >>>>

  I have a question that I hope that someone out there can answer.
  Yesterday I was installing a disk drive on my 520ST. My system is:
    - 520ST with TOS in ROM and 1 Meg upgrade
    - Monochrome monitor
    - One single-sided SF354 disk drive (standard set-up)
I selected a disk drive (you have to do this in order to install a new one) and changed the drive label to c, this I thought would default to uppercase C. Well when I installed the drive the label was a lower case c. When I double clicked the icon a window opened up where a disk window should but insted of the usual 'C:\' I got 'Cartridge'. This is unusual in light of the fact that I do not have a physical c drive, or a ram disk installed for c.
  When I tried to copy things into this window it said something like 'This folder unavailable for access' or something like that. When I tried to copy a folder from A: to Cartridge it gave me no error message, but it didn't show up as being copied either.
  To compound this bafflement I saved the Desktop so that the new c (Cartridge) drive would remain on the desktop. When I re-booted the system the icon was gone. I viewed the desktop.inf file and I saw this:

```
     ( one of my normal drives )
  #M 00 00 00 ... A FLOPPY DISK@...          (not too worried about #'s)
     ( the c drive that opened as Cartridge )
  #C 00 00 00 ... c CARTRIDGE@ ...
```

   ^
   |---- This is the difference I found. If I changed this C to an M,
like the other disk drives, the icon would appear on boot-up. However,
when I double-clicked on it it would give the familiar 'Disk not available'
error I get when I try to double-click on my ram disk and have not
installed it yet. I could not copy files or folders to this modified
drive, but when I changed it back to a C in desktop.inf all was as
before and the icon was gone on boot-up.
  Questions:
  1) What is this? An icon for the cartridge port? If I plug something
     in there that the ST can read will it show up in this window?
  2) What does the C mean after the # in the desktop.inf file?
  3) If this is a window for the cartridge port, how do I keep it on
     the desktop?

  I would really be interested if anyone could shed some light on the
subject. I realize this is not really that pressing, but how many
other 'unknown' features are there to this system? Thanks for any
help you may provide.

                  Bob

usenet: ...inhp4!pur-ee!beatyr
arpanet: beatyr@ed.purdue.edu

From -8668602303255400354
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,70c652693e514b03,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,70c652693e514b03,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 07:50:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!mwtilden
From: mwtilden@watmath.UUCP (M.W. Tilden, Hardware)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: AMIGA GENLOCK UNIT: Any news?
Message-ID: <2353@watmath.UUCP>
Date: Fri, 8-Aug-86 10:50:30 EDT
Article-I.D.: watmath.2353
Posted: Fri Aug 8 10:50:30 1986
Date-Received: Sat, 9-Aug-86 07:07:11 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 23
Xref: watmath net.micro.atari16:1569 net.micro.amiga:4244

hi.

Does anyone out there know if the Amiga Genlock unit is compatable
with the Atari ST?

Has anyone out there had one for a while? What do you think?
Can anyone post a operational summary or tell me where I could find
one?

Please reply via E-mail.

Thanx

--
Mark Tilden   --
                     |UUCP: ..!{utzoo,decvax,ihnp4,allegra}!watmath!mwtilden |
M.F.C.F Design Lab. |ARPA: mwtilden%watmath%waterloo.csnet@csnet-relay.arpa |
Un. of Waterloo. |CSNET: mwtilden%watmath@waterloo.CSNET |
Canada, N2L-3G1   --
work: (519)-885-1211 ext.2457, home: 888-7111   -_-_-__--__---__ /--(glitch!)
                                                                  \/
"MY OPINIONS, YOU HEAR!? MINE! MINE! MINE! MINE! MINE! AH HAHAHAHAHAHAHAHAHA!!"

From -964180720527727073
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 07:52:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <2320@ihlpg.UUCP>
Date: Fri, 8-Aug-86 10:52:37 EDT
Article-I.D.: ihlpg.2320
Posted: Fri Aug 8 10:52:37 1986
Date-Received: Sat, 9-Aug-86 11:21:34 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP>
Organization: AT&T Bell Laboratories
Lines: 14
Xref: watmath net.micro.6809:937 net.micro:15307 net.micro.atari16:1574
net.micro.amiga:4249

> As for someone looking for power, the ST looks like a good deal. It offers
> a reasonable amount of hardware power, easily comparable to a MAC. The
> fact that it has an operating system far inferior to OS-9 will be overlooked
> by many, and will actually be a moot point as OS-9 68K is released, which
> will certainly blow away 6809 OS-9.

>
> Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh
Available? Yes. Expensive? YES! For a $500 system $300 for an os(only) is
expensive. Languages packaged as 3 for $600 is stiff also. Although $200
a piece is not that bad you can't get them seperately!
TLM is being irrational. If they priced it at 100 dollars with a language
they could sell 1 copy per ST sold. (which would be a better profit than
there sales to 15% of the ST owners.)
--j.a.tainter

From 9118030520500812955
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5adb667f0b67468a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 08:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!NDSUVM1.BITNET!
UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: Reading MS-DOS Disks
Message-ID: <8608081705.AA07942@ucbvax.Berkeley.EDU>
Date: Fri, 8-Aug-86 11:02:00 EDT
Article-I.D.: ucbvax.8608081705.AA07942
Posted: Fri Aug 8 11:02:00 1986
Date-Received: Sat, 9-Aug-86 11:15:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

In <408@ektools.UUCP>, Bruce D. Nelson writes...

> I noticed that the ST disk format and the MS-DOS disk format are
> similar but different. Are there any programs available which can
> (assuming compatible drives size and bit-wise):

> a) convert an ST disk to MS-DOS and vice-versa or
> b) read and/or write an MS-DOS format disk on the ST

Well, the ST _can_ read MS-DOS disks off the shelf, but, because the
tandems in the PC are of an older, less flexible type, it doesn't go
both ways.

dale

From -3024563100293056017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db231948eb88b1be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 08:23:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!caip!lll-crg!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: GDOS for the Atari GEM?
Message-ID: <134@uwmacc.UUCP>
Date: Fri, 8-Aug-86 11:23:47 EDT
Article-I.D.: uwmacc.134
Posted: Fri Aug 8 11:23:47 1986
Date-Received: Sat, 9-Aug-86 11:04:45 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 26

A question for the Atari folk ---

I have recently heard rumors that Atari will be making available
a RAM loadable version of GDOS? Is this rumor true? If so: great!
When will it be available? From who(m)? How much? Etc etc etc...

On the same note: I recently started playing around with GEM for
an IBM XT. It *does* have GDOS --- believe me, it's nice. Having
different fonts, device drivers, etc is pretty amazing. (You wouldn't
believe the screen dumps I have been able to do to my printer...)
GDOS actually makes the GEM interface tolerable....

Neil? Whaddya say?

--
                            --- Rob DeMillo
                                Madison Academic Computer Center

     usenet: (ihnp4,harvard,seismo,topaz,decvax)!uwvax!uwmacc!demillo
     arpanet: demillo@easter   (isn't that easier?)

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From 5238770592192747316
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,451a6a17d226a11d,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,451a6a17d226a11d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 08:31:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc Appelbaum)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: ATARI PD software
Message-ID: <5525@topaz.RUTGERS.EDU>

Date: Fri, 8-Aug-86 11:31:40 EDT
Article-I.D.: topaz.5525
Posted: Fri Aug 8 11:31:40 1986
Date-Received: Sat, 9-Aug-86 11:02:35 EDT
Distribution: na
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8
Xref: watmath net.micro.atari8:359 net.micro.atari16:1570

Is there any type of <info-atari> directory on the ARPA, that contains
pd software for both the 8 and 16 bit Ataris.

Thanks--
Marc L. Appelbaum
Arpa: appelbau@topaz.RUTGERS.EDU
Uucp: ...{allegra, harvard, seismo, sri-iu, ut-sally}!topaz!appelbau

From 1463613138967293369
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,f0bcbe91c662349b,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,f0bcbe91c662349b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 09:05:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!scubed!phil
From: phil@scubed.UUCP (Phil Cohen)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Problem with proportional gadget
Message-ID: <110@scubed.UUCP>
Date: Fri, 8-Aug-86 12:05:21 EDT
Article-I.D.: scubed.110
Posted: Fri Aug 8 12:05:21 1986
Date-Received: Mon, 11-Aug-86 01:39:40 EDT
Reply-To: phil@scubed.UUCP (Phil Cohen)
Organization: S-Cubed, San Diego California
Lines: 9
Xref: watmath net.micro.amiga:4264 net.micro.atari16:1579

References:

I have hesitated to ask for help with this, but am at my wits end.
My program uses a proportional gadget and I am experiencing some
very wierd behaviour. If one clicks in the body of the gadget, all
works as advertized, however, if one clicks and drags the knob, all hell
breaks loose. The gadget image gets replicated outside of the window
that it belongs in and the system quickly crashes. I'm sure it must be
my fault but am at a total loss to see what is wrong. Any ideas?
The gadget is in a subwindow on top of a backdrop window and I am using
version 1.1.

From 2296042853532340863
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a954da44b57f6909
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 09:27:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!hplabs!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: Mac software on ST?
Message-ID: <203@vlsvax1.UUCP>
Date: Fri, 8-Aug-86 12:27:59 EDT
Article-I.D.: vlsvax1.203
Posted: Fri Aug 8 12:27:59 1986
Date-Received: Tue, 12-Aug-86 12:49:32 EDT
References: <860724-104707-2688@Xerox> <551@helm.UUCP>
Reply-To: cms@vlsvax1.UUCP (Michael Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 26
Keywords: Mac, ST, combination thereof

In article <551@helm.UUCP> dave@helm.UUCP (David Goldblatt) writes:
>In article <860724-104707-2688@Xerox> Ng.PA@Xerox.COM writes:
>>
>>   On the July issue of Computer Current, I leaned there is a $300
>>module that plugs into the cartidge port of the ST allows it to run
>>almost all the Macintosh software. Could someone out there in the
>>netland give me more infor on this?
>>   Could someone also give me a brief review on the 1040 ST developer
>>package?
>>
>>
>   There was a blurb in either ANTIC, ANALOG, or Byte a couple of
>months ago describing that David Small had developed a box
>which let a ST run Mac software, including graphics. <Stuff deleted>
>Basically, what he did was develop a DMA port device which
>amongst other things, contained the Macintosh ROMs.
>-dg-
>
>...philabs!sbcs!helm!dave
>...!trixie!polyof!helm!dave
>
Fact is, the MacCartridge from David Small and Joel Rosenblum uses the
ROM cartridge port, not the DMA port. The last I heard, they were close
to an understanding with Apple that would give them a way to market the
device. I don't have any details or a time frame, but it sounds like the
thing may actually become a real product.

From 5351455521310944634
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,672633111772cbe6

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 10:59:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!DBSTU1.BITNET!
I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: Reading MS-DOS disks
Message-ID: <8608081759.AA08838@ucbvax.Berkeley.EDU>
Date: Fri, 8-Aug-86 13:59:40 EDT
Article-I.D.: ucbvax.8608081759.AA08838
Posted: Fri Aug 8 13:59:40 1986
Date-Received: Sat, 9-Aug-86 11:15:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Bruce,
The ST disk format and the MS-DOS disk format ARE the same.
However, since MS-DOS uses 40 tracks some measures have to be taken,
even the ST recognizes 40 track DS disks among others.
Best would be to use a switchable 40/80 track drive, like TEAC FD55GV.
But then another problem arises: The ST assumes 3 msec steprate.
Since a 40 track drive needs 6 msec from track to track you will get
an error and assume that there is a difference in the allocation tables.
But there isn't. There is a possibility to change the step rate in the
system with a simple system call I remember. If you want to know it,
I can dig it out for you. Finally, I know at least one person using an
5" drive to transfer datas from the PC to the ST and vice-versa.

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -7614671914319638450
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 12:05:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!gatech!jeff
From: jeff@gatech.CSNET (Jeff Lee)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <4286@gatech.CSNET>
Date: Fri, 8-Aug-86 15:05:51 EDT
Article-I.D.: gatech.4286
Posted: Fri Aug 8 15:05:51 1986

Date-Received: Sun, 10-Aug-86 04:52:01 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP>
Reply-To: jeff@gatech.UUCP (Jeff Lee)
Organization: School of Information and Computer Science, Georgia Tech, Atlanta
Lines: 25
Xref: watmath net.micro.6809:940 net.micro:15312 net.micro.atari16:1578
net.micro.amiga:4252

>is running faster memory cycles than a standard or XT PClone. If Motorola
>had the forsight to add on-chip banking like in the 8088, the 6809 would
>have had a good chance of catching on as THE 8/16 bit chip.

>> ...possibly with the memory mapping and protection that the
>> 68K pc's lack.

>Has TRS announced an MMU chip for the CoCo-III? Last I heard, none of the
>6809 suppliers (Motorola, Hitachi, etc.) had.

I assume that you must be disqualifying the 6829 (or was it the 6839)
memory management chip for some reason. This chip provided expanded
memory and protection for multiple processes on the 6809. It's also
cheap (about $5 a piece).

If any of you want this chip, you had better hurry up and call your
Motorola dealer and have them get them. They are being dropped this
year. The figuring is that why should you stifle yourself with an 8-bit
processor and banking memory when for close to the same money you can
go with a 68008, use your 8-bit peripherals, have a 20-bit linear
address space and the 68000 instruction set.
--
Jeff Lee
CSNet: Jeff @ GATech   ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff

From 1643711830801434829
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-08 12:39:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: prices of monitors, 68020's, etc.
Message-ID: <506@elmgate.UUCP>
Date: Fri, 8-Aug-86 15:39:58 EDT
Article-I.D.: elmgate.506
Posted: Fri Aug 8 15:39:58 1986
Date-Received: Mon, 11-Aug-86 03:58:47 EDT
References: <860720202512.001@Juliet.Caltech.Edu> <5311@sun.uucp> <398@atari.UUcp>
<946@hoptoad.uucp>

Organization: Eastman Kodak Co., Rochester, NY
Lines: 17

In article <946@hoptoad.uucp>, gnu@hoptoad.uucp (John Gilmore) writes:
>The Atari ST's I've seen have
> been mostly I/O bound and cripped with bad software; a "back-end"
> 68020 won't fix that.
> --
> John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
>   May the Source be with you!

Finally, someone else besides me sees at least a few small warts on the ST.
I still like the machine. But the END to all computers it ain't. Not even
for $1000.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 5631026676671396579
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-08-08 13:54:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <1049@ihwpt.UUCP>
Date: Fri, 8-Aug-86 16:54:15 EDT
Article-I.D.: ihwpt.1049
Posted: Fri Aug 8 16:54:15 1986
Date-Received: Sun, 10-Aug-86 04:46:19 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP> <2320@ihlpg.UUCP>
Organization: AT&T Bell Laboratories
Lines: 32
Xref: watmath net.micro.6809:938 net.micro:15310 net.micro.atari16:1576

> > As for someone looking for power, the ST looks like a good deal. It offers
> > a reasonable amount of hardware power, easily comparable to a MAC...
> > ... OS-9 68K is released, which will certainly blow away 6809 OS-9.

> Available? Yes. Expensive? YES! For a $500 system $300 for an os(only) is
> expensive. Languages packaged as 3 for $600 is stiff also. Although $200
> a piece is not that bad you can't get them seperately!

> TLM is being irrational. If they priced it at 100 dollars with a language
> they could sell 1 copy per ST sold. (which would be a better profit than
> there sales to 15% of the ST owners.)
> --j.a.tainter

I agree 100% -- the OS9/68K support for the ST is way overpriced,
especially compared to Tandy's pricing on 6809 versions.
The new Coco 3 stuff is a large price *reduction* --
OS9 (Level II) plus BASIC09 for $80, compared to $170 for both
before. Yes, you must pay extra for the SW development tools now,
tho I think for most buyers it makes more sense to bundle in
BASIC09 than Assembler, even tho I have reached the conclusion
that BASIC09 sucks clamshells as a serious programming language
(I use C and assembler now).   --mike k
PS: -- I'm keeping this out of net.micro.amiga -- I got mail
that they aren't interested in hearing about this.
--
Mike J Knudsen __   ...ihnp4!ihwpt!knudsen
              / NO \
Bell Labs   / BABY \   (312)-979-4132 (work)
 (AT & T)   /ON BOARD\
            \GO AHEAD/   BORED SAILORS
IH 6D-319   \ & HIT/   go BOARDSAILING.
x4132   \ ME /
                --

From -8422940719480928959
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-ArrivalTime: 1986-08-08 15:01:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <1050@ihwpt.UUCP>
Date: Fri, 8-Aug-86 18:01:59 EDT
Article-I.D.: ihwpt.1050
Posted: Fri Aug 8 18:01:59 1986
Date-Received: Sun, 10-Aug-86 04:49:18 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP>
Organization: AT&T Bell Laboratories
Lines: 83
Xref: watmath net.micro.6809:939 net.micro:15311 net.micro.atari16:1577
net.micro.amiga:4251

> > ...possibly with the memory mapping and protection that the
> > 68K pc's lack.
> Has TRS announced an MMU chip for the CoCo-III? Last I heard, none of the
> 6809 suppliers (Motorola, Hitachi, etc.) had.
Yeah! The custom VLSI chip that Motorola makes for the Coco3 is indeed
a REAL MMU -- it maps any 8 of 64 physical 8K segments into 6809 address
space. This chip also includes the graphics, interrupts, and DRAM control.
Since the new Basic has a "protect" option, the MMU may have Read-Only!

> > The Coco III has 128 to 512K, graphics nearly as good as the ST or Amiga...
>
> Really? 640x400 pixels in 16 colors out of a palette of 4096? Bit blitter?
> Video coprocessor? Well, then, how about comparisons to the Atari. Lets see,
> the Atair gives you 640x400 monochrome. Nope, can't do that. 640x200 in
> 4 colors out of a palette of 512. I think the quoted resolution was 640x192
> with 4 colors out of a palette of 64. Not bad, but if they're really going to
> the added expense of an RGB analog (over RGBI digital) monitor, why settle
> for just 64 colors (2 bits each of R, G, and B).

Yes, I REALLY wish the Coco3 had 384-400 vertical lines.
Personally, I rate resolution more important than palette size,
tho you're right, it's almost a waste of analog RGB to skimp on it.

> Of course, in this price range, you're directly competing with the C128 and
> the Atari 130. The graphics, is true as
> stated, are better in some ways than either of these.
Yes, this was the main point of my posting. But I considered 512-640
horizontal pixels to be in the same league with ST and Amiga.

> The C128 ... supports hardware sprites.
A lifelong shortcoming of the Coco has been lack of sprite hardware
for games. It's amazing how well Coco does Donkey Kong, Joust,
and Marble Madness without them.

> The 80 column screen can do 80x25 text, 80x50 text (interlaced),
> and a 640x200 two color bit-map.
I honestly didn't know the C128 could do 640 across -- sorry, and thanks.

> Overall, it sounds like the CoCo-III has an edge
> over the C128 in the display department.
Glad you agree.

> > Tandy has straddled the 68K home market by landing salvos on both sides of it.
> That's silly. The 68000 machines, any 68000 machine, is much more powerful
> than currently existing MS-DOS machines. The 6809 is in many ways a more
> advanced processor than the 8088, and at your 1.7MHz or whatever the CoCo-III
> is running faster memory cycles than a standard or XT PClone. If Motorola
> had the forsight to add on-chip banking like in the 8088, the 6809 would
> have had a good chance of catching on as THE 8/16 bit chip.

Of course we know the 68K machines are better in every way than the MSDOS
biz boxes. It's just that the 3-piece suit types who define the "real

world" don't see it that way. Fortunately biz types are finding how useful
color graphics and mouse pointing can be.
I'm glad you appreciate the 6809 so highly. Interesting idea, putting
segment registers in it, tho the opcodes are long enuf already.

> Of course, all of the 68000 machines
> will be able to run UNIX quite nicely, along with OS-9 68K, the version of
> OS-9 for grownups.
That's U**X without MMU or protection, as has been argued to death
already. The Coco3 will do a safer job on OS9 Level II than the
Amiga or ST can on U**X. Of course OS9/68K is better than 6809 versions,
tho many of the improvements could be retrofit into 6809 versions,
given the extra memory now available.

> Your're right on the code compactness. Much of the size of the
> code will depend on whether a compiler or an assembler is used and if a
> compiler, how efficient it is.
Boy is that the truth! 6809 OS9 was written in assembler, much of
68K in C, and it shows in the code size.

> Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh
--
Mike J Knudsen / \   ...ihnp4!ihwpt!knudsen
              / NO \
Bell Labs   / BABY \   (312)-979-4132 (work)
 (AT & T)   /ON BOARD\
            \GO AHEAD/   BORED SAILORS
IH 6D-319   \ & HIT/   go BOARDSAILING.
x4132   \ ME /
               \ /
Bell Labs pays \/   me for my thoughts; my opinions are al mine!

From 607427164744243705
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6b98b124a5bf28d1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 07:22:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: megamax c - a gotcha for porting
Message-ID: <464@imagen.UUCP>
Date: Sat, 9-Aug-86 10:22:57 EDT
Article-I.D.: imagen.464
Posted: Sat Aug 9 10:22:57 1986
Date-Received: Mon, 11-Aug-86 04:17:05 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 21

~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~

i just found why my port of microemacs 3.7 was failing, it's in the manual so i can't complain, in megamax c short is 1 byte; int 2 bytes; and long 4 bytes. Now megamax is my first experience with c compilers on a micro, so the question is: is this standard ? i would have expected short and int to be 2 bytes and liked short to be 2 bytes and long and int 4 bytes. any comments ?

--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1462444123199115944
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 09:12:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!coma!axel
From: axel@coma.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: Micro C-Shell Info Request
Message-ID: <600024@coma.UUCP>
Date: Sat, 9-Aug-86 12:12:00 EDT
Article-I.D.: coma.600024
Posted: Sat Aug 9 12:12:00 1986
Date-Received: Tue, 12-Aug-86 17:43:54 EDT
References: <931@spp2.UUCP>
Lines: 9
Nf-ID: #R:spp2:-93100:coma:600024:000:327
Nf-From: coma!axel   Aug 9 16:12:00 1986

>very happy with it. I've just sent away for the multi-tasking version,
>MT C-Shell, and am looking forward to using it.

Did I read MULTITASKING here ? How does this work on the ST ?
Could you (anyone) post a review on the "multi-tasking version"
of MicroC-Shell ?

Axel Mahler, Tech.Univ. Berlin
(unido!coma!axel)
~~~~~~~~~~~~~~~~~~

From -767933949977147826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9eaad44c06796f7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 13:55:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: UUencoded make requests
Message-ID: <1551@cwruecmp.UUCP>
Date: Sat, 9-Aug-86 16:55:58 EDT
Article-I.D.: cwruecmp.1551
Posted: Sat Aug 9 16:55:58 1986
Date-Received: Mon, 11-Aug-86 04:27:32 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 27
Keywords: MAKE UUENCODE C

I have lately received a bunch of mail requesting uuencoded versions of 'make' that i posted last week. Sorry for not replying individually.

I do NOT intend to post a uuencoded version of make to the net because:

- There are too many (compile time) configurable parameters (see rules.c and h.h).

- I am not sure what you would want make for if you do not have a C compiler. I can see the need for make to maintain Oss pascal programs. i have never gotten the Oss linker to link successfully from a command line (it always shows some undefined symbol, so do not ask me to configure up a make with default rules for Oss Pascal, unless you also tell me how to correctly run it from the command line). Modula people don't need it, as the new version has mdesk. Besides i don't know how to run modula ii from a command line.

- People who have C compilers other than Alcyon or Megamax. Don't be LAZY -:). Post the diffs.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -3103900695507139548
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,9eaad44c06796f7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 14:12:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Unsigned chars in Make
Message-ID: <1552@cwruecmp.UUCP>
Date: Sat, 9-Aug-86 17:12:20 EDT
Article-I.D.: cwruecmp.1552
Posted: Sat Aug 9 17:12:20 1986
Date-Received: Mon, 11-Aug-86 04:27:45 EDT
References: <1551@cwruecmp.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 15
Keywords: UNSIGNED CHAR ALCYON C MAKE

I received a number of complaints about compiling 'make' with Alcyon C. All the people are having problems with 'unsigned chars'. All such people have OLD versions of the development kit and Alcyon C. The upgraded version (v 4.14) is available from atari. In the mean while you can go ahead and change unsigned char to char in 'h.h', and it will still work. Some people have complained about <ctype.h>. This file was missing in the developers kit origonally, but was later posted to CompuServe. So i suggest you pick it off from there, or ask atari to send you one.
--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -103294373410405159
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9eaad44c06796f7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 14:35:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Progem 15/16 part 1 of 2
Message-ID: <1553@cwruecmp.UUCP>
Date: Sat, 9-Aug-86 17:35:47 EDT
Article-I.D.: cwruecmp.1553
Posted: Sat Aug 9 17:35:47 1986
Date-Received: Mon, 11-Aug-86 04:28:04 EDT
References: <1551@cwruecmp.UUCP>

Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Distribution: world
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 606
Keywords: PROGEM GEM 15 16 RCS

Here are the next two parts of Tim Orens Progem series. To effectively use part 16, you will need the new release of the resource construction set - RCS.PRG (version 2.0), that was posted to ataridev on Compuserve. Note that the Megamax (or Tdi Modula) resource construction set blows up, so it will not suffice. The part 16 distribution consists of the following files:

```
     wind16.prf    The article
     apndx12.prf   The associated appendix (gemcl16.c & gemcl16.h)
     gemcl16.rsc.uue UUencoded gemcl16.rsc
     gemcl16.dfn.uue UUencoded gemcl16.dfn (with rcs v2.0 a .def is a .dfn
                              file)
     gemcl16.rsh   The C file for the above resourse.
```

After UnSharing these articles, run the *.uue files through `uudecode' to get the binaries.

```
------------------------------cut ---- snip ---- idhar katyea----------------
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    tut.prf
#    wind15.prf
#    apndx11.prf
# This archive created: Sat Aug  9 17:30:38 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'tut.prf'" '(1312 characters)'
if test -f 'tut.prf'
then
     echo shar: over-writing existing file "'tut.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'tut.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
```

```
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Tutorial
X.!
X.!*****************************************************************************
X.!
X.!
X.so macros.prf
X.so wind1.prf
X.so wind2.prf
X.so wind3.prf
X.so wind4.prf
X.so wind5.prf
X.so wind6.prf
X.so wind7.prf
X.so wind8.prf
X.so wind9.prf
X.so wind10.prf
X.so wind11.prf
X.so wind12.prf
X.so wind13.prf
X.so wind14.prf
X.so wind15.prf
X.so wind16.prf
X.!
X.! Add any further Parts Above
X.!
X.cl 0 APPENDICES
X.so apndx1.prf
X.so apndx2.prf
X.so apndx3.prf
X.so apndx4.prf
X.so apndx5.prf
X.so apndx6.prf
X.so apndx7.prf
X.so apndx8.prf
X.so apndx9.prf
X.so apndx10.prf
X.so apndx11.prf
X.so apndx12.prf
X.!
X.! Add any further Appendicies Above
X.!
X.so toc.prf
X.!
X.!
X.!*****************************************************************************
X.!
X.!           End Tutorial
X.!
X.!*****************************************************************************
```

```
SHAR_EOF
if test 1312 -ne "`wc -c 'tut.prf'`"
then
     echo shar: error transmitting "'tut.prf'" '(should have been 1312
characters)'
fi
echo shar: extracting "'wind15.prf'" '(14235 characters)'
if test -f 'wind15.prf'
then
     echo shar: over-writing existing file "'wind15.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind15.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
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X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part XV
X.!
X.!*************************************************************************
X.!
X.PART XV Coping with GEMDOS
X.PP
XWhile it's fun playing with windows and object trees,  one of
Xthe  day-to-day realities of working with the ST is its  operating
Xsystem, GEMDOS.  A successful application should insulate the user
Xfrom  the foibles and occasional calamities of the machine's  file
Xsystem.  The GEM environment provides some minimal tools for doing
Xthis,  but a good deal of responsibility still rests with you, the
Xprogrammer.
X.PP
XThis column (#15 in the ST PRO GEM series) tries to  address
Xthe  GEM/DOS integration problem by providing you some stock  code
Xfor common functions, along with a discussion of some of the worst
X"gotchas" lurking for the unwary.  The download for this column is
XGMCL15.C, and it can be found in DL3 of PCS-58.  You should obtain
Xand list this file before proceeding.
X.SH A BIT OF HISTORY.
XThere has been a good deal of  confusion
```

Xin the Atari press and among developers over what GEMDOS is, and Xhow it relates to TOS and CP/M-68K. It's important to clear this Xup, so you can get a true picture of what GEMDOS is intended to Xdo. The best way is to tell the story of GEMDOS' origins, which I Xcan do, because I was there.
X.PP
XAs most developers are aware, GEM was first implemented on Xthe IBM PC. PC GEM performed two functions. The first was a Xwindowed graphics extension to the PC environment. The second was Xa visual shell, the Desktop, which ran on top of the existing Xoperating system, PC-DOS.
X.PP
XWhen work started on moving GEM to the ST, there were two big Xproblems. First, no STs actually existed. Second, there was no Xoperating system on the 68000 with which GEM and the Desktop could Xrun. Unix was too large, and CP/M-68K lacked a number of Xcapabilities, such as hierarchical files, which were needed to Xsupport GEM.
X.PP
XWork on porting the graphics parts of GEM to the 68000 had to Xstart immediately to meet schedules. Therefore, CP/M-68K running Xon Apple Lisa's was used to get this part of the project off the Xground. Naturally, the Alcyon C compiler and other tools which Xwere native to this environment were used.
X.PP
XIn parallel, an effort was begun to write a new operating Xsystem for the 68000, which would ultimately become the ST's file Xsystem. It was designed to be a close clone of PC-DOS, since it Xwould perform the same functions for GEM in the new Xenvironment. At this point, the term TOS was introduced. TOS Xreally meant "the operating system, whatever it may be, that will Xrun on the ST", since not even the specifications, let alone the Xcode, were complete at that time.
X.PP
XThe first engineer to work on "TOS" at Digital Research was XJason Loveman. This name leaked to the press, and in some Xdistorted fashion generated a rumor about "Jason DOS", which was Xstill just the same unfinished project. As "TOS" became more Xsolid, the developer's tools were ported to the new environment Xone by one, and the GEM programming moved with them. CP/M-68K was Xcompletely abandoned, though the old manuals for C and the tools Xlived on and are still found in the Atari developer's kit.
X.PP
XAll of this work had been done on Lisas or Compupro systems Xfitted with 68000 boards. At this point, workable ST prototypes Xbecame available. An implementation of "TOS" for the target Xmachine was begun, even before the basic operating system was Xfully completed.
X.PP
XThe other intent for the new operating system was to be a Xbase for GEM on other 68000 systems as well as the ST. Because of Xthis, Digital Research named it GEMDOS when it was finally Xcomplete, thus providing the final bit of nomenclature. "TOS" as

Xnow found in the ST is in fact a particular implementation of Xgeneric GEMDOS, including the ST specific BIOS.
X.PP
XSo, GEMDOS is a PC-DOS clone, but, not quite. There are Xenough differences to cause problems if they are ignored. X(Remember, it looks like a duck, and quacks like a duck, but it's Xnot a duck.)
X.SH GOING FOR IT.
XAs a first example, consider the routines Xopen_file() and create_file() at the beginning of the download. XThey make use of the GEMDOS calls Fopen() and Fcreate(). You will Xnotice that these names are not the ones specified in the Digital XResearch GEMDOS manual. Developers who have used PC GEM will Xalso observe that they are radically different from the function Xnames in the PC-DOS bindings.
X.PP
XIn fact, all of the GEMDOS function calls on the ST are Xdefined as macros in the file osbind.h, distributed with the Xdeveloper's kit. At compile time they are turned into calls to Xthe assembly language routine gemdos(), part of the osbind.o Xbinary. So, if you find the naming conventions to be particularly Xoffensive for some reason, just edit the appropriate macros in Xosbind.h.
X.PP
XIn DRI's PC-DOS bindings, any error codes were returned in Xthe global variable DOS_ERR. In the GEMDOS bindings, the Xoperation result or an error code is returned as the value of the Xcalling function. In the case of Fopen() and Fcreate(), the Xresult is a valid file handle if it is positive. A negative Xresult is always an error code, indicating that the operation Xfailed.
X.PP
XAn application which encounters a GEMDOS error should display Xan alert, and query for retry or abort. The type of loop Xstructure exemplified by open_file() and create_file() should Xbe usable with most GEMDOS functions which might fail. The AES Xprovides a function, form_error, which implements a set of X"canned" error alerts appropriate to the various possible errors.
X.PP
XHowever, this is where the fun starts. For unknown reasons, Xthe form_error on the ST expects to see PC-DOS, not GEMDOS, error Xcodes as it's input! Therefore you need a routine to translate one Xinto the other. The routine dos_error() in the download provides Xthis function. The GEMDOS errors are in the same sequence as Xthose for PC-DOS, but their numerical order is reversed and Xshifted. Notice also that dos_error() does NOT perform the Xtranslation if the error code is less than -50. These codes have Xno PC-DOS equivalent; computing a bogus translation will cause Xform_error to crash. Instead, they are passed through verbatim, Xresulting in a "generic" alert which gives only the error number.
X.PP
XThe other major task in integrating a GEM application with Xthe file system is selecting file names for input and output.

XAgain, the AES provides some assistance with the fsel_input call,
Xwhich invokes the standard file selector dialog.
X.PP
XThere are several drawbacks to the standard file selector.
XOne is that the "ITEM SELECTOR" title is constant and cannot be
Xchanged by the application. This could cause confusion for
Xthe user, since it may not be clear which of several functions,
Xclosely spaced in the FILE menu, was actually invoked. While it
Xmight be possible to find and "rewire" the AES resource that
Xdefines the file selector, it is unlikely that such an approach
Xwould be portable to a later version of ST GEM.
X.PP
XA viable approach to eliminating confusion is to display a
Xsmall "marquee" box, with a message defining the operation, on the
Xscreen just above the file selector. To do this, you must
Xinitialize the location of the box so that it is outside of the
Xfile selector's bounds, and then draw it just before invoking the
Xfile selector. This way they will appear together. Before
Xreturning to its main event loop, the application should post a
Xredraw message for the "marquee" area. The AES will merge this
Xredraw with the one generated by fsel_input, and the result will
Xbe received by the application's evnt_multi.
X.PP
XAnother problem with the file selector is that it resets your
Xapplication's virtual workstation clip rectangle without warning.
XThere are other AES functions, such as objc_draw, which also do
Xthis, but the file selector can be troublesome because it may be
Xthe only AES call used by some VDI-based ST applications.
X.PP
XThe veteran developer will also notice that the file selector
Xtakes and returns the path and filename as two separate strings,
Xwhile the GEMDOS file functions require a fully pathed file name.
XAlso, the file selector doesn't remember its "home" directory; you
Xare responsible for determining the default directory, and keeping
Xtrack of any changes. The remainder of the download and column is
Xdevoted to set of utilities which should alleviate some of the
X"grunt work" of these chores.
X.PP
XThe top level routine in this collection is get_file(). It
Xis called with two string arguments. The first must point to a
Xfour byte string area containing the desired file name extension
X(three characters plus a null). The second is the default file
Xname.
X.PP
XIf the default file name is non-null, then get_file() invokes
Xparse_fname() to break it into path and name. Parse_fname() also
Xadds the necessary "wild card" file specification to the path,
Xusing the extent name given as input.
X.PP
XIf no default file was supplied, or the default did not
Xcontain a path, the routine get_path() is invoked to find the
Xcurrent default directory and construct a legal path string for
Xit.

X.PP
XThe results of these manipulations are supplied to
Xfsel_input. Notice that the result of the file selector is
Xreturned via its third argument, rather than as a function value.
XIf the result is TRUE, get_file() merges the temporary path and
Xfile string, storing the result via the second input parameter.
XThis result string is suitable for use with Fopen, and may be
Xresubmitted to get_file() when the next operation is invoked by
Xthe user.
X.PP
XParse_fname() is straight-forward C. It looks backward along
Xthe file to find the first character which is part of the path.
XThe tail of the filename is copied off, and its former location is
Xoverlaid with the wild card specification.
X
X Get_path() is a bit more interesting. It makes use of two
XGEMDOS functions, Dgetdrv() and Dgetpath() to obtain the default
Xdisk drive and directory, respectively. Note that Dgetpath() will
Xreturn a null string if the current default is the root, but it
Xputs a back-slash at the beginning of the path otherwise. This
Xforces a check for insertion in the root case, since the file
Xselector wants to see something like "A:*.RSC", rather than
X"A:*.RSC". After making this fix, get_path() concatenates the
Xwild card specification derived from the input extent.
X.PP
XThe last routine in the download is new_ext(). This utility
Xis useful if your application uses more than one associated file
Xat a time. For instance, the Resource Construction Set uses both
Xan RSC and a DEF file, with the same base name. New_ext() takes a
Xfully formed file name, and replaces its old extent with the new
Xone which you supply. This lets you quickly generate both file
Xnames after one call to the file selector. Notice that new_ext()
Xlooks BACKWARD along the name to find the delimiting period, since
Xthis character can also be part of a subdirectory name in the
Xpath.
X.PP
XSo we reach the end of the code and this column. Hopefully
Xboth will keep you profitably occupied for a while. July's column
Xwill return to graphics topics, with a look at writing customized
Xrubber box and drag box routines, and ways to implement your own
X"pop-up" menus. August will bring techniques for displaying
Xprogress indicators, associating dialog and menu entries with
Xkeystrokes, and customizing objc_edit.
X.SH I CAN'T HEAR YOU!
XThe Feedback mailbag has been noticably
Xflat of late. There have been a number of compliments on the
Xcolumn, which are much appreciated, and some suggestions for
Xtopics which fall outside the bounds of this series. The latter
Xhave been passed on to Antic for possible inclusion in their new
XST quarterly, START.
X.PP
XOne recurring problem is finding the downloads. A number of
Xthe earlier columns say they are in PCS-132 (the old SIG*ATARI),

```
Xand  one says PCS-57 (mea culpa).   In fact,  ALL of the downloads
Xare  now  in DL3 of PCS-58 (ATARI16).   Filenames for  first  nine
Xcolumns  are  all in the form GEMCLx.C,  where x is  the  column's
Xdigit.   For reasons unknown to me,  the next two files were named
XGEMC10.C  and  GEMC11.C;  the  latest  two  downloads  are  called
XGMCL13.C and GMCL15.C.   The latter naming pattern should continue
Xinto the future.
X.PP
XUndoubtedly,  one reason for the shortage of questions is the
Xamazing ability to get a quick answer on the Developer's SIG, PCS-
X57.   This  is  a  good  sign  of  a  strong  Atari  community  on
XCompuserve.   However,  the  SIG message style doesn't really lend
Xitself  to lengthy explanation,  so suggestions for longer  topics
Xare always welcome here.
X.PP
XFinally,  I  am now beginning the process of collecting these
Xcolumns and some additional material into a book.  In doing so, it
Xwould  be  helpful to know if you feel that any part of  GEM  has
Xbeen  slighted  in my discussions.   If so,  let  me  know.   Your
Xsuggestions will appear in future columns and finally make their
Xway into the book.
X.!
X.!
X.!*************************************************************************
X.!*                                                *
X.!*              End Part 15                            *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 14235 -ne "`wc -c 'wind15.prf'`"
then
     echo shar: error transmitting "'wind15.prf'" '(should have been 14235
characters)'
fi
echo shar: extracting "'apndx11.prf'" '(3975 characters)'
if test -f 'apndx11.prf'
then
     echo shar: over-writing existing file "'apndx11.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx11.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
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X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
```

```
X.!
X.!*****************************************************************************
X.!
X.!           Begin Appendix 11
X.!
X.!*****************************************************************************
X.!
X.!
X.AP XI Sample Code for Part XV
X/*-----------------------------*/
X/*  includes      */
X/*-----------------------------*/
X
X#include "portab.h"                 /* portable coding conv
     */
X#include "machine.h"                /* machine depndnt conv
     */
X#include "osbind.h"                 /* BDOS defintions */
X#include "gemdefs.h"
X
X/*-----------------------------*/
X/*  open_file          */
X/*-----------------------------*/
X    WORD
Xopen_file(file_name)
X    BYTE *file_name;
X    {
X    LONG dos_hndl;
X
X    FOREVER
X         {
X         dos_hndl = Fopen(file_name, 0);
X         if (dos_hndl >= 0)
X              return ((WORD) dos_hndl);
X         if ( !dos_error((WORD) dos_hndl) )
X              return (-1);
X         }
X
X    return (-1);       /* Appease lint */
X    }
X.bp
X/*-----------------------------*/
X/*  create_file        */
X/*-----------------------------*/
X    WORD
Xcreate_file(file_name)
X    BYTE *file_name;
X    {
X    LONG dos_hndl;
X
X    FOREVER
X         {
X         dos_hndl = Fcreate(file_name, 0);
```

```
X         if (dos_hndl >= 0)
X              return ((WORD) dos_hndl);
X         if ( !dos_error((WORD) dos_hndl) )
X              return (-1);
X         }
X
X    return (-1);       /* Appease lint */
X    }
X.bp
X/*------------------------------*/
X/*  dos_error          */
X/*------------------------------*/
X    WORD
Xdos_error(tos_err)
X    WORD tos_err;
X    {
X    WORD f_ret;
X
X    graf_mouse(ARROW, 0x0L);
X    if (tos_err > -50)
X         {
X         tos_err += 31;
X         tos_err = -tos_err;
X         }
X    f_ret = form_error(tos_err);
X    return (f_ret);
X    }
X.bp
X/*------------------------------*/
X/*  get_file      */
X/*------------------------------*/
X    WORD
Xget_file(extnt, got_file)
X    BYTE *extnt, *got_file;
X    {
X    WORD butn, ii;
X    BYTE tmp_path[64], tmp_name[13];
X
X    tmp_name[0] = '\0';
X    tmp_path[0] = '\0';
X
X    if (*got_file)
X         parse_fname(got_file, tmp_path, tmp_name, extnt);
X    if (!tmp_path[0])
X         get_path(&tmp_path[0], extnt);
X
X    fsel_input(tmp_path, tmp_name, &butn);
X    if (butn)
X         {
X         strcpy(got_file, tmp_path);
X         for (ii = 0; got_file[ii] && got_file[ii] != '*'; ii++);
X         got_file[ii - 1] = '\0';
X         strcat (got_file, "\\");
```

```
X         strcat(got_file, tmp_name);
X         return (TRUE);
X         }
X    else
X         return (FALSE);
X    }
X.bp
X/*-----------------------------*/
X/*  parse_fname        */
X/*-----------------------------*/
X    VOID
Xparse_fname(full, path, name, extnt)
X    BYTE *full, *path, *name, *extnt;
X    {
X    WORD i, j;
X    BYTE *s, *d;
X
X    for (i = strlen(full); i--; )         /* scan for end of path */
X         if (full[i] == '\\' || full[i] == ':')
X              break;
X    if (i == -1)
X         strcpy(name, full);          /* "Naked" file name */
X    else
X         {
X         strcpy(name, &full[i+1]);
X         for (s = full, d = path, j = 0; j++ < i + 1;
X              *d++ = *s++);
X         strcpy(&path[i+1], "*.");
X         strcat(path, extnt);
X         }
X    }
X.bp
X/*-----------------------------*/
X/*  get_path      */
X/*-----------------------------*/
X    VOID
Xget_path(tmp_path, spec)
X    BYTE *tmp_path, *spec;
X    {
X    WORD cur_drv;
X
X    cur_drv = Dgetdrv();
X    tmp_path[0] = cur_drv + 'A';
X    tmp_path[1] = ':';
X    Dgetpath(&tmp_path[2], 0);
X    if (strlen(tmp_path) > 3)
X         strcat(tmp_path, "\\");
X    else
X         tmp_path[2] = '\0';
X    strcat(tmp_path, "*.");
X    strcat(tmp_path, spec);
X    }
X.bp
```

```
X/*-----------------------------*/
X/*  new_ext       */
X/*-----------------------------*/
X    VOID
Xnew_ext(o_fname, n_fname, ext)
X    BYTE *o_fname, *n_fname, *ext;
X    {
X    WORD ii, jj;
X
X    strcpy(n_fname, o_fname);
X    for (ii = (jj = strlen(n_fname)) - 1; ii && n_fname[ii] != '.'; ii--);
X    if (!ii)
X         n_fname[ii = jj] = '.';
X    strcpy(&n_fname[++ii], ext);
X    }
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 11
X.!
X.!*****************************************************************************
SHAR_EOF
if test 3975 -ne "`wc -c 'apndx11.prf'`"
then
     echo shar: error transmitting "'apndx11.prf'" '(should have been 3975
characters)'
fi
#    End of shell archive
exit 0
--
                      Jwahar R. Bammi
                Usenet:  .....!decvax!cwruecmp!bammi
                CSnet:  bammi@case         Arpa:  bammi%case@csnet-relay
             CompuServe:  71515,155


From -1795412410214239631
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9eaad44c06796f7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 14:37:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Progem 15/16 part 2 of 2
Message-ID: <1554@cwruecmp.UUCP>
Date: Sat, 9-Aug-86 17:37:30 EDT
Article-I.D.: cwruecmp.1554
Posted: Sat Aug  9 17:37:30 1986
Date-Received: Mon, 11-Aug-86 04:28:40 EDT
References: <1551@cwruecmp.UUCP>
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
```

Distribution: world
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 916
Keywords: PROGEM 15 16 GEM RCS

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind16.prf
#    apndx12.prf
#    gemcl16.dfn.uue
#    gemcl16.rsc.uue
#    gemcl16.rsh
# This archive created: Sat Aug  9 17:31:43 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'wind16.prf'" '(16490 characters)'
if test -f 'wind16.prf'
then
     echo shar: over-writing existing file "'wind16.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind16.prf'
X.!*************************************************************************
X.!
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X.!
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X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 16
X.!
X.!*************************************************************************
X.!
X.PART XVI Interface Potpourri #1
X.PP
XThis issue of ST PRO GEM,  number 16 in the series,  presents
Xcode  implementing  several user  interface  techniques:  progress
Xindicators, rubber boxes, and draggable boxes with mouse sensitive
Xtargets.   The  code  also  includes  some  utility  routines  for
```

Xhandling resources, event calls, and VDI line drawing.
X.PP
XThe downloads for this column are available on DL3 of the XATARI16 SIG: PCS-58. Note the plural - in addition to the usual C Xsources stored in GMCL16.C, the files GMCL16.RSC, GMCL16.DFN, XGMCL16.H, and GMCL16.RSH are a template resource for building Xprogress boxes. GMCL16.RSC is the resource binary, and GMCL16.H Xis its symbol binding file, to be used with GMCL16.C. The RSH Xfile is a C image of the resource - you would need STCREATE to Xregenerate it.
X.PP
XGMCL16.DFN is the binary symbol file for the resource. It is Xin the format used by the NEW ST Resource Construction Set. If Xyou are a developer, you should download this new version from DL7 Xof PCS-57. It fixes a number of bugs, and has a much faster user Xinterface.
X.SH MAKING PROGRESS.
XThe need for feedback in interface designs Xhas been discussed in previous columns. One instance which is Xoften necessary is the so-called progress indicator. A progress Xindicator is used when your application is doing a long operation. XIt shows that the function is continuing satisfactorily, and is Xnot hung in a loop. When possible, it also gives an indication of Xthe fraction of the operation which has been completed. The Xthermometer bars on the Desktop format and copy operations are Xexamples.
X.PP
XThe sample code shows two types of progress indicator. Both Xare built within the structure of a dialog resource. The first Xtype uses a variable line of text to describe each phase of an Xoperation as it occurs. The rewriting of the text provides action Xon the screen; the fact that it is different each time gives Xreassurance that the program is not hung. The second type of Xindicator is the thermometer bar. This is more useful when the Xoperation is uniform, allowing you to estimate the fraction Xcompleted. Let's look at the code.
X.PP
XThe routines beg_prog() and end_prog() are common to the two Xtypes. The code is very similar to the standard dialog handling Xprocedure, but is broken into two parts. Beg_prog() assumes that Xthe progress indicator box is defined by a dialog tree named XPROGRESS. Such a tree is provided in GMCL16.RSC. Beg_prog() Xmakes the usual calls to center and draw the box. The rectangle Xcomputed in the centering operation is stored via a GRECT pointer Xpassed in the parameter. This rectangle compensates for the Xoutline around the box, and must be supplied to end_prog() when Xthe operation is complete.
X.PP
XThe first version of set_prog() in the download implements Xthe changing text progress indicator. It looks in a tree labelled XSTRINGS for the object number which is passed as a parameter. It Xis assumed that this object is a G_STRING. The address of the new Xtext is loaded from the object's ob_spec field. (For those with

Xthe new RCS, it would be easy to alter this routine to use free
Xstrings. Simply replace the first two lines with:
X.sp
X.ce
Xrsrc_gaddr(R_STRING, strno, &saddr);
X.sp
Xand supply parameters which are the names of strings in a FRSTR
Xbox.)
X.PP
XOnce the new text is found, the set_text() utility is called
Xto update the TEDINFO attached to object PLINE in the PROGRESS
Xtree. Set_text() will insert the new text address in te_ptext,
Xand the new text length in te_txtlen. Disp_obj() is then used to
Xredraw only the rectangle belonging to PLINE.
X.PP
XPLINE must be defined as a G_BOXTEXT object with a solid
Xwhite background, and with the CENTERED attribute set. It must
Xextend entirely across the progress box. This guarantees that the
Xprevious text will be covered over, and the new text will be
Xcentered in the box.
X.PP
XThe second version of set_prog() implements the thermometer
Xbar progress indicator. The PROGRESS tree also includes an object
XPROBOX which defines the outline of the thermometer. It is a
XG_BOX object with a solid white background, and a one-outside
Xborder. The object PROBAR is nested inside it, with the left
Xedges matching. PROBAR is also a G_BOX, with a solid red
Xbackground and a one-outside border as well. Set_prog() creates
Xthe thermometer effect by growing and redrawing PROBAR.
X.PP
XSet_prog() requires two parameters. Maxc is an estimate of
Xthe total duration of the operation, in arbitrary units. Value is
Xthe (new) amount completed, in the same units. Set_prog performs
Xtwo operations. First, it computes the fraction value/maxc, and
Xsets PROBAR to that fraction of the width of PROBOX. Second, it
Xcomputes the rectangle which is the difference between the old and
Xnew widths of PROBAR, and redraws only that part of the progress
Xbox. This prevents an annoying flash on the screen when the
Xindicator is updated.
X.PP
XThese two types of progress indicators have been presented in
Xseparate routines for convenience in explanation. You can easily
Xcombine them in a single procedure to create an indicator with
Xboth effects.
X.PP
XThe final progress indicator routine is called esc_prog().
XDuring many lengthy operations is desirable to provide an abort
Xoption to the user. Esc_prog() lets you do this by polling the
Xkeyboard for an escape (ESC) character. A zero timer value is
Xused to guarantee an immediate return if no character is found.
XCharacters other than escape are ignored.
X.PP
XEsc_prog() returns TRUE if an abort is requested, and FALSE

Xif the operation is to continue. In your application, you can Xeither pair calls to set_prog() and esc_prog(), or recode Xset_prog() to automatically make the abort check. In any case, Xyou should add an information line to the progress box, telling Xthe user how the operation may be halted.
X.PP
XOf course, this type of progress indicator is not the only Xoption available on the ST. Other ideas such as changing window Xtitles, or displaying a succession of differing icons are equally Xvalid. Sometimes the nature of your application may suggest an Xalternate metaphor. For instance, the progress of recalculating a Xspreadsheet might be indicated by darkening successive columns in Xa miniature image of the sheet. Occasionally, the computing Xoperation is visual itself, and will not require an explicit Xindicator. An example is redisplaying objects in a 2D or X3D drawing program.
X.SH BOXED IN.
XThe second part of the download implements two Xtypes of user interaction using the mouse. The first creates a X"rubber box" on the screen, that is, a box whose size is Xcontrolled by moving the mouse. This is similar to the AES Xgraf_rubberbox call, but allows the box to move in any direction Xfrom its origin, while the GEM function only allows movement to Xthe lower right.
X.PP
XThe second technique allows the user to drag the outline of a Xbox around the screen using the mouse. Again, this is similar to Xthe AES graf_dragbox call, but this version is augmented with code Xwhich "hotspots" selectable objects when the mouse and object pass Xover them. These routines are another illustration of the usage Xof the evnt_multi function, and its combination with VDI drawing Xto create new interaction techniques.
X.PP
XThe "rubber box" subroutine is called fourway_box(). Its Xparameters are the current VDI handle (NOT a window handle!), and Xtwo GRECT pointers. The first GRECT must have its g_x and g_y Xinitialized with the fixed point of the rubber box. The second XGRECT contains an outer bound box for the stretching action.
X.PP
XFourway_box() begins by setting the VDI drawing mode and Xcolor. The exclusive or, black combination guarantees that Xredrawing a figure twice in the same location will exactly erase Xit. Next, the routine asserts the mouse control flag. This stops Xthe window manager from tracking the mouse, with the effect that Xmenus will not drop down during the operation.
X.PP
XThe fixed coordinates are saved in the variables ox and oy, Xand an initial mouse reading is obtained with graf_mkstate. At Xthis point, the event loop is entered.
X.PP
XAt each iteration, the loop finds the upper left most of the Xfixed vertex and the current mouse position, and updates the Xtracking GRECT accordingly. A call to the utility rc_intersect()

Xis used to restrict the size of the rubber box to the given
Xlimiting rectangle. Note that if you need a lower limit to the
Xsize of the rubber box, it can be achieved by adding another GRECT
Xpointer "lower" to the parameter list, and using the call
X.sp
X.ce
Xrc_union(lower, rubber);
X.sp
XThis works because the union operation selects the larger of two
Xrectangles if they are nested.
X.PP
XRub_wait() will be described in detail below. Its returns
Xare the new mouse position, and an indication of the current mouse
Xbutton state. If the button remains down, the loop continues.
XWhen the button is released, the rubber box terminates, since it
Xis a "spring-loaded" modal operation. Before ending,
Xfourway_box() returns mouse control to the window manager. The
Xreturn from the routine is found in the rubber GRECT, and is the
Xfinal extent of the box.
X.PP
XRub_wait() is a utility used by both box techniques. Its
Xpurpose is to do one step of the box animation, and wait for a
Xmouse movement, or the release of the button. Rub_wait()
Xpreserves the state of the screen.
X.PP
XThe first action is to draw an exclusive or'ed dotted line
Xbox at the given rectangle. Next, rub_wait() calls evnt_multi to
Xwait for the mouse button to come up, or the mouse to move out of
Xa one pixel rectangle. When the event is detected, the same code
Xis used to remove the box. A value of TRUE is returned if the
Xmouse button is still down; the curious logical construction is
Xnecessary since BOTH events could occur at once.
X.PP
XA short examination of the vdi_xbox() code is also useful.
XAfter converting the rectangle to polyline format, the vdi_xline()
Xroutine is called. Vdi_xline draws a dotted line, but does not
Xuse the VDI line style attribute. This is avoided because the VDI
Xhas problems with corner points when drawing styled lines in XOR
Xmode. Instead, a selection is made from a set of user defined
Xline styles, based on the direction of the stroke, and the
Xodd/evenness of the starting horizontal pixel. This assures that
Xthe figure will be exactly erasable.
X.SH HOT STUFF?
XThe drag box routine is more subtle, because care
Xis needed to correctly synchronize the movement of the mouse
Xcursor and the box, and the highlighting of target objects. The
Xparameters vdi_handle and limit are identical to those in
Xfourway_box(). The GRECT pointed to by box contains the width and
Xheight of the movable box when hot_dragbox() is entered. On exit
Xit also contains the last x,y coordinates of the box. The
Xvariable tree is a pointer to the root of a resource tree defining
Xthe hot spots for the drag operation. Only objects tagged
XSELECTABLE are hotspotted. Hot_dragbox() returns the number of

Xsuch an object if the box is "dropped" on it, otherwise a NIL is
Xreturned.
X.PP
XInitialization proceeds as above, until the graf_mkstate
Xcall. Here is the first potential synchronization problem. If
Xthe user moves the mouse very quickly after initiating the drag,
Xit may already be outside the box by the time graf_mkstate samples
Xthe position. The min/max operations given lock the box onto the
Xcursor, no matter where it has strayed. The mouse/box offsets, ox
Xand oy, will remain constant for the rest of the operation.
X.PP
XHover_obj will contain the number of the object which is
Xcurrently highlighted. It is initialized to NIL, indicating no
Xobject is currently marked. Hot_dragbox() now enters a loop with
Xtermination conditions identical to the rubber box.
X.PP
XThe current desired position of the box is computed by
Xsubtracting the box/mouse offset from the current mouse position.
XThe rc_constrain() call ensures that the box will not leave the
Xbounding rectangle. Note that rc_intersect would not work here -
Xit would alter the size of the draggable box, rather than
X"nudging" it back into the bounds.
X.PP
XUpon return from rub_wait(), a number of conditions must be
Xchecked to determine the correct object to highlight, if any.
XFirst, we must make sure that the mouse is actually within the
Xlegal bounds. If not, there may be an ambiguous selection, with
Xthe mouse over one object and the box over another. We choose to
Xdo nothing in this case, and set hover_obj to NIL. If the mouse
Xis in bounds, objc_find looks for a target object. If one exists,
Xit must be SELECTABLE, or it is forced to NIL.
X.PP
X Next the new object, stored in ret_obj, is compared to the
Xold highlighted object, in hover_obj. If they are different, a
Xswitch must be made. Since either could be NIL, a check is
Xnecessary before calling obj_toggle to invert/reinvert the screen
Ximage of the object. When the loop is complete, the final
Xhover_obj is returned to normal state before its number is
Xreturned.
X.PP
XYou may notice that this method of highlighting objects is
Xdifferent from the incremental tree descent and rectangles method
Xpresented in column 13. While not as efficient, the objc_find
Xtechnique is simpler to code and may be adequate for many uses.
XIf your program will make heavy use of the drag box routine, or
Xwill have large trees of target objects, you may wish to
Xintegrate the incremental hotspotting algorithm with
Xhot_dragbox(). This would be simple to do; just use evnt_multi's
Xsecond mouse rectangle for the states associated with the hot-
Xspotter. The single pixel rectangles would have to remain, in
Xorder to maintain the animation effects.
X.SH A FEW CHANGES.
XThe observant may have noticed that the

```
Xpromised  code for popup menus did not make it into  this  column.
XInstead,  it  will  appear in column 18 along with more  "graphics
Xpotpourri"  and  feedback replies.   The intervening  installment,
Xnumber  17,  will  present  and  document the source  code  for  a
Xcomplete   IBM/Atari GEM Resource conversion program.   This  will
Xappear  concurrently with Mark Skapinker's article on  IBM/ST  GEM
Xconversions  in  the second issue of START.   While  this  program
Xwill be of direct use to only a minority of ST developers, it will
Xcontain  utility code useful to all,  as well as demonstrations of
Xdialog handling and the internal structure of resources.
X.PP
XFinally,  you  may also notice that the so-called portability
Xmacros have disappeared from the download.   Indeed, they are gone
Xfor good.   Since the beginning of this column,  the growth of the
XST GEM developer community has outstripped that on the PC.   It no
Xlonger  seems  appropriate  to  inconvenience  ST  developers  and
Xviolate  standard C syntax for the sake of Intel's  design  flaws.
XThose  who still need compatibility with the PC may achieve it  by
Xcompiling under Intel large model,  or by writing "sed" scripts to
Xtranslate   (tree+obj)->ob_spec  and  the  like  to  their   macro
Xequivalents.
X.!
X.!
X.!*************************************************************************
X.!*                                                *
X.!*               End Part 16                          *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 16490 -ne "`wc -c 'wind16.prf'`"
then
     echo shar: error transmitting "'wind16.prf'" '(should have been 16490
characters)'
fi
echo shar: extracting "'apndx12.prf'" '(10133 characters)'
if test -f 'apndx12.prf'
then
     echo shar: over-writing existing file "'apndx12.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx12.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
```

```
X.!
X.!*****************************************************************************
X.!
X.!           Begin Appendix XII
X.!
X.!*****************************************************************************
X.!
X.!
X.AP XII Sample Code for Part XVI
X                   /*****   GEMCL16.H   *****/
X
X#define PROGRESS 0     /* TREE */
X#define PLINE 2   /* OBJECT in TREE #0 */
X#define PROBOX 3       /* OBJECT in TREE #0 */
X#define PROBAR 4       /* OBJECT in TREE #0 */
X#define STRINGS 1      /* TREE */
X#define P1 1      /* OBJECT in TREE #1 */
X#define P2 2      /* OBJECT in TREE #1 */
X#define PN 3      /* OBJECT in TREE #1 */
X.bp
X                  /*****  GEMCL16.C ******/
X /* >>>>>>>>>>>>>>>>>>> Progress box setup and cleanup <<<<<<<<<<<<<<<<<< */
X
X/*-------------------------------*/
X/*  beg_prog      */
X/*-------------------------------*/
X    VOID
Xbeg_prog(rect)
X    GRECT    *rect;
X    {
X    OBJECT   *tree;
X    WORD xdial, ydial, wdial, hdial;
X
X    rsrc_gaddr(R_TREE, PROGRESS, &tree);
X    form_center(tree, &rect->g_x, &rect->g_y, &rect->g_w, &rect->g_h);
X    form_dial(0, 0, 0, 0, 0, rect->g_x, rect->g_y,
X         rect->g_w, rect->g_h);
X    objc_draw(tree, ROOT, MAX_DEPTH, rect->g_x, rect->g_y,
X         rect->g_w, rect->g_h);
X    }
X
X/*-------------------------------*/
X/*  end_prog      */
X/*-------------------------------*/
X    VOID
Xend_prog(rect)
X    GRECT    *rect;
X    {
X    form_dial(3, 0, 0, 0, 0, rect->g_x, rect->g_y, rect->g_w, rect->g_h);
X    }
X.bp
X/* >>>>>>>>>>>>>>>>>>> Text line progress indicator <<<<<<<<<<<<<<<<<<<< */
X
```

```
X/*------------------------------*/
X/*  set_prog      */
X/*------------------------------*/
X    VOID
Xset_prog(strno)
X    UWORD    strno;
X    {
X    OBJECT   *tree;
X    BYTE *saddr;
X
X    rsrc_gaddr(R_TREE, STRINGS, &tree);
X    saddr = (BYTE *) (tree + strno)->ob_spec;
X    rsrc_gaddr(R_TREE, PROGRESS, &tree);
X    set_text(tree, PLINE, saddr);
X    disp_obj(tree, PLINE);
X    }
X
X.bp
X/* >>>>>>>>>>>>>>>>>>> Moving bar progress indicator <<<<<<<<<<<<<<<<<<<< */
X
X/*------------------------------*/
X/*  set_prog      */
X/*------------------------------*/
X    VOID
Xset_prog(value, maxc)
X    WORD value, maxc;
X    {
X    WORD wnew, wold;
X    OBJECT   *tree;
X    GRECT    box;
X
X    rsrc_gaddr(R_TREE, PROGRESS, &tree);
X    wold = (tree + PROBOX)->ob_width - 1; /* Take border into account */
X    wnew = wold + 1;
X    if (maxc)
X         wnew = max(1, ((LONG) value * (LONG) wnew) / maxc);
X    (tree + PROBAR)->ob_width = wnew;
X    if (value)
X         {
X         objc_xywh(tree, PROBAR, &box);
X         box.g_x += wold; box.g_w -= wold;
X         objc_draw(tree, ROOT, MAX_DEPTH, box.g_x, box.g_y,
X              box.g_w, box.g_h);
X         }
X    }
X.bp
X/* >>>>>>>>>>>>>>>>>>> Progress indicator check for abort <<<<<<<<<<<<<<< */
X
X/*------------------------------*/
X/*  esc_prog      */
X/*------------------------------*/
X    WORD
Xesc_prog()
```

```
X    {
X    WORD which, kr;
X    WORD mx, my, mb, ks, br;         /* Not used, but needed */
X
X    FOREVER
X         {
X         which = evnt_multi(MU_KEYBD | MU_TIMER,
X              0, 0, 0,
X              0, 0, 0, 0, 0,
X              0, 0, 0, 0, 0,
X              0L,
X              0, 0,          /* Zero timer delay */
X              &mx, &my, &mb, &ks, &kr, &br);
X
X         if (which & MU_KEYBD)
X              {
X              if ((kr & 0xff) == 0x1B)    /* ESC?         */
X                   return (TRUE);         /* else try again */
X              }
X         else /* if (which & MU_TIMER) */
X              return (FALSE);
X         }
X
X    return (TRUE);          /* Keeps lint happy */
X    }
X
X.bp
X  /* >>>>>>>>>>>>>>>>>>>>>>> Progress subroutines  <<<<<<<<<<<<<<<<<<<<<<< */
X
X    VOID
Xset_text(tree, obj, str)
X    OBJECT   *tree;
X    BYTE *str;
X    WORD obj;
X    {
X    TEDINFO  *obspec;
X
X    obspec = (TEDINFO *) (tree + obj)->ob_spec;    /* Get TEDINFO address  */
X    obspec->te_ptext = str;          /* Set new text pointer */
X    obspec->te_txtlen = strlen(str); /* Set new length  */
X    }
X
X    VOID
Xdisp_obj(tree, obj)
X    OBJECT   *tree;
X    WORD obj;
X    {
X    GRECT    box;
X
X    objc_xywh(tree, obj, &box);
X    objc_draw(tree, ROOT, MAX_DEPTH, box.g_x, box.g_y,
X         box.g_w, box.g_h);
X    }
```

```
X
X    VOID
Xobjc_xywh(tree, obj, p)         /* get x,y,w,h for specified object
     */
X    OBJECT    *tree;
X    WORD obj;
X    GRECT     *p;
X    {
X    objc_offset(tree, obj, &p->g_x, &p->g_y);
X    p->g_w = (tree + obj)->ob_width;
X    p->g_h = (tree + obj)->ob_height;
X    }
X.bp
X   /* >>>>>>>>>>>>>>>>>>>>>> Box mover examples <<<<<<<<<<<<<<<<<<<<<<<< */
X/*-----------------------------*/
X/*  fourway_box        */
X/*-----------------------------*/
X    VOID
Xfourway_box(vdi_handle, rubber, limit)
X    WORD vdi_handle;
X    GRECT     *rubber, *limit;
X    {
X    UWORD     ox, oy, mx, my, foo, down;
X
X    vswr_mode(vdi_handle, MD_XOR);       /* Set VDI modes for box */
X    vsl_color(vdi_handle, BLACK);
X    wind_update(BEG_MCTRL);          /* Capture mouse    */
X
X    ox = rubber->g_x; oy = rubber->g_y;  /* Save off input corner */
X    graf_mkstate(&mx, &my, &foo, &foo);  /* Initialize mouse posn */
X    do {
X         rubber->g_x = min(ox, mx);  /* Choose UL corner
      */
X         rubber->g_y = min(oy, my);
X         rubber->g_w = max(ox, mx) - rubber->g_x + 1;
X         rubber->g_h = max(oy, my) - rubber->g_y + 1;
X         rc_intersect(limit, rubber);     /* Lock into limit rect  */
X         down = rub_wait(vdi_handle, rubber, &mx, &my);
X         } while (down);
X
X    wind_update(END_MCTRL);          /* Release mouse to GEM  */
X    }
X.bp
X/*-----------------------------*/
X/*  hot_dragbox        */
X/*-----------------------------*/
X    WORD
Xhot_dragbox(vdi_handle, box, limit, tree)
X    WORD vdi_handle;
X    GRECT     *box, *limit;
X    OBJECT    *tree;
X    {
X    UWORD     ox, oy, mx, my, foo, down;
```

```
X    WORD hover_obj, ret_obj;
X
X    vswr_mode(vdi_handle, MD_XOR);       /* Set VDI modes for box */
X    vsl_color(vdi_handle, BLACK);
X    wind_update(BEG_MCTRL);          /* Capture mouse    */
X    graf_mkstate(&mx, &my, &foo, &foo);  /* Initialize mouse posn */
X    ox = min(box->g_w, max(0, mx - box->g_x) );
X    oy = min(box->g_h, max(0, my - box->g_y) );
X    hover_obj = NIL;
X
X    do {
X         box->g_x = mx - ox;
X         box->g_y = my - oy;
X         rc_constrain(limit, box);   /* Lock into limit rect  */
X
X         down = rub_wait(vdi_handle, box, &mx, &my);
X
X         if (!inside(mx, my, limit))
X              ret_obj = NIL;
X         else
X              {
X              ret_obj = objc_find(tree, ROOT, NIL, mx, my);
X              if (ret_obj != NIL)
X              if ( !(SELECTABLE & (tree + ret_obj)->ob_flags) )
X                   ret_obj = NIL;
X              }
X         if (ret_obj != hover_obj)
X              {
X              if (hover_obj != NIL)
X                   objc_toggle(tree, hover_obj);
X              hover_obj = ret_obj;
X              if (hover_obj != NIL)
X                   objc_toggle(tree, hover_obj);
X              }
X         } while (down);
X
X    wind_update(END_MCTRL);          /* Release mouse to GEM  */
X    if (hover_obj != NIL)
X         objc_toggle(tree, hover_obj);
X    return (hover_obj);
X    }
X.bp
X/*------------------------------*/
X/*  rub_wait      */
X/*------------------------------*/
X    WORD
Xrub_wait(vdi_handle, box, mx, my)
X    WORD vdi_handle;
X    GRECT    *box;
X    WORD *mx, *my;
X    {
X    WORD which, kr;
X    WORD mb, ks, br;             /* Not used, but needed */
```

```
X
X    graf_mouse(M_OFF, 0x0L);
X    vdi_xbox(vdi_handle, box);       /* Draw waiting box */
X    graf_mouse(M_ON, 0x0L);
X
X         which = evnt_multi(MU_BUTTON | MU_M1,
X         0x01, 0x01, 0x00,      /* Wait for button up */
X         TRUE, *mx, *my, 1, 1,       /* or mouse move      */
X         0, 0, 0, 0, 0,
X         0L,
X         0, 0,
X         mx, my, &mb, &ks, &kr, &br);
X
X    graf_mouse(M_OFF, 0x0L);
X    vdi_xbox(vdi_handle, box);       /* Take down waiting box */
X    graf_mouse(M_ON, 0x0L);
X
X    return (!(which & MU_BUTTON));       /* TRUE if still dragging */
X    }
X.bp
X/* >>>>>>>>>>>>>>>>>>>>>>> Box Mover Utilities <<<<<<<<<<<<<<<<<<<<<<< */
X
X    VOID
Xobjc_toggle(tree, obj)
X    OBJECT    *tree;
X    WORD obj;
X    {
X    WORD state, newstate;
X    GRECT     root, ob_rect;
X
X    objc_xywh(tree, ROOT, &root);
X    newstate = (tree + obj)->ob_state ^ SELECTED;
X    objc_change(tree, obj, 0, root.g_x, root.g_y,
X         root.g_w, root.g_h, newstate, 1);
X    }
X
X    VOID
Xvdi_xbox(vdi_handle, pt)
X    WORD vdi_handle;
X    GRECT     *pt;
X    {
X    WORD pxy[10];
X
X    vdi_bxpts(pt, pxy);
X    vdi_xline(vdi_handle, 5, pxy);
X    }
X
X.bp
X    VOID
Xvdi_bxpts(pt, pxy)
X    GRECT     *pt;
X    WORD *pxy;
X    {
```

```
X    pxy[0] = pt->g_x;
X    pxy[1] = pt->g_y;
X    pxy[2] = pt->g_x + pt->g_w - 1;
X    pxy[3] = pt->g_y;
X    pxy[4] = pt->g_x + pt->g_w - 1;
X    pxy[5] = pt->g_y + pt->g_h - 1;
X    pxy[6] = pt->g_x;
X    pxy[7] = pt->g_y + pt->g_h - 1;
X    pxy[8] = pt->g_x;
X    pxy[9] = pt->g_y;
X    }
X
XMLOCAL   WORD hztltbl[2] = { 0x5555, 0xaaaa };
XMLOCAL  WORD verttbl[4] = { 0x5555, 0xaaaa, 0xaaaa, 0x5555 };
X
X    VOID
Xvdi_xline(vdi_handle, ptscount, ppoints)
X    WORD vdi_handle, ptscount, *ppoints;
X    {
X    WORD     *linexy,i;
X    WORD     st;
X
X    for ( i = 1; i < ptscount; i++ )
X         {
X         if ( *ppoints == *(ppoints + 2) )
X              {
X              st = verttbl[( (( *ppoints) & 1) |
X                   ((*(ppoints + 1) & 1 ) << 1))];
X              }
X         else
X              {
X              linexy = ( *ppoints < *( ppoints + 2 )) ?
X                   ppoints : ppoints + 2;
X              st = hztltbl[( *(linexy + 1) & 1)];
X              }
X
X         vsl_udsty(vdi_handle, st);
X         vsl_type(vdi_handle, 7);
X         v_pline(vdi_handle, 2, ppoints);
X         ppoints += 2;
X         }
X
X    vsl_type(vdi_handle, 1);
X    }
X.bp
X    WORD
Xrc_intersect(p1, p2)       /* compute intersect of two rectangles
     */
X    GRECT    *p1, *p2;
X    {
X    WORD tx, ty, tw, th;
X
X    tw = min(p2->g_x + p2->g_w, p1->g_x + p1->g_w);
```

```
X    th = min(p2->g_y + p2->g_h, p1->g_y + p1->g_h);
X    tx = max(p2->g_x, p1->g_x);
X    ty = max(p2->g_y, p1->g_y);
X    p2->g_x = tx;
X    p2->g_y = ty;
X    p2->g_w = tw - tx;
X    p2->g_h = th - ty;
X    return( (tw > tx) && (th > ty) );
X    }
X.bp
X    VOID
Xrc_union(p1, p2)
X    GRECT         *p1, *p2;
X    {
X    WORD     tx, ty, tw, th;
X
X    tw = max(p1->g_x + p1->g_w, p2->g_x + p2->g_w);
X    th = max(p1->g_y + p1->g_h, p2->g_y + p2->g_h);
X    tx = min(p1->g_x, p2->g_x);
X    ty = min(p1->g_y, p2->g_y);
X    p2->g_x = tx;
X    p2->g_y = ty;
X    p2->g_w = tw - tx;
X    p2->g_h = th - ty;
X    }
X
X    VOID
Xrc_constrain(pc, pt)
X    GRECT         *pc;
X    GRECT         *pt;
X    {
X    if (pt->g_x < pc->g_x)
X         pt->g_x = pc->g_x;
X    if (pt->g_y < pc->g_y)
X         pt->g_y = pc->g_y;
X    if ((pt->g_x + pt->g_w) > (pc->g_x + pc->g_w))
X         pt->g_x = (pc->g_x + pc->g_w) - pt->g_w;
X    if ((pt->g_y + pt->g_h) > (pc->g_y + pc->g_h))
X         pt->g_y = (pc->g_y + pc->g_h) - pt->g_h;
X    }
X.bp
X    BOOLEAN
Xinside(x, y, pt)      /* determine if x,y is in rectangle
     */
X    UWORD         x, y;
X    GRECT         *pt;
X    {
X    if ( (x >= pt->g_x) && (y >= pt->g_y) &&
X        (x < pt->g_x + pt->g_w) && (y < pt->g_y + pt->g_h) )
X         return(TRUE);
X    else
X         return(FALSE);
X    } /* inside */
```

```
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 12
X.!
X.!*****************************************************************************
SHAR_EOF
if test 10133 -ne "`wc -c 'apndx12.prf'`"
then
     echo shar: error transmitting "'apndx12.prf'" '(should have been 10133
characters)'
fi
echo shar: extracting "'gemcl16.dfn.uue'" '(206 characters)'
if test -f 'gemcl16.dfn.uue'
then
     echo shar: over-writing existing file "'gemcl16.dfn.uue'"
fi
sed 's/^X//' << \SHAR_EOF > 'gemcl16.dfn.uue'
Xbegin 666 gemcl16.dfn
XM"`````,`4%)/1U)%4U,```(```%03$E.10```````P```5!23T)/6``````$
XM```!4%)/0D%2``````$``P!35%))3D=3`````0$``5`Q`````````"`0`!
XF4#(`````````,!``%03@`````````&AH:&AH:&AH:&AH:&AH`
X`
Xend
SHAR_EOF
if test 206 -ne "`wc -c 'gemcl16.dfn.uue'`"
then
     echo shar: error transmitting "'gemcl16.dfn.uue'" '(should have been 206
characters)'
fi
echo shar: extracting "'gemcl16.rsc.uue'" '(558 characters)'
if test -f 'gemcl16.rsc.uue'
then
     echo shar: over-writing existing file "'gemcl16.rsc.uue'"
fi
sed 's/^X//' << \SHAR_EOF > 'gemcl16.rsc.uue'
Xbegin 666 gemcl16.rsc
XM`````H`"$`(0`A````"0`A````7@`"0`"``$`````````&`4V%M<&QE(%!R
XM;V=R97-S($)O>`!687)I86)L92!497AT($QI;F4```!0<F]G<F5S<R!%=F5N
XM="!/;F4`4')O9W)E<W,@179E;G0@5'=O`%!R;V=R97-S($5V96YT($X`````
XM.````$L```!,``,`!@`"$X```/__`!,``?__``$``P`4````$``"$0``````
XM`"D`"``"_____P`<`````````"0`"P`!`!,``0`#_____P`5`````````(0`
XM```#`"D``0````0`!``4`````#_$7```P`%`"(``0`#_____P`4`"````#_
XM$7(```````8``?__``$``P`4````$``"$0```````!L`!P`"_____P`<````
XM`````$T``@`!`!(``0`#_____P`<`````````&```@`#`!(``0``_____P`<
X8`"````````,``@`%`!(``0```*````$8
X`
Xend
SHAR_EOF
if test 558 -ne "`wc -c 'gemcl16.rsc.uue'`"
then
     echo shar: error transmitting "'gemcl16.rsc.uue'" '(should have been 558
characters)'
```

```
fi
echo shar: extracting "'gemcl16.rsh'" '(1208 characters)'
if test -f 'gemcl16.rsh'
then
     echo shar: over-writing existing file "'gemcl16.rsh'"
fi
sed 's/^X//' << \SHAR_EOF > 'gemcl16.rsh'
X#define T0OBJ 0
X#define T1OBJ 5
X#define FREEBB 0
X#define FREEIMG 0
X#define FREESTR 7
X
XBYTE *rs_strings[] = {
X"Sample Progress Box",
X"Variable Text Line",
X"",
X"",
X"Progress Event One",
X"Progress Event Two",
X"Progress Event N"};
X
XLONG rs_frstr[] = {
X0};
X
XBITBLK rs_bitblk[] = {
X0};
X
XLONG rs_frimg[] = {
X0};
X
XICONBLK rs_iconblk[] = {
X0};
X
XTEDINFO rs_tedinfo[] = {
X1L, 2L, 3L, 3, 6, 2, 0x1380, 0x0, -1, 19,1};
X
XOBJECT rs_object[] = {
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 41,8,
X2, -1, -1, G_STRING, NONE, NORMAL, 0x0L, 11,1, 19,1,
X3, -1, -1, G_TEXT, NONE, NORMAL, 0x0L, 0,3, 41,1,
X0, 4, 4, G_BOX, NONE, NORMAL, 0xFF1170L, 3,5, 34,1,
X3, -1, -1, G_BOX, LASTOB, NORMAL, 0xFF1172L, 0,0, 6,1,
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 27,7,
X2, -1, -1, G_STRING, NONE, NORMAL, 0x4L, 2,1, 18,1,
X3, -1, -1, G_STRING, NONE, NORMAL, 0x5L, 2,3, 18,1,
X0, -1, -1, G_STRING, LASTOB, NORMAL, 0x6L, 2,5, 18,1};
X
XLONG rs_trindex[] = {
X0L,
X5L};
X
Xstruct foobar {
```

```
X    WORD dummy;
X    WORD *image;
X    } rs_imdope[] = {
X0};
X
X#define NUM_STRINGS 7
X#define NUM_FRSTR 0
X#define NUM_IMAGES 0
X#define NUM_BB 0
X#define NUM_FRIMG 0
X#define NUM_IB 0
X#define NUM_TI 1
X#define NUM_OBS 9
X#define NUM_TREE 2
X
XBYTE pname[] = "GMCL16.RSC";
SHAR_EOF
if test 1208 -ne "`wc -c 'gemcl16.rsh'`"
then
     echo shar: error transmitting "'gemcl16.rsh'" '(should have been 1208
characters)'
fi
#    End of shell archive
exit 0
--
                       Jwahar R. Bammi
                Usenet:  .....!decvax!cwruecmp!bammi
                CSnet:  bammi@case         Arpa:  bammi%case@csnet-relay
            CompuServe:  71515,155


From -3925655488763789382
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baf8e55952af776b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 14:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!topaz!ll-xn!mit-amt!mit-eddie!genrad!decvax!
decwrl!amdcad!amdimage!prls!philabs!linus!raybed2!applicon!peterb
From: peterb@applicon.UUCP
Newsgroups: net.micro.atari16
Subject: Summary for mod.atari16.sources
Message-ID: <57000001@applicon>
Date: Sat, 9-Aug-86 17:48:00 EDT
Article-I.D.: applicon.57000001
Posted: Sat Aug  9 17:48:00 1986
Date-Received: Tue, 12-Aug-86 15:14:13 EDT
Lines: 214
Nf-ID: #N:applicon:57000001:000:7293
Nf-From: applicon.UUCP!peterb    Aug  9 17:48:00 1986


--
```

Well from all of the voting going on over the last
two weeks, I have 40 yes votes, and no negatives. Some votes state that
the vote is a summation for other people at that site. An interesting aspect
is that about 5 or so votes come from across the atlantic.

The following are the actual votes that I have accumulated over the last
two weeks. I think that we have enough to start the newsgroup
mod.atari16.sources so could someone out there (read spaf@gatech)
create the group for me??? The prime motivation is to prevent the Hack
reposting disaster in net.sources.games.

Hope to read a newgroup message soon for mod.atari16.sources...

Peter Barada
Applicon, Inc.
A Division of Schlumberger Ltd.
{decvax|ihnp4}!linus!raybed2!applicon!peterb

==========

From: raybed2!linus!philabs!princeton!pupthy!wrs (William R. Somsky)

I'm in favor of a moderated Atari 520/1040ST source group.
(I may even have some worthwhile contributions once I get a compiler.)

From: raybed2!linus!decvax!trwrb!sansom (Richard Sansom)

Am I in favor of a new moderated ST newsgroup?

Yes [x]
No [ ]

If I answered "Yes", which of the following names do I prefer?

mod.520st.sources [ ]
mod.520st [ ]
mod.st.sources [ ]
mod.st [x]

From: <raybed2!linus!decvax!yale!FISCHER-MICHAEL>

So, its time for a vote, you want a moderated atari 520st source
newsgroup??? Send me mail, I'll sum to the net in a week to two.

Sounds good to me.

From: raybed2!linus!philabs!seismo!c3pe!charles

Yes!
(Even though I don't *have* an ST, just a 'lowly' 800XL (well, all right, two)).

You *might* want to name it mod.atari16.sources, though, to be "compatible"

with the existing net.micro.atari{8,16} dichotomy.

From: raybed2!linus!philabs!seismo!mnetor!utfyzx!harrison

Yes please, and thanks very much for volunteering. The ProGem
stuff that bammi has been occasionaly putting in micro.atari16
has been really helpful, but complete working programs are
not only useful in their own right but indicate how to write
similar programs when the Developer's doc etc. is just too
obscure.

From: <raybed2!linus!ll-xn!seismo!mcvax!ukc!sjl>

This would be nice. Personally I would prefer the binary rather than
the source because,

    (a) I am lazy and don't want to compile programs unnecesarily.
        On an unexpanded 520 + ss drive this can take quite
        some time!

    (b) to avoid the problems of programs I want that use compilers
        or languages I don't have (mainly modula2 and pascal).

But if all else fails, send sources by all means!

From: raybed2!linus!ll-xn!seismo!mcvax!nikhefh!u14 (Daan Josephus Jitta)

I support the idea of a moderated news group devoted to the Atari ST serie.
In the organisation I'm working for, there is a quick growing community of ST
owners. You can regard this single article as subscribed by another 10 happy
ST owners.

BTW: I am looking for the sources of the make-utility posted to
     net.micro.atari16 at the end of april '86. Can you -if you have it-
     email it to me or *perhaps better* post it to net.micro.atari16 or
     mod.computers.st (???) so other people can use it to?

From: Skip Montanaro <raybed2!linus!cca!harvard!rochester!steinmetz!montnaro>

Peter,

I agree that there should be a moderated ATARI ST group. But are 520s and
1040s so different that they should be separate? I don't own either. I'm
just an interested observer.

From: raybed2!linus!ihnp4!hoptoad!curt (Curt Mayer)

i think that the name sucks. how about mod.sources.st or mod.sources.atari16 ?
nevertheless, i vote yes.

From: raybed2!linus!decvax!cwruecmp!bammi (Jwahar R. Bammi)

Sound like a good idea. Please could you post some alternate paths to

you also, and also Csnet/Arpa addresses to your site if you have them.
That will certainly make it easier to get things over to you.

From: applicon!raybed2!linus!ll-xn!lll-crg!ptsfa!jmc

Fine with me but the name should be something like mod.sources.atari16
(or some such --- whatever keeps the name from being obsolete for new
models is ok).

From: <raybed2!linus!cca!caip!watmath!looking!david>

I vote an enthusiastic YES !

From: applicon!raybed2!linus!philabs!seismo!rochester!rocksanne!sunybcs!mesches
(Scott Mesches)

I'm all for it, but I don't have a compiler 8-(
what are the chances of a mod.binary.atari520

From: applicon!raybed2!linus!philabs!seismo!rochester!rocksanne!sunybcs!leo (Leo
Wilson)

Heck, yeah, GO FOR IT!

From: George Walker <raybed2!linus!decvax!tektronix!tekig4.TEK.COM!georgew>

Yes, I'd like to see a moderated group. I suggest mod.st, with a
subdirectory for sources. It would be nice to have someone we could
mail to to coordinate things like putting together a list of where the
users groups are, etc., since Neil@Atari doesn't have time.

From: Andrew Smith <applicon!raybed2!linus!philabs!seismo!mcvax!kcl-cs!andrew>

My vote is YES to mod.sources.atari520ST or whatever !

From: Alun Jenkins <applicon!raybed2!linus!philabs!seismo!mcvax!kcl-cs!agjenkin>

One yes vote from me !

From: <raybed2!linus!ll-xn!seismo!mcvax!kbsc!yorick>

I vote YES!!

From: Guy Sirton <raybed2!linus!ll-xn!WEIZMANN!cmcl2!MLSIRTON>

Hi!

Sounds great!
How about mod.520st.binaries?

From: raybed2!linus!ll-xn!cmcl2!TPC862@ESTEC.BITNET

Yes, you have my vote. Only one concern.

I am on BITNET and can follow the info-atari16 because there is a
mirror between usenet and arpa. Will there be such a thing for this
newsgroup ? Or will archives be accessible via a mailserver ? We cannot
FTP through gateways from BITNET. Thanks for the info.

From: <raybed2!linus!ll-xn!rochester!kodak!ektools!bruce>

I vote wholeheartedly yes for a moderated newsgroup of this sort.
After all, the amiga guys got one. Shouldn't the name be mod.sources.
{atari16,atari520,atari-st} instead of the system name being in the
middle?

From: applicon!raybed2!linus!ll-xn!lll-crg!ptsfa!jmc

Fine with me but the name should be something like mod.sources.atari16
(or some such --- whatever keeps the name from being obsolete for new
models is ok).

From: topaz.RUTGERS.EDU!appelbau

Yes!!! A 520 sources groups would be great!!

From: applicon!raybed2!linus!cca!topaz!appelbau (Marc Appelbaum)

I don't have an St yet, but I think it is a very good idea, so I vote
YES....

From: Lynn B. Dobbs <applicon!raybed2!linus!ll-xn!s3sun!sdcsvax!marlin.Nosc.ARPA!
noscvax!dobbs>

I really don't care what you call it :-), butr by all means start it.
There are several ST owners at this location and I am sure we would all e
interested.

Thanks

--Lynn

From: applicon!raybed2!linus!ll-xn!seismo!NLM-VAX.arpa!randy (Rand Huntzinger)

Sounds good to me, I vote yes.

From: Heinz Kindlimann <raybed2!linus!philabs!seismo!mcvax!ethz!kindlima>

I really would like to see a news group for atari 520ST sources.
Perhaps it is also possible to run it as a mailing list.
Also a good idea would be an archive that is accessible in an
automatic way (for people who missed a part).

Thank you for volunteering.

From: Andrew Smith <raybed2!linus!ll-xn!seismo!mcvax!kcl-cs!andrew>

I vote YES for this new news group. Would it be possible for you to post
BB board stuff (from Atari etc.). as we in Europe have no chance of receiving
this sort of stuff over here.

From -4783924518129963766
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 19:39:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!ll-xn!mit-amt!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Flopping line in MacPaint
Message-ID: <2693@mit-hermes.ARPA>
Date: Sat, 9-Aug-86 22:39:31 EDT
Article-I.D.: mit-herm.2693
Posted: Sat Aug 9 22:39:31 1986
Date-Received: Mon, 11-Aug-86 04:15:32 EDT
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 12
Xref: watmath net.micro.mac:7270 net.micro.atari16:1585

I have an Atari 1040ST, and I've been playing with its bit-mapped graphics.
One thing that the Mac does when running MacPaint is let you start a line
by clicking on a point, then flopping the other end around with the mouse until
you anchor it by clicking again. If the display is bit-mapped, what I'd
expect to see is that every time the flopping line leaves a point on the
screen, that point would have to be redrawn or you'd see a whole row of blank
points in every object crossed by the line. Yet this doesn't happen. Surely
the whole screen isn't redrawn every time a line is moved? An alternative
would be to have two planes which are automatically or-ed together to generate
the display, so one could be permanent and one temporary, but the ST certainly
doesn't do this--does Macintosh?
                        --John Purbrick

From 1189559934805561176
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f0bcbe91c662349b
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,f0bcbe91c662349b
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-09 20:36:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!higgin
From: higgin@cbmvax.cbm.UUCP (Paul Higginbottom)
Newsgroups: net.micro.amiga,net.micro.atari16

Subject: Re: Problem with proportional gadget
Message-ID: <605@cbmvax.cbmvax.cbm.UUCP>
Date: Sat, 9-Aug-86 23:36:34 EDT
Article-I.D.: cbmvax.605
Posted: Sat Aug 9 23:36:34 1986
Date-Received: Tue, 12-Aug-86 10:06:24 EDT
References: <110@scubed.UUCP>
Reply-To: higgin@cbmvax.UUCP (Paul Higginbottom)
Organization: Commodore Technology, West Chester, PA
Lines: 27
Xref: mnetor net.micro.amiga:4204 net.micro.atari16:1558

In article <110@scubed.UUCP> phil@scubed.UUCP (Phil Cohen) writes:
>My program uses a proportional gadget and I am experiencing some
>very wierd behaviour. If one clicks in the body of the gadget, all
>works as advertized, however, if one clicks and drags the knob, all hell
>breaks loose. The gadget image gets replicated outside of the window
>that it belongs in and the system quickly crashes. I'm sure it must be
>my fault but am at a total loss to see what is wrong. Any ideas?
>The gadget is in a subwindow on top of a backdrop window and I am using
>version 1.1.

Proportionals are tricky things to set up right. I didn't use AUTOKNOB
in one I just did on a window that couldn't be sized - I had a feeling
the AUTOKNOB was for windows that get sized, because it changes in that
case. Anyway, I didn't use that, but you must have an Image and a PropInfo
structure filled in properly and their respective addresses assigned in the
GadgetRender and SpecialInfo.

Also, if you use the method I suggested above, you'll need GAGDIMAGE set.

I had the exact same symptoms you report (Images being splattered all over
the place for a while before the machine croaks), so don't feel so bad!

Hope this helps a little.

     Paul.

Disclaimer: I do not work for Commodore, and my opinions are my own.

From 4656870826221246155
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-09 22:43:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ucbvax!ucbcad!nike!lll-crg!
caip!im4u!oakhill!bryant
From: bryant@oakhill.UUCP (Bryant Wilder)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: New CoCo-III's Market Niche
Message-ID: <745@oakhill.UUCP>
Date: Sun, 10-Aug-86 01:43:09 EDT
Article-I.D.: oakhill.745
Posted: Sun Aug 10 01:43:09 1986
Date-Received: Mon, 11-Aug-86 04:35:11 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP> <1050@ihwpt.UUCP>
Organization: Motorola Inc. Austin, Tx
Lines: 12
Xref: watmath net.micro.6809:941 net.micro:15318 net.micro.atari16:1587
net.micro.amiga:4277
Summary: why there are no memory page registers on the 6809

In article <1050@ihwpt.UUCP>, knudsen@ihwpt.UUCP writes:
> > If Motorola
> > had the forsight to add on-chip banking like in the 8088, the 6809 would
> > have had a good chance of catching on as THE 8/16 bit chip.
you are certainly very close to the truth if not right on the mark. if
you have further interest in some of the why this and that, i refer you to
a posting i did 10 to 14 days ago <737@oakhill> in net.arch
under the heading of Outside Influences on Chip Designs. it will answer the
question and maybe some more.

bryant   {seismo,ihnp4,gatech,harvard}!ut-sally!oakhill!bryant
                or   { }!sun!oakhill!bryant

From -3208153458922694304
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,43dc5e1d9c89a1ee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-10 04:56:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ucbvax!lasso.UUCP!didier
From: didier@lasso.UUCP
Newsgroups: net.micro.atari16
Subject: problems with joysticks on the ST
Message-ID: <8608101003.AA19749@inria.UUCP>
Date: Sun, 10-Aug-86 07:56:38 EDT
Article-I.D.: inria.8608101003.AA19749
Posted: Sun Aug 10 07:56:38 1986
Date-Received: Mon, 11-Aug-86 04:43:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I'm having problems pickinp up data coming from the joysticks. The
documentation I have says position info should end up in the keyboard buffer,
but I can't find it there... I can only read data from the firing switch.

I can work around this by reading directly from the ACIA, but...?

Is there a good DETAILED doc available somewhere on the ST custom chips and Yamaha music chip ? The developpers package we get here in France is close to being a bad joke (an expensive one, too).

Sorry if this has been discussed on the net already. I'm just joining the list.

Didier Giralt
LAAS, Toulouse, France.

...!mcvax!inria!lasso!didier

From 2461236467936590388
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,70c652693e514b03
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,70c652693e514b03
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-08-10 09:46:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: AMIGA GENLOCK UNIT: Any news?
Message-ID: <607@cbmvax.cbmvax.cbm.UUCP>
Date: Sun, 10-Aug-86 12:46:08 EDT
Article-I.D.: cbmvax.607
Posted: Sun Aug 10 12:46:08 1986
Date-Received: Tue, 12-Aug-86 10:07:13 EDT
References: <2353@watmath.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Distribution: net
Organization: Commodore Technology, West Chester, PA
Lines: 30
Xref: mnetor net.micro.atari16:1559 net.micro.amiga:4206

In article <2353@watmath.UUCP> mwtilden@watmath.UUCP (M.W. Tilden, Hardware) writes:
>hi.
>
>Does anyone out there know if the Amiga Genlock unit is compatable
>with the Atari ST?
>
>Has anyone out there had one for a while? What do you think?
>Can anyone post a operational summary or tell me where I could find
>one?
>
>Please reply via E-mail.
>
>Thanx

>
>
>--
>Mark Tilden   --
> |UUCP: ..!{utzoo,decvax,ihnp4,allegra}!watmath!mwtilden |
>M.F.C.F Design Lab. |ARPA: mwtilden%watmath%waterloo.csnet@csnet-relay.arpa |
>Un. of Waterloo. |CSNET: mwtilden%watmath@waterloo.CSNET |
>Canada, N2L-3G1   --
>work: (519)-885-1211 ext.2457, home: 888-7111   -_-_-__--__---__ /--(glitch!)
>   \/
>"MY OPINIONS, YOU HEAR!? MINE! MINE! MINE! MINE! MINE! AH HAHAHAHAHAHAHAHAHA!!"

--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -2461285404360114613
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c7dea2a840a27301,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-10 15:44:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!burl!ulysses!bellcore!whuxcc!lcuxlm!whuxl!
houxm!ihnp4!inuxc!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: STarter Kit mailings resumed
Message-ID: <54600105@iuvax.UUCP>
Date: Sun, 10-Aug-86 18:44:00 EDT
Article-I.D.: iuvax.54600105
Posted: Sun Aug 10 18:44:00 1986
Date-Received: Tue, 12-Aug-86 22:06:38 EDT
Lines: 3
Nf-ID: #N:iuvax:54600105:000:125
Nf-From: iuvax!franco   Aug 10 17:44:00 1986

STarter Kit mailings have resumed. Disks have been mailed to Ostrum, Nady,
Schulz, Chan, Hoven, Sechrest, Doyle and Atkins.

From -74314364285128061
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,47356aac7101291c
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,47356aac7101291c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 08:56:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!sdcrdcf!trwrb!sansom

From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.mac,net.micro.atari16
Subject: Re: Flopping line in MacPaint
Message-ID: <1232@trwrb.UUCP>
Date: Mon, 11-Aug-86 11:56:52 EDT
Article-I.D.: trwrb.1232
Posted: Mon Aug 11 11:56:52 1986
Date-Received: Tue, 12-Aug-86 17:31:23 EDT
References: <2693@mit-hermes.ARPA>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 53
Xref: mnetor net.micro.mac:6569 net.micro.atari16:1568

In article <2693@mit-hermes.ARPA> jpexg@mit-hermes.ARPA (John Purbrick) writes:
>I have an Atari 1040ST, and I've been playing with its bit-mapped graphics.
>One thing that the Mac does when running MacPaint is let you start a line
>by clicking on a point, then flopping the other end around with the mouse
>until you anchor it by clicking again. If the display is bit-mapped, what I'd
>expect to see is that every time the flopping line leaves a point on the
>screen, that point would have to be redrawn or you'd see a whole row of blank
>points in every object crossed by the line. Yet this doesn't happen. Surely
>the whole screen isn't redrawn every time a line is moved? An alternative
>would be to have two planes which are automatically or-ed together to
>generate the display, so one could be permanent and one temporary, but
>the ST certainly doesn't do this--does Macintosh?
>   --John Purbrick

The technique used is called XOR (eXclusive-OR). What happens is this:
once the first point of the line has been clicked (or "anchored"), then
everytime the mouse moves, a line is drawn from the anchor to the new
pointer position. However, instead of blindly erasing whatever is underneath
the line, the screen's bit image is preserved by XORing the line's bit image
with the screen image. Now, the _next_ time the mouse moves, the line is
again drawn using the XOR mask, thus restoring the background to its previous
state. Once the mouse positions the pointer in its final location and is
clicked, then the line is drawn "permanently". Of course, most programs
also use the "double-buffer" as well, so that any individual action can
be "undone". Anyway, here's an example of how this works:

```
     Screen:       Line:     Screen XOR Line:

     0010000       0000010        0010010
     0100010       0000100        0100110
     0111000       0001000        0110000 <-- note "hole" in this byte
     0000100       0010000        0010100
     0001000       0100000        0101000
     0000000       1000000        1000000

    XOR Screen:        Line:     Original Screen:
```

```
     0010010      0000010        0010000
     0100110      0000100        0100010
     0110000      0001000        0111000
     0010100      0010000        0000100
     0101000      0100000        0001000
     1000000      1000000        0000000

Hope this helps you a bit (;-).
--
 _________ ______ ____ _____ ___
/_________//___   ||__|/____|/__/   Richard E. Sansom
   ___    ____/  / ____________      TRW Electronics & Defense Sector
  /  /   /  /\  <  |    /|    /     One Space Park Drive, R3/1028
 /  /   /  /  \  \ |   / |   /       Redondo Beach, CA 90278
/__/   /__/    \__\|__/  |__/        {...decvax,ucbvax,ihnp4}!trwrb!sansom


From 344820788692824387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 09:29:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!harvard!panda!genrad!decvax!decwrl!pyramid!hplabs!
sdcrdcf!psivax!quad1!jpm
From: jpm@quad1.UUCP
Newsgroups: net.micro.6809,net.micro,net.micro.atari16
Subject: Re: New CoCo-III's Market Niche (long)
Message-ID: <576@quad1.UUCP>
Date: Mon, 11-Aug-86 12:29:34 EDT
Article-I.D.: quad1.576
Posted: Mon Aug 11 12:29:34 1986
Date-Received: Wed, 13-Aug-86 01:48:50 EDT
References: <1040@ihwpt.UUCP> <580@cbmvax.cbmvax.cbm.UUCP> <2320@ihlpg.UUCP>
<1049@ihwpt.UUCP>
Organization: Quadratron Systems Inc, Sherman Oaks Ca.
Lines: 14
Xref: mnetor net.micro.6809:509 net.micro:5824 net.micro.atari16:1582

> I agree 100% -- the OS9/68K support for the ST is way overpriced,
> especially compared to Tandy's pricing on 6809 versions.

OS9 royalties are based on how much money an OEM pays up front.  The more
you pay up front, the less each copy costs you.  Tandy can afford to put
out megabucks for the OS and langauges and then sell them cheaply.  Smaller
companies just don't have the resources to do that (it would probably be a bad
idea even if they could, since I don't think 100,000 people would buy OS9/68K
even at $100 a copy).
--
```

John P. McNamee Quadratron Systems Inc.

UUCP: {sdcrdcf|ttdica|scgvaxd|mc0|bellcore|logico|ihnp4}!psivax!quad1!jpm
ARPA: jpm@BNL.ARPA

From 2313460685326680636
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 142096,39358680d1b972f4
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 10:17:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!im4u!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: Re: Re: New CoCo-III's Market Niche (long)
Message-ID: <612@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 11-Aug-86 13:17:14 EDT
Article-I.D.: cbmvax.612
Posted: Mon Aug 11 13:17:14 1986
Date-Received: Tue, 12-Aug-86 17:17:02 EDT
References: <4286@gatech.CSNET>
Organization: Commodore Technology, West Chester, PA
Lines: 40
Xref: mnetor net.micro.6809:506 net.micro:5813 net.micro.atari16:1565
net.micro.amiga:4219

> Xref: cbmvax net.micro.6809:186 net.micro:1300 net.micro.atari16:1502
net.micro.amiga:2102
>
>>Has TRS announced an MMU chip for the CoCo-III? Last I heard, none of the
>>6809 suppliers (Motorola, Hitachi, etc.) had.
>
> I assume that you must be disqualifying the 6829 (or was it the 6839)
> memory management chip for some reason. This chip provided expanded
> memory and protection for multiple processes on the 6809. It's also
> cheap (about $5 a piece).

I had heard that they were dropped. But I've heard more on the CoCo-III;
they are using a custom glue chip that does the video display and the
memory mapping. The best information says that this chip manages 512K
bytes of memory in 8K segments, compatible with the OS-9 specifications
for memory management (level II).

> The figuring is that why should you stifle yourself with an 8-bit
> processor and banking memory when for close to the same money you can

> go with a 68008, use your 8-bit peripherals, have a 20-bit linear
> address space and the 68000 instruction set.

Why not buy a 68000 (for around $5 a piece), use your 8-bit peripherals,
have a 24-bit linear address space, a 16 bit data bus, and the 68000
instruction set? A good deal, for the price of a discontinued MMU chip.

> --
> Jeff Lee
> CSNet: Jeff @ GATech   ARPA: Jeff%GATech.CSNet @ CSNet-Relay.ARPA
> uucp: ...!{akgua,allegra,hplabs,ihnp4,linus,seismo,ulysses}!gatech!jeff
--
/\
Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh

     "I gained nothing at all from Supreme Enlightenment, and
      for that very reason it is called Supreme Enlightenment."
                                -Gotama Buddha

     These opinions are my own, though for a small fee they be yours too.
\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/

the hard drive?

3) What is going on between the cartridge-port clock device and the hard disk? (I recall a recent posting from Atari.) Incidentally, will Atari ever put a battery (or other type that will hold time across powerdowns) clock in the ST family? Given that the machine is really good now, this feature would give it a load of class. It is one of the convenience features that every serious computer should have.

From 9215682349058496309
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4
X-Google-Attributes: gid129c11,public
X-Google-Thread: 150311,39358680d1b972f4
X-Google-Attributes: gid150311,public
X-Google-Thread: 140593,39358680d1b972f4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 10:29:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!im4u!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16
Subject: Re: Re: New CoCo-III's Market Niche (long)
Message-ID: <613@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 11-Aug-86 13:29:54 EDT
Article-I.D.: cbmvax.613
Posted: Mon Aug 11 13:29:54 1986
Date-Received: Tue, 12-Aug-86 17:17:50 EDT
References: <1050@ihwpt.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 67
Xref: mnetor net.micro.6809:507 net.micro:5814 net.micro.atari16:1566

> Xref: cbmvax net.micro.6809:189 net.micro:1303 net.micro.atari16:1512
net.micro.amiga:2113
>
> Yes, I REALLY wish the Coco3 had 384-400 vertical lines.
> Personally, I rate resolution more important than palette size,
> tho you're right, it's almost a waste of analog RGB to skimp on it.

Resolution and palette are often used as substitutes for one-another when displaying images, as any MAC or hi-res ST user can tell you.

> Of course we know the 68K machines are better in every way than the MSDOS
> biz boxes. It's just that the 3-piece suit types who define the "real
> world" don't see it that way. Fortunately biz types are finding how useful
> color graphics and mouse pointing can be.

Though some places you can't buy anything except a PC. There are actually aftermarket 68000 boards that fit in a PC case and replace the ENTIRE motherboard. That's so engineers, etc., can get the order for a PC through

purchasing, and the 68000 board as simply an "add-on". The suits are wasting too much money with the IBM-only attitude; hopefully that won't last much longer.

> I'm glad you appreciate the 6809 so highly. Interesting idea, putting
> segment registers in it, tho the opcodes are long enuf already.

I've been working with 8-bitters too long not to appreciate it.

>
>> Of course, all of the 68000 machines
>> will be able to run UNIX quite nicely, along with OS-9 68K, the version of
>> OS-9 for grownups.
> That's U**X without MMU or protection, as has been argued to death
> already. The Coco3 will do a safer job on OS9 Level II than the
> Amiga or ST can on U**X. Of course OS9/68K is better than 6809 versions,
> tho many of the improvements could be retrofit into 6809 versions,
> given the extra memory now available.

The Amiga could easily use either Motorola 68000 family MMU, or a custom MMU, if hardware protection is required. And a 68010 would really help things along.

>> Your're right on the code compactness. Much of the size of the
>> code will depend on whether a compiler or an assembler is used and if a
>> compiler, how efficient it is.
> Boy is that the truth! 6809 OS9 was written in assembler, much of
> 68K in C, and it shows in the code size.
>
>> Dave Haynie   {caip,ihnp4,allegra,seismo}!cbmvax!daveh
> --
> Mike J Knudsen / \   ...ihnp4!ihwpt!knudsen
>   / NO \
> Bell Labs   / BABY \   (312)-979-4132 (work)
> (AT & T)   /ON BOARD\
>   \GO AHEAD/   BORED SAILORS
> IH 6D-319   \ & HIT/   go BOARDSAILING.
> x4132   \ ME /
>   \ /
> Bell Labs pays \/   me for my thoughts; my opinions are al mine!
--
/\/\/\

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ea3a7863bf7be01e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 11:03:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!burl!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.micro.atari16
Subject: hack, uncompress
Message-ID: <300@vaxb.calgary.UUCP>
Date: Mon, 11-Aug-86 14:03:20 EDT
Article-I.D.: vaxb.300
Posted: Mon Aug 11 14:03:20 1986
Date-Received: Tue, 12-Aug-86 22:04:52 EDT
Distribution: na
Organization: U. of Calgary, Calgary, Ab.
Lines: 21

I recently (well, actually, some time ago) received the binaries for HACK 1.03 fo rthe atari ST on net.sources. My problem is that these files require a program called "uncompress" to make them usable. This particular program is little used at our site and has been consigned to tape and forgotten. Although the sysop HAS promised to find it for me, I may have to wait for over a month to get it.

So, here's the request...

Could some kind person out there send me a uuencoded binary or the source (if possible) of uncompress so I can play HACK? (binaries are of course for a VAX11/780 w/ UNIX). E-mail would be dandy; posting to THIS news group is fine too. Please to NOT post to net.sources, as that is censored at my site, and I won't see it for weeks.

Naturally, if this poses copyright problems (we ARE a licensed UNIX site), please disregard this.

Thanks in advance,

Mark Brinsmead.

From -2703919398393094551
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2b240674361ab44,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 11:18:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: How do you use Motorola fast floating point routines in Alcyon C LIBF?

Message-ID: <1289@watdragon.UUCP>
Date: Mon, 11-Aug-86 14:18:06 EDT
Article-I.D.: watdrago.1289
Posted: Mon Aug 11 14:18:06 1986
Date-Received: Tue, 12-Aug-86 01:22:21 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 8

Well, how?

Thank you very much,

"You just watch yourself. We're wanted men. I have the death sentence
 on 12 systems!"

Jan Gray   jsgray@watdragon   University of Waterloo   519-885-1211 x3870

From -7429665508223141818
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8dfb7f1e3e8f2aa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-11 11:39:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!caip!clyde!burl!ulysses!bellcore!whuxcc!lcuxlm!
whuxl!houxm!ihnp4!alberta!ubc-vision!fornax!chapman
From: chapman@fornax.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: SCSI interface
Message-ID: <9@fornax.uucp>
Date: Mon, 11-Aug-86 14:39:49 EDT
Article-I.D.: fornax.9
Posted: Mon Aug 11 14:39:49 1986
Date-Received: Tue, 12-Aug-86 22:04:30 EDT
Distribution: net
Organization: Computing Science Dept, SFU, Burnaby, B.C. Canada
Lines: 28

Sigh, one last (after 4 weeks) try to get this message out,

I tried to post the message below some time ago but we have been off the
net for one reason or another for about three weeks. If the requested
(or related info on scsi controllers) info has been posted perhaps
someone would be kind enough to email it to me. Thanks muchly!

>
>>A guy I met at a computer store yesterday had a home-built drive consisting of
>>an Atari --> SCSI board, an off-the-shelf SCSI controller, and a 70 meg drive.
>>He got the Atari --> SCSI board and disk driver from Supra for $200.00.
>>I suppose it's the same board that Supra uses in their hard disk for the ST.

>
> [....]

I didn't see the original article double >'d above (guess it didn't make it
to our site for some reason). Could someone *please* post the address and
phone number (if you have it) of Supra?

     Thanks in advance,

               john chapman

{ihnp4,watmath,uw-beaver}!ubc-vision!sfucmpt!sfulccr!chapman

From 3042378517481309672
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35dc4706d05e6e0c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 13:21:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site hcrvx1.UUCP
Path: utzoo!hcradm!hcrvx1!hugh
From: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Newsgroups: net.micro.atari16
Subject: Re: I*S Talk by Batteries Included, review follows.
Message-ID: <1382@hcrvx1.UUCP>
Date: Fri, 1-Aug-86 16:21:47 EDT
Article-I.D.: hcrvx1.1382
Posted: Fri Aug 1 16:21:47 1986
Date-Received: Sat, 2-Aug-86 04:07:55 EDT
References: <860729020349.0000079A.AEOA.AA@UMass>
Reply-To: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Organization: Human Computing Resources, Toronto
Lines: 45
Summary:

In article <860729020349.0000079A.AEOA.AA@UMass> Flash@UMass.BITNET (Rick
Flashman) writes:
>   I just purchased I*S Talk by Batteries Included. Basically, what I can
>say is that the product seems like a good one, but version 1.00 should not
>have been released to the market, too many bugs.

> ... It [I*S Talk -- DHR] is the BEST GEM program,
>since the other ones out there (MI-TERM and FLASH) are worse and have even
>more bugs.

>... He showed us I*S Talk as a complete finished product, and
>went on to talk about how FLASH terminal is full of bugs. When it turns out
>that his product is in much worse shape.

First, this posting is contradictory. Flash (the program) and
I*S Talk can't be both worse than each other.

I use Flash (the program) and am quite happy with it. But: I know (and like) the developers. Whenever I have had a problem, they have fixed it. My problems have not been bugs:

1. Flash does not support some of the more obscure features of VT100 (double-sized characters, for example). The initial version did not support scrolling regions because the authors thought this feature was unimportant. To a UNIX user it is not, so they have put it in.
2. Once the scrolling region was added, I had a problem switching to 48 line mode: the scrolling region was not changed. Now it is.
3. It sometimes takes a few clicks of the right button before Flash notices. The authors tell me that this is a GEM problem. They told me to hold the button down longer but I haven't tried this.

I think that there were some other small problems with the initial version, but I never hit them.

The authors regularly sign on to COMPUSERVE, so you could talk to them there. (This is an observation by me, not a commitment from them). On COMPUSERE, there is a bug list & fix file: in atari16 sig, data library 2 (telecom), brouse with keyword "flash".

My ST makes a great terminal for my UNIX machine. I love using JOVE with a 48 line screen. And it works at 9600 Baud (with flow control).

Hugh Redelmeier (416) 922-1937
{utzoo, ihnp4, decvax}!hcr!hugh

From -2960542619471140471
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3e1fb0578920b86,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 13:46:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!nikhefh!u14
From: u14@nikhefh.uucp (Daan Josephus Jitta)
Newsgroups: net.micro.atari16
Subject: Wanted: make sources for the ST
Message-ID: <194@nikhefh.UUCP>
Date: Fri, 1-Aug-86 16:46:52 EDT
Article-I.D.: nikhefh.194
Posted: Fri Aug 1 16:46:52 1986
Date-Received: Sat, 2-Aug-86 23:33:15 EDT
Reply-To: u14@nikhefh.UUCP (Daan Josephus Jitta)
Distribution: net
Organization: NIKHEF-H Amsterdam (the Netherlands)
Lines: 7
Apparently-To: rnews@mcvax

I like to have the sources of the 'make'-utility that was posted to
net.micro.atari16 about three months ago. I already have the binaries.
Who will like to post them to net.micro.atari16 or email them to me?

Thanks, Daan.

From 3633405994292926335
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d9f7363e5bc0f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 14:36:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!
uiucdcs!convex!megamax!m5
From: m5@megamax
Newsgroups: net.micro.atari16
Subject: Re: Orphaned Response
Message-ID: <3100009@megamax>
Date: Fri, 1-Aug-86 17:36:00 EDT
Article-I.D.: megamax.3100009
Posted: Fri Aug 1 17:36:00 1986
Date-Received: Wed, 13-Aug-86 05:51:15 EDT
References: <888@ucbcad.BERKELEY.EDU>
Lines: 10
Nf-ID: #R:ucbcad.BERKELEY.EDU:888:megamax:3100009:000:289
Nf-From: megamax!m5   Aug 1 16:36:00 1986

Re: Megamax floating point bugs

As I stated in a note ("Some stuff"), the Megamax floating point problems
have been fixed. If you have a version 1.0 system, it should be upgraded.

Mike McNally   Digital Lynx Inc.
                hanger-about at Megamax

    ...convex!ctvax!megamax!m5

From -3348754705534343242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a9def15c5601995,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 16:35:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!decwrl!
ucbvax!BONNIE.UCI.EDU!escott
From: escott@BONNIE.UCI.EDU.UUCP
Newsgroups: net.micro.atari16
Subject: Micro stock software summary (133 lines *long*)
Message-ID: <8608012334.AA01055@ucbvax.Berkeley.EDU>
Date: Fri, 1-Aug-86 19:35:28 EDT

Article-I.D.: ucbvax.8608012334.AA01055
Posted: Fri Aug 1 19:35:28 1986
Date-Received: Sat, 2-Aug-86 22:17:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 129

Thanks much to everybody who replied to my request for microcomputer
software for stock market analysis. I'm excerpting here the replies;
they were very helpful, and I'm very grateful. (Sorry for the length,
but I didn't want to have to make any judgements about what parts of
these letters would interest everyone, and what parts not).

 +---+
  E. Scott Menter   Internet: escott@ics.uci.edu
  UCI Systems Support Group   UUCP: ...!ucbvax!ucivax!escott

  "...Say, Foz, about my vocals..."
 +---+

------- Forwarded Messages

Subject: Re: Stock Program for Micros
From: SAC.HQSAC-ACMI@e.isi.edu

In 'Better Investing', a publication of the National Association of
Investors Corporation (NAIC), there is an ad for a program called
EvalForm 3.0. The Investment Club I belong to uses version 2.0
with a CP/M based machine. Although the program is designed to
support NAIC methods to evaluate a stock it is an excellent tool
for the investor. Data is gathered from either Standards and Poor's,
Value Line or both and entered into the program. The printout provides
buy/sell/hold price ranges, best price to buy, upside/downside, and
several other valuable stats. The report is about two pages long with
very little wasted space.

For more info write to :

    INVESTOR'S SOFTWARE
    BOX N
    BRADENTON BEACH, FL 33510
    (704) 743-2109
    (813) 778-5515

and identify your computer.

For info on the NAIC or how to start your own investment club write to:

    NAIC
    1515 E. ELEVEN MILE ROAD
    ROYAL OAK, MICHIGAN 48067

==========
DISCLAIMER: I am a member of NAIC but receive no compensation
benefit, nor anything else for mentioning them or if someone
joins.   I have no connection with INVESTOR'S SOFTWARE and
do not profit by mentioning them either.

Marc Frederick
HQ SAC/ACCA, OFFUTT AFB NE 68113
==========

------- Message 2

To: escott@BONNIE.UCI.EDU
Subject: Re: Stock Program for Micros
From: jhs@mitre-bedford.arpa
Organization: The MITRE Corp., Bedford, MA

Without a doubt, the micro with the most stock market forecasting software is the IBM PC/XT/AT and clones. I don't have specific recommendations on forecasting packages, but there is so much of it that finding it shouldn't be a problem.

The Atari ST will, it is rumored, be able to run most IBM software with an adaptor to be announced soon (or is it already announced?). However, your friend should probably just go buy an AT clone such as the Zenith Data Systems Z248, or the IBM PC/AT itself, or comparable units from AT&T, NEC, ITT, WANG, Leading Edge and many others. The only reasons for using the Atari ST for this purpose would be to save a lot of money and to have a 68000 processor to play with. From the way you posed the question, neither goal seems especially applicable. Buying a straight AT clone would undoubtedly minimize the unforeseen complications in using standard software.

For a color monitor, I would suggest the NEC JC-1401P3A "Multisync" monitor, which has very high resolution and is one of the few that you can use for word processing without feeling bleary-eyed. (The monochrome text display is the sharpest I have seen on a color monitor.) Princeton Graphics is also said to have a very good monitor. The Atari monitor might also be a good choice at a lot lower price. Any of these would justify one of the hi-res graphics cards that are available for the AT clones.

- -John Sangster
jhs@mitre-bedford.arpa

------- Message 3

From: chabris_c%h-sc4@harvard.harvard.edu
Organization: Harvard Science Center
Subject: Re: Stock Program for Micros

I can't discuss it since I haven't actually used it, but I hear good things about the ISGUR Portfolio System from Batteries Included, for the Atari ST and MS-DOS. It uses the GEM interface and includes an excellent communications

program, IS-Talk. Hope this helps.

- --
- -- Christopher F. Chabris
   15 Sterling Road
   Armonk, NY   10504

   CompuServe: 73277,305
         UUCP: ...!harvard!h-sc4!chabris
         ARPA: chabris%h-sc4@harvard.ARPA
       BITNET: chabris@HARVUNXU.BITNET
         AT&T: (914) 273-8828

------- Message 4

To: Scott Menter <escott@BONNIE.UCI.EDU>
From: "Marshall D. Abrams" <abrams@mitre.arpa>
Organization: The MITRE Corp., Washington, D.C.

I have a stock charting program for Atari. I haven't used it because
I'm not into the market, but someone I know is and he seemed to like
the program.

- - Marshall D. Abrams, phone: (703) 883-6938
   The MITRE Corporation, 1820 Dolley Madison Blvd.
   Mail Stop W458, Mc Lean, VA   22102

------- End of Forwarded Messages

From 8946729163676643847
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67b3b67bc638d3c0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 20:21:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!parsons
From: parsons@utcsri.UUCP (Darrell J. Parsons)
Newsgroups: net.micro.atari16
Subject: Re: terminal emulator with 132 columns
Message-ID: <3205@utcsri.UUCP>
Date: Fri, 1-Aug-86 23:21:31 EDT
Article-I.D.: utcsri.3205
Posted: Fri Aug 1 23:21:31 1986
Date-Received: Wed, 6-Aug-86 09:40:39 EDT
References: <8607251323.AA05208@ucbvax.Berkeley.EDU> <402@atari.UUcp>
Reply-To: parsons@utcsri.UUCP (Darrell J. Parsons)
Organization: CSRI, University of Toronto
Lines: 16
Summary:

In article <402@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>In article <8607251323.AA05208@ucbvax.Berkeley.EDU>, K538915@CZHRZU1A.BITNET
writes:
>
>> Neil, its awfully frustrating reading about all the PD programs you have
>> on the Atari BBS and having no possibility at getting them (hint, hint).
>
>So what would you like me to do about it? That's why we have the BBS -- to
>distribute the software. What alternatives are there? We'd like to go with
>a national service (i.e. CompuServe, GENIE) but most of the software is there
>already so obvoiusly you can't afford that. And we don't want to get into
>the business of duplicating disks of the stuff (and having to support it).
What about the net? Weren't UUDECODE/SHAR/COMPRESS etc. all written with that
VERY purpose in mind.

Alec Saunders. (Not Darrell Parsons)

From -1342627739482932915
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,689d3e1d5a5da854
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 20:45:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: Cheap ST's...
Message-ID: <5469@ut-sally.UUCP>
Date: Fri, 1-Aug-86 23:45:39 EDT
Article-I.D.: ut-sally.5469
Posted: Fri Aug 1 23:45:39 1986
Date-Received: Sat, 2-Aug-86 10:46:30 EDT
References: <8607311751.AA11552@ee.purdue.edu>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Distribution: world
Organization: U. Texas CS Dept., Austin, Texas
Lines: 29

In article <8607311751.AA11552@ee.purdue.edu> mckay@EE.PURDUE.EDU writes:
>The local computer shop up hear (Lafayette,IN) has a rumor that Toy'R'Us in
>Indianapolis is selling ST's (Mono, 520, 1 SS drive) for $399. I've heard
>NOTHING to confirm this, but a quick call to your local Toy'R'Us couldn't
>hurt.
>
>--Dwight Mckay, ECN Text & Workstation Software Support
>[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
>[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

I'm afraid this may be a vicious rumor. I checked our local Toys'R'Us
recently. They were selling ST's for $399 alright, JUST ST's, i.e., the
cpu/keyboard. You have to get the monitor and diskdrive separate. However,

the combined price comes out to $959, which is less than the standard $999 (which I paid). Also, they are only selling (at least here in Austin) 520 ST's, single sided drives, color screens, and VERY little software.

On the same subject, there's a software store that started carrying the ST here in Austin, at the standard prices. But during a computer fair here, they had a show special. Instead of the usual $799 for a monochrome system with one single sided disk, they had 'em for $599! What a deal! Buy one of them, then buy a color monitor separate, and for less than the price of a color system, you get a 520 with both monitors. So, if you keep on the lookout, I bet you can find some great deals.

Maurice T. Franklin
CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

From 5878637187365153343
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd57c7de1e59c5b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 02:29:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ukma!sean
From: sean@ukma.UUCP (Sean Casey)
Newsgroups: net.micro.atari16
Subject: ST Evaluation Requested
Message-ID: <4140@ukma.UUCP>
Date: Sat, 2-Aug-86 05:29:02 EDT
Article-I.D.: ukma.4140
Posted: Sat Aug 2 05:29:02 1986
Date-Received: Sun, 3-Aug-86 03:14:56 EDT
Organization: The Leaning Tower of Patterson Office @ The Univ. of KY
Lines: 110
Keywords: cd-roms unix monitors star-raiders foreplay sex

I'm going to buy a computer near the end of this year, and I'd like your recommendations on the Atari ST's. I've been programming for about 8 years and I've been doing systems programming in C for about two years. I want to have:

1. A machine with a good C compiler, possibly running a Unix variant, for doing development work.

2. A terminal emulator, so I can do my mainframe work from home.

3. A game machine - It's been too long since I've had access to good computer games!

Anyone who answers any of my questions would have my sincere appreciation. There are a LOT of questions here, but if you could answer any

that would be great.

- Sean

GENERAL OPINION

What do you think of it? Is it a toy or a serious machine? How does the keyboard feel? Have yours had any problems?

PRICING

What's the lowest price you've seen for a 1040 ST?

MONITORS

I see a lot of ads for "520 ST with color monitor". Does Atari make a "standard" monitor or are dealers pushing the cheapest color monitor they can find? I'm going to be buying a good Sony 27 inch television about the same time I get this computer. Can such a beast work with this computer? If I bought a nice Princeton Graphics, Amdek, Taxan, etc., would it look much better than the one(s) the dealers refer to?

C COMPILERS

What do you think of the C Compilers available? I don't know of any dealers nearby, so I haven't really gotten a personal look at any compilers. I have heard a bit of raving about Megamax C, mostly good. If you've used Megamax, Lattice, or Aztec C, I'd like to hear what your opinion is of the compiler. I will be doing some serious, hard core development work (in other words, I will be paid for it) that may be transferred to large Unix systems. I'd like a compiler that can handle the same code that the portable C compiler can handle, and I'd like one that doesn't make me wait all year (this is supposed to be an 8 Mhz 68000, no excuses for slow compilers). I'm willing to pay good money if it's a good compiler.

UNIX IMPLEMENTATIONS

I've heard that OS9 has been ported to the thing, but the price for the OS and C compiler is about the same as a complete Atari system! Who's going to buy it? Not me! Perhaps you know if the price of the thing is coming down or maybe you've heard of a different Unix port. Please let me know. BTW, I saw an ad in August Byte for a complete SysV port for the IBM AT for about $450. Not a bad price for a real SysV port with pcc, ftn77, text formatters, and manuals.

CD ROMS

Anyone making an interface for these buggers? The idea of having an online encyclopedia or dictionary or other various databases

is very attractive to me. For the things to work, you've got to have DMA, ethernet, or some other very high speed data transfer. This means you've got to have hardware support. Is it there? Is anyone working on this?

* SOAPBOX TIME *

I saw an ad in Byte for a CD of public domain software that contained the equivalent of 400 or so floppy disks. Sounded great till I saw the price: $195. HOLY RIPOFFS, BATMAN! I'm sure that the media costs less than twenty dollars. They invent a fantastic new media for mass storage, one that brings possible vast software libraries to the average person at low cost, and instead of using it to place this software in the hands of users, these people jack up the price way out of proportion to the media cost. This stuff is public domain! Somebody ought to sue their asses for making a profit from it.

* DOWN FROM SOAPBOX *

STAR RAIDERS

It's been at least three years since I last played Star Raiders, probably more. If it were released today it would still be one of the greatest games around. Is anyone planning on porting the thing to the ST series? It would be stupendously awesome with higher-res graphics and sound. I was even thinking of writing a simple version for the Adage 3000!

Thanks for answering any or all of this. I've been involved with computers for a long time. Some of them cost more than I'll ever make in my lifetime. And yet I've never owned one. This is an important decision for me and I appreciate any and all help.

Sean

--

Sean Casey UUCP: cbosgd!ukma!sean CSNET: sean@uky.csnet
University of Kentucky ARPA: ukma!sean@anl-mcs.arpa
Lexington, Kentucky BITNET: sean@ukma.bitnet

From 3883819842649765465
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c69ec9e14892f007
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 12:30:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!ut-sally!pyramid!voder!kontron!stephan
From: stephan@kontron.UUCP (Stephan W. Wendl)
Newsgroups: net.micro.atari16
Subject: Re: Re: terminal emulator with 132 colum

Message-ID: <967@kontron.UUCP>
Date: Sat, 2-Aug-86 15:30:55 EDT
Article-I.D.: kontron.967
Posted: Sat Aug 2 15:30:55 1986
Date-Received: Sun, 3-Aug-86 06:08:56 EDT
References: <402@atari.UUCP> <54600104@iuvax.UUCP>
Organization: Kontron Electronics, Mt. View, CA
Lines: 5

> 10. PD disassembler (one is being written by the president of our STUG)

Something like that is already available. Call 415-325-5377 for info.

From 2210090271436399512
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e6e742b5ab7aa16d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 13:27:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
Wayne%OZ.AI.MIT.EDU
From: Wayne%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU (Wayne McGuire)
Newsgroups: net.micro.atari16
Subject: Scheme, XLisp, IBM Emulation, etc.
Message-ID: <MDCG.WAYNE.12227668277.BABYL@MIT-OZ>
Date: Sat, 2-Aug-86 16:27:00 EDT
Article-I.D.: MIT-OZ.MDCG.WAYNE.12227668277.BABYL
Posted: Sat Aug 2 16:27:00 1986
Date-Received: Sun, 3-Aug-86 04:15:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

A few miscellaneous questions:

(1) Does there yet exist for the ST a Scheme, either public domain or
      commercial?

(2) What is the latest version of XLisp for the ST? (My version is 1.4,
      released in January 1985.)

(3) Does anyone know if David Betz, the author of XLisp, has an Arpanet
      address?

(4) Has anyone found an efficient way to make the ST and a Radio Shack
      Model 100 communicate?

(5) Does anyone know when the IBM emulator for the ST will be released?

Thanks,

Wayne McGuire (wayne@oz.ai.mit.edu)

From -1924345724873746926
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,292788339a86c8d5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 15:48:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Trouble loading LEADER BOARD
Message-ID: <813@batcomputer.TN.CORNELL.EDU>
Date: Sat, 2-Aug-86 18:48:10 EDT
Article-I.D.: batcompu.813
Posted: Sat Aug 2 18:48:10 1986
Date-Received: Tue, 5-Aug-86 06:02:05 EDT
References: <698@drutx.UUCP> <405@atari.UUcp>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 20
Summary: Don't buy "copy protected" software!

[]

In article <405@atari.UUcp> neil@atari.UUCP writes:
>Call Accolade. Their copy protection does not work with some early 520ST
>keyboard controller chips. They have a fix for this. That's what they get
>for going beyond the bounds of what we say is OK to use.

- That's what the BUYER gets for buying "copy protected" software.
Please, let's all get together and refuse to do that! As things are now,
the pirates copy anyway, and legitimate buyers have problems, not only
with things like an old computer model, but simply with using RAM disks
and hard disks. Would you pay for a book that can only be read under UV
light, and that you're not allowed to read on more than one desk?

- Moshe Braner

  Corson Hall
  Cornell University

(My views are mine alone and void where prohibited by law.)

From 2448776189222431607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e3bd37e769674ccf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 15:54:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Request for uemacs
Message-ID: <814@batcomputer.TN.CORNELL.EDU>
Date: Sat, 2-Aug-86 18:54:25 EDT
Article-I.D.: batcompu.814
Posted: Sat Aug 2 18:54:25 1986
Date-Received: Tue, 5-Aug-86 06:02:18 EDT
References: <1237@mhuxo.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 55

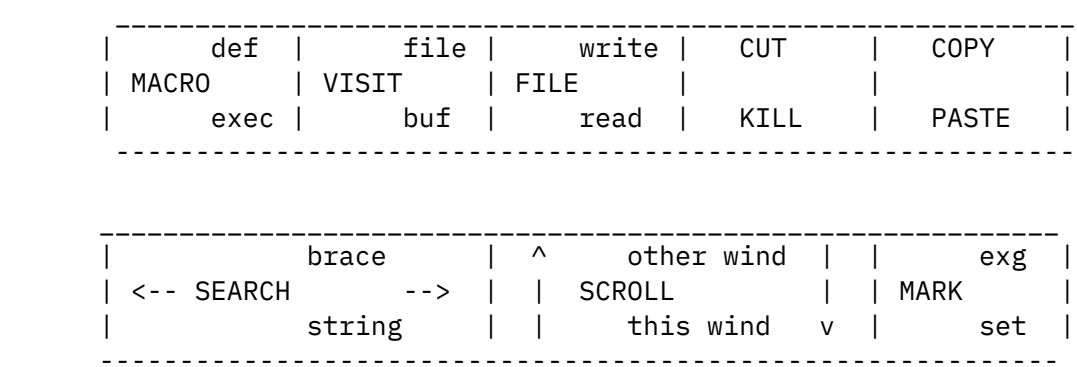
[]

Oops... - the file "flabels" somehow slipped off a disk I copied onto
some peoples' disk as my microEMACS package. So here it is:

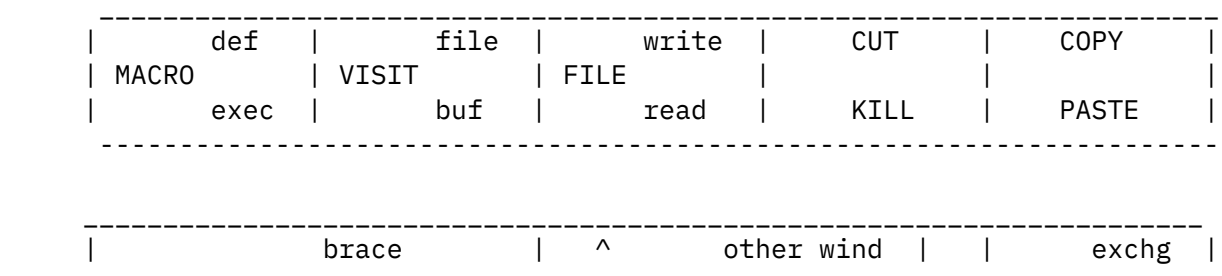
------------- cut -- here --

Print this file to make labels for the F keys.
You can choose between two styles:

For 10 cpi printers:



For 12 cpi printers:



```
    | <---  SEARCH        --->  |   |  SCROLL           |   | MARK        |
    |              string       |   |       this wind   v   |       set   |
    ------------------------------------------------------------------------
```

```
-------------- cut -- here -----------------------------------------

You can still get my enhanced version of microEMACS if you send me an
Atari-ST formatted single-sided 3.5" disk with an appropriate SASE.

- Moshe Braner

  Corson Hall, Cornell University, Ithaca NY 14853
  (607) 272-3487

------------------------------------------------------------------------


From -103543510730691874
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd57c7de1e59c5b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 17:12:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cbbrowne
From: cbbrowne@watnot.UUCP (Christopher Browne)
Newsgroups: net.micro.atari16
Subject: Re: ST Evaluation Requested
Message-ID: <11937@watnot.UUCP>
Date: Sat, 2-Aug-86 20:12:05 EDT
Article-I.D.: watnot.11937
Posted: Sat Aug  2 20:12:05 1986
Date-Received: Sun, 3-Aug-86 03:46:44 EDT
References: <4140@ukma.UUCP>
Reply-To: cbbrowne@watnot.UUCP (Christopher Browne)
Organization: U of Waterloo, Ontario
Lines: 147
Keywords: cd-roms unix monitors star-raiders foreplay sex

In article <4140@ukma.UUCP> sean@ukma.UUCP (Sean Casey) writes:
>
>I'm going to buy a computer near the end of this year,  and  I'd  like
>your  recommendations  on  the  Atari ST's.  I've been programming for
>about 8 years and I've been doing systems programming in C  for  about
>two years.  I want to have:
>
>1.   A machine with a good C compiler, possibly running a  Unix  vari-
>     ant, for doing development work.
>
>2.   A terminal emulator, so I can do my mainframe work from home.
>
>3.   A game machine - It's been too long since I've had access to good
```

>   computer games!
>
>Anyone who answers any of my questions would have my sincere apprecia-
>tion.   There are a LOT of questions here, but if you could answer any
>that would be great.
>
>- Sean
>
>
>GENERAL OPINION
>   What do you think of it? Is it a toy or a serious machine?   How
>   does the keyboard feel? Have yours had any problems?
>
>
>PRICING
I can speak only of Canadian prices, and I haven't seen 1040 prices recently.
>
>
>MONITORS
>   I see a lot of ads for "520 ST with color monitor".   Does Atari
>   make a "standard" monitor or are dealers pushing the cheapest
>   color monitor they can find? I'm going to be buying a good Sony
>   27 inch television about the same time I get this computer. Can
>   such a beast work with this computer? If I bought a nice Prince-
>   ton Graphics, Amdek, Taxan, etc., would it look much better than
>   the one(s) the dealers refer to?
>
The system includes an Atari-made colour monitor which is of very reasonable
quality. It is a little difficult to hook up other monitors, and the Atari one
is plenty good. It was designed to go with the computer, and so the two go
together very well.

>
>C COMPILERS
>
Sorry, I can't comment on this since I don't have one.
>
>UNIX IMPLEMENTATIONS
>   I've heard that OS9 has been ported to the thing, but the price
>   for the OS and C compiler is about the same as a complete Atari
>   system! Who's going to buy it? Not me! Perhaps you know if the
>   price of the thing is coming down or maybe you've heard of a dif-
>   ferent Unix port. Please let me know.   BTW, I saw an ad in
>   August Byte for a complete SysV port for the IBM AT for about
> $450. Not a bad price for a real SysV port with pcc, ftn77, text
>   formatters, and manuals.
>
All I can say is that I hope that OS9 comes down in price. Unix has not (yet?)
been ported.
>
>CD ROMS
>   Anyone making an interface for these buggers? The idea of having
>   an online encyclopedia or dictionary or other various databases

>   is very attractive to me. For the things to work, you've got to
>   have DMA, ethernet, or some other very high speed data transfer.
>   This means you've got to have hardware support. Is it there? Is
>   anyone working on this?
>
The hardware support does exist. Atari has demonstrated the Activenture system at least twice. They have stated that they plan to sell CDROMs... but... not yet. They are looking for the cost (of the players) to come down so that they can market them in quantity. So, whenever players get nice and cheap, you can expect to see Atari selling them. (This is not unreasonable. Atari needs to sell an awful lot of them to be able to make a profit. If they have to sell them at $1200, they won't sell very many.).
>
>   * SOAPBOX TIME *
>
>   I saw an ad in Byte for a CD of public domain software that con-
>   tained the equivalent of 400 or so floppy disks. Sounded great
>   till I saw the price: $195. HOLY RIPOFFS, BATMAN! I'm sure that
>   the media costs less than twenty dollars. They invent a fantas-
>   tic new media for mass storage, one that brings possible vast
>   software libraries to the average person at low cost, and instead
>   of using it to place this software in the hands of users, these
>   people jack up the price way out of proportion to the media cost.
>   This stuff is public domain! Somebody ought to sue their asses
>   for making a profit from it.
>
>   * DOWN FROM SOAPBOX *
It is not necessarily unethical. There was a major discussion on net.micro on the sales of PD software, and the general conclusion was that a company which chooses to make software available should not be denied a profit. NO ONE is going to advertise in BYTE (at at least hundreds of dollars a crack, if not thousands) and compile, copy (onto whatever medium), and mail out software for free. In this case, MEDIA cost may be insignifigant when compared to such things as mastering (making the original CD), the time spent merely putting together the library (how long does it take to copy 400 disks, weeding out anything useless, adding documentation where possible, organizing directories, etc.). Remember here that $195 is pretty cheap. Compare that to the cost of 400 floppy disks. We're talking 50 cents per disk.

Next, comes the part about suing. They cannot be sued for selling public domain software. They can be sued for selling copyrighted software without permission (big difference). GNU (the 'public domain' UNIX clone) cannot legally be sold for a profit, because it is copyrighted. It can be distributed free of charge (or, I think, with a minimal copying fee - you'll have to pay for the tape/disks you get it on) but not sold. Uncopyrighted works, such as many public domain programs can be sold for a profit by anyone who finds someone willing to buy them. It is unlikely that they will be sued for it, given that they have been reasonably careful as to how they have done the job. Is it unethical? To some (yourself included) it is. To others it is not. Please remember that anyone who does not want to pay $195 for the CD of public domain software is not forced to do so. I'm not buying it - but mostly because I have no use for it. If I had a CDROM player, and the right computer, I might find it very worthwhile to purchase the CD at $195.
>

>STAR RAIDERS
>   It's been at least three years since I last played Star Raiders,
>   probably more.   If it were released today it would still be one
>   of the greatest games around. Is anyone planning on porting the
>   thing to the ST series? It would be stupendously awesome with
>   higher-res graphics and sound. I was even thinking of writing a
>   simple version for the Adage 3000!
>
Atari is working on a version for the ST, and I have heard of some demos
floating about. I hear that it is in fact very stupendously awesome. It
certainly will be one of the greatest games around as soon as it comes out.
When that is, I am not sure (When is it NEIL?!?!?).
>
>Thanks for answering any or all of this. I've been involved with com-
>puters for a long time. Some of them cost more than I'll ever make in
>my lifetime. And yet I've never owned one.   This is an important
>decision for me and I appreciate any and all help.
>
>Sean
>
>--
>---
>Sean Casey   UUCP: cbosgd!ukma!sean   CSNET: sean@uky.csnet
>University of Kentucky   ARPA: ukma!sean@anl-mcs.arpa
>Lexington, Kentucky   BITNET: sean@ukma.bitnet

                          Christopher Browne
                          University of Waterloo

From 4478194700804928540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9a539b085f3ce6f6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 17:57:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
BVHS%OZ.AI.MIT.EDU
From: BVHS%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU ("Bror V. H. Saxberg")
Newsgroups: net.micro.atari16
Subject: ansigraf vt100/tek4014
Message-ID: <12227717269.6.BVHS@OZ.AI.MIT.EDU>
Date: Sat, 2-Aug-86 20:57:04 EDT
Article-I.D.: OZ.12227717269.6.BVHS
Posted: Sat Aug 2 20:57:04 1986
Date-Received: Sun, 3-Aug-86 04:24:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 48

My brother has been using the Ansigraf terminal emulation program on
the Atari 520 ST. His comments:

1) The quality of 4014 graphics is very nice at 640x400 mono.
resolution (close to a Graphon 140, for example). I've been using
it with the NCAR plot package on a VAX 11/785 with excellent results.

2) The control of mode switching between vt102/4014 takes a little
time to figure out using the F1 and F2 keys (you can see either or
both of text and graphics screens), but once straight it is very
convenient.

3) VT102 emulation with EDT on VAX is spot on, as far as I've seen.
(except for 132 column mode, which doesn't presently exist... see below)
The Atari keyboard layout is nicely set up for this.

4) Problems with Version 1.0:

i) Only XMODEM file transfer protocol is currently
implemented. The company (i.e., Gyorgy Fekete) said they
are working on ASCII (why not in V1.0???) and Kermit
support.

ii) Only Epson compatible printers are currently supported for
screen prints. I don't currently have such a printer, so
I can't say how well this works.

iii) 132 column mode is not currently available. Eventually you
will be able to pan across to see 132 columns, but because
of limited horizontal resolution on monitor, you won't get
full view on a single screen.

iv) As expected in V1.0, there are a few v. minor bugs (e.g.,
the default setup file should be called DEFLT.SUP, not
DEFAULT.SUP as stated in the manual).

5) In Summary: I've been very happy doing work over a modem line with
the Ansigraf program... as stated above, the tek4014 plots are very
nice, the vt102 emulation works well, and for the price of a 520ST
($600 incl two ss disk drives, mono monitor from 47th St.) and
Ansigraf ($82.45 incl. shipping), you've got a great deal on a
vt100/tek4014 terminal! For Ansigraf, I ordered direct from

Grafikon Ltd.
P.O. Box 446
College Park, MD
20740 Phone: (301)937-3394

From 4396046560267066080
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d70814a2e42d01,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-02 22:14:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!UW-JUNE.ARPA!rling
From: rling@UW-JUNE.ARPA (Robert Ling)
Newsgroups: net.micro.atari16
Subject: Re: Bugs in software packages (Flash)
Message-ID: <523430059.rling@uw-june.ARPA>
Date: Sun, 3-Aug-86 01:14:00 EDT
Article-I.D.: uw-june.523430059.rling
Posted: Sun Aug 3 01:14:00 1986
Date-Received: Mon, 4-Aug-86 00:43:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 54

I understand that bugs are probably inevitable in large programs but when I read that such and such a commercially sold program is 'full of bugs' I get very annoyed.

Now for the flame:

{utzoo, ihnp4, decvax}!hcr!hugh (Hugh Redelmeier) writes:

>I use Flash (the program) and am quite happy with it. But: I know
>(and like) the developers. Whenever I have had a problem, they have
>fixed it.

>   On COMPUSERE, there is a bug list & fix file: in atari16
>sig, data library 2 (telecom), brouse with keyword "flash".

I'm glad Mr Redelmeier knows (and likes) the developers of Flash. For him a bug fix probably means calling the developers up one evening and then getting a disk with the fixed program the next evening. Other folks, I'm afraid, don't have it so easy.

In addition to having to subscribe to COMPUSERVE, one has to spend ~$20 to get all the bug fixes. That, of course, increases the overall price of the software.

When an end user can find 'lots of bugs' after a short period of time using the product it could only mean that the program wasn't sufficiently beta tested. I won't be suprised that in some cases the process of beta testing goes like:

    Day 1, developer to friend :

        "Hey Joe, would you like to try this program? I'm thinking
         of marketing it."

    Day 2, developer to friend :

        "Hey Joe, I'm shipping the program already; did you have any

problems with the program?"

I'm suprised that the people who purchase these software are so
tolerant. I frequently read reviews like:

    "... there were several bugs but on the whole, I like the XXX..."

Me? I'm still cursing the writers of 'Thunder' because it trashed one
of my files.

This was not meant to be a personal attack on Mr. Redelmeier; I'm just
tired of PAYING to BE a beta tester.

- Robert Ling <rling@uw-june.arpa>

From -2627011150389268308
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 152df8,28b13a9294985bc7,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,28b13a9294985bc7,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 129c11,28b13a9294985bc7,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,28b13a9294985bc7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-03 02:22:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!cit-vax!amdahl!sjl
From: sjl@amdahl.UUCP (Steve Langdon)
Newsgroups: net.micro,net.micro.amiga,net.micro.atari16,net.micro.mac
Subject: Application availablity on Mac, Atari ST, and Amiga
Message-ID: <3513@amdahl.UUCP>
Date: Sun, 3-Aug-86 05:22:39 EDT
Article-I.D.: amdahl.3513
Posted: Sun Aug 3 05:22:39 1986
Date-Received: Mon, 4-Aug-86 00:46:28 EDT
Followup-To: net.micro
Organization: Amdahl Corp, Advanced Systems Planning
Lines: 152
Keywords: Mac Atari Amiga Applications Interface
Xref: mnetor net.micro:5746 net.micro.amiga:4084 net.micro.atari16:1483
net.micro.mac:6478

About 9 months ago I posted an article explaining my views on the importance
of a consistent user interface on a single user micro. I still feel that
this is a critical issue, but now it is time to ask if high quality
applications for the Atari ST and Amiga are available. Both machines have
been around for a while and it is reasonable to expect good software.

To attempt to organize the discussion I will suggest some categories, and
provide a summary of what is available for the Mac.

Word Processing

    MacWrite - simple WYSIWYG suitable for many uses
    MS Word - not quite WYSIWYG suitable for most documents

    A whole new generation of word processing software for the Mac is
    about to be released including MS Word 2.0, MacAuthor, MultiWrite, etc.

My impression is that the word processing software available for the Atari ST and Amiga cannot do what MacWrite could on release.

Spreadsheets

    Excel - the best
    Multiplan - pretty good
    Crunch - I do not know it

The only spreadsheet I have heard of on the Atari ST is VIP Planner which did not (when reviewed) use a windowing interface.

Communications

    MacTerminal - OK vt100
    VersaTerm - Excellent vt100, 4014, and others
    Red Ryder - Well thought of, but I do not use it
    many others

    uw - multi-window Unix interface (from John Brunner of LLL)
    Seagate - Appletalk gateway to the internet world (Bill Croft SU)

All sorts of communications software is available and more appears all the time.

Database

    Helix - powerful icon-oriented relational DB
    OMNIS 3 - powerful DB
    OverView - fast DB with some spreadsheet-like features
    FileVision - DB with unique visual interface
    many others

DBase III plus is on the way, and so many others that I lose track.

Development Systems

    Mac C (Consulair) - good C system with many special variants (020 etc.)
    Aztec - as on many systems + symbolic debugger
    Megamax - does the job
    Lightspeed C - Unusually quick integrated environment(editor,make, etc.)
    many others including almost all languages I know and some I don't

More stuff is on the way from Apple and others. Apple are working on reducing development effort using a sophisticated application skeleton (MacApp), Think will have QuickSilver Pascal, others will keep upgrading.

Graphics

MacPaint - the original
FullPaint - what MacPaint would have been with 512K
MacDraw - needs upgrade, but still the best tool I know for diagrams
MacDraft - will be great if the bugs are fixed
many others

Multifunction

Jazz - better than they get credit for
MS Works - we will know when they release it

DeskTop Publishing

PageMaker - the most prominent
ReadySetGo - cheaper
MacPublisher - cheaper

The Mac owns the low end of this market, are there any Atari or Amiga packages?

It remains vital to me that I can transfer data (including graphics) between the applications I use. Another key feature is the relatively uniform support for printed output. By this I mean I can use either a dot matrix printer or a LaserWrite in either portrait or landscape mode from any application.

I have included a copy of my old posting because it still appears relevent. I read too many items about applications that only run in certain environments on the Atari ST and Amiga for my taste. I also do not see any indications that application-independent text-and-graphics cut-and-paste exists except on the Mac.

Please note that I do not want to start a round of "my machine is better than yours" flames. I want reasonable comments on the things which make these machines useful for day-to-day applications. I did not include PC-like systems because until MS Windows (or less likely GEM) becomes accepted they do not offer the same type of environment.

>From postnews Thu Oct 3 14:53:48 1985
>Subject: User Interface Consistency
>Newsgroups: net.micro,net.micro.amiga,net.micro.atari,net.micro.mac
>Distribution: net
>Followup-To: net.micro
>
>There has been a fair amount of discussion about the relative merits
>of the Amiga, ST520, and the Mac. However, little of it has covered
>what I consider to be a fundmental issue - user interface consistency.
>
>One of the most important aspects of the Macintosh is the predictable
>nature of the user interface presented by applications. I own almost
>all of the Microsoft products (Multiplan, Chart, Word, File, and as of

>yesterday Excel), MacDraw, MacProject, MacTerminal, MacPascal, Mac C 4.0
>(Consulair's fine C compiler), and I have more Public Domain packages
>than I know what to do with. With some relatively minor exceptions they
>all follow the user interface guidelines that Apple established. This
>means that I can transfer between applications without having to learn
>a completely new set of commands or conventions.
>
>I do not plan to discuss the wisdom of the user interface that Apple
>choose, but I do believe that this uniformity is vital. It allows me
>to become productive with a new piece of software in a fraction of the
>time that is needed on other systems.
>
>Now coming back to the Amiga and the ST520. What will the software for
>these machines look like when it is available? I do not doubt that they
>currently offer more hardware bang for the buck than the Macintosh. I
>also do not fault them for having a less mature set of applications -
>they are, after all, much newer. However, I am concerned that they may
>never offer the kind of environment that the Macintosh now offers.
>
>I see no sign of Atari or Commodore making a vigorous commitment to a
>uniform interface. When the Mac was released Apple provided MacWrite
>and MacPaint. These programs, while not perfect, provided a very good
>example of how the interface was meant to be done. To the best of my
>knowledge no such examples exist for the ST520. As the Amiga is not
>yet available I cannot determine what it will provide. Unfortunately,
>I have heard comments attributed to the Amiga designers indicating that
>they are not in favor of a standard user interface.
>
>On the basis of the reasoning above I continue to recommend that friends
>buy the Macintosh rather than the ST520 or the Amiga. Comments from
>other users of the net would be welcome.

--
Stephen J. Langdon   ...!{ihnp4,cbosgd,hplabs,sun}!amdahl!sjl

[The article above is not an official statement from any organization
  in the known universe.]

From 6647786170532504023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9abd394f0efd8554,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-03 05:08:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: Re: Schematics for ST
Message-ID: <444@ihnet.UUCP>
Date: Sun, 3-Aug-86 08:08:34 EDT
Article-I.D.: ihnet.444
Posted: Sun Aug 3 08:08:34 1986

Date-Received: Mon, 4-Aug-86 04:17:29 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 12

You don't need to buy the developers kit to get schematics for the
520 ST. Howard Sams (Sams Photofacts) sells a very nice set for
about $30.00 I don't think they include a memory map, since they
are mainly for fixing broken STs. Also the schematics I have seen
from the developers kit are incomplete and hard to read.

ihnet!bryan
AT&T Bell Laboratories
Bryan DeLaney 312-979-6368

From 322571649686826520
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-03 07:39:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!mitlns!tether
From: tether@mitlns ("STEPHEN_TETHER")
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8608031439.AA24177@ucbvax.Berkeley.EDU>
Date: Sun, 3-Aug-86 10:39:33 EDT
Article-I.D.: ucbvax.8608031439.AA24177
Posted: Sun Aug 3 10:39:33 1986
Date-Received: Mon, 4-Aug-86 00:53:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "STEPHEN_TETHER" <tether@mitlns>
Organization: The ARPA Internet
Lines: 18

In message <MDCG.WAYNE.12227668277.BABYL@MIT-OZ>, WAYNE@OZ asks what's
the latest version of XLISP, and the net address of David Betz, the author.

The latest version of XLISP is 1.7, June 1986. As for Dave's net address,
this is what he says:

"I used to have an account on the Harvard VAX, but I'm not sure if it is
 active anymore. It was betz@harvard. You could try that. Or, I can be
 reached on usenet at ...!decvax!sii!byte!dbetz"

He is also "dbetz" on the BYTE Information Exchange (BIX).

Steve Tether
TETHER@MITLNS.MIT.EDU

TETHER@MITLNS.BITNET
satether on BIX

From -3358626631605474261
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35dc4706d05e6e0c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-03 08:47:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!lsuc!jimomura
From: jimomura@lsuc.UUCP
Newsgroups: net.micro.atari16
Subject: Re: I*S Talk by Batteries Included, review follows.
Message-ID: <1304@lsuc.UUCP>
Date: Sun, 3-Aug-86 11:47:31 EDT
Article-I.D.: lsuc.1304
Posted: Sun Aug 3 11:47:31 1986
Date-Received: Sun, 3-Aug-86 12:40:40 EDT
References: <860729020349.0000079A.AEOA.AA@UMass> <1382@hcrvx1.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 11
Summary: Batteries Included on BIX

     Hugh mentioned that the authors of Focus are on Compuserve.
Batteries Included are on BIX (Byte Information Exchange). Of
course, being in Toronto, Hugh and I both have a much cheaper method
of communicating with Batteries Included (Richmond Hill, Ontario).
:-)
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -9033364819715716330
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-03 23:31:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!nike!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: prices of monitors, 68020's, etc.
Message-ID: <946@hoptoad.uucp>
Date: Mon, 4-Aug-86 02:31:35 EDT
Article-I.D.: hoptoad.946

Posted: Mon Aug 4 02:31:35 1986
Date-Received: Mon, 4-Aug-86 07:15:18 EDT
References: <860720202512.001@Juliet.Caltech.Edu> <5311@sun.uucp> <398@atari.UUcp>
Organization: Nebula Consultants in San Francisco
Lines: 37

In article <5311@sun.uucp>, cmcmanis@sun.uucp (Chuck McManis) writes:
>   ...the monitor alone to display 1200 X 800 monochrome graphics is
> on the order of $1000 wholesale. Add to that the $200 price of *each*
> 68020 chip, multihundred dollar price of 68881 chips, 4 Meg of ram
> (which at $3 per 256K chip is still $384)...

In article <398@atari.UUcp>, dyer@atari.UUcp (Landon Dyer) writes:
> I respectfully suggest that the prices quoted above are
> representative of the company buying the parts, and not what
> the parts really cost.

When I was at Sun, they had pretty aggressive purchasing people.
More to the point is that prices are a function of volume. If Sun
hadn't bought 19-inch non interlaced 1152x900 monitors by the hundreds
in 1984, and gotten the bugs out of them, and ramped up from there, you
wouldn't see these monitors at $1000 now. If next year Atari can bring
out a product that uses them, and sell 20,000 a month, certainly the
price will come down. Similarly if Sun (and others) hadn't been
shipping 68020's for a year, Motorola wouldn't be ramped up to where
they could handle orders for Atari's volume.

When these (currently special) products become standard items, Sun's as
well as Atari's customers will benefit from the coresponding price
reductions.

Low price alone won't bring Atari customers, though. Remember the
first mass market 68000 system (TRS-80 Model 16)? Those clowns sure
didn't know how to make a 68000 hum. From what I hear, Atari is doing
a similar trick with their 68020 project -- hiding it behind a slow
68000 "I/O processor" where it can't get to the outside world quickly.
(I/O speeds in Suns went way up with the 68020, especially screen updates,
disk access, and streaming tape drives.) The Atari ST's I've seen have
been mostly I/O bound and cripped with bad software; a "back-end"
68020 won't fix that.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -5771489497443709401
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,9dac913de66c1909,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,2ee8e1e3b985d3a0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 00:04:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!ll-xn!nike!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: Re: Interrupt service routines
Message-ID: <947@hoptoad.uucp>
Date: Mon, 4-Aug-86 03:04:41 EDT
Article-I.D.: hoptoad.947
Posted: Mon Aug 4 03:04:41 1986
Date-Received: Mon, 4-Aug-86 07:15:33 EDT
References: <MDC-SMB-9K5PJ@OFFICE-1> <389@atari.UUcp> <259@cci632.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 33
Xref: mnetor net.micro.atari16:1487 net.micro.68k:1126

In article <259@cci632.UUCP>, rb@cci632.UUCP (Rex Ballard) writes:
>   ...did you
> fix the perverse usage of the high address bits so that a 68010 or 68020
> could be used in place of the 68000?

This is a red herring. First, a 68010 has the same address space as a
68000. Second, a 68020 just feeds those bits out on pins; if you have
less than 16 megs of stuff to address, you're free to ignore the pins.
Third, if what they are doing is putting the vector number in the high
byte of the interrupt vector address, this is no problem. They will
have to rewrite the interrupt vector code in a minor way for the 68010/20
anyway; in fact, their trick lets them use the same assumptions (e.g. that
multiple interrupt vectors can point to the same routine, but the
routine can tell which interrupt actually happened) in the 68000 as well
as in the later models. I wish I'd thought of it!

It's not hard to write code that figures out which CPU it's on and
copes with the stack frame differences. I wrote that code when I first
got a sample 68010. The system can, at boot time, cause a software
trap and look at the size of the resulting stack frame (6 bytes on
68000, 8 on 68010/20). That test can set a flag that anybody who cares
can check. The test for 68020 is even easier; user programs can do
it. Use an instruction that does scaled indexing. The scaling bits
are ignored on 68000/68010 and used on 68020. (I used "moveq #4,d0"
followed by "jmp pc@(4,d0*2)", which either jumps to pc+8 or pc+12.
You can adjust the constant to suit.) For example, you could stick a
2-instruction test on the front of a multiply routine that, if run on a
68020, would jump to a 32-bit multiply instruction but on the older
models would do it the hard way.

--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From -725466778043639558
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d70814a2e42d01
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-08-04 00:12:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!nike!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Tired of paying to be a beta tester?
Message-ID: <949@hoptoad.uucp>
Date: Mon, 4-Aug-86 03:12:32 EDT
Article-I.D.: hoptoad.949
Posted: Mon Aug 4 03:12:32 1986
Date-Received: Mon, 4-Aug-86 07:15:48 EDT
References: <523430059.rling@uw-june.ARPA>
Organization: Nebula Consultants in San Francisco
Lines: 19

In article <523430059.rling@uw-june.ARPA>, Robert Ling writes:
> I'm just
> tired of PAYING to BE a beta tester.

Then don't buy any program until it's been on the market about 6 months.
The primary advantages of being an early customer are:

    *   You get it before everybody else; and
    *   Your opinion about what needs fixing is more likely to be heard,
     since the developers are still actively working on it.

The primary disadvantage is:

    *   It probably doesn't work very well.

But you get to make that tradeoff.
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
              May the Source be with you!

From 6517179202747547876
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,689d3e1d5a5da854
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 05:59:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: Re: Cheap ST's...
Message-ID: <1395@ihuxi.UUCP>
Date: Mon, 4-Aug-86 08:59:16 EDT
Article-I.D.: ihuxi.1395
Posted: Mon Aug 4 08:59:16 1986
Date-Received: Tue, 5-Aug-86 01:30:03 EDT
References: <8607311751.AA11552@ee.purdue.edu>
Organization: AT&T Bell Laboratories

Lines: 17

> The local computer shop up hear (Lafayette,IN) has a rumor that Toy'R'Us in
> Indianapolis is selling ST's (Mono, 520, 1 SS drive) for $399. I've heard
> NOTHING to confirm this, but a quick call to your local Toy'R'Us couldn't
> hurt.
>
             *****[Ignore header path]*****

Toys'R'Us is selling the keyboard for $399. The whole setup will cost
you close to list price. Not a very good deal. I have seen a couple
of places offering the SS ST mono setup for under $500 but all offers
ended July 15. Sorry...

                        Kit Kimes
                        AT&T--Information Systems Labs
                        1100 E. Warrenville Rd.
                        Naperville, IL 60566
                        ...ihnp4!iwvae!kimes

From -6334222160679340366
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 08:19:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!sjl
From: sjl@ukc.ac.uk (S.J.Leviseur)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <1757@eagle.ukc.ac.uk>
Date: Mon, 4-Aug-86 11:19:08 EDT
Article-I.D.: eagle.1757
Posted: Mon Aug 4 11:19:08 1986
Date-Received: Wed, 6-Aug-86 02:47:04 EDT
References: <8607291022.AA11996@ucbvax.Berkeley.EDU> <407@atari.UUcp>
<965@kontron.UUCP>
Reply-To: sjl@ukc.ac.uk (S.J.Leviseur)
Organization: U of Kent at Canterbury, Canterbury, UK
Lines: 23

In article <965@kontron.UUCP> stephan@kontron.UUCP writes:
>> In article <8607291022.AA11996@ucbvax.Berkeley.EDU>, K538915@CZHRZU1A.BITNET
writes:
>>
>> > a user group) and they make them available in some form (which does not
>> > mean they actually have to distribute them, just put them on a BBS or so).
>>
>> A good idea. Sorry I didn't think of it myself. Disks will be sent ASAP.
>> --
>> --->Neil @ Atari
>>

>
>Just to defend ATARI. The only way to distribute such programs in Germany would
>be by disks.
....

This is not so. The simplest way to distribute them would be to post the best
programs to net.sources (eunet distribution). Possibly post a list to eunet
and have a vote to decide on what to send first. The rest could go on the next
EUUG tape for one of the EUUG conferences. The most expensive bit is getting
the stuff off USA bulletin boards for us Europeans!

     sean

From -6920011563306184911
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 09:40:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!hplabs!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <202@vlsvax1.UUCP>
Date: Mon, 4-Aug-86 12:40:23 EDT
Article-I.D.: vlsvax1.202
Posted: Mon Aug 4 12:40:23 1986
Date-Received: Sat, 9-Aug-86 05:34:44 EDT
References: <93@uwmacc.UUCP>
Reply-To: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Organization: Voelker-Lehman Fremont CA
Lines: 43

In article <93@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>A question for the house:
>
>I am considering purchasing Micro C-Shell from David Beckemeyer Development
>Tools in Oakland. Can anyone fill me in on this product a little bit more
>than the article in START magazine did? (Has anyone out there even
>used it?)
>
>I am interested in knowing things like:
>   - does it allow access to .login or .cshrc files or
>   their equivalents?
>   - does it allow batch files?
>   - does it allow access to the desk accessories?
>
>Any other information would be appreciated.
>

I have been using Micro C-Shell since last November. To answer the
questions quickly; 1) It reads a login.sh file on start-up in which

you can set environment parameters, call other .sh files or programs
and so on. 2) It runs batch files (read shell scripts) just like
executable programs as long as they are in the path. 3) It does not
allow access to the desk accessories (which has become a pain since
I installed the "MacroManager" accessory from Blue Moon Software
-neat, but that's another topic).

Micro C-Shell is a terifically handy product for me. Most commonly,
I run it out of a ram disk (which avoids the only irritant to me, that
it accessess the drive for program reads often if the programs/utilities
don't live in a ram disk). You can configure an environment pretty
much any way you want, with .tos or .ttp programs in a bin directory
or other directory in the user path which is an enivronment variable.
It works so much like csh on 4.2BSD that I have the same aliases and
(most) environment variables the same as I do at work (VAX/4.2) and
do not have to worry about remembering different key sequences or
commands. If you couldn't guess, I like it a *lot*. Also, late word
from the author is that he is releasing the C-Shell with a multi-tasking
operating system and a bunch of new features. I expect to be getting
this, so stay tuned to this channel for a review.

Sweeney
vlsvax1!cms
415 490-3555

From -4256766519431122329
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a08b6a34ab19d6f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 09:48:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!cbmvax!bpa!burdvax!sdcrdcf!trwrb!trwspp!spp2!rroux
From: rroux@spp2.UUCP (Ray Roux)
Newsgroups: net.micro.atari16
Subject: Re: Question on 520ST Print Screen
Message-ID: <933@spp2.UUCP>
Date: Mon, 4-Aug-86 12:48:05 EDT
Article-I.D.: spp2.933
Posted: Mon Aug 4 12:48:05 1986
Date-Received: Wed, 6-Aug-86 02:42:10 EDT
References: <935@mhuxl.UUCP>
Reply-To: rroux@spp2.UUCP (Ray Roux)
Organization: TRW, Redondo Beach CA
Lines: 18

In article <935@mhuxl.UUCP> cbz@mhuxl.UUCP (Craig B. Ziemer) writes:
>I recently tried using <ALT> <HELP> to print the contents of the screen
>to my Panasonic KXP1080 printer. Unfortunately, the print out is
>significantly compressed in the vertical direction and approximately
>one third is cut off in the horizontal direction. Does anyone out
>in netland know if this is normal and if there's anything I can do
>about it?

>
The first issue of STart magazine (disk version) has a screen dump utility
by Tom Hudson. It will let you install the driver of your choice, so when
you hit <ALT> <HELP> it will work with xyz printer. Also, it has a feature
of letting you print vertical or horizontal.

--

   Ray Roux
     {ucbvax|decvax}!trwrb!trwspp!spp3!rroux

From 1699733295110731137
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f82806e4401c3531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 14:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <817@batcomputer.TN.CORNELL.EDU>
Date: Mon, 4-Aug-86 17:38:00 EDT
Article-I.D.: batcompu.817
Posted: Mon Aug 4 17:38:00 1986
Date-Received: Tue, 5-Aug-86 06:02:32 EDT
References: <332@sdcarl.UUCP> <713@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 135

[]

I got this on the STarter kit from John Franco, and I think it is so great
(and short) that I have to post it! It is a RAMdisk program, written by
John Harris, and done right at last! It is NOT a desk accessory. It has
no graphics. It is just an autobooting RAMdisk that will survive system
resets!!!

(It will also work with programs that have a fixed location in low memory,
e.g. Forth systems and applications written in Forth, since it installs in
high memory, as opposed to standard programs and most other RAMdisks.)

First, the doc file by John Harris:

This program gives you a ramdisk between 64K and 768K, and will stay in
memory through screen resolution changes, and even system reset! The
ramdisk code and data is placed at the top of memory, and the screen is
moved down below it. The top of memory pointers are set below the ramdisk
driver, which should keep it safe from everything short of powering down.

The ramdisk install is actually a 2 step process. The 1st time the program is run, it will adjust memory pointers and set-up the ramdisk driver. It then exits through the system reset vector so that TOS can adjust to the new memory size. The 2nd time through, the driver will be installed and ready to use. The easiest way to accomplish this, is simply put the ramdisk.prg into an AUTO folder. That way both passes are automatically performed, in other words, it will auto-boot with no user interaction. The ramdisk installs as drive D, and if you save the desktop after you install drive D, then the boot process will be completely automatic. The ramdisk size defaults to 192K, but can be changed by holding down key combinations of the Right and Left Shift, Control, and Alternate keys.

Configurations are as follows:

R. Shift	64K
L. Shift	128K
R. & L. Shifts	192K
Cntl	256K
Cntl & R. Shift	320K
Cntl & L. Shift	384K
Cntl & R. & L. Shifts	448K
Alt	512K
Alt & R. Shift	576K
Alt & L. Shift	640K
Alt & R. & L. Shifts	704K
Alt & Cntl	768K

If your disk has many desk accessories on it, you should be careful to load a small enough ramdisk so that 128K will be left at the end of the boot.

If the system does crash, put a disk with the ramdisk program in the AUTO folder in drive A, and push the system reset button.

Enjoy! John Harris

Next, a hex dump of this little gem (all 640 bytes of it!)
(you can convert this to a binary file (call it rd192.prg) by using the "htb" program I posted a while ago):

```
60 1A 00 00 02 0A 00 00 00 14 00 00 06 50 00 00
00 00 00 00 00 00 00 00 00 00 00 00 20 7C 00 00
02 0A 61 06 4E F9 00 00 00 2E 72 04 22 7C 00 00
06 22 32 D8 51 C9 FF FC 22 3C 00 00 02 0A 70 C8
4E 42 30 39 00 00 06 4C 4E 75 2A 4F 2E 7C 00 00
08 6A 2A 6D 00 04 20 2D 00 0C D0 AD 00 14 D0 AD
00 1C D0 BC 00 00 01 00 2F 00 2F 0D 3F 00 3F 3C
00 4A 4E 41 DF FC 00 00 00 0C 42 A7 3F 3C 00 20
4E 41 5C 8F 23 C0 00 00 06 66 28 7C 00 00 04 36
2A 7C 00 00 04 2E 22 55 0C 51 02 00 67 74 3F 3C
```

```
FF FF 3F 3C 00 0B 4E 4D 58 8F C0 BC 00 00 00 0F
66 02 70 03 48 40 22 00 74 0A E4 A9 92 7C 00 14  * change the 03 - see below
33 C1 00 00 01 50 22 00 D2 B9 00 00 04 32 D2 BC
00 02 00 00 B2 94 6C 74 91 94 91 95 23 F9 00 00
04 72 00 00 01 FA 23 F9 00 00 04 76 00 00 02 06
23 F9 00 00 04 7E 00 00 02 00 20 7C 00 00 01 42
22 55 7E 7F 22 D8 51 CF FF FC 20 79 00 00 00 04
4E D0 22 15 D2 BC 00 00 00 20 23 C1 00 00 04 72
22 15 D2 BC 00 00 00 32 23 C1 00 00 04 76 22 15
D2 BC 00 00 00 12 23 C1 00 00 04 7E 30 39 00 00
04 C4 08 C0 00 03 33 C0 00 00 04 C4 2F 39 00 00
06 66 3F 3C 00 20 4E 41 5C 8F 42 67 4E 41 02 00
00 02 04 00 00 07 00 05 00 06 00 12 01 EC 00 00
0C 6F 00 03 00 04 66 00 00 A2 70 00 4E 75 0C 6F
00 03 00 04 66 00 00 8E 20 39 00 00 04 2E 4E 75
0C 6F 00 03 00 0E 66 00 00 88 20 39 00 00 04 2E
D0 BC 00 00 02 00 20 40 22 6F 00 06 70 00 32 2F
00 0C 70 09 E1 A1 D1 C1 30 2F 00 0A 24 09 08 02
00 00 66 28 08 2F 00 00 00 05 66 02 C1 49 32 3C
00 0F 20 D9 20 D9 20 D9 20 D9 20 D9 20 D9 20 D9
20 D9 51 C9 FF EE 53 80 66 E4 4E 75 08 2F 00 00
00 05 66 02 C1 49 32 3C 00 3F 10 D9 10 D9 10 D9
10 D9 10 D9 10 D9 10 D9 51 C9 FF EE 53 80
66 E4 4E 75 4E F9 00 00 00 00 4E F9 00 00 00 00
4E F9 00 00 00 00 00 00 00 00 00 00 00 00 00 00
00 00 00 00 00 00 00 00 00 00 00 00 02 08 08
0C 0A 0A 38 3C 20 0A 0A 06 52 00 4B 4B 4B 4B 4B * I dont think these 4B's
4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B * are needed but...
4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B
4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B 4B
```

To change the default size of the RAMdisk, change the "03" entry on the marked line:

size, kbytes	hex value	
64	01	
128	02	
192	03	
256	04	
320	05	
384	06	
448	07	
512	08	
576	09	<-- for development work using Megamax
640	0A	
704	0B	
768	0C	

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -8931569736375563951
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,23682210edf40b91,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 17:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: avatek 1200
Message-ID: <8608051402.AA16232@ucbvax.Berkeley.EDU>
Date: Mon, 4-Aug-86 20:47:00 EDT
Article-I.D.: ucbvax.8608051402.AA16232
Posted: Mon Aug 4 20:47:00 1986
Date-Received: Wed, 6-Aug-86 02:03:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

I think my modem is working, but then again...
The avatek works wonderfully for local numbers when using the auto-dialer
in the pulse mode. But when I try to dial long-distance numbers the
telephone company says I've misdialed. Now I've checked this by hand and
its the right number so the modem (or me) is screwing up somehow. I
wonder if any one else has had a similar experience or if I should take it
it for a tune-up. Here's what I do and the resulting problem:
>ATDP17164582638   ; command to dial modem
The modem clicks a lot here and I run to pick up another line to here what's
going on.
Operator: Check the number or call Ma Bell.
The example in the avatek manual shows a long distance number being dialed
without the number 1 preceding the area code. Surely this can't be
right. I'll try this and also try a few other local numbers to see
if the modem has any other problems. Any ideas?
                                                peter lorraine
                                                 qbzj@cornella.bitnet

From 7213258680397489195
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2207785a80af8444,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-08-04 18:17:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: RE: Flash Terminal Program
Message-ID: <860804211733.0000134B.ADUM.MA@UMass>
Date: Mon, 4-Aug-86 21:17:33 EDT
Article-I.D.: UMass.860804211733.0000134B.ADUM.MA
Posted: Mon Aug 4 21:17:33 1986
Date-Received: Wed, 6-Aug-86 02:04:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Hugh Redelmeier writes:
> 3. It sometimes takes a few clicks of the right button before Flash
>   notices. The authors tell me that this is a GEM problem.

     Degas version 1.00 had the same problem. But it was fixed in
the later version's (1.10 on or 1.12 on, I believe...). So, it can't
really be a GEM bug, and if it is, it must be something they can get
around. They are just being lazy. The latest version's of DEGAS reply
instantly to the user's clicking on the mouse.

Rick
(FLASH%UMASS.BITNET)

BTW, anybody out there updaded the ST to 4 meg's yet? I heard it is done
easily, I would do it myself now, but I am put back by the deadly
cost of $70 per chip. Let's just hope it goes down soon!
$70 per chip makes the expansion cost more than twice to three times
the price of the ST itself! yipes!

From -2570556078199362803
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b55b11b80979d801,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 18:20:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: terminal emulators
Message-ID: <8608051426.AA16667@ucbvax.Berkeley.EDU>
Date: Mon, 4-Aug-86 21:20:00 EDT
Article-I.D.: ucbvax.8608051426.AA16667
Posted: Mon Aug 4 21:20:00 1986
Date-Received: Wed, 6-Aug-86 02:04:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

I've tried ST-TERM, FLASH, and AnsiGraf so far and wound up buying
AnsiGraf. My local dealer is great about letting me try software packages
before buying them and loaned me his dealer copy of Flash for several days.
The big difficulty I had with it is that it wouldn't support my local editor
(Ked on a pdp11/73). It also did not work at 9600 baud even though the serial
line was supporting XON/XOFF. It didn't let me do line breaks (inserting a cr)
in emacs on our PRIME. Yeck. I don't know what version this was as it was
a dealer demo and perhaps this sort of stuff has been fixed on later releases.
Flash worked fine when I tried calling a few bbs. AnsiGraf worked perfectly
with both Ked and emacs and also works at 19.2 k baud! I prefer white letters
on a black background and the documentation with AnsiGraf is on beautiful
glossyy
paper and spiral bound. It also does tektronix 4014 graphics viewable at
the same time as the vt102 display. I think Flash is great for bbs'ing but
for use on my computers in the lab it wasn't that useful. As I said in another
letter, I haven't run into any problems in the last 6 days with AnsiGraf and it
took me 2 hours to reject Flash and 2 minutes to reject ST-TERM. I would
love to see a version with tek4105 capabilities but I'm prepared to wait.
But not too long I hope.
          peter lorraine (qbzj@cornella.bitnet)

From -6273016794574972019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a08b6a34ab19d6f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-04 19:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!princeton!allegra!ulysses!mhuxr!mhuxn!
ihnp4!inuxc!pur-ee!uiucdcs!uiucuxc!osiris!skidmore
From: skidmore@osiris.CSO.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: Orphaned Response
Message-ID: <115200003@osiris>
Date: Mon, 4-Aug-86 22:29:00 EDT
Article-I.D.: osiris.115200003
Posted: Mon Aug 4 22:29:00 1986
Date-Received: Thu, 14-Aug-86 22:09:21 EDT
References: <935@mhuxl.UUCP>
Lines: 9
Nf-ID: #R:mhuxl.UUCP:935:osiris:115200003:000:400
Nf-From: osiris.CSO.UIUC.EDU!skidmore   Aug 4 21:29:00 1986

Look in your Desk menu for Install printer. (If it's not there, check
the TOS disk for the ".acc" extenders and when you determine which one
is the printer accessory, add it to your boot up disk). Then all you
need to do is click on the Install printer option, and check out the
Pixels/Line option. Try either one and see which works better with
your printer. That should be all there is to it.

From 8218903698832757736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6515040ae11c0ee0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 00:03:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: A full featured Make for the ST
Message-ID: <1543@cwruecmp.UUCP>
Date: Tue, 5-Aug-86 03:03:15 EDT
Article-I.D.: cwruecmp.1543
Posted: Tue Aug 5 03:03:15 1986
Date-Received: Wed, 6-Aug-86 02:07:21 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 6
Keywords: Make

The next three articles contain the source for a full featured MAKE clone for the Atari St's. It does almost everything its big brother does, except a few really obscure things.

enjoy,

From 7643583709700271565
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab9ae09c9aab3382,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 00:05:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: MAKE part 1 of 3
Message-ID: <1544@cwruecmp.UUCP>
Date: Tue, 5-Aug-86 03:05:33 EDT
Article-I.D.: cwruecmp.1544
Posted: Tue Aug 5 03:05:33 1986
Date-Received: Wed, 6-Aug-86 02:07:58 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 1049

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
```

```
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    astat.h
#    check.c
#    compile.sh
#    decl.h
#    h.h
#    input.c
#    link.sh
#    lnk
#    macro.c
# This archive created: Tue Aug  5 02:46:35 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'astat.h'" '(512 characters)'
if test -f 'astat.h'
then
     echo shar: over-writing existing file "'astat.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'astat.h'
X    /***********************************************\
X    *                                 *
X    *    astat.h - Retrofit <sys/stat.h>       *
X    *               for the Atari St machines        *
X    *                                 *
X    *    J.R. Bammi                    *
X    *                             *
X    \***********************************************/
X
X
Xstruct  stat
X{
X    char st_sp1[21];    /* Junk    */
X    char st_mode;       /* File attributes */
X    time_t   st_mod;         /* Mod time, we use the date & time as 1 long */
X    long st_size;       /* File size    */
X    char st_sp2[14];    /* File name    */
X};
SHAR_EOF
if test 512 -ne "`wc -c 'astat.h'`"
then
     echo shar: error transmitting "'astat.h'" '(should have been 512 characters)'
fi
echo shar: extracting "'check.c'" '(2525 characters)'
if test -f 'check.c'
then
     echo shar: over-writing existing file "'check.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'check.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
```

```
X    *                                *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                 *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                  *
X    *                                *
X    \****************************************************/
X
X
X/*
X * Check structures for make.
X */
X
X#include <stdio.h>
X#include "h.h"
X
X
X/*
X * Prints out the structures as defined in memory.  Good for check
X * that you make file does what you want (and for debugging make).
X */
Xvoid
Xprt()
X{
X    register struct name *      np;
X    register struct depend *    dp;
X    register struct line *      lp;
X    register struct cmd *       cp;
X    register struct macro *     mp;
X
X
X    for (mp = macrohead; mp; mp = mp->m_next)
X        fprintf(stderr, "%s = %s\n", mp->m_name, mp->m_val);
X
X    fputc('\n', stderr);
X
X    for (np = namehead.n_next; np; np = np->n_next)
X    {
X        fprintf(stderr, "%s:\n", np->n_name);
X        for (lp = np->n_line; lp; lp = lp->l_next)
X        {
X            fputc(':', stderr);
X            for (dp = lp->l_dep; dp; dp = dp->d_next)
X                fprintf(stderr, " %s", dp->d_name->n_name);
X            fputc('\n', stderr);
```

```
X
X             for (cp = lp->l_cmd; cp; cp = cp->c_next)
X                  fprintf(stderr, "-\t%s\n", cp->c_cmd);
X             fputc('\n', stderr);
X         }
X         fputc('\n', stderr);
X    }
X}
X
X
X/*
X * Recursive routine that does the actual checking.
X */
Xvoid
Xcheck(np)
Xstruct name *          np;
X{
X    register struct depend *    dp;
X    register struct line *      lp;
X
X
X    if (np->n_flag & N_MARK)
X         fatal("Circular dependency from %s", np->n_name);
X
X    np->n_flag |= N_MARK;
X
X    for (lp = np->n_line; lp; lp = lp->l_next)
X         for (dp = lp->l_dep; dp; dp = dp->d_next)
X              check(dp->d_name);
X
X    np->n_flag &= ~N_MARK;
X}
X
X
X/*
X * Look for circular dependancies.
X * ie.
X *      a: b
X *      b: a
X * is a circular dep
X */
Xvoid
Xcirch()
X{
X    register struct name * np;
X
X
X    for (np = namehead.n_next; np; np = np->n_next)
X         check(np);
X}
X
X
X/*
```

```
X *  Check the target .PRECIOUS, and mark its dependentd as precious
X */
Xvoid
Xprecious()
X{
X    register struct depend *    dp;
X    register struct line *      lp;
X    register struct name *      np;
X
X
X    if (!((np = newname(".PRECIOUS"))->n_flag & N_TARG))
X         return;
X
X    for (lp = np->n_line; lp; lp = lp->l_next)
X         for (dp = lp->l_dep; dp; dp = dp->d_next)
X              dp->d_name->n_flag |= N_PREC;
X}
SHAR_EOF
if test 2525 -ne "`wc -c 'check.c'`"
then
     echo shar: error transmitting "'check.c'" '(should have been 2525
characters)'
fi
echo shar: extracting "'compile.sh'" '(119 characters)'
if test -f 'compile.sh'
then
     echo shar: over-writing existing file "'compile.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'compile.sh'
Xcc -c check.c
Xcc -c input.c
Xcc -c macro.c
Xcc -c main.c
Xcc -c make.c
Xcc -c reader.c
Xcc -c rules.c
Xcc -c ststuff.c
SHAR_EOF
if test 119 -ne "`wc -c 'compile.sh'`"
then
     echo shar: error transmitting "'compile.sh'" '(should have been 119
characters)'
fi
echo shar: extracting "'decl.h'" '(1126 characters)'
if test -f 'decl.h'
then
     echo shar: over-writing existing file "'decl.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'decl.h'
X    /*********************************************\
X    *                                *
X    *  Decl.h - extern declarations for C libarary  *
X    *                                *
```

```
X    \*********************************************/
X
Xextern  FILE *fopen(), *freopen(), *fdopen();
Xextern  FILE *fopena(), *freopa();
Xextern  FILE *fopenb(), *freopb();
X
X
Xextern  char *etoa();
Xextern  char *ftoa();
Xextern  char *getpass();
Xextern  char *index();
Xextern  char *mktemp();
Xextern  char *rindex();
Xextern  char *sprintf();
Xextern  char *strcat();
Xextern  char *strcpy();
Xextern  char *strncat();
Xextern  char *strncpy();
Xextern  char *calloc(), *malloc(), *realloc(), *sbrk();
Xextern  char     *gets(), *fgets();
Xextern  char     *ttyname();
X
Xextern  double   atan();
Xextern  double   atof();
Xextern  double   ceil();
Xextern  double   cos();
Xextern  double   exp();
Xextern  double   fabs();
Xextern  double   floor();
Xextern  double   fmod();
Xextern  double   log();
Xextern  double   pow();
Xextern  double   sin();
Xextern  double   sinh();
Xextern  double   sqrt();
Xextern  double   tan();
Xextern  double   tanh();
X
Xextern  int  strlen();
Xextern  int  (*signal())();
X
Xextern  long     atol();
Xextern  long     ftell();
Xextern  long     lseek(), tell();
Xextern  long getl();
X
SHAR_EOF
if test 1126 -ne "`wc -c 'decl.h'`"
then
     echo shar: error transmitting "'decl.h'" '(should have been 1126 characters)'
fi
echo shar: extracting "'h.h'" '(4053 characters)'
if test -f 'h.h'
```

```
then
     echo shar: over-writing existing file "'h.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'h.h'
X    /*******************************************************\
X    *                                *
X    *    A full featured MAKE Clone           *
X    *                                *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                *
X    \*******************************************************/
X
X
X/*
X *  Include header for make
X *
X *  -- 7/86 JRB Added Atari ST suport
X */
X#ifdef atarist
X#define ATARIST
X#endif
X
X#ifdef ATARIST
X
X#include <osbind.h>
X#include "decl.h"
X
X/* #define MEGRULES   */   /* Define if default .c.o rule is to be
X                   * genarated to use the Megamax C Compiler
X                   */
X/* #define MEGAMAX    */   /* If using Megamax C to compile Make
X                   * This symbol has NO relation to the
X                   * symbol MEGRULES
X                   */
X
X#ifdef MEGAMAX
X#define void      /* Alcyon 4.14 understands void */
X#undef Fdatime         /* Megamax has it incorrectly defined */
X#define  Fdatime(a,b,c)     gemdos(0x57,a,b,c)
X
X#endif /* MEGAMAX */
X
```

```
X#ifdef TRUE
X#undef TRUE
X#endif
X
X#ifdef FALSE
X#undef FALSE
X#endif
X
X#ifdef uchar
X#undef uchar
X#endif
X
X#ifdef NULL
X#undef NULL
X#define NULL 0L
X#endif
X
X#ifdef max
X#undef max
X#endif
X
X#ifdef MEGAMAX
X#define uchar     char /* For the sake of Megamax and gang who still think
X              * that unsigned is a type
X              */
X#else
X#define uchar     unsigned char
X
X#endif /* MEGAMAX */
X
X#else
X
X#ifndef uchar
X#define uchar     unsigned char
X#endif
X
X#endif  /* ATARIST */
X
X
X#define bool      uchar
X#define time_t         long
X#define TRUE      (1)
X#define FALSE          (0)
X#define max(a,b)  ((a)>(b)?(a):(b))
X
X#define DEFN1          "makefile"         /*  Default names  */
X
X#ifndef ATARIST
X#define DEFN2          "Makefile"
X#endif /* ATARIST - TOS is not case sensative  */
X
X#ifdef ATARIST
X
```

```
X#define LZ        2048          /*  BIG Line size  */
X
X#else
X
X#define LZ        1024          /* Line Size */
X
X#endif /* ATARIST */
X
X
X/*
X *  A name.  This represents a file, either to be made, or existant
X */
X
Xstruct name
X{
X    struct name *      n_next;       /* Next in the list of names */
X    char *             n_name;       /* Called */
X    struct line *      n_line;       /* Dependencies */
X    time_t             n_time;       /* Modify time of this name */
X    uchar              n_flag;       /* Info about the name */
X};
X
X#define N_MARK        0x01          /* For cycle check */
X#define N_DONE        0x02          /* Name looked at */
X#define N_TARG        0x04          /* Name is a target */
X#define N_PREC        0x08          /* Target is precious */
X
X/*
X *  Definition of a target line.
X */
Xstruct  line
X{
X    struct line *      l_next;       /* Next line (for ::) */
X    struct depend *        l_dep;        /* Dependents for this line */
X    struct cmd *       l_cmd;        /* Commands for this line */
X};
X
X
X/*
X *  List of dependents for a line
X */
Xstruct  depend
X{
X    struct depend *        d_next;       /* Next dependent */
X    struct name *      d_name;       /* Name of dependent */
X};
X
X
X/*
X *  Commands for a line
X */
Xstruct  cmd
X{
```

```
X    struct cmd *       c_next;       /* Next command line */
X    char *             c_cmd;        /* Command line */
X};
X
X
X/*
X * Macro storage
X */
Xstruct  macro
X{
X    struct macro *         m_next;       /* Next variable */
X    char *             m_name;       /* Called ... */
X    char *             m_val;        /* Its value */
X    uchar              m_flag;       /* Infinite loop check */
X};
X
Xextern char *         myname;
Xextern struct name    namehead;
Xextern struct macro * macrohead;
Xextern struct name *  firstname;
Xextern bool       silent;
Xextern bool       ignore;
Xextern bool       rules;
Xextern bool       dotouch;
Xextern bool       quest;
Xextern bool       domake;
Xextern char       str1[];
Xextern char       str2[];
Xextern int        lineno;
X
Xextern char *         fgets();
Xextern char *         index();
Xextern char *         rindex();
Xextern char *         malloc();
Xextern int        errno;
X
Xchar *            getmacro();
Xstruct macro *        setmacro();
Xvoid              input();
Xvoid              error();
Xvoid              fatal();
Xint          make();
Xstruct name *         newname();
Xstruct depend *       newdep();
Xstruct cmd *      newcmd();
Xvoid              newline();
Xchar *            suffix();
Xvoid              touch();
Xvoid              makerules();
Xchar *            gettok();
Xvoid              precious();
X
X#ifdef ATARIST
```

```
Xint     system();
Xvoid         FlipWords();
X#endif /* ATARIST */
SHAR_EOF
if test 4053 -ne "`wc -c 'h.h'`"
then
     echo shar: error transmitting "'h.h'" '(should have been 4053 characters)'
fi
echo shar: extracting "'input.c'" '(6224 characters)'
if test -f 'input.c'
then
     echo shar: over-writing existing file "'input.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'input.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
X    *                                 *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                 *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                 *
X    \*******************************************************/
X
X
X/*
X *  Parse a makefile
X */
X
X
X#include <stdio.h>
X#include <ctype.h>
X
X#include "h.h"
X
X
Xstruct name       namehead = {
X                         (struct name *)NULL,
X                         (char *)NULL,
X                         (struct line *)NULL,
X                         (time_t)0,
X                         (uchar)0
```

```
X                       };
X
Xstruct name *          firstname = (struct name *)NULL;
X
Xchar              str1[LZ];     /*  General store  */
Xchar              str2[LZ];
X
X
X/*
X *  Intern a name.  Return a pointer to the name struct
X */
Xstruct name *
Xnewname(name)
Xchar *            name;
X{
X    register struct name *  rp;
X    register struct name *  rrp;
X    register char *         cp;
X
X
X    for
X    (
X         rp = namehead.n_next, rrp = &namehead;
X         rp;
X         rp = rp->n_next, rrp = rrp->n_next
X    )
X         if (strcmp(name, rp->n_name) == 0)
X              return rp;
X
X    if ((rp = (struct name *)malloc(sizeof (struct name)))
X                   == (struct name *)0)
X         fatal("No memory for name");
X    rrp->n_next = rp;
X    rp->n_next = (struct name *)0;
X    if ((cp = malloc(strlen(name)+1)) == (char *)0)
X         fatal("No memory for name");
X    strcpy(cp, name);
X    rp->n_name = cp;
X    rp->n_line = (struct line *)0;
X    rp->n_time = (time_t)0;
X    rp->n_flag = 0;
X
X    return rp;
X}
X
X
X/*
X *  Add a dependant to the end of the supplied list of dependants.
X *  Return the new head pointer for that list.
X */
Xstruct depend *
Xnewdep(np, dp)
Xstruct name *          np;
```

```
Xstruct depend *       dp;
X{
X    register struct depend *    rp;
X    register struct depend *    rrp;
X
X
X    if ((rp = (struct depend *)malloc(sizeof (struct depend)))
X                   == (struct depend *)0)
X         fatal("No memory for dependant");
X    rp->d_next = (struct depend *)0;
X    rp->d_name = np;
X
X    if (dp == (struct depend *)0)
X         return rp;
X
X    for (rrp = dp; rrp->d_next; rrp = rrp->d_next)
X         ;
X
X    rrp->d_next = rp;
X
X    return dp;
X}
X
X
X/*
X *  Add a command to the end of the supplied list of commands.
X *  Return the new head pointer for that list.
X */
Xstruct cmd *
Xnewcmd(str, cp)
Xchar *            str;
Xstruct cmd *      cp;
X{
X    register struct cmd *  rp;
X    register struct cmd *  rrp;
X    register char *        rcp;
X
X
X    if (rcp = rindex(str, '\n'))
X         *rcp = '\0';       /*  Loose newline  */
X
X    while (isspace(*str))
X         str++;
X
X    if (*str == '\0')      /*  If nothing left, the exit  */
X         return;
X
X    if ((rp = (struct cmd *)malloc(sizeof (struct cmd)))
X                   == (struct cmd *)0)
X         fatal("No memory for command");
X    rp->c_next = (struct cmd *)0;
X    if ((rcp = malloc(strlen(str)+1)) == (char *)0)
X         fatal("No memory for command");
```

```
X    strcpy(rcp, str);
X    rp->c_cmd = rcp;
X
X    if (cp == (struct cmd *)0)
X         return rp;
X
X    for (rrp = cp; rrp->c_next; rrp = rrp->c_next)
X         ;
X
X    rrp->c_next = rp;
X
X    return cp;
X}
X
X
X/*
X * Add a new 'line' of stuff to a target.  This check to see
X * if commands already exist for the target.
X */
Xvoid
Xnewline(np, dp, cp)
Xstruct name *         np;
Xstruct depend *       dp;
Xstruct cmd *     cp;
X{
X    bool          hascmds = FALSE;  /*  Target has commands  */
X    register struct line * rp;
X    register struct line * rrp;
X
X
X    for
X    (
X         rp = np->n_line, rrp = (struct line *)0;
X         rp;
X         rrp = rp, rp = rp->l_next
X    )
X         if (rp->l_cmd)
X              hascmds = TRUE;
X
X    if (hascmds && cp)
X         error("Commands defined twice for target %s", np->n_name);
X
X    if ((rp = (struct line *)malloc(sizeof (struct line)))
X                   == (struct line *)0)
X         fatal("No memory for line");
X    rp->l_next = (struct line *)0;
X    rp->l_dep = dp;
X    rp->l_cmd = cp;
X
X    if (rrp)
X         rrp->l_next = rp;
X    else
X         np->n_line = rp;
```

```
X
X    np->n_flag |= N_TARG;
X}
X
X#define Is_special(X) (                  \
X               (strcmp(X,".SUFFIXES") == 0) ||  \
X               (strcmp(X,".IGNORE") == 0)   ||  \
X               (strcmp(X,".SILENT") == 0)   ||  \
X               (strcmp(X,".PRECIOUS") == 0)     \
X               )
X
X/*
X * Parse input from the makefile, and construct a tree structure
X * of it.
X */
Xvoid
Xinput(fd)
XFILE *           fd;
X{
X    char *             p;       /*  General  */
X    char *             q;
X    struct name *      np;
X    struct depend *         dp;
X    struct cmd *       cp;
X
X
X    if (getline(str1, fd)) /*  Read the first line  */
X        return;
X
X    for(;;)
X    {
X        if (*str1 == '\t') /*  Rules without targets  */
X            error("Rules not allowed here");
X
X        p = str1;
X
X        while (isspace(*p))    /*  Find first target  */
X            p++;
X
X        while (((q = index(p, '=')) != (char *)0) &&
X            (p != q) && (q[-1] == '\\')) /*  Find value */
X        {
X            register char *        a;
X
X            a = q - 1;    /*  Del \ chr; move rest back  */
X            p = q;
X            while(*a++ = *q++)
X                ;
X        }
X
X        if (q != (char *)0)
X        {
X            register char *        a;
```

```
X
X            *q++ = '\0';       /*  Separate name and val  */
X            while (isspace(*q))
X                 q++;
X            if (p = rindex(q, '\n'))
X                 *p = '\0';
X
X            p = str1;
X            if ((a = gettok(&p)) == (char *)0)
X                 error("No macro name");
X
X            setmacro(a, q);
X
X            if (getline(str1, fd))
X                 return;
X            continue;
X        }
X
X        expand(str1);
X        p = str1;
X
X        while (((q = index(p, ':')) != (char *)0) &&
X            (p != q) && (q[-1] == '\\')) /*  Find dependents  */
X        {
X            register char *        a;
X
X            a = q - 1;    /*  Del \ chr; move rest back  */
X            p = q;
X            while(*a++ = *q++)
X                 ;
X        }
X
X        if (q == (char *)0)
X            error("No targets provided");
X
X        *q++ = '\0';  /*  Separate targets and dependents  */
X
X        for (dp = (struct depend *)0; ((p = gettok(&q)) != (char *)0);)
X                     /*  get list of dep's */
X        {
X            np = newname(p);       /*  Intern name  */
X            dp = newdep(np, dp);        /*  Add to dep list */
X        }
X
X        *((char *)((q = str1) + (long)strlen(str1) + 1L)) = '\0';
X            /*  Need two nulls for gettok (Remember separation)  */
X
X        cp = (struct cmd *)0;
X        if (getline(str2, fd) == FALSE)      /*  Get commands  */
X        {
X            while (*str2 == '\t')
X            {
X                 cp = newcmd(&str2[0], cp);
```

```
X                  if (getline(str2, fd))
X                       break;
X             }
X        }
X
X        while ((p = gettok(&q)) != (char *)0)/* Get list of targ's */
X        {
X             np = newname(p);       /*  Intern name  */
X             newline(np, dp, cp);
X             if (!firstname)
X             {
X                  if(!Is_special(p))
X                      firstname = np;
X             }
X
X        }
X
X        if (feof(fd))               /*  EOF?  */
X             return;
X
X        strcpy(str1, str2);
X    }
X}
SHAR_EOF
if test 6224 -ne "`wc -c 'input.c'`"
then
     echo shar: error transmitting "'input.c'" '(should have been 6224
characters)'
fi
echo shar: extracting "'link.sh'" '(43 characters)'
if test -f 'link.sh'
then
     echo shar: over-writing existing file "'link.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'link.sh'
Xlink68 [com[lnk]]
Xrelmod make
Xrm make.68k
X
SHAR_EOF
if test 43 -ne "`wc -c 'link.sh'`"
then
     echo shar: error transmitting "'link.sh'" '(should have been 43 characters)'
fi
echo shar: extracting "'lnk'" '(89 characters)'
if test -f 'lnk'
then
     echo shar: over-writing existing file "'lnk'"
fi
sed 's/^X//' << \SHAR_EOF > 'lnk'
Xmake.68k=gemstart,check,input,macro,main,make,reader,rules,ststuff, \
Xosbind,gemlib,libf
SHAR_EOF
```

```
if test 89 -ne "`wc -c 'lnk'`"
then
     echo shar: error transmitting "'lnk'" '(should have been 89 characters)'
fi
echo shar: extracting "'macro.c'" '(3039 characters)'
if test -f 'macro.c'
then
     echo shar: over-writing existing file "'macro.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'macro.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
X    *                                 *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                 *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                 *
X    \*******************************************************/
X
X
X/*
X *  Macro control for make
X */
X
X#include <stdio.h>
X#include "h.h"
X
X
Xstruct macro *        macrohead = (struct macro *)NULL;
X
X
Xstruct macro *
Xgetmp(name)
Xchar *           name;
X{
X    register struct macro *rp;
X
X    for (rp = macrohead; rp; rp = rp->m_next)
X         if (strcmp(name, rp->m_name) == 0)
X              return rp;
X    return (struct macro *)0;
```

```
X}
X
X
Xchar *
Xgetmacro(name)
Xchar *           name;
X{
X    struct macro *         mp;
X
X    if (mp = getmp(name))
X         return mp->m_val;
X    else
X         return "";
X}
X
X
Xstruct macro *
Xsetmacro(name, val)
Xchar *           name;
Xchar *           val;
X{
X    register struct macro *rp;
X    register char *        cp;
X
X
X              /*  Replace macro definition if it exists  */
X    for (rp = macrohead; rp; rp = rp->m_next)
X         if (strcmp(name, rp->m_name) == 0)
X         {
X              free(rp->m_val);   /*  Free space from old  */
X              break;
X         }
X
X    if (!rp)      /*  If not defined, allocate space for new  */
X    {
X         if ((rp = (struct macro *)malloc(sizeof (struct macro)))
X                        == (struct macro *)0)
X              fatal("No memory for macro");
X
X         rp->m_next = macrohead;
X         macrohead = rp;
X         rp->m_flag = FALSE;
X
X         if ((cp = malloc(strlen(name)+1)) == (char *)0)
X              fatal("No memory for macro");
X         strcpy(cp, name);
X         rp->m_name = cp;
X    }
X
X    if ((cp = malloc(strlen(val)+1)) == (char *)0)
X         fatal("No memory for macro");
X    strcpy(cp, val);       /*  Copy in new value  */
X    rp->m_val = cp;
```

```
X
X    return rp;
X}
X
X
X/*
X *  Do the dirty work for expand
X */
Xvoid
Xdoexp(to, from, len, buf)
Xchar **          to;
Xchar *           from;
Xint *            len;
Xchar *           buf;
X{
X    register char *        rp;
X    register char *        p;
X    register char *        q;
X    register struct macro *mp;
X
X
X    rp = from;
X    p = *to;
X    while (*rp)
X    {
X         if (*rp != '$')
X         {
X              *p++ = *rp++;
X              (*len)--;
X         }
X         else
X         {
X              q = buf;
X              if (*++rp == '(')
X                   while (*++rp && *rp != ')')
X                        *q++ = *rp;
X              else if (*rp == '{')
X                   while (*++rp && *rp != '}')
X                        *q++ = *rp;
X              else if (!*rp)
X              {
X                   *p++ = '$';
X                   break;
X              }
X              else
X                   *q++ = *rp;
X              *q = '\0';
X              if (*rp)
X                   rp++;
X              if (!(mp = getmp(buf)))
X                   mp = setmacro(buf, "");
X              if (mp->m_flag)
X                   fatal("Infinitely recursive macro %s", mp->m_name);
```

```
X             mp->m_flag = TRUE;
X             *to = p;
X             doexp(to, mp->m_val, len, buf);
X             p = *to;
X             mp->m_flag = FALSE;
X         }
X         if (*len <= 0)
X             error("Expanded line too line");
X    }
X    *p = '\0';
X    *to = p;
X}
X
X
X/*
X * Expand any macros in str.
X */
Xvoid
Xexpand(str)
Xchar *       str;
X{
X    static char        a[LZ];
X    static char        b[LZ];
X    char *             p = str;
X    int           len = LZ-1;
X
X    strcpy(a, str);
X    doexp(&p, a, &len, b);
X}
SHAR_EOF
if test 3039 -ne "`wc -c 'macro.c'`"
then
     echo shar: error transmitting "'macro.c'" '(should have been 3039
characters)'
fi
#    End of shell archive
exit 0
--
```


                        Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                CSnet: bammi@case   Arpa: bammi%case@csnet-relay
             CompuServe: 71515,155


```
From -2280339061057384283
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97d54af44d2964c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 00:06:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
```

Subject: MAKE part 2 of 3
Message-ID: <1545@cwruecmp.UUCP>
Date: Tue, 5-Aug-86 03:06:41 EDT
Article-I.D.: cwruecmp.1545
Posted: Tue Aug 5 03:06:41 1986
Date-Received: Wed, 6-Aug-86 02:16:59 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 957

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    main.c
#    make.c
#    makefile
#    makefile.mmc
#    mmcomp.sh
#    mmlink.sh
#    read.mee
#    reader.c
# This archive created: Tue Aug  5 02:46:37 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'main.c'" '(6212 characters)'
if test -f 'main.c'
then
     echo shar: over-writing existing file "'main.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'main.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                *
X    *    A full featured MAKE Clone           *
X    *                                *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                *
X    \*******************************************************/
X
```

```
X
X/*
X *  make [-f makefile] [-ins] [target(s) ...]
X *
X *  (Better than EON mk but not quite as good as UNIX make)
X *
X *  -f makefile name
X *  -i ignore exit status
X *  -n Pretend to make
X *  -p Print all macros & targets
X *  -q Question up-to-dateness of target.  Return exit status 1 if not
X *  -r Don't not use inbuilt rules
X *  -s Make silently
X *  -t Touch files instead of making them
X *  -m Change memory requirements -- NOT in the Atari St version
X *
X *  >>>>> net.sources posting by:
X *
X *      Neil Russell
X *      ACSnet:  caret@tictoc.oz
X *      UUCP:  ...!seismo!munnari!tictoc.oz!caret
X *      ARPA:  caret%tictoc.oz@seismo.arpa
X *
X *  >>>>> 7/86 Jwahar R. Bammi  Added support for Atari ST
X *      report any Atari ST related complaints/suggestions to
X *           decvax!cwruecmp!bammi
X *           bammi@case.CSNET
X *           bammi%case@csnet-relay.ARPA
X *      71515,155
X */
X
X#include <stdio.h>
X#include "h.h"
X
X#ifndef ATARIST
X#include <sys/stat.h>
X#include <sys/err.h>
X
X#else
X#include "astat.h"
X
X#endif /* ATARIST */
X
X
X#ifndef ATARIST
X#define MEMSPACE  (16384)
X#endif /* ATARIST */
X
X
Xchar *            myname;
Xchar *            makefile = "";     /*  The make file  */
X
X#ifndef ATARIST
```

```
Xunsigned int      memspace = MEMSPACE;
X#endif /* ATARIST */
X
XFILE *            ifd;     /*  Input file desciptor  */
Xbool              domake = TRUE;     /*  Go through the motions option  */
Xbool              ignore = FALSE;    /*  Ignore exit status option  */
Xbool              silent = FALSE;    /*  Silent option  */
Xbool              print = FALSE;     /*  Print debuging information  */
Xbool              rules = TRUE; /*  Use inbuilt rules  */
Xbool              dotouch = FALSE;/*  Touch files instead of making  */
Xbool              quest = FALSE;     /*  Question up-to-dateness of file  */
X
X
Xvoid
Xmain(argc, argv)
Xint          argc;
Xchar **           argv;
X{
X    register char *         p;   /*  For argument processing  */
X    int           estat = 0; /*  For question  */
X    register struct name * np;
X    extern FILE *fopen();
X    extern int atoi();
X    extern char *index();
X
X#ifndef ATARIST
X    myname = (argc-- < 1) ? "make" : *argv++;
X#else
X    myname = "make";
X    argc--; argv++;
X#endif /* ATARIST - TOS does not pass the prog. name in argv[0] */
X
X    while ((argc > 0) && (**argv == '-'))
X    {
X         argc--;       /*  One less to process  */
X         p = *argv++;  /*  Now processing this one  */
X
X         while (*++p != '\0')
X         {
X              switch(*p)
X              {
X              case 'F': /* Goddamned MSDOS style shells pass caps */
X              case 'f': /*  Alternate file name  */
X                   if (*++p == '\0')
X                   {
X                        if (argc-- <= 0)
X                             usage();
X                        p = *argv++;
X                   }
X                   makefile = p;
X                   goto end_of_args;
X#ifndef ATARIST
X              case 'm': /*  Change space requirements  */
```

```
X                  if (*++p == '\0')
X                  {
X                       if (argc-- <= 0)
X                            usage();
X                       p = *argv++;
X                  }
X                  memspace = atoi(p);
X                  goto end_of_args;
X#endif /* ATARIST */
X             case 'N':
X             case 'n': /*  Pretend mode  */
X                  domake = FALSE;
X                  break;
X
X             case 'I':
X             case 'i': /*  Ignore fault mode  */
X                  ignore = TRUE;
X                  break;
X
X             case 'S':
X             case 's': /*  Silent about commands  */
X                  silent = TRUE;
X                  break;
X             case 'P':
X             case 'p':
X                  print = TRUE;
X                  break;
X             case 'R':
X             case 'r':
X                  rules = FALSE;
X                  break;
X             case 'T':
X             case 't':
X                  dotouch = TRUE;
X                  break;
X             case 'Q':
X             case 'q':
X                  quest = TRUE;
X                  break;
X             default: /*  Wrong option  */
X                  usage();
X             }
X        }
X   end_of_args:;
X   }
X
X#ifndef ATARIST
X   if (initalloc(memspace) == 0xffff)  /*  Must get memory for alloc  */
X        fatal("Cannot initalloc memory");
X#endif /* ATARIST */
X
X   if (strcmp(makefile, "-") == 0)  /*  Can use stdin as makefile  */
X        ifd = stdin;  /* Will create havoc with Alcyons libs! */
```

```
X    else
X         if (*makefile == '\0') /*  If no file, then use default */
X         {
X              if ((ifd = fopen(DEFN1, "r")) == (FILE *)0)
X#ifndef ATARIST
X                   if (errno != ER_NOTF)
X                        fatal("Can't open %s; error %02x", DEFN1, errno);
X#else
X                   fatal("Can't open %s",DEFN1);
X              else
X                   makefile = DEFN1;
X#endif /* ATARIST */
X
X#ifndef ATARIST
X              if ((ifd == (FILE *)0)
X                     && ((ifd = fopen(DEFN2, "r")) == (FILE *)0))
X                   fatal("Can't open %s", DEFN2);
X#endif /* ATARIST */
X         }
X         else
X              if ((ifd = fopen(makefile, "r")) == (FILE *)0)
X                   fatal("Can't open %s", makefile);
X
X    makerules();
X
X    setmacro("$", "$");
X
X    while (argc && ((p = index(*argv, '=')) != (char *)NULL))
X    {
X         char     c;
X
X         c = *p;
X         *p = '\0';
X         setmacro(*argv, p+1);
X         *p = c;
X
X         argv++;
X         argc--;
X    }
X
X
X    input(ifd);   /*  Input all the gunga  */
X    fclose(ifd);  /*  Finished with makefile  */
X    lineno = 0;   /*  Any calls to error now print no line number */
X
X
X    if (print)
X         prt();   /*  Print out structures  */
X
X    np = newname(".SILENT");
X    if (np->n_flag & N_TARG)
X         silent = TRUE;
X
```

```
X    np = newname(".IGNORE");
X    if (np->n_flag & N_TARG)
X         ignore = TRUE;
X
X    precious();
X
X    if (!domake)
X         silent = FALSE;
X
X    if (!firstname)
X         fatal("No targets defined");
X
X    circh(); /*  Check circles in target definitions  */
X
X
X    if (!argc)
X         estat = make(firstname, 0);
X    else while (argc--)
X    {
X         if (!print && !silent && strcmp(*argv, "love") == 0)
X              printf("Not war!\n");
X         estat |= make(newname(*argv++), 0);
X    }
X
X    if (quest)
X         exit(estat);
X    else
X         exit(0);
X}
X
X
Xusage()
X{
X#ifndef ATARIST
X    fprintf(stderr, "Usage: %s [-f makefile] [-inpqrst] [macro=val ...]
[target(s) ...]\n", myname);
X#else
X    fprintf(stderr, "Usage: make [-f makefile] [-inpqrst] [macro=val ...]
[target(s) ...]\n");
X#endif /* ATARIST - argv[0] not passed by TOS - is Atari EVER going to fix this??
*/
X    exit(1);
X}
X
X
Xvoid
Xfatal(msg, a1, a2, a3)
Xchar    *msg;
X#ifdef ATARIST
Xchar *a1;    /* Better be else you will get junk for a2 */
Xint a2, a3;
X#endif /* ATARIST - When will people learn that sizeof(int *) != sizeof(int) */
X{
```

```
X    fprintf(stderr, "%s: ", myname);
X    fprintf(stderr, msg, a1, a2, a3);
X    fputc('\n', stderr);
X    exit(1);
X}
SHAR_EOF
if test 6212 -ne "`wc -c 'main.c'`"
then
     echo shar: error transmitting "'main.c'" '(should have been 6212 characters)'
fi
echo shar: extracting "'make.c'" '(5900 characters)'
if test -f 'make.c'
then
     echo shar: over-writing existing file "'make.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'make.c'
X#define ATARIST
X
X    /*********************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
X    *                                 *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                 *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                 *
X    \*********************************************************/
X
X
X/*
X *  Do the actual making for make
X */
X
X#include <stdio.h>
X#include "h.h"
X
X#ifndef ATARIST
X#include <sys/stat.h>
X#include <sys/err.h>
X#else
X#include "astat.h"
X#endif /* ATARIST */
X
X
```

```
X#ifndef ATARIST
X/*
X *  Exec a shell that returns exit status correctly (/bin/esh).
X *  The standard EON shell returns the process number of the last
X *  async command, used by the debugger (ugg).
X *  [exec on eon is like a fork+exec on unix]
X */
Xint
Xdosh(string, shell)
Xchar *            string;
Xchar *            shell;
X{
X    int  number;
X
X    return ((number = execl(shell, shell,"-c", string, 0)) == -1) ?
X         -1:  /* couldn't start the shell */
X         wait(number); /* return its exit status */
X}
X
X#else
X     /* Atari St will use the system() function defined in ststuff.c */
X
X#define dosh(X,Y) system(X)
X
X#endif /* ATARIST */
X
X/*
X *  Do commands to make a target
X */
Xvoid
Xdocmds(np)
Xstruct name *         np;
X{
X    bool          ssilent = silent;
X    bool          signore = ignore;
X    int           estat;
X    register char *        q;
X    register char *        p;
X    char *             shell;
X    register struct line * lp;
X    register struct cmd *  cp;
X
X
X#ifndef ATARIST
X    if (*(shell = getmacro("SHELL")) == '\0')
X         shell = ":bin/esh";
X#endif /* ATARIST - does not have any standard shell */
X
X    for (lp = np->n_line; lp; lp = lp->l_next)
X         for (cp = lp->l_cmd; cp; cp = cp->c_next)
X         {
X              strcpy(str1, cp->c_cmd);
X              expand(str1);
```

```
X             q = str1;
X             ssilent = silent;
X             signore = ignore;
X             while ((*q == '@') || (*q == '-'))
X             {
X                  if (*q == '@')        /*  Specific silent  */
X                       ssilent = TRUE;
X                  else         /*  Specific ignore  */
X                       signore = TRUE;
X                  q++;         /*  Not part of the command  */
X             }
X
X             if (!ssilent)
X                  putchar('\t');
X
X             for (p=q; *p; p++)
X             {
X                  if (*p == '\n' && p[1] != '\0')
X                  {
X                       *p = ' ';
X                       if (!ssilent)
X                            fputs("\\\n", stdout);
X                  }
X                  else if (!ssilent)
X                       putchar(*p);
X             }
X             if (!ssilent)
X                  putchar('\n');
X
X             if (domake)
X             {             /*  Get the shell to execute it  */
X                  if ((estat = dosh(q, shell)) != 0)
X                  {
X                       if (estat == -1)
X#ifndef ATARIST
X                            fatal("Couldn't execute %s", shell);
X#else
X                            fatal("Couldn't execute %s", q);
X#endif /* ATARIST */
X                       else
X                       {
X                            printf("%s: Error code %d", myname, estat);
X                            if (signore)
X                                 fputs(" (Ignored)\n", stdout);
X                            else
X                            {
X                                 putchar('\n');
X                                 if (!(np->n_flag & N_PREC))
X                                      if (unlink(np->n_name) == 0)
X                                           printf("%s: '%s' removed.\n", myname,
np->n_name);
X                                 exit(estat);
X                            }
```

```
X                       }
X                   }
X               }
X           }
X}
X
X
X/*
X * Get the modification time of a file.  If the first
X * doesn't exist, it's modtime is set to 0.
X */
X#ifndef ATARIST
Xvoid
Xmodtime(np)
Xstruct name *          np;
X{
X    struct stat        info;
X    int           fd;
X
X
X    if ((fd = open(np->n_name, 0)) < 0)
X    {
X         if (errno != ER_NOTF)
X              fatal("Can't open %s; error %02x", np->n_name, errno);
X         np->n_time = 0L;
X    }
X    else if (getstat(fd, &info) < 0)
X         fatal("Can't getstat %s; error %02x", np->n_name, errno);
X    else
X         np->n_time = info.st_mod;
X
X    close(fd);
X}
X
X#else
X      /* Atari St version of modtime() using getstat()
X       * see ststuff.c for Atari st version of getstat()
X       */
Xvoid
Xmodtime(np)
Xstruct name *          np;
X{
X    struct stat        info;
X    extern int         getstat();
X
X    if (getstat(np->n_name, &info) < 0)
X         np->n_time = 0L;
X    else
X    {
X         FlipWords(&info.st_mod);
X         np->n_time = info.st_mod;
X    }
X}
```

```
X#endif /* ATARIST */
X
X#ifndef ATARIST
X/*
X *  Update the mod time of a file to now.
X */
Xvoid
Xtouch(np)
Xstruct name *          np;
X{
X    char           c;
X    int            fd;
X
X
X    if (!domake || !silent)
X         printf("    touch %s\n", np->n_name);
X
X    if (domake)
X    {
X         if ((fd = open(np->n_name, 0)) < 0)
X              printf("%s: '%s' not touched - non-existant\n",
X                        myname, np->n_name);
X         else
X         {
X              uread(fd, &c, 1, 0);
X              uwrite(fd, &c, 1);
X         }
X         close(fd);
X    }
X}
X
X# else
X/*
X *  Update the mod time of a file to now -- Atari St style
X */
X
Xvoid
Xtouch(np)
Xstruct name *np;
X{
X    register int  fd;
X
X
X    if (!domake || !silent)
X         printf("\ttouch %s\n", np->n_name);
X
X    if (domake)
X    {
X         if ((fd = Fopen(np->n_name, 0)) < 0)
X              printf("%s: '%s' not touched - non-existant\n",
X                        myname, np->n_name);
X         else
X         {
```

```
X             long tim;
X
X             Fseek(0L, fd, 2); /* Seek to EOF */
X             tim = Gettime();
X             FlipWords(&tim);
X             Fdatime( &tim, fd,  1); /* This time the Hitch Hikers
X                             * guide is wrong
X                                */
X             Fclose(fd);
X         }
X    }
X}
X
X#endif /* ATARIST */
X
X/*
X *  Recursive routine to make a target.
X */
Xint
Xmake(np, level)
Xstruct name *         np;
Xint          level;
X{
X    register struct depend *    dp;
X    register struct line *      lp;
X    time_t                 dtime = 1L;
X
X
X    if (np->n_flag & N_DONE)
X         return 0;
X
X    if (!np->n_time)
X         modtime(np);       /*  Gets modtime of this file  */
X
X    if (rules)
X    {
X         for (lp = np->n_line; lp; lp = lp->l_next)
X              if (lp->l_cmd)
X                   break;
X         if (!lp)
X              dyndep(np);
X    }
X
X    if (!(np->n_flag & N_TARG) && np->n_time == 0L)
X         fatal("Don't know how to make %s", np->n_name);
X
X    for (lp = np->n_line; lp; lp = lp->l_next)
X         for (dp = lp->l_dep; dp; dp = dp->d_next)
X         {
X              make(dp->d_name, level+1);
X              dtime = max(dtime, dp->d_name->n_time);
X         }
X
```

```
X    np->n_flag |= N_DONE;
X
X    if (quest)
X    {
X         rtime(&np->n_time);
X         return np->n_time < dtime;
X    }
X    else if (np->n_time < dtime)
X    {
X         if (dotouch)
X              touch(np);
X         else
X         {
X              setmacro("@", np->n_name);
X              docmds(np);
X         }
X         rtime(&np->n_time);
X    }
X    else if (level == 0)
X         printf("%s: '%s' is up to date\n", myname, np->n_name);
X    return 0;
X}
SHAR_EOF
if test 5900 -ne "`wc -c 'make.c'`"
then
     echo shar: error transmitting "'make.c'" '(should have been 5900 characters)'
fi
echo shar: extracting "'makefile'" '(561 characters)'
if test -f 'makefile'
then
     echo shar: over-writing existing file "'makefile'"
fi
sed 's/^X//' << \SHAR_EOF > 'makefile'
X# Makefile for make
X
XBINDIR = d:\bin
X
XCPFLAGS = -i c:\include\ -DATARIST -DDECL
X
XOBJS1 = check.o input.o macro.o \
Xreader.o rules.o
X
XOBJS2 = main.o make.o ststuff.o
X
Xmake.prg : $(OBJS1) $(OBJS2) lnk
X    $(LINKER) [com[lnk]]
X    $(RELMOD) make
X    ${ECHO} Break out the Champainge
X
Xtouch.prg: touch.o
X    $(LINKER) touch.68k=gemstart,touch,osbind,gemlib
X    $(RELMOD) touch
X    $(ECHO) touch made
```

```
X
X
X# Dependencies
X
X$(OBJS1) : h.h
X$(OBJS2) : h.h astat.h
X
Xclean:
X    $(RM) *.o *.68k
X
Xinstall: make.prg touch.prg
X    $(CP) make.prg $(BINDIR)\make.prg
X    $(CP) touch.prg $(BINDIR)\touch.prg
X
SHAR_EOF
if test 561 -ne "`wc -c 'makefile'`"
then
     echo shar: error transmitting "'makefile'" '(should have been 561
characters)'
fi
echo shar: extracting "'makefile.mmc'" '(475 characters)'
if test -f 'makefile.mmc'
then
     echo shar: over-writing existing file "'makefile.mmc'"
fi
sed 's/^X//' << \SHAR_EOF > 'makefile.mmc'
X# Makefile for make
X
XBINDIR = d:\bin
X
X
XOBJS1 = check.o input.o macro.o \
Xreader.o rules.o
X
XOBJS2 = main.o make.o ststuff.o
X
Xmake.prg : $(OBJS1) $(OBJS2)
X    $(LINKER) $(OBJS1) $(OBJS2) -o make.prg
X    ${ECHO} Break out the Champainge
X
Xtouch.prg: touch.o
X    $(LINKER) touch.o -o touch.prg
X    $(ECHO) touch made
X
X# Dependencies
X
X$(OBJS1) : h.h
X$(OBJS2) : h.h astat.h
X
Xclean:
X    $(RM) *.o
X
Xinstall: make.prg touch.prg
```

```
X    $(CP) make.prg $(BINDIR)\make.prg
X    $(CP) touch.prg $(BINDIR)\touch.prg
SHAR_EOF
if test 475 -ne "`wc -c 'makefile.mmc'`"
then
     echo shar: error transmitting "'makefile.mmc'" '(should have been 475
characters)'
fi
echo shar: extracting "'mmcomp.sh'" '(84 characters)'
if test -f 'mmcomp.sh'
then
     echo shar: over-writing existing file "'mmcomp.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'mmcomp.sh'
Xmmlink check.o input.o macro.o main.o make.o reader.o rules.o ststuff.o -o
make.prg
SHAR_EOF
if test 84 -ne "`wc -c 'mmcomp.sh'`"
then
     echo shar: error transmitting "'mmcomp.sh'" '(should have been 84
characters)'
fi
echo shar: extracting "'mmlink.sh'" '(84 characters)'
if test -f 'mmlink.sh'
then
     echo shar: over-writing existing file "'mmlink.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'mmlink.sh'
Xmmlink check.o input.o macro.o main.o make.o reader.o rules.o ststuff.o -o
make.prg
SHAR_EOF
if test 84 -ne "`wc -c 'mmlink.sh'`"
then
     echo shar: error transmitting "'mmlink.sh'" '(should have been 84
characters)'
fi
echo shar: extracting "'read.mee'" '(757 characters)'
if test -f 'read.mee'
then
     echo shar: over-writing existing file "'read.mee'"
fi
sed 's/^X//' << \SHAR_EOF > 'read.mee'
Xmake.c:
X    * Fix dosh() for your system.
X    * Call to getstat() in modtime() is like a fstat() on unix,
X      so it needs fixing.
Xmain.c:
X    * You can have fun in main().  That call to initalloc() is
X      really special to EON.
Xrules.c:
X    * Fix makerules() to suit you compilers for the auto suffix
X      stuff.
X
```

```
XIt supports most features of the UNIX make, the notable exceptions
Xbeing libraries, and some subtleties with quoting.  I will support
Xproblems with it to a degree.  Good luck.
X
XP.S.  I never actually got around to writing a manual entry for
X      it, so the best course of action is to refer to the UNIX
X      manual entry, or the source.
X
X
XNeil Russell
XACSnet:  caret@tictoc.oz
XUUCP:  ...!seismo!munnari!tictoc.oz!caret
XARPA:  caret%tictoc.oz@seismo.arpa
X
X
X
SHAR_EOF
if test 757 -ne "`wc -c 'read.mee'`"
then
     echo shar: error transmitting "'read.mee'" '(should have been 757
characters)'
fi
echo shar: extracting "'reader.c'" '(2569 characters)'
if test -f 'reader.c'
then
     echo shar: over-writing existing file "'reader.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'reader.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
X    *                                 *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                 *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                 *
X    \*******************************************************/
X
X
X/*
X *  Read in makefile
X */
```

```
X
X
X#include <stdio.h>
X#include <ctype.h>
X
X#include "h.h"
X
X
Xint          lineno = 0;
X
X
X/*
X *  Syntax error handler.  Print message, with line number, and exits.
X */
Xvoid
Xerror(msg, a1, a2, a3)
Xchar *           msg;
Xchar *a1;
Xint a2, a3;
X{
X    fprintf(stderr, "%s: ", myname);
X    fprintf(stderr, msg, a1, a2, a3);
X    if (lineno)
X         fprintf(stderr, " on line %d", lineno);
X    fputc('\n', stderr);
X    exit(1);
X}
X
X
X/*
X *  Read a line into the supplied string of length LZ.  Remove
X *  comments, ignore blank lines. Deal with   quoted (\) #, and
X *  quoted newlines.  If EOF return TRUE.
X */
Xbool
Xgetline(str, fd)
Xchar *       str;
XFILE *       fd;
X{
X    register char *        p;
X    char *             q;
X    int           pos = 0;
X    extern char *     fgets();
X
X    for (;;)
X    {
X         if(fgets((char *)((long)str + (long)pos), (int)(LZ-pos), fd) ==
X                                          (char *)0)
X              return TRUE;       /*  EOF  */
X
X         lineno++;
X
X         if ((p = index((char *)((long)str+(long)pos), '\n')) ==
```

```
X                                       (char *)0)
X             error("Line too long");
X
X         if (p[-1] == '\\')
X         {
X             p[-1] = '\n';
X             pos = (int)((long)p - (long)str);
X             continue;
X         }
X
X         p = str;
X         while (((q = index(p, '#')) != (char *)0) &&
X             (p != q) && (q[-1] == '\\'))
X         {
X             char *a;
X
X             a = q - 1;    /*  Del \ chr; move rest back  */
X             p = q;
X             while (*a++ = *q++)
X                 ;
X         }
X         if (q != (char *)0)
X         {
X             q[0] = '\n';
X             q[1] = '\0';
X         }
X
X         p = str;
X         while (isspace(*p))    /*  Checking for blank  */
X             p++;
X
X         if (*p != '\0')
X             return FALSE;
X         pos = 0;
X    }
X}
X
X
X/*
X *  Get a word from the current line, surounded by white space.
X *  return a pointer to it. String returned has no white spaces
X *  in it.
X */
Xchar *
Xgettok(ptr)
Xchar    **ptr;
X{
X    register char *        p;
X
X
X    while (isspace(**ptr)) /*  Skip spaces  */
X         (*ptr)++;
X
```

```
X    if (**ptr == '\0') /*  Nothing after spaces  */
X         return NULL;
X
X    p = *ptr;     /*  word starts here  */
X
X    while ((**ptr != '\0') && (!isspace(**ptr)))
X         (*ptr)++; /*  Find end of word  */
X
X    *(*ptr)++ = '\0';  /*  Terminate it  */
X
X    return(p);
X}
SHAR_EOF
if test 2569 -ne "`wc -c 'reader.c'`"
then
     echo shar: error transmitting "'reader.c'" '(should have been 2569
characters)'
fi
#    End of shell archive
exit 0
--
```


                      Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                CSnet: bammi@case   Arpa: bammi%case@csnet-relay
            CompuServe: 71515,155

From 2708288066129988089
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,78f4e3040c23c132,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 00:07:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: MAKE part 3 of 3
Message-ID: <1546@cwruecmp.UUCP>
Date: Tue, 5-Aug-86 03:07:34 EDT
Article-I.D.: cwruecmp.1546
Posted: Tue Aug 5 03:07:34 1986
Date-Received: Wed, 6-Aug-86 02:18:23 EDT
Reply-To: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Organization: CWRU Dept. Comp. Eng., Cleveland OH
Lines: 974


```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    readme
#    rules.c
```

```
#    ststuff.c
#    touch.c
# This archive created: Tue Aug  5 02:46:38 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'readme'" '(5969 characters)'
if test -f 'readme'
then
     echo shar: over-writing existing file "'readme'"
fi
sed 's/^X//' << \SHAR_EOF > 'readme'
X
X    A full featured Public Domain Make for the Atari Sts. Adapted
Xfrom origonal posting by Neil Russell.
X
X    After unsharing the 3 parts of this posting you should end up
Xwith the following files:
X
XSources:
X
X    astat.h       h.h      main.c        rules.c
X    check.c       input.c       make.c        ststuff.c
X    decl.h        macro.c       reader.c  touch.c
X
XAlcyon C compile scripts (you only need these the first time around!):
X    compile.sh
X    link.sh
X    lnk
X
XMegamax C compiler scripts (you only need these the first time around!):
X    mmcomp.sh
X    mmlink.sh
X
XMakefiles for make:
X    makefile  - Alcyon C flavor
X    makefile.mmc - Megamax C flavor
X
XTouch:
X    compiling & linking touch.c will reult in a touch program. touch
X    updates the mod. time of a file to present.
X    Usage: touch file file ......
X
X    #define the symbol MEGAMAX at the top of touch.c is you are
Xgoing to compile touch using the Megamax C compiler.
X
XDocs: (well sort of)
X    readme
X    read.mee
X
X
X    Atari ST specific Information:
X
X    ATARI SPECIAL MACROS:
```

```
X
X    Since the Atari St does not have any standard shell, I have built in
Xthree macros that are useful:
X
X    $(RM)     - removes one or more files, Wild Cards Allowed
X    $(CP)    - copies one file to another. NO directories allowed,
X           will only accept two arguments, both of which
X           must be files. If the destination file exists, it
X              will be overwritten.
X    $(ECHO) - echo's its arguements.
X
X    All atari special commands internally begin with the character '%'
X    and are handled by routines in ststuff.c. It should be trivial to
X    add other Atari Special commands if you so desire. All other
X    commands are executed using the Pexec gemdos command, so complete
X    path names must be used.
X
X    CONTINUATION LINES:
X
X    The line continuation character is '\'. Back slashes may appear in
Xpathname, but NOT at the end of a line, as it will be taken as a continuation
Xbackslash, and not as a part of the pathname. This should not create any big
Xproblem as far as i can see.
X
X
X    DEFAULT RULES:
X
X    See the file RULES.C. I have built in default rules for '.c.o'
Xfor both Alcyon C and Megamax C. But since both use the same '.o' suffix,
Xonly one may be built into the version of make that you compile. Which
Xversion gets built into make depends on the Pre Processor symbol
X'MEGRULES'. If this symbol is defined (see H.H) then Megamax rules get
Xbuilt in. If it is not, then Alcyon rules get built in. All the rules
Xare based on values of macros defined in RULES.C. These macros may be
Xredefined in a makefile, and when the default rule is expanded by make
Xat runtime, the new redefined values will be used instead. Note that the default
Xrule may not be redefined in a makefile. Make will give an error. The only
Xway to redefine the default rule is to edit RULES.C and recompile and link.
XThe values i have used in RULES.C are relevant for our setup. You will
Xprobably want to edit them for your setup. The default rules in RULES.C are
Xas follows:
X
X    .SUFFIXES: .prg .68k .o .bin .s .c .pas
X
X    Alcyon C defult rules (if MEGRULES is not defined):
X    /* Alcyon C and AS68 rules */
X
X    /* Path to the Alcyon C executables */
X    setmacro("CPATH","c:\\bin");
X
X    /* C preprocessor     */
X    setmacro("CP68", "cp68.prg");
X    /* C preprocessor flags    */
```

```
X    setmacro("CPFLAGS", "-i c:\\include\\");
X
X    /* Pass 1 of the C compiler */
X    setmacro("C068", "c068.prg");
X    /* Pass 1 flags           */
X    setmacro("C0FLAGS", "-f"); /* change to "" if you want to use IEEE
X                      * floating point and libm instead of libf
X                      * by Default. Otherwise simply redefine
X                      * C0FLAGS in your makefile to get the
X                      * IEEE floating option.
X                      */
X
X    /* Pass 2 of the C compiler */
X    setmacro("C168","c168.prg");
X    /* Pass 2  flags       */
X    /* setmacro("C1FLAGS", ""); */   /* Save ourselves some space */
X
X    /* Assembler           */
X    setmacro("AS","as68.prg");
X    /* Assembler flags     */
X    setmacro("ASFLAGS","-l -u -s c:\\bin\\");
X
X    .c.o:
X         $(CPATH)\$(CP68) $(CPFLAGS) $< $*.i
X         $(CPATH)\$(C068) $*.i $*.1 $*.2 $*.3 $(C0FLAGS)
X         $(RM) $*.i
X         $(CPATH)\$(C168) $*.1 $*.2 $*.s $(C1FLAGS)
X         $(RM) $*.1 $*.2
X         $(CPATH)\$(AS) $(ASFLAGS) $*.s
X         $(RM) $*.s
X
X    .s.o:
X         $(CPATH)\$(AS) $(ASFLAGS) $<
X
X    /* Linker of choice */
X    setmacro("LINKER", "c:\\bin\\link68.prg");
X
X    /* Relmod */
X    setmacro("RELMOD", "c:\\bin\\relmod.prg");
X
X
X     Megamax C default rules (if MEGRULES is defined):
X
X    /* Megamax C Rules default */
X
X    /* Path to the Megamax C executables */
X    setmacro("CPATH","c:\\bin");
X
X    /* C Compiler    */
X    setmacro("MMCC", "mmcc.ttp");
X
X    /* Code Optimizer      */
X    setmacro("MMIMP","mmimp.ttp");
```

```
X
X    .c.o:
X         $(CPATH)\$(MMCC) $<
X         $(CPATH)\$(MMIMP) $*.o
X
X    /* Linker of choice */
X    setmacro("LINKER", "$(CPATH)\\mmlink.ttp");
X
X    I have not defined any default '.pas.bin' rule for Oss Pascal, but
Xthat should be easy to add.
X
X
X    How to Compile Make:
X
X    Edit the file H.H. If you want to use the Megamax C compiler
Xuncomment the line /* #define MEGAMAX */ to define the symbol 'MEGAMAX'. If
Xyou are using the Alcyon C compiler, leave the line commented out. Edit the
Xfile RULES.C and the symbol 'MEGRULES' in H.H for your taste. If you have
Xthe beckmeyer C shell and my version of CC (posted to the net long ago) then
Xyou may use the shell scripts
X    compile.sh and link.sh - for Alcyon C
Xor
X    mmcomp.sh and mmlink.sh - for Megamax C
X
XIf you don't have CC or microCshell, then you will have to use these scripts
Xas guideline.
X
X    Once make.prg is made, you can safely throw away all the shell scripts!!
XIf you intend to use make from the desktop, rename it to make.ttp.
X
X
X    This program is fully in the Public Domain, and you are encouraged
Xto distribute copies of the program. Your comments/criticisms/fixes etc.
Xwill be very much appreciated. I am however  not responsible for any bugs
Xand/or correctness of behavior of the program. No part of this distribution may
Xbe used for commercial gains.
X
X                  Send your comments to:
X
X                       Jwahar R. Bammi
X                    Usenet:  .....!decvax!cwruecmp!bammi
X                     CSnet:  bammi@case
X                   Arpa:  bammi%case@csnet-relay
X                 CompuServe:  71515,155
X
SHAR_EOF
if test 5969 -ne "`wc -c 'readme'`"
then
     echo shar: error transmitting "'readme'" '(should have been 5969 characters)'
fi
echo shar: extracting "'rules.c'" '(6877 characters)'
if test -f 'rules.c'
then
```

```
     echo shar: over-writing existing file "'rules.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'rules.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
X    *                                 *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                 *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                  *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case                *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                   *
X    *                                 *
X    \*******************************************************/
X
X
X/*
X *  Control of the implicit suffix rules
X */
X#include <stdio.h>
X#include "h.h"
X
X/*
X * These definitions were added to get the types RIGHT - JRB
X *  Please people - don't assume sizeof(pointer) == sizeof(int)
X */
X
X#define Newline(X,Y,Z) newline((struct name *)X, (struct depend *)Y,\
X                    (struct cmd *)Z)
X
X#define Newcmd(X,Y)    newcmd((char *)X, (struct cmd *)Y)
X
X#define Newdep(X,Y)    newdep((struct name *)X, (struct depend *)Y)
X
X    /* When, Oh when will people stop abusing C ! */
X
X
X/*
X *  Return a pointer to the suffix of a name
X */
Xchar *
Xsuffix(name)
Xchar *           name;
X{
```

```
X    extern char *rindex();
X
X    return rindex(name, '.');
X}
X
X
X/*
X *  Dynamic dependency.  This routine applies the suffis rules
X *  to try and find a source and a set of rules for a missing
X *  target.  If found, np is made into a target with the implicit
X *  source name, and rules.  Returns TRUE if np was made into
X *  a target.
X */
Xbool
Xdyndep(np)
Xstruct name *         np;
X{
X    register char *        p;
X    register char *        q;
X    register char *        suff;         /*  Old suffix  */
X    register char *        basename; /*  Name without suffix  */
X    struct name *      op;       /*  New dependent  */
X    struct name *      sp;       /*  Suffix  */
X    struct line *      lp;
X    struct depend *        dp;
X    char *             newsuff;
X
X
X    p = str1;
X    q = np->n_name;
X    if((suff = suffix(q)) == (char *)NULL)
X         return FALSE; /* File does'nt have a suffix */
X    while (q < suff)
X         *p++ = *q++;
X    *p = '\0';
X    basename = ((struct macro *)(setmacro("*", str1)))->m_val;
X
X    if (!(((sp = newname(".SUFFIXES"))->n_flag) & N_TARG))
X         return FALSE;
X
X    for (lp = sp->n_line; lp; lp = lp->l_next)
X         for (dp = lp->l_dep; dp; dp = dp->d_next)
X         {
X              newsuff = dp->d_name->n_name;
X              if (strlen(suff)+strlen(newsuff)+1 >= LZ)
X                   fatal("Suffix rule too long");
X              p = str1;
X              q = newsuff;
X              while (*p++ = *q++)
X                   ;
X              p--;
X              q = suff;
X              while (*p++ = *q++)
```

```
X                ;
X            sp = newname(str1);
X            if (sp->n_flag & N_TARG)
X            {
X                p = str1;
X                q = basename;
X                if (strlen(basename) + strlen(newsuff)+1 >= LZ)
X                    fatal("Implicit name too long");
X                while (*p++ = *q++)
X                    ;
X                p--;
X                q = newsuff;
X                while (*p++ = *q++)
X                    ;
X                op = newname(str1);
X                if (!op->n_time)
X                    modtime(op);
X                if (op->n_time)
X                {
X                    dp = Newdep(op, 0);
X                    Newline(np, dp, sp->n_line->l_cmd);
X                    setmacro("<", op->n_name);
X                    return TRUE;
X                }
X            }
X        }
X    return FALSE;
X}
X
X#ifdef ATARIST
X/* Default rules for Atari St
X *
X * These rules have been tuned for the setup @ Case Western Reserve U.
X * you will probably have to change it for your installation.
X *
X */
X
Xvoid
Xmakerules()
X{
X    struct cmd *       cp;
X    struct name *      np;
X    struct depend *         dp;
X
X    /* Atari special internal (to make) commands */
X    setmacro("RM","%r");    /* Remove, any number of args, Wildcards OK */
X    setmacro("CP","%c");    /* Copy file to file only     */
X    setmacro("ECHO","%e"); /* Echo Arguement        */
X
X#ifndef MEGRULES
X    /* Alcyon C and AS68 rules */
X
X    /* Path to the Alcyon C executables */
```

```
X    setmacro("CPATH","c:\\bin");
X
X
X    /* C preprocessor     */
X    setmacro("CP68", "cp68.prg");
X    /* C preprocessor flags    */
X    setmacro("CPFLAGS", "-i c:\\include\\");
X
X    /* Pass 1 of the C compiler */
X    setmacro("C068", "c068.prg");
X    /* Pass 1 flags           */
X    setmacro("C0FLAGS", "-f"); /* change to "" if you want to use IEEE
X                      * floating point and libm instead of libf
X                      * by Default. Otherwise simply redefine
X                      * C0FLAGS in your makefile to get the
X                      * IEEE floating option.
X                      */
X
X    /* Pass 2 of the C compiler */
X    setmacro("C168","c168.prg");
X    /* Pass 2  flags       */
X    /* setmacro("C1FLAGS", ""); */   /* Save ourselves some space */
X
X    /* Assembler           */
X    setmacro("AS","as68.prg");
X    /* Assembler flags     */
X    setmacro("ASFLAGS","-l -u -s c:\\bin\\");
X
X    /* Now make up the command lines */
X    cp = Newcmd("$(CPATH)\\$(CP68) $(CPFLAGS) $< $*.i", NULL);
X    cp = Newcmd("$(CPATH)\\$(C068) $*.i $*.1 $*.2 $*.3 $(C0FLAGS)", cp);
X    cp = Newcmd("$(RM) $*.i", cp);
X    cp = Newcmd("$(CPATH)\\$(C168) $*.1 $*.2 $*.s $(C1FLAGS)", cp);
X    cp = Newcmd("$(RM) $*.1 $*.2",cp);
X    cp = Newcmd("$(CPATH)\\$(AS) $(ASFLAGS) $*.s", cp);
X    cp = Newcmd("$(RM) $*.s", cp);
X    np = newname(".c.o");
X    Newline(np, 0, cp);
X
X    /* Rules for Alcyon Assembler */
X    cp = Newcmd("$(CPATH)\\$(AS) $(ASFLAGS) $<", NULL);
X    np = newname(".s.o");
X    Newline(np, 0, cp);
X
X    /* Linker of choice */
X    setmacro("LINKER", "c:\\bin\\link68.prg");
X
X    /* Relmod */
X    setmacro("RELMOD", "c:\\bin\\relmod.prg");
X
X#else
X    /* Megamax C Rules default */
X
```

```
X    /* Path to the Megamax C executables */
X    setmacro("CPATH","c:\\bin");
X
X
X    /* C Compiler    */
X    setmacro("MMCC", "mmcc.ttp");
X
X    /* Code Optimizer      */
X    setmacro("MMIMP","mmimp.ttp");
X
X    /* Now make up the command lines */
X    cp = Newcmd("$(CPATH)\\$(MMCC) $<", NULL);
X    cp = Newcmd("$(CPATH)\\$(MMIMP) $*.o", cp);
X    np = newname(".c.o");
X    Newline(np, 0, cp);
X
X    /* Linker of choice */
X    setmacro("LINKER", "$(CPATH)\\mmlink.ttp");
X
X#endif /* MEGRULES */
X
X    /* Predefined suffixes */
X    np = newname(".prg");
X    dp = Newdep(np, NULL);
X    np = newname(".68k");
X    dp = Newdep(np, dp);
X    np = newname(".o");
X    dp = Newdep(np, dp);
X    np = newname(".bin");
X    dp = Newdep(np, dp);
X    np = newname(".s");
X    dp = Newdep(np, dp);
X    np = newname(".c");
X    dp = Newdep(np, dp);
X    np = newname(".pas");
X    dp = Newdep(np, dp);
X    np = newname(".SUFFIXES");
X    Newline(np, dp, 0);
X
X
X}
X
X#else
Xvoid
Xmakerules()
X{
X    struct cmd *       cp;
X    struct name *      np;
X    struct depend *         dp;
X
X
X    setmacro("BDSCC", "asm");
X    /*   setmacro("BDSCFLAGS", "");  */
```

```
X    cp = Newcmd("$(BDSCC) $(BDSCFLAGS) -n $<", 0);
X    np = newname(".c.o");
X    Newline(np, 0, cp);
X
X    setmacro("CC", "c");
X    setmacro("CFLAGS", "-O");
X    cp = Newcmd("$(CC) $(CFLAGS) -c $<", 0);
X    np = newname(".c.obj");
X    Newline(np, 0, cp);
X
X    setmacro("M80", "asm -n");
X    /*   setmacro("M80FLAGS", "");   */
X    cp = Newcmd("$(M80) $(M80FLAGS) $<", 0);
X    np = newname(".mac.o");
X    Newline(np, 0, cp);
X
X    setmacro("AS", "zas");
X    /*   setmacro("ASFLAGS", "");    */
X    cp = Newcmd("$(ZAS) $(ASFLAGS) -o $@ $<", 0);
X    np = newname(".as.obj");
X    Newline(np, 0, cp);
X
X    np = newname(".as");
X    dp = Newdep(np, 0);
X    np = newname(".obj");
X    dp = Newdep(np, dp);
X    np = newname(".c");
X    dp = Newdep(np, dp);
X    np = newname(".o");
X    dp = Newdep(np, dp);
X    np = newname(".mac");
X    dp = Newdep(np, dp);
X    np = newname(".SUFFIXES");
X    Newline(np, dp, 0);
X}
X#endif /* Atari ST */
SHAR_EOF
if test 6877 -ne "`wc -c 'rules.c'`"
then
     echo shar: error transmitting "'rules.c'" '(should have been 6877
characters)'
fi
echo shar: extracting "'ststuff.c'" '(6282 characters)'
if test -f 'ststuff.c'
then
     echo shar: over-writing existing file "'ststuff.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'ststuff.c'
X#define ATARIST
X
X    /*******************************************************\
X    *                                 *
X    *    A full featured MAKE Clone           *
```

```
X    *                                *
X    *    Origional Author: (Thank You)            *
X    *        Neil Russell                *
X    *        ACSnet:  caret@tictoc.oz             *
X    *        UUCP:  ...!seismo!munnari!tictoc.oz!caret  *
X    *        ARPA:  caret%tictoc.oz@seismo.arpa        *
X    *                                *
X    *    Atari St Port & C code cleanup:          *
X    *        Jwahar R. Bammi                 *
X    *        UUCP:  .....!decvax!cwruecmp!bammi        *
X    *       CSNET:  bammi@case               *
X    *        ARPA:  bammi%case@csnet-relay         *
X    *     CompuServe:  71515,155                  *
X    *                                *
X    \*********************************************************/
X
X
X/*
X *
X * ststuff.c - Retrofit routines
X *             for the Atari St's
X *
X */
X
X#ifdef ATARIST
X#include <stdio.h>
X#include <ctype.h>
X#include "h.h"
X#include "astat.h"
X
X/*
X * Get file statistics - sort of like stat(2)
X */
X
Xint getstat(fname, buf)
Xregister char *fname;
Xregister struct stat *buf;
X{
X    register struct stat *save_dta;
X    register int status;
X
X    /* Save old DTA */
X    save_dta = (struct stat *)Fgetdta();
X
X    /* set the new DTA */
X    Fsetdta(buf);
X
X    /* Find file stat */
X    status = Fsfirst(fname, 0);
X
X    /* reset dta */
X    Fsetdta(save_dta);
X
```

```
X    /* return status */
X    return (status == 0) ? 0 : -1;
X
X}
X
X
X/*
X * system
X *  execute a command and return status
X */
Xint system(cmd)
Xregister char *cmd;
X{
X    char command[128], tail[130];
X    register char *p, *save;
X    register int n;
X
X    if(*cmd == '%')
X         /* Atari special internal command */
X         return st_special(cmd);
X
X    /* Break up command into command and command tail */
X    for(p = save = command; !isspace(*cmd); *p++ = *cmd++) /* copy */;
X    *p = '\0';
X
X    while(isspace(*cmd)) cmd++; /* skip blanks */
X    if((n = strlen(cmd)) > 128)
X    {
X         fprintf(stderr,"Command '%s' too long\n",save);
X         return -1;
X    }
X
X    tail[0] = (char) n;
X    strcpy(&tail[1],cmd);
X
X    return (int)Pexec(0,command, tail, (char *)NULL);
X}
X
X/*
X * Atari St special commands
X *
X */
Xint st_special(cmd)
Xregister char *cmd;
X{
X    extern int rm(), cp();
X
X    switch(cmd[1])
X    {
X        case 'r':
X        case 'R': /* remove */
X         return rm(&cmd[2]);
X
```

```
X        case 'c':
X        case 'C': /* copy */
X         return cp(&cmd[2]);
X
X        case 'e':
X        case 'E':
X         return echo(&cmd[2]);
X
X        default:
X         fprintf(stderr,"Warning: '%s' - Unknown Atari Special Command\n",
X              cmd);
X    }
X    return 0;
X}
X
X/*
X * remove file(s)
X *
X */
Xint rm(list)
Xregister char *list;
X{
X    char name[128];
X    register char *p;
X
X    while((!isspace(*list)) && (*list != '\0')) list++;
X    while(*list != '\0')
X    {
X         while(isspace(*list)) list++;
X
X         for(p = name; !isspace(*list) && (*list != '\0');
X             *p++ = *list++) /* copy */;
X         *p = '\0';
X
X         if(p != name)
X              remove(name);  /* never mind the return value
X                             * we are doing 'rm -f'
X                             */
X    }
X    return 0;
X}
X
X
X#define iswild(F) ((index(F,'*') != (char *)NULL) || (index(F,'?') != (char
*)NULL))
X
X/*
X * this routine actually removes the files, dealing with wildcards
X *
X */
Xremove(filename)
Xregister char *filename;
X{
```

```
X    register struct stat *save_dta;
X    struct stat buf;
X    char fbuf[128];
X    char pbuf[128];
X    register char *path, *p;
X    extern char *strcpy(), *strcat(), *index(), *rindex();
X
X    if(!iswild(filename))
X    {
X         /* not a wild card */
X         unlink(filename);
X         return;
X    }
X
X    /* Wild Card */
X    if((p = rindex(filename,'\\')) != (char *)NULL)
X    {
X         register char *q;
X
X         /* Pick up path */
X         p++;
X         for(path = pbuf, q= filename; q != p; *path++ = *q++) /* Copy */;
X         *path = '\0';
X         path = pbuf;
X    }
X    else
X         /* No path */
X         path = (char *)NULL;
X
X    /* Save old DTA */
X    save_dta = (struct stat *)Fgetdta();
X
X    /* set the new DTA */
X    Fsetdta(&buf);
X
X    /* Unlink the first match for wild card */
X    if(Fsfirst(filename, (0x01 | 0x010 | 0x020)) != 0)
X         /* No such file(s), simply return */
X              return;
X
X    unlink ( (path == (char *)NULL) ? buf.st_sp2
X           : strcat(strcpy(fbuf, path), buf.st_sp2) );
X
X    /* Unlink any other match(s) for wild card */
X    while(Fsnext() == 0)
X         /* rest of them */
X         unlink ( (path == (char *)NULL) ? buf.st_sp2
X                : strcat(strcpy(fbuf, path), buf.st_sp2) );
X
X    /* reset dta */
X    Fsetdta(save_dta);
X}
X
```

```
X/*
X * copy files
X *
X */
Xint cp(list)
Xregister char *list;
X{
X    char source[128], dest[128];
X    char buf[512];
X    register char *p;
X    register int fsource, fdest;
X    register long count;
X
X    while((!isspace(*list)) && (*list != '\0')) list++;
X    while(isspace(*list)) list++;
X    if(*list == '\0')
X    {
X         /* no source specified */
X         fprintf(stderr,"Usage: ${CP} <source file> <destination file>\n");
X         return 1;
X    }
X
X    for(p = source; !isspace(*list) && (*list != '\0'); *p++ = *list++) /* copy
*/;
X    *p = '\0';
X
X    while(isspace(*list)) list++;
X    if(*list == '\0')
X    {
X         /* no destination specified */
X         fprintf(stderr,"Usage: ${CP} <source file> <destination file>\n");
X         return 2;
X    }
X
X    for(p = dest; !isspace(*list) && (*list != '\0'); *p++ = *list++) /* copy */;
X    *p = '\0';
X
X    if(*list != 0)
X    {
X         fprintf(stderr,"Only 2 parameters allowed\nUsage: $(CP) <source file>
<destination file>\n");
X         return 6;
X    }
X
X
X    if((fsource = Fopen(source, 0)) < 0)
X    {
X         fprintf(stderr,"%s: no such file\n", source);
X         return 3;
X    }
X
X    if((fdest = Fcreate(dest, 0)) < 0)
X    {
```

```
X         /* May already exist */
X         if((fdest = Fopen(dest, 1)) < 0)
X         {
X              fprintf(stderr,"%s: cannot open for write\n", dest);
X              Fclose(fsource);
X              return 4;
X         }
X    }
X
X    while((count = Fread(fsource, 512L, buf)) > 0)
X    {
X         if(Fwrite(fdest, count, buf) != count)
X         {
X              fprintf(stderr,"Error writing %s\n", dest);
X              Fclose(fsource);
X              Fclose(fdest);
X              return 5;
X         }
X    }
X
X    Fclose(fsource);
X    Fclose(fdest);
X
X    return 0;
X}
X
X/*
X * Echo arguements
X *
X */
Xint echo(list)
Xregister char *list;
X{
X    while((!isspace(*list)) && (*list != '\0')) list++;
X
X    if(*list != '\0')
X    {
X         while(isspace(*list)) list++;
X         printf("%s\n",list);
X    }
X
X    return 0;
X}
X
X
X/*
X * rtime - stuff current time & date into long (ptr passed)
X *
X */
Xrtime(t)
Xlong *t;
X{
X
```

```
X    *t = Gettime();    /* Ikbd's time */
X}
X
X/*
X * Flips Word of a long, used to get the date into the Higher order bits,
X * and time into the lower order bits of a long, so that comparisons can
X * later be done using a simple C relational operator.
X *
X */
Xvoid
XFlipWords(i)
X#ifdef MEGAMAX
Xunsigned i[];
X#else
Xunsigned int i[];
X#endif /* MEGAMAX */
X{
X#ifdef MEGAMAX
X    register unsigned  temp;
X#else
X    register unsigned int temp;
X#endif /* MEGAMAX */
X
X    temp = i[0];
X    i[0] = i[1];
X    i[1] = temp;
X}
X
X#endif /* ATARIST */
SHAR_EOF
if test 6282 -ne "`wc -c 'ststuff.c'`"
then
     echo shar: error transmitting "'ststuff.c'" '(should have been 6282
characters)'
fi
echo shar: extracting "'touch.c'" '(1194 characters)'
if test -f 'touch.c'
then
     echo shar: over-writing existing file "'touch.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'touch.c'
X/* #define MEGAMAX */  /* Define if using Megamax C */
X
X             /*******************************\
X                *Touch.c               *
X             *                     *
X                * Change last mod time   *
X             *        of args. to present.   *
X             *                     *
X             *    Jwahar R. Bammi           *
X             *                     *
X             \*******************************/
X
```

```
X#include <osbind.h>
X
X#ifdef MEGAMAX
X#undef Fdatime         /* Megamax has it incorrectly defined */
X#define  Fdatime(a,b,c)     gemdos(0x57,a,b,c)
X#endif /* MEGAMAX */
X
X
Xmain(argc, argv)
Xregister int argc;
Xregister char **argv;
X{
X    while(--argc)
X         touch(*++argv);
X}
X
Xtouch(file)
Xregister char *file;
X{
X    register int  fd;
X
X    if ((fd = Fopen(file, 0)) < 0)
X    {
X         Cconws("Touch: '");
X         Cconws(file);
X         Cconws("' not touched - non-existant\r\n");
X    }
X    else
X    {
X         long tim;
X
X         Fseek(0L, fd, 2); /* Seek to EOF */
X         tim = Gettime();
X         FlipWords(&tim);
X         Fdatime( &tim, fd,  1); /* This time the Hitch Hikers
X                         * guide is wrong
X                            */
X         Fclose(fd);
X
X    }
X}
X
XFlipWords(i)
X#ifdef MEGAMAX
Xunsigned i[];
X#else
Xunsigned int i[];
X#endif /* MEGAMAX */
X{
X#ifdef MEGAMAX
X    register unsigned  temp;
X#else
X    register unsigned int temp;
```

```
X#endif /* MEGAMAX */
X
X    temp = i[0];
X    i[0] = i[1];
X    i[1] = temp;
X}
SHAR_EOF
if test 1194 -ne "`wc -c 'touch.c'`"
then
     echo shar: error transmitting "'touch.c'" '(should have been 1194
characters)'
fi
#    End of shell archive
exit 0
--
```


                      Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                CSnet: bammi@case   Arpa: bammi%case@csnet-relay
             CompuServe: 71515,155


```
From -5983459614073643007
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b382e61e2cf330f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 03:57:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!mitlns!tether
From: tether@mitlns ("STEPHEN_TETHER")
Newsgroups: net.micro.atari16
Subject: XBIOS dosound function
Message-ID: <8608050045.AA00397@ucbvax.Berkeley.EDU>
Date: Tue, 5-Aug-86 06:57:04 EDT
Article-I.D.: ucbvax.8608050045.AA00397
Posted: Tue Aug  5 06:57:04 1986
Date-Received: Tue, 5-Aug-86 23:25:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "STEPHEN_TETHER" <tether@mitlns>
Organization: The ARPA Internet
Lines: 29
```


In-Reply-To: <244@inuxj.UUCP> from Ron Wolenty

According to Abacus' "ST Internals", dosound takes a single longword argument which is a pointer to an array of sound commands:

Command byte (hex)	Function
00-0F	Load the sound-chip register 00-0F. Followed by the byte to load.
80	Load temporary register (kept by XBIOS). Followed by the byte to load.

```
81                      Loop. Followed by a sound-chip register number,
                        a step value (signed byte), and a final value
                        (signed byte). Executes as follows:
                             for temporary := temporary to final by step
                                  do register := temporary.

82-FF                   Delay/halt. Followed by a byte giving the number
                        of system timer ticks to pause, 0 to halt sound
                        processing. A system timer tick is usually 20ms.
```

Steve Tether
TETHER@MITLNS.MIT.EDU
TETHER@MITLNS.BITNET
satether on BIX

From -6798796675437726207
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,175c39b6a2a80e4e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 04:40:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET
Newsgroups: net.micro.atari16
Subject: Heat problems with 1040s?
Message-ID: <8608051143.AA13767@ucbvax.Berkeley.EDU>
Date: Tue, 5-Aug-86 07:40:50 EDT
Article-I.D.: ucbvax.8608051143.AA13767
Posted: Tue Aug 5 07:40:50 1986
Date-Received: Wed, 6-Aug-86 02:03:08 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: RDROYA01%ULKYVX.BITNET@Forsythe.Stanford.Edu
Organization: The ARPA Internet
Lines: 23

Date: Tue, 5 Aug 86 07:37 EST
From: <RDROYA01@ULKYVX.BITNET> (Robert Royar)
Organization: University of Louisville
Subject: Heat problems with 1040s?
To: info-atari16@score.stanford.edu
X-Original-To: "info-atari16@score.stanford.edu"

I'm deciding wether to buy a 1040ST or a 520ST. I want the full meg because the cp/m-68k system I'm now using has 2 megs, and many of the programs I'll be porting need LARGE buffers. But some of the local users and one dealer have warned me of heat failures and design flaws in the 1040ST. Are these isolated problems or is this a chronic concern? If it is chronic, how can it be fixed (why didn't they put a fan in that skinny box?).

Heat concerns me, as do power problems because those are the only problems
I had with my first 68K system. The addition of an integrand power box
with fan cured both. Has anyone installed an Atari board in such a box?
Please, hurry your replies as I need to make a decision within a week.

thanks,

Robert Royar
rdroya01@ulkyvx.bitnet

From 8093794124973449024
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d70814a2e42d01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 05:57:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!
XEROX.COM!"Michael_Krause.ROCH"
From: "Michael_Krause.ROCH"@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Bugs in software packages (Flash)
Message-ID: <860805-071227-2141@Xerox>
Date: Tue, 5-Aug-86 08:57:31 EDT
Article-I.D.: Xerox.860805-071227-2141
Posted: Tue Aug 5 08:57:31 1986
Date-Received: Wed, 6-Aug-86 02:05:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "Michael_Krause.ROCH"@Xerox.COM
Organization: The ARPA Internet
Lines: 2

Try some of Ashton-Tates dBase-nnn. There may not be many hard-core
BUGGZ but their code sure is "loose" in many places.

From 3749549174807398428
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 06:00:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <503@elmgate.UUCP>
Date: Tue, 5-Aug-86 09:00:25 EDT
Article-I.D.: elmgate.503
Posted: Tue Aug 5 09:00:25 1986
Date-Received: Tue, 5-Aug-86 22:48:24 EDT
References: <2023@calmasd.CALMA.UUCP> <8607311755.AA18885@ames-nas.ARPA>
Organization: Eastman Kodak Co., Rochester, NY

Lines: 177
Summary: Adding my two cents to the how's the ST computer stack up

In article <8607311755.AA18885@ames-nas.ARPA>, fouts@AMES-NAS.ARPA writes:
>
>   Well, I've only had my 1040ST for three weeks, but I'll give you
> my first impressions of the machine.
>
>   (First, my background: I work for NASA as an OS Guru, and work
> with Cray, Amdahl, Vax, Sun and SGI Un*x systems every day. I'm
> writing this on a MacUgly (Lisa with MacWorks,) my officemate has an
> AT, and other people here have Amiga's. I have owned a (currently
> broken) Heathkit MS-DOS (NOT PC compatible) machine for several years,
> and was looking for a fast machine to use in music composition/MIDI
> control when I bought my ST.)
>
>   Let me try to answer your questions.

My background: Sun UNIX, PC/MSDOS, HP Stuff,
                and have owned an ST and an Amiga since last fall

>
>   1) Religious responses: I have had my MacUgly for over a year,
> and still find it difficult to get simple programs working, because the
>
>   As far as Amiga versus ST is concerned, the Amiga is a somewhat
> better machine, but the cost difference is greater than the quality
> difference. Also, most of the quality difference comes in color
> graphics, and I don't care about such. I prefer the mono system.
>
>   Of course, what clinched it for me was the MIDI port.

The Amiga is the more competent machine. The Amiga's system software
is at LEAST an order of magnitude more robust than the ST's. On the other
hand, for pure computation the ST is a wee bit faster. However, the extra
money for the Amiga is well spent. So much for religion.

>
> 2) Religious responses from haters. (NOT APPLICABLE)
>

I like the ST, ALOT. Just not as much as the Amiga.

> 3) Availability of good word-processing software.
>
>   Your choice of word processor is also a religious issue. There's
> 1-ST word, which is mediocre, and I have micro emacs which is a text
> editor, not a word processor. There are others, but I haven't tried
> them.
>

Both fall flat on their chips in this area. For WP'ing, if that's your
MAJOR application a PC clone may be worth a look.

> 4) Reliability (hardware, OS & applications)
>
>   Well, a month isn't long enough to tell about the hardware, but
> mine hasn't broken yet. The software is reasonably reliable, GEM
> doesn't seem to crash and most of the bugs visible to developers are
> easy to work around. I use OSS Personal Pascal, and it only has a few
> bugs, and usually performs better than promised.
>

Amiga has OS bugs too. The difference between Atari and CBM-Amiga is
CBM-Amiga is activly pursuing fixing the bugs. So far Atari has ROM'd them
and has seem to have said 'BUGS? Too bad..' Hardware. My 520ST is an
early one so I had the loose chips syndrome. That has been rectified by
new chip carriers. My Amiga is a pre-production model. Even so (or maybe
because of this) my Amiga has been rock solid. No failures at all.

> 5) Sources of info
>
>   Atari maintains a buletin board (The base number is (408)745-5308.
> Neil Harris also appears to pay attention to all (CompuServe, Source,
> Well, UUCP, etc) possible general networks and is reasonable about
> answer questions. I haven't tried ATARI user support yet. There are a
> number of good user's groups. There is an ST specific magazine, and
> START (a quarterly full of software published by ANTIC) as well as
> Antic. Of course there are the ABACUS books, and I suppose other
> sources.

Same goes for the Amiga and then some. Real system documentation that has
CBM-Amiga's blessing is available form $99 to $450 depending on what you
buy, and who you get it from. Doc's are much better (subjective I suppose)
for the Amiga (less contradictions, more examples, etc). Two magazines
Amazing Computing (Hackers), Amiga World ('USER's').

>
> 6) Comparisons with the Amiga, PC, IBM 1401 :-), etc.
>   Well I don't know about the 1401, but my first computer was a
> 1620, and the ST blows it away. :-)
>   As far as the AMIGA/ST comparison; The Amiga does better/faster
> color graphics, but the ST does clearer mono. The Amiga has a better
> sound chip, but the ST does MIDI. The Amiga has fancy custom
> coprocessors, but the ST is more approachable.

True, th ST is more approachable, at first. Then you quickly realize all
the nice services Amiga built in to the OS and all the choices available
to you as to how you want your application to work/look. Then you look at
GEM for the same choices/services and quickly realize just how
'unapproachable' GEM can be.

 >The ATARI hard disk is
> real. There's currently more ATARI software available. In all, the
> Amiga is a better piece of hardware, but not enough better to justify
> the price.

The Amiga is fully expandable. All it takes is $$$$. Hard disks, RAM (up to 8meg), frame grabbers, digitizers(SP?) both sound and video, card cages (although quite large), 68020/68881 boards, etc. Currently the definitly is more Atari software. That should change, but I'm not a fortune teller.

>   As far as PC's are concerned, the only advantage a PC has is a
> huge amount of software. If you buy an AT (or clone) and max it out,
> you can spend 5-6K and have almost as good a machine as 1500$ worth of
> ST. . .

One other PC advantage is the availability of software that uses the 8087 and 80287. important for number crunching application. And of course the huge variety of plug boards for just about any application.

> 7) How fast is sofware becoming available (PD & Purchased)
>   There is a huge amount of PD Software. Much more than when the
> Mac was a year old. Most of it is very good, well written, etc. I
> have both the PD Forth, and XLisp and use both.

I disagree somewhat. Most of the ST PD software seems poor to me and rarly includes the source for it. On the other hand the Amiga programmers seem much more willing to post both binary AND source, thereby allowing you to modify or enhance it to suit your tastes. Maybe AMIGA programmer's are just more experianced in C, I don't know. I do know that I have aquired nearly 15 megabytes of PD source for the Amiga and some of it is VERY good indeed.

>
>   I don't have as much experience with commercial software, although
> it is certainly there. The only thing I have is OSS Personal Pascal,
> which I highly recommend.

I can also recommend MegaMax C although it has it's problems with complex code (bit fields, function pointers, and some other obscure and not so obscure bugs). Further TDI's Modula 2 seems nice, but I haven't had the time to really use it. I must agree OSS PP is very usable indeed.

I too have little in the way of commercial applications for either machine. I just enjoy hackin' 8^)   I do enjoy Ageis Images on the Amiga.

>   I have seen a lot of stuff in the ANTIC catalog, and most of it
> exists. (I. E. I've seen it for sale at my local ATARI dealer.)

Dealers around the Rochester NY area don't seem to have any of this either. Further, in my user's group, I heard complaint's about very slow ANTIC service.

> 8) Compatability of peripherals
>   This is where the ST really seems to loose. It isn't big enough
> (yet) for a big aftermarket in peripherals, so there aren't many second
> sources, except for the hard disks. The expansion kit isn't out yet,

> so there aren't many places to put them anyway, and ATARI seems to have
> gone out of their way to make it hard to substitute monitors, although
> most of this was to make the machine cheaper to build.

Remember the intial cost difference in the Amiga? Expansion support is a
small part of that. The ST's DMA port is still not the same as the Amiga CPU
Bus connector. Close but no cigar.
>
> A) Anything else.
>
I really like both the ST and the Amiga. If I could buy only one I'd go
Amiga but if funding precludes this, the ST is a good substitute.

How we've help a bit.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 5305505676579331893
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,39358680d1b972f4,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,39358680d1b972f4,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,39358680d1b972f4,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 150311,39358680d1b972f4,start
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-08-05 09:50:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.6809,net.micro,net.micro.atari16,net.micro.amiga
Subject: New CoCo-III's Market Niche
Message-ID: <1040@ihwpt.UUCP>
Date: Tue, 5-Aug-86 12:50:14 EDT
Article-I.D.: ihwpt.1040
Posted: Tue Aug 5 12:50:14 1986
Date-Received: Thu, 7-Aug-86 00:42:04 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 52
Xref: watmath net.micro.6809:931 net.micro:15275 net.micro.atari16:1528
net.micro.amiga:4190

It's interesting to see how the new Coco III fits into
the personal computer marketing niche, with respect to
Tandy's product line and its competitors.

The Coco III has 128 to 512K, graphics nearly as good as
the ST or Amiga, a serious-business 80x24 screen (WHEW!)
and a price tag ($220) well under the Commodore 128.

Tandy's line now seems to consist of a series of MS-DOS
machines for the adult/business types at the high end,
with the low end still handled by an 8-bit micro,
the Coco's 6809. Some people may be disappointed that
the Coco III is not a 68000 machine, but Tandy may be wise
to stay out of the King Kong -vs- Godzilla war between
Atari ST and Amiga -- maybe neither combatant will live
to inherit the ruins of Tokyo. Tandy has straddled the
68K home market by landing salvos on both sides of it.

Instead, the Coco III offers graphics almost as good as
the 68K boxes, plus the potential for OS9 Level II,
possibly with the memory mapping and protection that the
68K pc's lack. At a price less than half of a bare-bones ST.

Radio Shack marketing has found a nice gap in the market
and filled it pretty well -- the space between the 8-bit
home "toys" and the 68K machines (which MS-DOS users would
call "toys" too).

Commodore and Atari have tried to narrow this gap, with 128K
editions of their home computers, but
in terms of improvements over their 64K predecessors, the Coco III
is a quantum leap compared to the other 128K 8-bitters.
Of course any of these machines should have blown the Apple II
away years ago, but some things defy explanation.

Sure, the Coco III could use even more keyboard improvement
(you STILL need CTRL to get the C-language symbols, but at
least there's real CTRL key *in the ight place*), 512K tops
may seem limiting (but 6809 code is more compact than 68K binary,
I'll bet), and the RS232 is probably still bit-banger software.
But against Commodore 128s and Atari 130XEs, Coco III is heavy
competition indeed. (If you believe that $220 tag; seems too
good to be true -- I'd have guessed $400-$600 for a Tandy product).
--
Mike J Knudsen __   ...ihnp4!ihwpt!knudsen
              / NO \
Bell Labs   / BABY \   (312)-979-4132 (work)
 (AT & T)   /ON BOARD\
            \GO AHEAD/   BORED SAILORS
IH 6D-319   \ & HIT/   go BOARDSAILING.
x4132   \ ME /
                --

From 1168600492930217694
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,4501b273abd3ab57
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 11:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!uiucdcs!uiucdcsb!mcewan
From: mcewan@uiucdcsb.CS.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: New group mod.sources.atari520
Message-ID: <154300001@uiucdcsb>
Date: Tue, 5-Aug-86 14:18:00 EDT
Article-I.D.: uiucdcsb.154300001
Posted: Tue Aug 5 14:18:00 1986
Date-Received: Sat, 9-Aug-86 01:15:56 EDT
References: <24200004@maggot>
Lines: 19
Nf-ID: #R:maggot:24200004:uiucdcsb:154300001:000:495
Nf-From: uiucdcsb.CS.UIUC.EDU!mcewan   Aug 5 13:18:00 1986

> Am I in favor of a new moderated ST newsgroup?
>
>   Yes [x]
>   No [ ]
>
> If I answered "Yes", which of the following names do I prefer?
>
>   mod.520st.sources [ ]
>   mod.520st [ ]
>   mod.st.sources [ ]
>   mod.st [x]

Just for the sake of orthogonality, why not make it "mod.sources.atari16"?

          Scott McEwan
          {ihnp4,pur-ee}!uiucdcs!mcewan

"Me always knew this day would never come! That why me prepared for it!"

From 3914242976736773732
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,23682210edf40b91
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 11:35:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMIX.CC.UMICH.EDU!hyc
From: hyc@UMIX.CC.UMICH.EDU (Howard Chu)
Newsgroups: net.micro.atari16
Subject: Re: avatek 1200
Message-ID: <8608051835.AA02742@umix.cc.umich.edu>
Date: Tue, 5-Aug-86 14:35:19 EDT
Article-I.D.: umix.8608051835.AA02742
Posted: Tue Aug 5 14:35:19 1986

Date-Received: Wed, 6-Aug-86 02:35:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Might want to try inserting a pause in immediately after the first
"1" of the phone number. SOmetimes it takes a while for the long
distance service to kick in. (Just a thought...)
  Howard Chu
  hyc@umix.cc.umich.edu

From -5990885523322155431
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,23682210edf40b91
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 12:36:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: avatek 1200
Message-ID: <8608051645.AA04459@mitre-bedford.ARPA>
Date: Tue, 5-Aug-86 15:36:01 EDT
Article-I.D.: mitre-be.8608051645.AA04459
Posted: Tue Aug 5 15:36:01 1986
Date-Received: Wed, 6-Aug-86 02:18:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 16

One problem at least is obvious: if you are PULSE dialing and you pick up
another phone, all pulses sent while you are listening will be lost.

Pulse dialing works by OPENING THE CIRCUIT briefly for each pulse. If you are
across the line with another phone, this open circuit will be defeated by the
loop current running through the second phone in parallel.

Try letting the poor modem dial the whole number before picking up the phone.
Dial it once and time the pulses, then let it do its thing on a non-shunted
phone line and I bet it will work fine.

Tone dialing usually works fine even with another phone or two across the
line, as the tones still get through.

-John Sangster
jhs@mitre-bedford.arpa

From -6748003613780238184
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd57c7de1e59c5b
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-08-05 13:00:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: ST Evaluation Requested
Message-ID: <190@molihp.UUCP>
Date: Tue, 5-Aug-86 16:00:26 EDT
Article-I.D.: molihp.190
Posted: Tue Aug 5 16:00:26 1986
Date-Received: Sat, 9-Aug-86 01:24:16 EDT
References: <4140@ukma.UUCP> <11937@watnot.UUCP>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 24

>>STAR RAIDERS
>>   It's been at least three years since I last played Star Raiders,
>>   probably more.   If it were released today it would still be one
>>   of the greatest games around. Is anyone planning on porting the
>>   thing to the ST series? It would be stupendously awesome with
>>   higher-res graphics and sound. I was even thinking of writing a
>>   simple version for the Adage 3000!
>>
>Atari is working on a version for the ST, and I have heard of some demos
>floating about. I hear that it is in fact very stupendously awesome. It
>certainly will be one of the greatest games around as soon as it comes out.
>When that is, I am not sure (When is it NEIL?!?!?).

  I have seen the demo of Star Raiders, and it is *breathtaking*. I
didn't quite realize how damned good the color screen on this beast is
until I saw that. The colors are fabulous, the motion is smooth and
steady, and the whole effect is very impressive. It wouldn't do
anything, but I watched it for minutes. Now if only I could find a
decently priced TV which would accept the Atari RGB color output!

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
      #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From 3677268232951008222
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80acd8e23281dce4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 14:41:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!HAWAII-EMH.ARPA!dkb-amos

From: dkb-amos@HAWAII-EMH.ARPA
Newsgroups: net.micro.atari16
Subject: Break control in the 68901
Message-ID: <8608052200.AA08360@ucbvax.Berkeley.EDU>
Date: Tue, 5-Aug-86 17:41:00 EDT
Article-I.D.: ucbvax.8608052200.AA08360
Posted: Tue Aug 5 17:41:00 1986
Date-Received: Wed, 6-Aug-86 02:36:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Could anyone tell me how to assert a break on the 1040ST serial line. I assume this is done with some bit pattern in the 68901 control register.

Thanks in advance.
-Dennis

From -7105382548073356619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 16:40:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!pyramid!decwrl!sun!wmb
From: wmb@sun.uucp (Mitch Bradley)
Newsgroups: net.micro.atari16
Subject: Re: prices of monitors, 68020's, etc.
Message-ID: <5861@sun.uucp>
Date: Tue, 5-Aug-86 19:40:08 EDT
Article-I.D.: sun.5861
Posted: Tue Aug 5 19:40:08 1986
Date-Received: Sat, 9-Aug-86 04:16:29 EDT
Organization: Sun Microsystems, Inc.
Lines: 9

Sun does not pay $1000 for thousand-line 19" monochrome monitors. When we first started shipping them several years ago, the price was in that ballpark (there was only one supplier), but not now.

It also strongly depends on that size of the tube. 19" monitors cost significantly more than 15" monitors with the same number of pixels.

Mitch

From -4293244800164004041
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 18:00:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <8608060047.AA16561@mitre-bedford.ARPA>
Date: Tue, 5-Aug-86 21:00:55 EDT
Article-I.D.: mitre-be.8608060047.AA16561
Posted: Tue Aug 5 21:00:55 1986
Date-Received: Thu, 7-Aug-86 02:35:47 EDT
References: <503@elmgate.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 19

Re: CPU expansion port, AMIGA vs. ST: It looked to me (and to Paul Swanson
who is a pretty sharp ST hardware person, e.g. upgrading and repairing them as
a 520 dealer) ...it looked to me as though the 520ST cartridge port could
probably be expanded to a full CPU bus extension port with a little effort.
A little machining on the case in this area and addition of a connector with
either the additional pins or all pins, and maybe a bunch of bus transceiver
chips, and you would probably be able to do it. If you used the existing
cartridge port as part of the expansion connection, you would want to put a
cartridge socket in the expansion chassis so you could still use cartridge
software.

So hardware hackers need not despair -- they may be able to expand their ST
just as much as one could expand the more expensive AMIGA. However, third
party hardware vendors doubtless won't spring up as readily, since most ST
owners won't have an expansion connector and if they do there is no guarantee
that it will be the same as anybody else's.

-John Sangster
jhs@mitre-bedford.arpa

From -2670570542577067069
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4501b273abd3ab57
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 18:20:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!sri-spam!parcvax!hplabs!sdcrdcf!
psivax!nrcvax!nrc-ut!andre
From: andre@nrc-ut.UUCP (Andre Hut)
Newsgroups: net.micro.atari16
Subject: Re: New group mod.sources.atari520
Message-ID: <166@nrc-ut.UUCP>
Date: Tue, 5-Aug-86 21:20:46 EDT
Article-I.D.: nrc-ut.166
Posted: Tue Aug 5 21:20:46 1986

Date-Received: Sat, 9-Aug-86 02:18:57 EDT
References: <24200004@maggot> <5470@topaz.RUTGERS.EDU>
Reply-To: andre@nrc-ut.UUCP (Andre Hut)
Organization: Network Research Corp. Salt Lake City, UT
Lines: 17

In article <5470@topaz.RUTGERS.EDU> appelbau@topaz.RUTGERS.EDU (Marc Appelbaum)
writes:
> Yes!!! A 520 sources groups would be great!!

PLEASE! mail it to him, don't post votes!!!!
--

```
                              ihnp4-\
                sdcsvax-\              \
Andre' Hut               sdcrdcf!psivax!nrcvax!nrcutah!andre
                hplabs--/              /
                         ucbvax!calma-/
```

Network Research Corporation
923 Executive Park Dr. Suite C
Salt Lake City, Utah 84117

From -7910348590147685288
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,452216e36913aed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 20:01:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!cit-vax!nike!ucbcad!dumper
From: dumper@ucbcad.BERKELEY.EDU (System Dumper)
Newsgroups: net.micro.atari16
Subject: ST in Europe, Adaptibility
Message-ID: <951@ucbcad.BERKELEY.EDU>
Date: Tue, 5-Aug-86 23:01:48 EDT
Article-I.D.: ucbcad.951
Posted: Tue Aug 5 23:01:48 1986
Date-Received: Thu, 7-Aug-86 02:47:24 EDT
Organization: CAD Group, U.C. Berkeley
Lines: 8
Keywords: Transformer?

I have a friend who is thinking of buying the 520 or 1040 to bring to Germany
with him. He was wondering what the machine would need, i.e. in the way of
step-down transformers. If anyone has any experience using an ST bought in
the US in Germany/Europe, I'd like to hear how the machine holds out.

Thanks.

From -7683995664001646667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d57939f1b84f23c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-05 23:16:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!DB0ZIB21.BITNET!ZZZ697
From: ZZZ697@DB0ZIB21.BITNET (Lutz Weimann   phone 49+030/89604-185)
Newsgroups: net.micro.atari16
Subject: Undelivered Mail
Message-ID: <8608060612.AA06823@ucbjade.Berkeley.Edu>
Date: Wed, 6-Aug-86 02:16:31 EDT
Article-I.D.: ucbjade.8608060612.AA06823
Posted: Wed Aug 6 02:16:31 1986
Date-Received: Thu, 7-Aug-86 06:06:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Please remove the userid FUBB61@DB0ZIB21.BITNET from your Mail-
distribution-list, since this is an invalid userid at our node and
caused our mailer to send back about 25 mails sent by you since
1 th august.

Regards,
L. Weimann
(Postman@DB0ZIB21.BITNET)

From -5431974873396458731
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9dc78b3cd752fabd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-06 05:15:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!DDATHD21.BITNET!
XBR1YD22
From: XBR1YD22@DDATHD21.BITNET (Ralf Bayer {Herz-Baerchi})
Newsgroups: net.micro.atari16
Subject: Micro Emacs source code
Message-ID: <8608061214.AA20720@ucbvax.Berkeley.EDU>
Date: Wed, 6-Aug-86 08:15:04 EDT
Article-I.D.: ucbvax.8608061214.AA20720
Posted: Wed Aug 6 08:15:04 1986
Date-Received: Thu, 7-Aug-86 06:36:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Could anybody send me the source code for Micro-Emacs?

I do already have the binaries, but I have a German ST with a different
keyboard layout, so I need to change things. The documentation
for that editor (if there should be any) would also be valuable to me.

Thank you very much

Ralf Bayer (The Care-Baer)
Computing Center @ the Technical University of Darmstadt, West Germany

Arpanet: xbr1yd22%ddathd21.BITNET@wiscvm.wisc.EDU (personal mail)
               #d22%ddathd21.BITNET@wiscvm.wisc.EDU (mailing lists)
BITNET: xbr1yd22 @ ddathd21   (no NETDATA format, need RFC-header)
               #d22 @ ddathd21   (NETDATA format, beware of the
                                     Number sign, it's part of the USERID)

                  > REAL programmers use FORTRAN <

From -344351513918146744
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35dc4706d05e6e0c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 23:03:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!bellcore!
ulysses!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: I*S Talk by Batteries Included, review follows.
Message-ID: <860729020349.0000079A.AEOA.AA@UMass>
Date: Tue, 29-Jul-86 02:03:49 EDT
Article-I.D.: UMass.860729020349.0000079A.AEOA.AA
Posted: Tue Jul 29 02:03:49 1986
Date-Received: Thu, 31-Jul-86 02:48:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 49

Hi,
       I just purchased I*S Talk by Batteries Included. Basically, what I can
say is that the product seems like a good one, but version 1.00 should not
have been released to the market, too many bugs. It is so full of bugs, that
one cannot use some of its main advertised features. If one attempts to use
CUT & PASTE you are going to find yourself with a facefull of cherry bombs
and out on the desktop very fast. Also, its FUNCTION key accessory which is
supposed to let you access ALL of GEM without the mouse, just about, only
works one in every 10 tries. The 50,000 spelling dictionary only works on
the buffer or compose window and NOT on entered text, making it useless.
Forcing one to use THUNDER instead. The program will also crash into more
cherry bombs if you add a new entry and don't give it a breather before
pointing at a menu item. It does have some fast text scrolling, but it could
use some inprovement. If you leave he mouse over certain parts of the window,

the mouse will overwrite the text. The documentation is very confusing and frustrating. The built in HELP functions are useless, but cute. It is missing such basic features, that you would not believe. I use a system that provides for me all the linefeeds I need, but it is impossible to turn off linefeeds from the terminal, ARGH! The compose window is cute, but doesn't allow you to enter more than one line at a time. So not very usefull. The buffer is efficient, but it is NO use without CUT&PASTE. The docs are so bad, that after several hours with the docs, I still have not been able to sucessfully use the KEYS and REPLAY functions at all without crashing. I feel I am using an Amiga with all these crashes. Yucko. With all the hip about B.I. products they turn out to be a VERY below quality company with slapped together programs. THUNDER and DEGAS are great, but I*S Talk is something to stay away with a hot poker until they improve it, unless you really NEED a GEM terminal program. It is the BEST GEM program, since the other ones out there (MI-TERM and FLASH) are worse and have even more bugs.

I do not have access to Compuserve so I cannot pass on to B.I. what I think about their product, and I can't call them until my warranty card gets to them, so I would be VERY happy if someone could foward this to them on Compuserve or somewhere similar. (Neil?) I met with the president of that company at a meeting in Boston, where he proceeded to claim that B.I. were the EXPERTS of the industry when it came to GEM, but it turns out they do need to practice for a couple more months on the magical art of GEM programming. He showed us I*S Talk as a complete finished product, and went on to talk about how FLASH terminal is full of bugs. When it turns out that his product is in much worse shape. Heck, more of the pre-release-still-under-developement stuff I see is in much better shape than this. Well, enough flame, I already lost my money...Now I will have to PAY B.I. for a WORKING upgrade of this piece of unfinished code. Sigh.

Rick Flashman
1057 N. Pleasant Street
Amherst, MA 01002
(413) 549-7399
Flash%UMASS.BITNET

From 4749000177948677135
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 01:01:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!JULIET.CALTECH.EDU!ccl
From: ccl@JULIET.CALTECH.EDU (Curtis C. Ling)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <860729010126.02m@Juliet.Caltech.Edu>
Date: Tue, 29-Jul-86 04:01:26 EDT
Article-I.D.: Juliet.860729010126.02m
Posted: Tue Jul 29 04:01:26 1986
Date-Received: Tue, 29-Jul-86 18:57:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 14

I would like to know if it is possible to obtain hardware documentation
for the Atari ST computers: i.e. complete schematics, memory map
(Chip select logic) chip/component lists.

These are available for the Commodore Amiga, for around $30, so I was
I was wondering if there is anything comparable for the STs.
Prices? Availability? Anything, Neil?

Thanks for any information.

Lingus
CCL@CITROMEO

From 5862485095245769544
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba8d907e44555886,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 01:03:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!nike!ucbcad!ucbvax!JULIET.CALTECH.EDU!ccl
From: ccl@JULIET.CALTECH.EDU (Curtis C. Ling)
Newsgroups: net.micro.atari16
Subject: Hardware Documentation for the Atari STs
Message-ID: <860729010335.02n@Juliet.Caltech.Edu>
Date: Tue, 29-Jul-86 04:03:35 EDT
Article-I.D.: Juliet.860729010335.02n
Posted: Tue Jul 29 04:03:35 1986
Date-Received: Tue, 29-Jul-86 18:58:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

I would like to know if it is possible to obtain hardware documentation
for the Atari ST computers: i.e. complete schematics, memory map
(Chip select logic) chip/component lists.

These are available for the Commodore Amiga, for around $30, so I was
I was wondering if there is anything comparable for the STs.
Prices? Availability? Anything, Neil?

Thanks for any information.

Lingus
CCL@CITROMEO

From -2025680541284122529
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 05:14:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607291022.AA11996@ucbvax.Berkeley.EDU>
Date: Tue, 29-Jul-86 08:14:40 EDT
Article-I.D.: ucbvax.8607291022.AA11996
Posted: Tue Jul 29 08:14:40 1986
Date-Received: Tue, 29-Jul-86 19:12:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

OPTIONS: ACK   LOG   LONG   NOTEBOOK ALL

Date: 29 July 1986, 11:43:02 GMT
From: Simon Poole   K538915 at CZHRZU1A
To: INFO-ATA at SU-SCORE

Subj.: a slight misunderstanding

Sorry Neil,
 i didn't mean that ATARI U.S.A should start duplicating disks or something like that. Most PD software does arrive in Europe after half a year or so, the problem is that it is distributed commercially, one example: 10 SS disks for $70 (the disks tend to be a bit flaky, so you don't get very much for your money). What I would suggest is, that every few months you send a couple of diskettes with the latest PD programs on them to ATARI Germany (or to a user group) and they make them available in some form (which does not mean they actually have to distribute them, just put them on a BBS or so).

                    Simon.

From -684916695765236446
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d9f7363e5bc0f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 08:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!
uiucdcs!convex!megamax!m5

From: m5@megamax
Newsgroups: net.micro.atari16
Subject: Re: Orphaned Response
Message-ID: <3100008@megamax>
Date: Tue, 29-Jul-86 11:52:00 EDT
Article-I.D.: megamax.3100008
Posted: Tue Jul 29 11:52:00 1986
Date-Received: Wed, 13-Aug-86 05:38:21 EDT
References: <678@batcomputer.TN.CORNELL.EDU>
Lines: 58
Nf-ID: #R:batcomputer.TN.CORNELL.EDU:678:megamax:3100008:000:2623
Nf-From: megamax!m5   Jul 29 10:52:00 1986

Some stuff:

1) The bug mentioned concerning garbage returned from fread() has been fixed. The fixed version is now being shipped and provided as a FREE revisionary update; send disks and a SASE.

2) I/O redirection does in fact work, with one caveat: the file name MUST follow the angle bracket with no intervening spaces. In other words,

```
blah > blah < blah
```

will NOT work, while

```
blah >blah <blah
```

will work. This will be tended to at some future date.

3) I know that everyone (well, everyone except me) HATES the text editor because the arrow keys don't do "the right thing" (I suppose according to the ANSI arrow key standard :-)). I've heard comments to the effect that the editor is utterly useless because of this "bug". This is not a bug, but rather a design decision which seems to be unpopular. This will be changed in the next major release. Allow me to point out that I still believe that for movement of over a few lines, the mouse is probably faster once you get used to it. I know, I know, the mouse button is sort of wimpy, but your finger gets stronger after a while. Anyway, anyone who knows of other flaws which render the editor a waste of disk space can send me mail. Some old bugs (specifically, problems with search/replace and with the hard disk driver) have been fixed already.

4) We have noticed a prevailing belief that in order to use the floating point system, programs must be linked to the "double.o" code. This is FALSE. The "double.o"

code is only needed for 64-bit precision. If it is not
specified, the linker uses a 32-bit library which is MUCH
faster. In either precision, double values are stored
as 64 bits, but the 32-bit libraries only compute with
(guess how many...) 32 bits. For casual floating point
computations, DON'T link with "double.o". As to the
various problems with floating point, all have been
fixed and are available with the current revision (the
free revisionary update mentioned above). Along with
the fixes are library routines for absolute value.

PLEASE don't beg me for dates. I don't know. Once again, the
current revision is available for no charge. Call for info.

Mike McNally   Digital Lynx Inc.
hanger-about at Megamax, and the idiot who likes mice

...convex!ctvax!megamax!m5

From 2422780801767377278
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e92eb744ac44664
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 08:57:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: environments?
Message-ID: <359@brueer.ee.brunel.ac.uk>
Date: Tue, 29-Jul-86 11:57:52 EDT
Article-I.D.: brueer.359
Posted: Tue Jul 29 11:57:52 1986
Date-Received: Thu, 31-Jul-86 23:49:04 EDT
References: <642@marlin.UUCP>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 25

In article <642@marlin.UUCP> dobbs@cod.UUCP (Lynn B. Dobbs) writes:
>   This is supposed to set an environment variable to allow for two single
>sided drives. Hack didn't come with this file.

The file should be called HACK.ENV and contains option strings that would
normally be set outside the program, in a Unix environment. The particular
option you want is   HACKDIR=B:
This sets the 'playground' to your second drive. Your A: drive would have
hack.prg, hack.env and record. The B: drive contains all the other files;
help, hh, rumors, etc. The problem won't actually go away; it'll rear its
ugly head at some later date. I guess you'll get to about level 20, with
a winning game, it'll fail on saving the level, and it'll totally blow away
any possibility of recovery :-) :-)

Ralph Mitchell

--
=-=-=-

X-Google-ArrivalTime: 1986-07-29 13:10:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdcsu.UUCP
Path: utzoo!watmath!watnot!watdcsu!magore
From: magore@watdcsu.UUCP (M.A.Gore - ICR)
Newsgroups: net.micro.atari16
Subject: Using the ST in external sync mode
Message-ID: <2443@watdcsu.UUCP>
Date: Tue, 29-Jul-86 16:10:26 EDT
Article-I.D.: watdcsu.2443
Posted: Tue Jul 29 16:10:26 1986
Date-Received: Wed, 30-Jul-86 04:07:30 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 36

I have been experimenting with the ATARI 520ST in EXTERNAL SYNC mode
and I am looking for some help. This is not well documented. I will
post a summary of E-mail replies (if I get any). Anyone at ATARI listinging???

Here is what I have done:
Set $ff820a to $fd from $fc and drive HSYNC pin 9 and VSYNC pin12
via 470 ohm resisters from an external source. The video information does
NOT seem to follow HSYNC input *exactly* but rather seems drift for about
a byte then re-sync !!!!

Very odd.
See diagram below.

```
VSYNC    ================================
     H  |.
     S   | . <= Video boarder
     Y   |  .
     N  |   . <= drifting away from the horizontal boarder!!!
     C  |. <= after about 8 pixels it instantly reverts to the
     | . <= boarder again !!!
     |  .
     |   . <= slope is a function of drift from NTSC norm.
     |.
     | .
         etc.
```

The camera is NOT running HSYNC *exactly* at the same HSYNC that
the ATARI would if it were providing syncs. Should not this slack
be taken up in the blanking area? Of course I know little about the
chip as it is....What should I do with *BLANK and DE on the GLUE chip
are they converted to inputs also ????

I am making a sampling digitizer that uses the ATARI for
timing with respect to the syncs. Any help would be MOST welcome.

Mike Gore Institute of Computer Research.

From -3033744899769853282
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 13:55:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Micro C-Shell Info Request
Message-ID: <93@uwmacc.UUCP>
Date: Tue, 29-Jul-86 16:55:20 EDT
Article-I.D.: uwmacc.93
Posted: Tue Jul 29 16:55:20 1986
Date-Received: Wed, 30-Jul-86 00:41:16 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 29

A question for the house:

I am considering purchasing Micro C-Shell from David Beckemeyer Development
Tools in Oakland. Can anyone fill me in on this product a little bit more
than the article in START magazine did? (Has anyone out there even
used it?)

I am interested in knowing things like:
     - does it allow access to .login or .cshrc files or
       their equivalents?
     - does it allow batch files?
     - does it allow access to the desk accessories?

Any other information would be appreciated.

You may as well simply post the responses, since others might be interested
as well?

Thanks in advance....

--
                            --- Rob DeMillo
                                Madison Academic Computer Center
                                ...seismo!uwvax!uwmacc!demillo
          ----
     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From 6071699539092083883
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c69ec9e14892f007,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 15:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: terminal emulator with 132 colum
Message-ID: <54600104@iuvax.UUCP>
Date: Tue, 29-Jul-86 18:02:00 EDT
Article-I.D.: iuvax.54600104
Posted: Tue Jul 29 18:02:00 1986
Date-Received: Sat, 2-Aug-86 01:50:40 EDT
References: <402@atari.UUCP>
Lines: 28
Nf-ID: #R:atari:-40200:iuvax:54600104:000:1320
Nf-From: iuvax!franco   Jul 29 17:02:00 1986

I think the BBS is a great way to distribute PD software - especially new stuff. But Atari could help ST users greatly by putting the important stuff like text,disk,memory editors etc. on a few disks and including copies of those disks with new STs. Alternatively, Atari could supply dealers with a few disks so new purchasers could copy them. Some ambitious dealers already do this without help from Atari. Atari can simply state that they are not responsible for any problems caused by the PD stuff. Judging from what I read on the net, particularly the notes on the developer's kit, I would guess that few people would hold Atari responsible anyway. The following, I believe, should be included with every ST:

1. Emacs or equivalent
2. Disk monitor (e.g. JOSHUA or Eli's SECED)
3. Memory editor (e.g. JOSHUA)
4. KERMIT and XMODEM (even if not built into an emulator)
5. EZSQUEEZE (Huffman scheme)
6. STPACK/STUNPACK (for transmitting lots of files)
7. XLISP 1.7 (available on the Atari BBS) + docs
8. FORTH(MACS?)
9. PD assembler
10. PD disassembler (one is being written by the president of our STUG)
11. UUENCODE/UUDECODE
12. File comparison utility
13. 410K/820K formatter (I'm asking for trouble now)
14. PICSWITCH6 (picture viewer - most formats handled)

plus a couple more I can't think of off hand.

From 9003886702893376931
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 16:19:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!brad
From: brad@looking.UUCP (Brad Templeton)
Newsgroups: net.micro.atari16
Subject: Re: Abacus books and Data Becker
Message-ID: <626@looking.UUCP>
Date: Tue, 29-Jul-86 19:19:24 EDT
Article-I.D.: looking.626
Posted: Tue Jul 29 19:19:24 1986
Date-Received: Wed, 30-Jul-86 04:09:37 EDT
References: <397@atari.UUCP> <96100017@unido.UUCP>
Reply-To: brad@looking.UUCP (Brad Templeton)
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 21
Summary:

In article <96100017@unido.UUCP> uh@unido.UUCP writes:
>Another hint:
>
>The Abacus books are English translations of books written by one of the
>biggest German Atari Dealers (Data Becker in Duesseldorf; Becker also imports
>fine American cars to Germany).

Stay away from Data Becker. They are not a reputable company.

I wrote a popular assembler for the 6502 which Data Becker sold pirated
copies of. We didn't find out until Abacus start selling it in North
America. It was odd to read my own manual after it had been translated
into German and back to English.

Abacus dropped the product after they found out it was stolen, but I don't
know if I'll ever get anything out of Data Becker. International lawsuits
are quite expensive.

Anyway, a company that would do this sort of thing (even if they didn't
know it was stolen -- they should check their authors to some extent)
doesn't deserve anybody's business in my opinion.

From -3720982735781836103
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 19:55:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Schematics for the ST
Message-ID: <1867@utecfa.UUCP>
Date: Tue, 29-Jul-86 22:55:15 EDT
Article-I.D.: utecfa.1867

Posted: Tue Jul 29 22:55:15 1986
Date-Received: Wed, 30-Jul-86 01:08:21 EDT
References: <860729010126.02m@Juliet.Caltech.Edu>
Organization: Engineering Computing Facility, University of Toronto
Lines: 22

/*..*/

I think that there is quite a bit of demand for the schematics for the Atari ST series. Recently there was a posting inquiring about it, so this is a meetoo posting.

How about it Atari? A book containing all the juicy details for the hardware hack who cannot justify $300 on a scrape-the-bottom budget (for the official developers kit). Neil, you recently mentioned a book slated for December to contain the official documentation. Will this book contain hardware info?

Regards,

anees

--

Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

From 2511822435061633652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-29 21:15:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!mqh
From: mqh@batcomputer.TN.CORNELL.EDU (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <780@batcomputer.TN.CORNELL.EDU>
Date: Wed, 30-Jul-86 00:15:54 EDT
Article-I.D.: batcompu.780
Posted: Wed Jul 30 00:15:54 1986
Date-Received: Thu, 31-Jul-86 02:09:21 EDT
References: <93@uwmacc.UUCP>
Reply-To: mqh@batcomputer.UUCP (Mike Hojnowski)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 35
Keywords: Micro C-Shell
Summary: Good package

In article <93@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>
>I am interested in knowing things like:
>   - does it allow access to .login or .cshrc files or
>   their equivalents?
>   - does it allow batch files?
>   - does it allow access to the desk accessories?

I have Micro C-Shell, and am quite pleased with it. The true UN*X hack
will find the shell to be missing a lot of niceties, but for the casual
user like myself, it's more than adequate. The Shell does have a login
file called "login.sh", but nothing like a .cshrc that I've noticed.
Once you're in the shell, you've left the desktop behind though, as far
as I know, you can't access the desk accessories easily.

The shell handles paths, aliases, history, shell variables, and lots of
other goodies. Also included are some utilities like lpr, more, pr, etc...
It's very easy to set up a nice working environment. Beckemeyer, bless his
heart, doesn't use any of that obnoxious copy protection stuff, so you
don't have worry about dropping pizza on the master disk (I almost did that
to my PC/InterC*mm disk once. I wouldn't have bought it if I'd have realized
what a pain that protection scheme would be).

My one major gripe is that the shell won't run from the "auto" directory.
My guess is that it's because the shell feels obligated to give you a
nice full-screen logo, complete with button, before becoming sane again
and giving a prompt. Personally, I would dispense with the desktop altogether
if I could, but I'm forced into it just long enough to double-click on the
shell.
--
Mike Hojnowski (Hojo)   {ihnp4,rochester}!cornell!batcomputer!mqh
(607) 257-1389 (h)   mqh@tcgould.tn.cornell.edu
(607) 255-4812 (w)   mqh%batcomputer@crnlcs.bitnet
"Well, he hasn't got religious mania, and he isn't running around in circles
spouting Gilbert and Sullivan, so I suppose he's normal" - I, Robot

From -8798451927915499627
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4501b273abd3ab57,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 07:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!uwvax!husc6!harvard!cmcl2!philabs!linus!
raybed2!applicon!bambi!maggot!seefromline
From: barada@applicon.UUCP
Newsgroups: net.micro.atari16
Subject: New group mod.sources.atari520
Message-ID: <24200004@maggot>
Date: Wed, 30-Jul-86 10:17:00 EDT
Article-I.D.: maggot.24200004
Posted: Wed Jul 30 10:17:00 1986
Date-Received: Sat, 2-Aug-86 09:04:01 EDT

Lines: 17
Nf-ID: #N:maggot:24200004:000:618
Nf-From: applicon.UUCP!barada   Jul 30 10:17:00 1986

--

With all the hoopla about the Atari 520ST and company, I would like to start a moderated newsgroup about it, and will serve as moderator. I think the name should be mod.520st.sources, or some other name. I would check out any source since I have a 520, and can prove it works. I am the news SA at applicon, so it
wouldn't be hard to maintain it.

So, its time for a vote, you want a moderated atari 520st source newsgroup??? Send me mail, I'll sum to the net in a week to two.

Peter Barada
Applicon, Inc.
{decvax|ihnp4}!linus!raybed2!applicon!peterb
Ps - 520's unite, we have nothing to lose but our cookies!

From 3144649340828638595
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e3bd37e769674ccf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 08:28:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!mhuxo!gjphw
From: gjphw@mhuxo.UUCP (WYANT)
Newsgroups: net.micro.atari16
Subject: Request for uemacs
Message-ID: <1237@mhuxo.UUCP>
Date: Wed, 30-Jul-86 11:28:11 EDT
Article-I.D.: mhuxo.1237
Posted: Wed Jul 30 11:28:11 1986
Date-Received: Sat, 2-Aug-86 01:23:13 EDT
Organization: AT&T Bell Laboratories, Murray Hill
Lines: 21

I recently received this request for an Atari version of emacs along with a reply to a request that I had sent out on the net. Since I do not have this emacs, perhpas someone else can help. Please send mail directly to the original requestor and not me. Thank you.

>From: ihnp4!hvlpb!cssadm
>Postmark: bruin, f k de 5404401 hvsBF416 hvs1520 hvlpb!fdbruin
>Date: Tue Jul 29 14:43:01 1986
>
>.....could you send me the sources of uemacs, as the version

>I have has some keys on the keybord exchanged, and I have only object code.
>
>Happy computing.
>Ferdi de Bruin,
>ihnp4!hvlpb!fdbruin
>Hilversum, The Netherlands.
>

Patrick Wyant
ihnp4!{mhuxo,ihwld}!gjphw

From 4446211486834290539
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 09:37:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ucla-cs!sdcrdcf!trwrb!trwspp!spp2!rroux
From: rroux@spp2.UUCP (Ray Roux)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <931@spp2.UUCP>
Date: Wed, 30-Jul-86 12:37:42 EDT
Article-I.D.: spp2.931
Posted: Wed Jul 30 12:37:42 1986
Date-Received: Sat, 2-Aug-86 04:25:13 EDT
References: <93@uwmacc.UUCP>
Reply-To: rroux@spp2.UUCP (Ray Roux)
Organization: TRW, Redondo Beach CA
Lines: 39

In article <93@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>A question for the house:
>
>I am considering purchasing Micro C-Shell from David Beckemeyer Development
>Tools in Oakland. Can anyone fill me in on this product a little bit more
>than the article in START magazine did? (Has anyone out there even
>used it?)
>
>I am interested in knowing things like:
>   - does it allow access to .login or .cshrc files or
>   their equivalents?
>   - does it allow batch files?
>   - does it allow access to the desk accessories?
>
I've been using Micro C-Shell extensively for the past 6 months and have been
very happy with it. I've just sent away for the multi-tasking version,
MT C-Shell, and am looking forward to using it. Now, for your questions:

     1) Yes, it will read a file 'login' upon startup. This lets you
        setup your aliases, environment variables, etc...

2) Yes, the batch files are basically shell scripts, you have
   foreach, if, and a few others available to you.

3) I don't recall being able to run accessories, you can run gem
   programs though. I just sent in for an updated version, perhaps
   the current version allows this - but I'm not sure.

It comes with a good set of tools, and there is a C-Tools package available
with a bunch more. I'll post a review of MT C-Shell as soon as I get it.

Disclaimer: I have no connection with Bekemeyer Development Tools, I'm only
a happy customer.

--

Ray Roux
{ucbvax|decvax}!trwrb!trwspp!spp3!rroux

From -154249995244617134
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,137f7e6564ea0a01,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 10:35:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: 6301 keyboard chip
Message-ID: <8607302114.AA12221@ucbvax.Berkeley.EDU>
Date: Wed, 30-Jul-86 13:35:42 EDT
Article-I.D.: ucbvax.8607302114.AA12221
Posted: Wed Jul 30 13:35:42 1986
Date-Received: Thu, 31-Jul-86 21:22:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 16

I have just completed a mod to my keyboard chip to (supposedly) have it keep
the time after I power down. I had to include two NAND gates to keep the
reset hi. The setup works OK on a friends who has a REV 2.0 6301 chip, but
alas, I had to buy my 520ST when it first came out, and I have a rev 1.0 chip.
The problem is that the time in the chip never increments, it is always
frozen at the same time. What is the difference between the two chips, and is
there anything I can do to get the clock in the chip to work? (It doesn't
work right now!!!!!!!)
Neil, do the old keyboard chips not have a real working clock in them?
I noticed that the new keyboards have a different electronic component layout.
can anyone shed some light, before I have to go out and buy a new keyboard?

I felt good that I bought an ST when it first came out, but now I am wondering

if I shouldn't have waited for the rev B models.

Mike

From -1718376583671885084
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d480d655abab784
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 10:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!uwvax!husc6!harvard!panda!genrad!decvax!
tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Double-sided disk format and fonts
Message-ID: <788@batcomputer.TN.CORNELL.EDU>
Date: Wed, 30-Jul-86 13:58:00 EDT
Article-I.D.: batcompu.788
Posted: Wed Jul 30 13:58:00 1986
Date-Received: Sat, 2-Aug-86 09:02:50 EDT
References: <401@atari.UUcp>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 318
Keywords: same as single-sided, ROM TOS

[]

It was bound to happen: a disk went bad on me and I did not
have a backup. Using MUTIL I could see that the data was there
but the second FAT was damaged. Using the "file attributes"
option of MUTIL I wrote down the starting sector (or cluster)
of each file I wanted to recover. (These cluster and sector are
the two last columns in the directory-entry list of MUTIL).
(I also wrote down the length of the file for later reference.)
Then I used the following program to read each file and save it
on a different drive (a RAMdisk, in my case). This program will
work for MSDOS, by the way. Note that the program reads by clusters,
so you will have some extra junk at the end of the file. If it is a
text file, use a text editor to remove it. Then compare the length
with the original length you wrote down.
Some day I'll try to write a program that will intelligently search
the disk for the required starting-sector information.
(MUTIL did the job but is a PAIN.)

Note: this program assumes a standard disk. If you have a damaged,
"copy protected" disk, well, you get what you deserve for buying
one of those things...

/*

```
 * READFILE - a program to read a file from off a damaged disk.
 * Uses information in the FAT and the boot sector.
 * The first sector (or cluster) of the file must be known.
 *
 *   By Moshe Braner,  860730.
 */

#include <stdio.h>
#include <osbind.h>

#define TRUE  1
#define FALSE 0
#define READ  2    /* ignore disk changes */
#define DRIVEA     0    /* always read drive A */
#define SECSIZE    1024 /* for up to 1K sectors*/

/* read unsigned bytes and Intel-style integers */
#define US(p,o)    (p[o]&0xFF)
#define UI(p,o)    (US(p,o)+256*US(p,o+1))

/* translate between sectors and clusters */
#define stc(s)     ((s-fuds)/spc+2)
#define cts(c)     ((c-2)*spc+fuds)

/* offsets into the boot sector */
#define BPS   11
#define SPC   13
#define RES   14
#define FAT   16
#define DIR   17
#define SPF   22

/* The CLUSTER data structure: a linked list */

typedef struct CLUSTER {
     struct CLUSTER    *link;        /* link to next
          */
     char     *data;        /* pointer to data in cluster
     */
} CLUSTER;


/***  GLOBALS  ***/

int  bps, spc, res, fat, dir, spf, bpc, bpf, fuds;
char *fat1, *fat2;
CLUSTER  *clhead = NULL;


error(msg)
     char msg[];
{
     printf(msg);
```

```
     Cconin();
     exit(0);
}

/* Read the boot sector */

readboot()
{
     register long status;
     register int  c;
     char     boot[SECSIZE];

     printf("\nReading boot sector\n");
     status = Rwabs (READ, boot, 1, 0, DRIVEA);
     if (status != 0) {
          printf("\nError reading boot sector!\n");
          printf("Continue? (y/n) ");
          fflush(stdout);
          if ((c=(int)Cconin())!='y' && c!='Y')
               exit(0);
          /* else guess the parameters */
               bps = 512;
               spc = 2; /* 1 for SS 5.25" disks     */
               res = 1;
               fat = 2;
               dir = 112;    /* 64 for SS 5.25" disks    */
               spf = 5; /* 2 for 5.25" disks, incl DS    */
     }
     bps = UI(boot, BPS);        /* bytes per sector
     */
     spc = US(boot, SPC);        /* sectors per cluster
     */
     res = US(boot, RES);        /* no. of reserved sec
     */
     fat = US(boot, FAT);        /* no. of FAT copies
     */
     dir = UI(boot, DIR);        /* no. of dir entries
     */
     spf = US(boot, SPF);        /* sectors per FAT     */
     bpc = bps * spc;       /* bytes per cluster        */
     bpf = bps * spf;       /* bytes per FAT       */
     fuds = dir * 32;       /* length of directory in bytes */
     fuds /= bps;           /* in sectors          */
     fuds += res + fat*spf;      /* first usable data sector
     */
}

/* read (both) FAT areas */

readfat()
{
     register long status;
     register int  c;
```

```
     register int  err1 = FALSE;
     register int  err2 = FALSE;

     fat1 = malloc(spf*bps);
     if (fat1 == NULL)
          error("\nNot enough memory!\n");
     printf("\nReading FAT (#1)\n");
     status = Rwabs (READ, fat1, spf, res, DRIVEA);
     if (status != 0) {
          printf("\nError reading FAT #1.\n");
          err1 = TRUE;
     }
     if (fat > 1) {
          fat2 = malloc(spf*bps);
          if (fat2 == NULL)
               error("\nNot enough memory!\n");
          printf("\nReading FAT #2\n");
          status = Rwabs (READ, fat2, spf, res+spf, DRIVEA);
          if (status != 0) {
               printf("\nError reading FAT #2.\n");
               err2 = TRUE;
               fat2 = fat1;
          }
     } else {
          err2 = TRUE;
          fat2 = fat1;
     }
     if (err1==TRUE && err2==TRUE)
          error("\nCannot proceed without FAT!\n");
     if (err1)
          fat1 = fat2;
}

/* compare the 2 FATs */

compfats()
{
     register char *p1, *p2;
     register int  i, c;

     if (fat1 == fat2)  /* only one FAT */
          return;

     p1 = fat1;
     p2 = fat2;
     for (i=0; i<bpf; i++) {
          if (*p1++ != *p2++) {
               printf("\n2 FATs differ at byte 0x%x!\n", i);
               printf("Which one to use? (1/2/0 to abort) ");
               fflush(stdout);
               if ((c=(int)Cconin()) == '0')
                    exit(0);
               if (c == '2')
```

```
                    fat1 = fat2;
               break;
          }
     }
}

/* read next cluster from FAT */

int
nxtclus(cluster)
     register int  cluster;
{
     register int  next, offset;

     offset = cluster*3;
     offset >>= 1;      /* offset into FAT = 3/2 * cluster
     */
     next = UI(fat1, offset);
     if (cluster&0x01)  /* if cluster no. odd            */
          next >>= 4;
     next &= 0xFFF;          /* the 12-bit value of FAT entry
     */
     return (next);
}

/* allocate memory for another cluster */

CLUSTER *
clspace(clp)
     CLUSTER *clp;
{
     register CLUSTER   *ncp;
     register char      *dp;

     dp = malloc(bpc);
     if (dp == NULL)
          return (NULL);
     ncp = (CLUSTER *) malloc(sizeof(CLUSTER));
     if (ncp == NULL) {
          free(dp);
          return (NULL);
     } else {
          if (clp == NULL)
               clhead = ncp;
          else
               clp->link = ncp;
          ncp->link = NULL;
          ncp->data = dp;
     }
     return (ncp);
}

main()
```

```
{
     register int  i, c;
     register char *dp;
     int  sknown, sector, cluster;
     long status;
     CLUSTER  *clp;
     FILE *fp;
     char filename[80];

     printf("\nREADFILE   MB 8607\n\n");
     printf("Insert disk in drive A, press return: ");
     fflush(stdout);
     while ((c=(int)Cconin())!='\n' && c!='\r');
     readboot();
     readfat();
     compfats();
loop:
     printf("\nDo you know the cluster or sector number? (c/s) ");
     fflush(stdout);
     if (Cconis())
          Crawcin();
     if ((c=(int)Cconin())!='c' && c!='C')
          sknown = TRUE;
     else
          sknown = FALSE;
     printf("\nFirst cluster or sector of file: ");
     fflush(stdout);
     scanf("%d", &sector);
     if (sknown)
          cluster = stc(sector);
     else {
          cluster = sector;
          sector = cts(cluster);
     }
     clp = NULL;

     do {          /*  while not EOF */
          clp = clspace(clp);
          if (clp == NULL)
               error("\nNot enough memory!\n");
          printf("reading cluster at logical sector #%d\n", sector);
          status = Rwabs(READ, clp->data, spc, sector, DRIVEA);
          if (status != 0) {
               printf("\nRead error on data cluster!\n");
               printf("Continue? (y/n) ");
               fflush(stdout);
               if ((c=(int)Cconin())!='y' && c!='Y')
                    exit(0);
          }
          cluster = nxtclus(cluster);
          sector = cts(cluster);
     } while (cluster < 0x0FF1); /* not EOF */
```

```
     clp = clhead;
     if (clp == NULL)
          error("\nNothing read!\n");
     printf("\nPathname to save as: ");
     fflush(stdout);
     scanf("%s", filename);
     fp = fopen(filename, "bw"); /* binary write (Megamax) */
     if (fp == NULL)
          error("\nError opening file!\n");
     while (clp != NULL) {
          dp = clp->data;
          for(i=0; i<bpc; i++) {
               c = *dp++;
               putc(c, fp);
          }
          clp = clp->link;
     }
     fclose(fp);

     printf("Read another file? (y/n) ");
     fflush(stdout);
     if ((c=(int)Cconin())=='y' || c=='Y')
          goto loop;
}
```

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

```
From -3589443006795192355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 12:27:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SUMEX-AIM.ARPA!
LAWRENCE.Auger%BIONET
From: LAWRENCE.Auger%BIONET@SUMEX-AIM.ARPA (Ivan Auger)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <12226870831.27.LAWRENCE.AUGER@IC2060>
Date: Wed, 30-Jul-86 15:27:27 EDT
Article-I.D.: IC2060.12226870831.27.LAWRENCE.AUGER
```

Posted: Wed Jul 30 15:27:27 1986
Date-Received: Thu, 31-Jul-86 21:23:18 EDT
References: <1204@mhuxo.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I had very bad experiences with AVATEX 1200 modems. Don't buy them. The
first set of modems that we received would not communicate with some Bell 212
type of modems. We sent them back twice due to the fact that after a couple
of days of use the modems would just die. Finally, to make a long story short,
our dealer exchanged them for Racal Vadic Maxwell 1200V modems.

From 3794259334553820542
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,292788339a86c8d5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 12:29:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Trouble loading LEADER BOARD anyone?
Message-ID: <405@atari.UUcp>
Date: Wed, 30-Jul-86 15:29:07 EDT
Article-I.D.: atari.405
Posted: Wed Jul 30 15:29:07 1986
Date-Received: Thu, 31-Jul-86 21:12:01 EDT
References: <698@drutx.UUCP>
Organization: Atari Corp/Mktg
Lines: 27

In article <698@drutx.UUCP>, tlz@drutx.UUCP (ZrustTL) writes:
> I've been having problems loading Leader Board into my 520ST.
> I power down, wait a few seconds, power up and wait. The beast
> loads as far as the "insert Security Key" screen (key was in at
> time of power up). I hit a keyboard or mouse key at this point,
> the screen displays the video confetti seen after reset and reboots!
> This happens two or three times (with full power down each time)
> and eventually loads. Yes, I have the REAL security key plugged
> in! Anybody?

Call Accolade. Their copy protection does not work with some early 520ST
keyboard controller chips. They have a fix for this. That's what they get
for going beyond the bounds of what we say is OK to use.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -1155456808436155115
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 12:31:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <406@atari.UUcp>
Date: Wed, 30-Jul-86 15:31:19 EDT
Article-I.D.: atari.406
Posted: Wed Jul 30 15:31:19 1986
Date-Received: Thu, 31-Jul-86 21:12:18 EDT
References: <860729010126.02m@Juliet.Caltech.Edu>
Organization: Atari Corp/Mktg
Lines: 28

In article <860729010126.02m@Juliet.Caltech.Edu>, ccl@JULIET.CALTECH.EDU (Curtis C. Ling) writes:
>
>
> I would like to know if it is possible to obtain hardware documentation
> for the Atari ST computers: i.e. complete schematics, memory map
> (Chip select logic) chip/component lists.
>
> These are available for the Commodore Amiga, for around $30, so I was
> I was wondering if there is anything comparable for the STs.
> Prices? Availability? Anything, Neil?

I am afraid that you have to go to the developers kit for this. Once we get the information published in book form you should be able to find it locally at places like Waldenbooks, but that will probably not be until the end of the year.
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -2580674570035291330
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 12:32:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <407@atari.UUcp>
Date: Wed, 30-Jul-86 15:32:46 EDT
Article-I.D.: atari.407
Posted: Wed Jul 30 15:32:46 1986
Date-Received: Thu, 31-Jul-86 21:12:31 EDT
References: <8607291022.AA11996@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 27

In article <8607291022.AA11996@ucbvax.Berkeley.EDU>, K538915@CZHRZU1A.BITNET
writes:

> Subj.: a slight misunderstanding
>
> i didn't mean that ATARI U.S.A should start duplicating disks or something
> like that. Most PD software does arrive in Europe after half a year or so,
> the problem is that it is distributed commercially, one example: 10 SS disks
> for $70 (the disks tend to be a bit flaky, so you don't get very much for
> your money). What I would suggest is, that every few months you send a couple
> of diskettes with the latest PD programs on them to ATARI Germany (or to
> a user group) and they make them available in some form (which does not
> mean they actually have to distribute them, just put them on a BBS or so).

A good idea. Sorry I didn't think of it myself. Disks will be sent ASAP.
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 4030129096601371645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,190cfb50e8a85fb1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 13:06:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!nod!lazear
From: lazear@nod (Walt Lazear)
Newsgroups: net.micro.atari16
Subject: Re: C. Itoh Printer Driver
Message-ID: <8607302006.AA07039@nod>
Date: Wed, 30-Jul-86 16:06:18 EDT
Article-I.D.: nod.8607302006.AA07039
Posted: Wed Jul 30 16:06:18 1986
Date-Received: Thu, 31-Jul-86 20:42:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

I am interested, too, in a driver.

From 7145468896374176197
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 15:47:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!h-sc4!chabris_c
From: chabris_c@h-sc4.harvard.edu (chris chabris)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <88@husc6.HARVARD.EDU>
Date: Wed, 30-Jul-86 18:47:28 EDT
Article-I.D.: husc6.88
Posted: Wed Jul 30 18:47:28 1986
Date-Received: Thu, 31-Jul-86 07:39:12 EDT
References: <93@uwmacc.UUCP> <780@batcomputer.TN.CORNELL.EDU>
Sender: news@husc6.HARVARD.EDU
Reply-To: chabris_c@h-sc4.UUCP (chris chabris)
Distribution: net
Organization: Harvard Science Center
Lines: 33
Keywords: Micro C-Shell

In article <780@batcomputer.TN.CORNELL.EDU> mqh@batcomputer.UUCP (Mike Hojnowski)
writes:
>In article <93@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>>
>>I am interested in knowing things like:

>>   - does it allow access to .login or .cshrc files or
>>   their equivalents?
>>   - does it allow batch files?
>>   - does it allow access to the desk accessories?
>
>I have Micro C-Shell, and am quite pleased with it. The true UN*X hack
>will find the shell to be missing a lot of niceties, but for the casual
>user like myself, it's more than adequate. The Shell does have a login
>file called "login.sh", but nothing like a .cshrc that I've noticed.
>Once you're in the shell, you've left the desktop behind though, as far
>as I know, you can't access the desk accessories easily.

Beckemeyer himself recently reported on CompuServe that he is working on
support for desk accessories in a future version (the current is 2.62, I
believe). By the way, the MT/C-Shell is completed and will be shipped
within days, according to his office. Apparently they are finishing up
the documentation. The multitasking capabilities will, among other things,
allow the use of well-behaved TOS programs from a remote system that has
vt52 emulation (no termcaps at first, he says -- sorry). Sounds intriguing.

-- Christopher F. Chabris
   15 Sterling Road
   Armonk, NY   10504

   CompuServe: 73277,305
         UUCP: ...!harvard!h-sc4!chabris
         ARPA: chabris%h-sc4@harvard.ARPA
       BITNET: chabris@HARVUNXU.BITNET
         AT&T: (914) 273-8828

From -3204750239986512107
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5f4fa23311f824f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 16:05:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!ihopa!riccb!djb
From: djb@riccb.UUCP (Dave J. Burris)
Newsgroups: net.micro.atari16
Subject: Re: megamax bug?
Message-ID: <718@riccb.UUCP>
Date: Wed, 30-Jul-86 19:05:01 EDT
Article-I.D.: riccb.718
Posted: Wed Jul 30 19:05:01 1986
Date-Received: Fri, 1-Aug-86 05:39:55 EDT
References: <8607191804.AA14701@ucbvax.Berkeley.EDU>
Organization: Rockwell Telecommunications, Downers Grove,Il.
Lines: 41

> While trying to compile a program using Megamax C (ported from DRI C) with
> type casting changes (coercion -- a real pain). The problem seems to be with
> a pointer to a function. For example:

```
>
> long  (* ptr)()
>  .
>  .   code
>  .
> return ((*ptr)(var1,var2,var3))
>
> When it gets to this point, returning the result of the jump thru the pointer
> to the function, it blows up.  I could do this in assembly and insert it, but
> that is a pain...
> Any answers, comments.
>
> Thanks,  Mike

Well, this works with Megamax. This code changes the interrupt vector
for the MIDI receiver.


VOID jvec();
long sys_vector;

main()
{
     register long *int_ptr;

     int_ptr = (long *) Kbdvbase();       /* get the vector base */
     sys_vector = *int_ptr;          /* get old value to restore */
     *int_ptr = (long) jvec;         /* set new vector */

     /* other code here */

     *int_ptr = sys_vector;          /* restore old vector */

}
--
Dave Burris
..!ihnp4!ihopa!riccb!djb
Rockwell Switching Systems, Downers Grove, Il.


From -6852800991962171362
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 18:17:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!sdcsvax!sdcc6!calmasd!dmm
From: dmm@calmasd.CALMA.UUCP (David MacMillan)
Newsgroups: net.micro.atari16
Subject: Query
Message-ID: <2023@calmasd.CALMA.UUCP>
Date: Wed, 30-Jul-86 21:17:49 EDT
Article-I.D.: calmasd.2023
```

Posted: Wed Jul 30 21:17:49 1986
Date-Received: Fri, 1-Aug-86 03:22:10 EDT
References: <397@atari.UUCP> <96100017@unido.UUCP>
Reply-To: dmm@calmasd.UUCP (David MacMillan)
Organization: G. E. CALMA R&D, San Diego, CA
Lines: 27
Keywords: Query

PLEASE E-MAIL REPLIES. Thanks.

I have a friend who is interested in the ST, but who has no computer background. Although I do have the background, it is with mainframes, Suns, & PCs. Therefore, I ask: Would anyone care to advise her about the pros & cons of the ST. Specifically:

1) Religious responses from converts
2) " " " haters (if any)
3) Availability of good word-processing software
4) Reliability (hardware, OS, & applications)
5) Sources of info (e.g. user magazines, etc.)
6) Comparisons with the Amiga, PC, IBM 1401 :-) , etc.
7) How fast is software becoming available (PD & Purchased)
8) Compatability of peripherals
9) Good dealers / mail order houses specializing in STs
A) Anything else.

Thanks much,

David M. MacMillan, KB6MPN
- UCSD [Lit] (ex-UCSC/Crown)
- Calma/GE [Info-Sci] (ex IBM)
- UCSD Soaring Club
- SSA, USHGA, ARRL

"If feather-dusters are made of feathers, what are crop-dusters made of?" - LM, 'cellist

From -1401616590914431733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 18:46:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <5464@topaz.RUTGERS.EDU>
Date: Wed, 30-Jul-86 21:46:25 EDT
Article-I.D.: topaz.5464
Posted: Wed Jul 30 21:46:25 1986
Date-Received: Thu, 31-Jul-86 20:43:02 EDT
References: <93@uwmacc.UUCP> <780@batcomputer.TN.CORNELL.EDU>

Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 6
Keywords: Micro C-Shell

It sure will run from auto. You don't use the program in the main
directory. There is a program whose name escapes me in the bin
directory. I think it is named cshell.prg. I haven't had anytrouble
autorunning it.

Phil Paone

From 7063689347013511459
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad4e82c986e82701,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-30 21:54:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Keyboard chip
Message-ID: <8607310516.AA19332@ucbvax.Berkeley.EDU>
Date: Thu, 31-Jul-86 00:54:53 EDT
Article-I.D.: ucbvax.8607310516.AA19332
Posted: Thu Jul 31 00:54:53 1986
Date-Received: Thu, 31-Jul-86 21:55:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 19

Well, it would seem that the keyboard chip is OK in the rev 1.0
I am still foggy on the differences though, since they are not plug in
replacements (which might mean trouble if it should blow). The mod I have done
keeps time perfectly when the power is off, and when the power is disconnected.
The battery backup which has been circulating for some time doesn't work. It
merely freezes the time. More on this mod in another posting, and look on
your local bbs for some files describing it (I'm sure they will float around).
The mod is $15 and all parts are available from Radio Shack. So don't pay $50
if you can solder. This is PERFECTLY SAFE, and in no way does it affect any of
the chips in the ST, except the keyboard chip (and the lines are only
intercepted from the motherboard (probably could be done with a daughter-board)
On thing, you need a small program to take the time from the chip and set the
gemdos time. About 12 lines of assembly, even less in C.

Look for it soon, on a BBS near you.

Mike

(We guarantee no loss of data) (ouch!!)

From 1011016418565481034
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30f8610b724127f8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 06:50:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AEROSPACE.ARPA!mendoza
From: mendoza@AEROSPACE.ARPA
Newsgroups: net.micro.atari16
Subject: ST Schematics, Parts Lists, etc. (SAMS Computerfacts Review)
Message-ID: <8607311351.AA07163@aerospace.arpa>
Date: Thu, 31-Jul-86 09:50:42 EDT
Article-I.D.: aerospac.8607311351.AA07163
Posted: Thu Jul 31 09:50:42 1986
Date-Received: Fri, 1-Aug-86 03:21:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 42

The line-eater devours the tripe ration -- More --
The line-eater vomits!

This posting is a small review of the Sams Computerfacts (tm) technical service data book on the Atari 520ST (in response to a previous posting asking about the availability of schematics, et al.). This book is one of many in a series of computer data books, and it includes schematics, waveforms, parts lists, and service checks for the Atari 520ST computer, monochrome monitor, disk drive, and power supplies.

Before going any further, it's time for the caveats: I am not an EE (even worse, I studied theoretical physics in college), and I am not the world's best schematic reader. I find that the schematics given in the "book" are a little more difficult to follow than those in the developer's kit, but they seem adequate for their purpose. If you have a reasonbly good oscilloscope, the Sams schematics are better since they have waveform photos next to the node to be tested. Another advantage of the Sams documentation is the presence of pin reference diagrams for each of the IC package types and a logic diagram for the LS parts (a tri-state buffer and a tri-state latch).

The servic information and troubleshooting tips seem ok for the gross problems, e.g. "my computer doesn't work," or "I'm not getting any sound out of the monitor;" but it wouldn't be much good for subtle problems that one might encounter when making unauthorized memory upgrades. The troubleshooting tips cover both the monochrome and color monitors. The information on the disk drive gives the procudures to trouble shoot and to make adjustments, although many of the adjustments would require an alignment diskette.

The book (actually three pamphlet-style books stapled together in a nice folder) seems to be quite nice overall, but I haven't yet had to try fixing a machine with it. It covers the 520ST with the Rev B board and TOS in RAM. Most of the information should be useful to ROM TOS and to 1040ST owners. The major drawbacks of the book is that it doesn't contain schematics or

adjustments for the color monitor. Minor gripes: the section marked
"Monitor" contains the disk drive info and vice versa, and the price I paid
($39.95) seems a trifle high.

Lee Mendoza
mendoza@aerospace.arpa
"Standard Disclaimers apply, except where prohibited by law or local custom."

From 7332189013264946336
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c40a37d187803808,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 08:50:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: TOS in ROM chips
Message-ID: <8607311550.AA11301@ncsc.ARPA>
Date: Thu, 31-Jul-86 11:50:48 EDT
Article-I.D.: ncsc.8607311550.AA11301
Posted: Thu Jul 31 11:50:48 1986
Date-Received: Fri, 1-Aug-86 07:10:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

What is a reasonable price for the TOS-in-ROM chip(s)? A friend was told
$75 just for the chips, $100 including installation. This seems a little
steep. Any comments?

jim
(moore@ncsc.arpa)

From -2274169869229496156
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a6f7a97be4f4f14c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 09:24:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Who?
Message-ID: <8607311539.AA01207@mitre-bedford.ARPA>
Date: Thu, 31-Jul-86 12:24:14 EDT
Article-I.D.: mitre-be.8607311539.AA01207
Posted: Thu Jul 31 12:24:14 1986
Date-Received: Fri, 1-Aug-86 07:10:37 EDT

References: <530@sunybcs.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

My guess is 47th Street Whatever has the lowest prices. Or anybody else who
offers the 520ST monochrome system for $499 or $495.
CompuClub in Framingham, MA is pretty competitive, for example offering the
520 for I believe $499 currently. For a walk-in store, that is pretty good.
Their phone number is (617) 879-5232.

-John Sangster
jhs@mitre-bedford.arpa

From 756037531019371796
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7969d1972111c4e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 09:42:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!pyramid!hplabs!felix!preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: Re: Control Panel
Message-ID: <1414@felix.UUCP>
Date: Thu, 31-Jul-86 12:42:22 EDT
Article-I.D.: felix.1414
Posted: Thu Jul 31 12:42:22 1986
Date-Received: Sat, 2-Aug-86 04:35:43 EDT
References: <173@cs.qmc.ac.uk>
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 14

In article <173@cs.qmc.ac.uk> graham@cs.qmc.ac.uk (Graham Roberts) writes:
{...}
>However, the panel can still be displayed when there are four other windows
>already on the screen. I thought there was a limit of four windows?
>So, how is the control panel displayed and controlled??
>Does it use a window?

I believe the GEM limit on the number of windows is 8. The GEM desktop limits
the number of open directory windows to 4 so that there are windows availible
for desk accessories (like the control panel).

==
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston

From -5881560432705962927
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,689d3e1d5a5da854,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 10:51:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: Cheap ST's...
Message-ID: <8607311751.AA11552@ee.purdue.edu>
Date: Thu, 31-Jul-86 13:51:13 EDT
Article-I.D.: ee.8607311751.AA11552
Posted: Thu Jul 31 13:51:13 1986
Date-Received: Sat, 2-Aug-86 05:46:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

The local computer shop up hear (Lafayette,IN) has a rumor that Toy'R'Us in Indianapolis is selling ST's (Mono, 520, 1 SS drive) for $399. I've heard NOTHING to confirm this, but a quick call to your local Toy'R'Us couldn't hurt.

--Dwight Mckay, ECN Text & Workstation Software Support
[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

From -6104210856107986614
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 10:55:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Query
Message-ID: <8607311755.AA18885@ames-nas.ARPA>
Date: Thu, 31-Jul-86 13:55:54 EDT
Article-I.D.: ames-nas.8607311755.AA18885
Posted: Thu Jul 31 13:55:54 1986
Date-Received: Sat, 2-Aug-86 06:13:18 EDT
References: <2023@calmasd.CALMA.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 118

     Well, I've only had my 1040ST for three weeks, but I'll give you my first impressions of the machine.

     (First, my background: I work for NASA as an OS Guru, and work with Cray, Amdahl, Vax, Sun and SGI Un*x systems every day. I'm

writing this on a MacUgly (Lisa with MacWorks,) my officemate has an AT, and other people here have Amiga's. I have owned a (currently broken) Heathkit MS-DOS (NOT PC compatible) machine for several years, and was looking for a fast machine to use in music composition/MIDI control when I bought my ST.)

Let me try to answer your questions.

1) Religious responses: I have had my MacUgly for over a year, and still find it difficult to get simple programs working, because the interface keeps getting in the way of writing code. I wrote a fairly complete utility on the ST using OSS Personal Pascal in less than six hours. GEM has some drawbacks over the Mac Interface, especially in renaming and moving files, but it has some advantages, especially the way that folders turn into real subdirectories.

As far as Amiga versus ST is concerned, the Amiga is a somewhat better machine, but the cost difference is greater than the quality difference. Also, most of the quality difference comes in color graphics, and I don't care about such. I prefer the mono system.

Of course, what clinched it for me was the MIDI port.

2) Religious responses from haters. (NOT APPLICABLE)

3) Availability of good word-processing software.

Your choice of word processor is also a religious issue. There's 1-ST word, which is mediocre, and I have micro emacs which is a text editor, not a word processor. There are others, but I haven't tried them.

4) Reliability (hardware, OS & applications)

Well, a month isn't long enough to tell about the hardware, but mine hasn't broken yet. The software is reasonably reliable, GEM doesn't seem to crash and most of the bugs visible to developers are easy to work around. I use OSS Personal Pascal, and it only has a few bugs, and usually performs better than promised.

5) Sources of info

Atari maintains a buletin board (The base number is (408)745-5308. Neil Harris also appears to pay attention to all (CompuServe, Source, Well, UUCP, etc) possible general networks and is reasonable about answer questions. I haven't tried ATARI user support yet. There are a number of good user's groups. There is an ST specific magazine, and START (a quarterly full of software published by ANTIC) as well as Antic. Of course there are the ABACUS books, and I suppose other sources.

6) Comparisons with the Amiga, PC, IBM 1401 :-), etc.

Well I don't know about the 1401, but my first computer was a 1620, and the ST blows it away. :-)

As far as the AMIGA/ST comparison; The Amiga does better/faster color graphics, but the ST does clearer mono. The Amiga has a better sound chip, but the ST does MIDI. The Amiga has fancy custom coprocessors, but the ST is more approachable. The ATARI hard disk is real. There's currently more ATARI software available. In all, the Amiga is a better piece of hardware, but not enough better to justify the price.

As far as PC's are concerned, the only advantage a PC has is a huge amount of software. If you buy an AT (or clone) and max it out, you can spend 5-6K and have almost as good a machine as 1500$ worth of ST. . .

7) How fast is sofware becoming available (PD & Purchased)

There is a huge amount of PD Software. Much more than when the Mac was a year old. Most of it is very good, well written, etc. I have both the PD Forth, and XLisp and use both.

I don't have as much experience with commercial software, although it is certainly there. The only thing I have is OSS Personal Pascal, which I highly recommend.

I have seen a lot of stuff in the ANTIC catalog, and most of it exists. (I. E. I've seen it for sale at my local ATARI dealer.)

8) Compatability of peripherals

This is where the ST really seems to loose. It isn't big enough (yet) for a big aftermarket in peripherals, so there aren't many second sources, except for the hard disks. The expansion kit isn't out yet, so there aren't many places to put them anyway, and ATARI seems to have gone out of their way to make it hard to substitute monitors, although most of this was to make the machine cheaper to build.

9) Good dealers / mail order houses specializing in STs

I don't know about mai order houses, but a local choice for good dealer is San Jose Computer. (where I bought mine) They are a small outfit, so they don't have a lot of hardware variety, but they seem willing to spend a lot of time talking, and they do have most of the software. I can send you their address if you can't find a better choice close to you.

A) Anything else.

If you are going to do your own programming, and you aren't religious about C, try OSS Personal Pascal. It's relitively clean, runs relitively fast, produces good code, and all of that; but the best part is the interface to GEM and the manual the OSS people have

produced.

     It's almost better than the development system, and costs about 1/4 as much.

From 8364703559361878866
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab68c887a94c39db,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 11:06:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Looking for C recommendations
Message-ID: <8607311806.AA19205@ames-nas.ARPA>
Date: Thu, 31-Jul-86 14:06:55 EDT
Article-I.D.: ames-nas.8607311806.AA19205
Posted: Thu Jul 31 14:06:55 1986
Date-Received: Sat, 2-Aug-86 06:07:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

     I'm trying to decide which C compiler to buy. I already have personal pascal and the ABACUS books, so I don't know that I need the documentation in the developers kit; especially if the book in December is reasonably cheap.

     I do need a full K&R implemenation, since I will be moving some large codes which use most of the language features. I'm also a Unix hack, so a system with CC/Make would be nice. (I would also like a nice GEM interface like OSS Pascal :-)

     As I understand it, the choices are Lattice C at around 150$, MegaMax C at around 200$ and the developers kit at 300$.

     I would be interested in comparisons of the three systems, in particular as to compiler speed, completeness and robustness.

     If you reply directly to me, I will summarize.

Thanks in advance.

Marty

From -8916512961935285765
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d066a00d74f47cd9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 13:34:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ll-xn!cit-vax!amdahl!bnrmtv!tho
From: tho@bnrmtv.UUCP (Tuan Ho)
Newsgroups: net.micro.atari16
Subject: Supra SCSI interface
Message-ID: <568@bnrmtv.UUCP>
Date: Thu, 31-Jul-86 16:34:45 EDT
Article-I.D.: bnrmtv.568
Posted: Thu Jul 31 16:34:45 1986
Date-Received: Sat, 2-Aug-86 22:12:26 EDT
Distribution: net
Organization: Bell Northern Research, Mtn. View, CA
Lines: 11

Does any body know how well the SCSI interface from Supra work? Does it supports all the commands/protocols mentioned in the ANSI SCSI standards or just a subset of this?

Also, I'm interested in what kind of software/support do you get with buying the interface. Are programs to initialize the hard drive included? I'd would like to get a reasonably cheap hard drive to go with the Supra interface, does any body know of one?

Thanks in advance,
Tuan Ho (bnrmtv!tho)

From 243148785980812013
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6fa3a751ce360329,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 16:12:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!AMES-IO.ARPA!REISMAN%PLU
From: REISMAN%PLU@AMES-IO.ARPA
Newsgroups: net.micro.atari16
Subject: Mac-Cartridge
Message-ID: <8607312337.AA05991@ucbvax.Berkeley.EDU>
Date: Thu, 31-Jul-86 19:12:07 EDT
Article-I.D.: ucbvax.8607312337.AA05991
Posted: Thu Jul 31 19:12:07 1986
Date-Received: Sat, 2-Aug-86 06:12:25 EDT
Sender: jason@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 48

In response to Nelson Ng's request for info about a board that permits Mac software to run on an Atari ST:

Yes, the product, called Mac-Cartridge, does exist, but it is not yet available.

It is a simple, elegant design: Mac ROMs are mounted on the board, which is plugged into the ST cartridge port. It was a great attraction at the last West Coast Computer Faire and many people, including Andy Herzfeld, got to see a few Mac programs (MacWrite, MacPaint, etc.) run on the ST.

Many have speculated that Apple is, understandably, hesitant to let a company sell a board which contain Mac ROMs. The bare board, less ROMs (which are available from a variety of sources) will supposedly be sold for $99.00. At least that is the rumor.

The manufacturer, Data Pacific, Inc., has been promising to ship "next month" for the past few months, but as of my last phone call to them (in early July) they still had no firm shipping date. They may still be working on the legal considerations.

The Mac-Cartridge will *NOT* turn an ST into a Mac clone. In the prototype version (which is impressive) the following incompatabilities were evident: Any Mac-programmed sounds were incompatable, and since Mac disks (400/800 K) are significantly different from ST disks (360/720 K) due to hardware differences, all Mac programs must be serially transferred from Macs to STs to run under Mac-Cartridge. Of course this brings up another set of considerations: Is such a tranfer software piracy? How will this work with copy protected disks?

Since I'm not connected with Data Pacific I don't have the latest info. If you want to contact them:

Data Pacific, Inc.
609 E. Speer Blvd.
Denver, CO 80203
(303) 733-8158

I'm also told that San Leandro Computer Club is a good source of information on this product.

Ron Reisman
Link Flight Simulation
NASA-Ames Research Center

Note: the above opinions are entirely my own and not necessarily those of Link nor of NASA.

From 7997297372539888714
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,689d3e1d5a5da854
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-31 19:27:34 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Cheap ST's...
Message-ID: <8607312238.AA14214@mitre-bedford.ARPA>
Date: Thu, 31-Jul-86 22:27:34 EDT
Article-I.D.: mitre-be.8607312238.AA14214
Posted: Thu Jul 31 22:27:34 1986
Date-Received: Sat, 2-Aug-86 06:11:26 EDT
References: <8607311751.AA11552@ee.purdue.edu>
Sender: jason@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 14

I called Toys Ya Us (the middle letter is the Cyrillic Ya, not an R - must be
a Russkie operation) in Framingham, MA ((617) 872-6242) and learned that,
alas, $399 buys you only a cpu/keyboard and a mouse. Certainly not a monitor
and I believe not even a disk drive. Either way, $499 for a full system is
still the best price I have heard confirmed (e.g. CompuClub in Framingham or
47th Street Whatever).

The good news is that Toys Ya Us is back into selling Atari products,
including the 800XL at $69.95 with a considerable quantity left to sell.
If we all express interest and remind them of the $499 package price for
the monochrome system maybe they will match it.

-John Sangster
jhs@mitre-bedford.arpa

From 8543150705444548933
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a08b6a34ab19d6f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 05:17:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxn!mhuxl!cbz
From: cbz@mhuxl.UUCP (Craig B. Ziemer)
Newsgroups: net.micro.atari16
Subject: Question on 520ST Print Screen
Message-ID: <935@mhuxl.UUCP>
Date: Fri, 1-Aug-86 08:17:45 EDT
Article-I.D.: mhuxl.935
Posted: Fri Aug 1 08:17:45 1986
Date-Received: Sat, 2-Aug-86 23:28:05 EDT
Organization: AT&T Bell Laboratories, Reading, PA.
Lines: 10

I recently tried using <ALT> <HELP> to print the contents of the screen
to my Panasonic KXP1080 printer. Unfortunately, the print out is
significantly compressed in the vertical direction and approximately
one third is cut off in the horizontal direction. Does anyone out

in netland know if this is normal and if there's anything I can do
about it?

Thanks in advance,
Craig B. Ziemer
mhuxl!cbz

From 5656169989615050784
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c40a37d187803808
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 06:15:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxn!mhuxl!cbz
From: cbz@mhuxl.UUCP (Craig B. Ziemer)
Newsgroups: net.micro.atari16
Subject: Re: TOS in ROM chips
Message-ID: <936@mhuxl.UUCP>
Date: Fri, 1-Aug-86 09:15:27 EDT
Article-I.D.: mhuxl.936
Posted: Fri Aug 1 09:15:27 1986
Date-Received: Sat, 2-Aug-86 23:28:26 EDT
References: <8607311550.AA11301@ncsc.ARPA>
Organization: AT&T Bell Laboratories, Reading, PA.
Lines: 11

Moore at NCSC.ARPA writes:
>
> What is a reasonable price for the TOS-in-ROM chip(s)? A friend was told
> $75 just for the chips, $100 including installation. This seems a little
> steep. Any comments?

The local ATARI dealer here in Reading sells the ROM chips for $15, or
$25 installed. Someone's trying to rip you off.

Craig B. Ziemer
mhuxl!cbz

From -7717900005493326104
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd298921e754dd55,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 06:55:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: ST binaries???
Message-ID: <8608011355.AA17427@ncsc.ARPA>
Date: Fri, 1-Aug-86 09:55:08 EDT
Article-I.D.: ncsc.8608011355.AA17427

Posted: Fri Aug 1 09:55:08 1986
Date-Received: Sat, 2-Aug-86 09:25:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Pardon if this subject has been beaten to death, but is there somewhere I can FTP to in order to get software for the ST that's already been compiled? I'm collecting PD software for a friend who has no access to the net, and if I can get the executables to my host (and then to my PC) he can call me up and download (now that a friendly netter sent me Kermit and Xmodem). Thanks for any response.

Jim Moore
NCSC
(904) 235-5158 voice/data

From -7020474345742115715
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4501b273abd3ab57
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 07:31:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!appelbau
From: appelbau@topaz.RUTGERS.EDU (Marc Appelbaum)
Newsgroups: net.micro.atari16
Subject: Re: New group mod.sources.atari520
Message-ID: <5470@topaz.RUTGERS.EDU>
Date: Fri, 1-Aug-86 10:31:10 EDT
Article-I.D.: topaz.5470
Posted: Fri Aug 1 10:31:10 1986
Date-Received: Sat, 2-Aug-86 09:18:01 EDT
References: <24200004@maggot>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 6

Yes!!! A 520 sources groups would be great!!
--
Marc L. Appelbaum
Arpa: appelbau@topaz.RUTGERS.EDU
Uucp: ...{allegra, harvard, seismo, sri-iu, ut-sally}!topaz!appelbau

From -3271745892379800185
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c40a37d187803808
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 07:35:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxt!houxm!
ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: TOS in ROM chips
Message-ID: <780@druhi.UUCP>
Date: Fri, 1-Aug-86 10:35:05 EDT
Article-I.D.: druhi.780
Posted: Fri Aug 1 10:35:05 1986
Date-Received: Sat, 2-Aug-86 23:26:29 EDT
References: <8607311550.AA11301@ncsc.ARPA>
Organization: AT&T Information System Labs, Denver, Co
Lines: 14

In article <8607311550.AA11301@ncsc.ARPA>, moore@NCSC.ARPA.UUCP writes:
>
> What is a reasonable price for the TOS-in-ROM chip(s)? A friend was told
> $75 just for the chips, $100 including installation. This seems a little
> steep. Any comments?
>
> jim
> (moore@ncsc.arpa)

That sure does sound expensive to me! I paid $20 for the chips and installed
them myself. Twenty-five dollars is not too bad for installation, but I have
seen the service offered for $15.

Barry Locklear

From 40138674947859767
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ec6a7e6a22798ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 09:04:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: Micro C-Shell Info Request
Message-ID: <1868@utecfa.UUCP>
Date: Fri, 1-Aug-86 12:04:40 EDT
Article-I.D.: utecfa.1868
Posted: Fri Aug 1 12:04:40 1986
Date-Received: Wed, 6-Aug-86 10:25:53 EDT
References: <93@uwmacc.UUCP>
Organization: Engineering Computing Facility, University of Toronto
Lines: 72

     In response to the question about Micro C Shell:

All the information below comes from a phone-call I made
to Beckemeyer.

#1: Micro C-shell is a Un*x C-Shell clone. Just as you would
expect, it does not do any multi-tasking (in Un*x, the
OS does the multi-tasking).

#2: They have another offering called the MT C-shell (MT =
multi-tasking, most probably). This MT C-shell (bad choice
of name, I think) is a bit of a Un*x clone. The package
comes with an operating system which allows multi-tasking
and sort of clones Un*x like features (a little like
QNX maybe). It comes with (I think) 4 shells. The default
login shell is set up from /etc/passwd, but any shell
can be executed from within the startup shell. The system
allows job-control (fore-grounding and back-grounding)
of tasks, from certain shell(s) to .TOS and .TTP programs.

#3: I believe MTCS also allows a multi-user facility (I suppose
user #2 logs in via the serial port). Again, this user
gets a shell allocated to him from /etc/passwd. (I forgot
to mention, there is a logon procedure for every user).
There is also a superuser facility to go with these other
facilities :-)

#4: There are permission bits for files ala UNIX, so you can
set certain programs out of bounds etc.

#5: There is one shell which can only be run from the console
(guess why :-)) which allows you to run Gem programs as
child processes under it. This shell does not have any
job-control facility (I believe), so once you get into
a Gem program, you are bound to it until you quit (can't
stop the job). I suppose though, that you can still do
multitasking (print spooling in the background for instance
by doing:

```
% lpr myfile &
% gemshell (or whatever)
(execute some gem program here)
```

#6: MTCS supports I/O redirection, true pipes and so on. (stderr
and stdout are distinct I believe)

#7: It comes with a host of programs such as lpr and a list of
others.

#8: MTCS was in Beta test, and should be shipping about now
(again, this is what they told me 2-3 weeks ago).

#9: Oops, forgot, there is a .login ;-)

All of this is from memory (3 weeks old), so please
correct me if anything here is incorrect. I'm not associated
with Beckemeyer and cannot vouch for the accuracy of the
above information because I have not seen it yet. Sounds great
though, so I went and ordered one!

Regards,
anees

--
Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

From 684720672244369652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf5a3c392a38078
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 09:38:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!pyramid!voder!kontron!stephan
From: stephan@kontron.UUCP (Stephan W. Wendl)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <965@kontron.UUCP>
Date: Fri, 1-Aug-86 12:38:57 EDT
Article-I.D.: kontron.965
Posted: Fri Aug 1 12:38:57 1986
Date-Received: Sat, 2-Aug-86 10:43:46 EDT
References: <8607291022.AA11996@ucbvax.Berkeley.EDU> <407@atari.UUcp>
Organization: Kontron Electronics, Mt. View, CA
Lines: 16

> In article <8607291022.AA11996@ucbvax.Berkeley.EDU>, K538915@CZHRZU1A.BITNET
writes:
>
> > a user group) and they make them available in some form (which does not
> > mean they actually have to distribute them, just put them on a BBS or so).
>
> A good idea. Sorry I didn't think of it myself. Disks will be sent ASAP.
> --
> --->Neil @ Atari
>

Just to defend ATARI. The only way to distribute such programs in Germany would
be by disks. BBS do not exist in Germany except a few which run over a switched
network (DATEX-P). The simple fact is just that one can not buy a modem and hook
it up as we do here in the US. The German Telephon Company won't let you. A modem
needs to be installed and rented from the "Deutsche Bundes Post" and as far as I

remember this is not a cheap solution.

From 4902544458333822570
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 09:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!decwrl!
ucbvax!XEROX.COM!Denber.wbst
From: Denber.wbst@XEROX.COM.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <860801-095726-1991@Xerox>
Date: Fri, 1-Aug-86 12:52:00 EDT
Article-I.D.: Xerox.860801-095726-1991
Posted: Fri Aug 1 12:52:00 1986
Date-Received: Sat, 2-Aug-86 22:02:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I've talked to three different hosts with my Avatex and have had no
problems at all. In addition, it performs great on my phone line which
is plagued by RFI from a nearby AM broadcast transmitter. I can plainly
hear the radio over the phone, yet I've had no noise hits at all with
the Avatex, which I can't say for at least two other modems I tried
(Anchor Express, Multitech 1200). For $85, you can hardly go wrong. I
say buy it.

              - Michel

From -1538872235538537125
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,153e0050d7da7aa7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 10:43:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Keyboard clock
Message-ID: <8608011815.AA24932@ucbvax.Berkeley.EDU>
Date: Fri, 1-Aug-86 13:43:04 EDT
Article-I.D.: ucbvax.8608011815.AA24932
Posted: Fri Aug 1 13:43:04 1986
Date-Received: Sat, 2-Aug-86 09:37:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 19

Well, let me try again...

The keyboard clock does work, but not with the 6301v1.0 (which is rev. 1). That is the chip of the early 520STs sold (of which I have one). The good news is that the mod works perfectly with the new 520 and 1040 which have the rev 2.0 chip. The keyboard part number that works is C070240-011. If you have one of the older keyboards, I don't think you can use the mod (I tried for over two days to get it to work -- I wish someone would tell me what the difference between the revs is!!!!!!).
I am getting together a little doc to send over the network which could be followed by a layman (not a schematic alone -- hopefully I can draw a board with the character set)
Anyway, if someone at Atari is listening, please tell me what the difference in the two chips are. I have been on Compuserve in the developer's sig, and there are no documents which explain the difference, not even the new hardware manual.
I could contact the company that makes the chip, but that would be a hassle.

Mike

From -2305246559415998487
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4501b273abd3ab57
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 12:32:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!decwrl!
ucbvax!trwrb.UUCP!sansom
From: sansom@trwrb.UUCP.UUCP
Newsgroups: net.micro.atari16
Subject: Re: New group mod.sources.atari520
Message-ID: <8608011932.AA13171@trwrb.UUCP>
Date: Fri, 1-Aug-86 15:32:46 EDT
Article-I.D.: trwrb.8608011932.AA13171
Posted: Fri Aug 1 15:32:46 1986
Date-Received: Sat, 2-Aug-86 22:15:41 EDT
References: <24200004@maggot>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Am I in favor of a new moderated ST newsgroup?

Yes [x]
No [ ]

If I answered "Yes", which of the following names do I prefer?

mod.520st.sources [ ]
mod.520st [ ]

mod.st.sources [ ]
mod.st [x]

 _________ ______ ____ _____ ___
/_________//___ ||__|/____|/__/   Richard E. Sansom
   ___   ____/ / ____________   TRW Electronics & Defense Sector
  / /   / /\ < | /| /   One Space Park Drive, R3/1028
 / /   / / \ \ | / | /   Redondo Beach, CA 90278
/__/   /__/   __\|__/ |__/   {...decvax,ucbvax,ihnp4}!trwrb!sansom

From 5591221321042793769
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4f3ba19e832dd0ed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 12:57:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!decwrl!
ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: avatek and Ansigraf
Message-ID: <8608012111.AA28407@ucbvax.Berkeley.EDU>
Date: Fri, 1-Aug-86 15:57:00 EDT
Article-I.D.: ucbvax.8608012111.AA28407
Posted: Fri Aug 1 15:57:00 1986
Date-Received: Sat, 2-Aug-86 22:12:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

I've had no problems with my Avatek 1200 yet. My local dealer has hd failures on two out of ten units sold, both of which tested bad using the onboard diagnostic. Hopefully working ones stay working. All in all, I'm very happy with mine.

I've also settled on a trminal program. I'm using AnsiGraf from Grafikon and have been very impressed so far. No glaring bugs so far. I haven't tested the file off-loading stuff yet or screen dumping. The great thing about this program is that it supports Tek4014 graphics viewable simultaneously with a text screen running as a vt102. My only problem so far has been setting up my local software to do the screen switching properly. It doesn't appear possible to do this to the terminal program. I'm not complaining. Of the so-called vt100 emulators that I've seen, this one is hte best. All of the nifty screen editors work, and the graphics display looks really sharp on the 520st. Also, I really like terminal emulators that use bright letters on a dark screen. I should mention that I'm using this in monochrome but it is supposed to work in colour too. It cost 79 dollars sug. ret. but appears worth the price. I've tried Flash and ST-term and the GEM interface in AnsiGraf puts both to shame. I'll see if I can find any bugs and post them if I do.

peter lorraine (qbzj@cornella)

From -4775652019524824447
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa6ce47ab70edeb4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-08-01 13:08:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!clyde!burl!ulysses!mhuxr!mhuxt!houxm!
ihnp4!inuxc!inuxj!wolenty
From: wolenty@inuxj.UUCP (R Wolenty)
Newsgroups: net.micro.atari16
Subject: BIOS routine calls.
Message-ID: <244@inuxj.UUCP>
Date: Fri, 1-Aug-86 16:08:04 EDT
Article-I.D.: inuxj.244
Posted: Fri Aug 1 16:08:04 1986
Date-Received: Sat, 2-Aug-86 23:27:16 EDT
Distribution: net
Organization: AT&T Consumer Products, Indianapolis
Lines: 9

Can anyone tell me what parameters need to be passed to the
BIOS' "dosound" routine?

Ron Wolenty
AT&T
Indianapolis, IN

From -74151797075255340
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,130a69a02c775121,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 17:33:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: 809k disk format
Message-ID: <5408@topaz.RUTGERS.EDU>
Date: Wed, 23-Jul-86 20:33:32 EDT
Article-I.D.: topaz.5408
Posted: Wed Jul 23 20:33:32 1986
Date-Received: Thu, 24-Jul-86 04:44:49 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8
Keywords: Does it damage drive?

   I recently got a PD program for my 1040 which allows you to format
a disk in 809k format. I'm not sure how this is done, but it really

slows down drive access time by about half. Does anyone have any experiences with this format and does it hurt the drive in anyway?

Phil Paone

From 1574960895560506949
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,830a1af64dfc5b74
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 19:50:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!caip!ll-xn!mit-amt!mit-eddie!genrad!decvax!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Micro Emacs
Message-ID: <705@batcomputer.TN.CORNELL.EDU>
Date: Wed, 23-Jul-86 22:50:33 EDT
Article-I.D.: batcompu.705
Posted: Wed Jul 23 22:50:33 1986
Date-Received: Thu, 24-Jul-86 21:24:30 EDT
References: <5297@topaz.RUTGERS.EDU> <609@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 33

[]

Another reminder: If you send me an (Atari ST single sided formatted 3.5") disk I'll send you the C source and executable form of my enhanced version of microEMACS. Proff is included as a bonus. (To our European friends: send a check instead, if you like, but in US dollars.)

This version of microEMACS is NOT related to the 3.5, 3.6 versions. It makes extensive use of the Atari ST function keys, but also keeps the old-style control-key command invocations. You CAN switch between insert and overstrike modes, and between case-sensitive and case-blind search, but the command interface of microEMACS is modeless and mouseless, which some people love and some hate. Some of the features added: built-in help, search for complementing bracket, reformat paragraph, goto line number, default file or buffer names in some commands, etc.

By the way: my Avatex 1200 modem malfunctioned, but I sent it for repairs under warranty and they sent me a new one instead. It took 3 weeks, mostly for shipping it back and forth.

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487
braner@amvax.tn.cornell.edu (ARPANET)
braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
{decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -3581750247353389886
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,605796af5d072317
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 20:00:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!caip!ll-xn!mit-amt!mit-eddie!genrad!
decvax!tektronix!uw-beaver!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: A 520ST that resets itself?
Message-ID: <706@batcomputer.TN.CORNELL.EDU>
Date: Wed, 23-Jul-86 23:00:13 EDT
Article-I.D.: batcompu.706
Posted: Wed Jul 23 23:00:13 1986
Date-Received: Thu, 24-Jul-86 21:24:42 EDT
References: <1218@mhuxo.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: na
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 9

[]

My 1040STf also sometimes blinks and reboots. This happens only during the
booting phase, usually upon finishing with what's in the 'auto' folder and
before the desktop appears. And only sometimes. Is something wrong with my
hardware? (BTW - is there any way to control the order in which programs
in the auto folder get executed?)

- Moshe.

From -1940315086086110809
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 20:31:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!topaz!husc6!harvard!panda!genrad!decvax!
tektronix!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16

Subject: Re: The 68020 Suggestion
Message-ID: <326@ubc-cs.UUCP>
Date: Wed, 23-Jul-86 23:31:59 EDT
Article-I.D.: ubc-cs.326
Posted: Wed Jul 23 23:31:59 1986
Date-Received: Thu, 24-Jul-86 21:49:46 EDT
References: <860720202512.001@Juliet.Caltech.Edu> <5311@sun.uucp>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 42

In article <5311@sun.uucp> cmcmanis@sun.uucp (Chuck McManis) writes:
in response to Lingus (CCL @ CITROMEO):
>
>While we all admire what Atari has wrought with bringing the price of
>68000 machines down to earth, your $3000 number is a bit absurd. Mostly
>because the monitor alone to display 1200 X 800 monochrome graphics is
>on the order of $1000 wholesale. Add to that the $200 price of *each*
>68020 chip, multihundred dollar price of 68881 chips, 4 Meg of ram
>(which at $3 per 256K chip is still $384) Add to a new box, bigger
>power supply, you have to include a hard disk to make it run at any
>speed. No, I don't think $3000 will buy you a Sun workstation ($8000
>will :-)) I think the best that can be said is that in 5 years it
>will probably be possible. Ah well.

This is no swipe at Sun (whose products I use and admire), but Atari
would probably encounter a major marketing disaster if it tried to
bring out a Sun-compatible right now.

Why? Well, first of all, you need a pretty hefty disk (let's say a good
fraction of an Eagle) to store Berkeley UNIX, along with the necessary
goodies to make it useful. Second, installing a Sun is a non-trivial
job (take a look at the installation manual some time): I'm not sure
Atari's market in general is ready for that level of complexity (sure,
lots of UNIX hackers have ST's, but lots of ST owners aren't UNIX hackers).

Somebody could make a killing with a lean, mean, Berkeley UNIX clone which
was aimed at low cost personal computers like the ST. (At the risk of
getting into the interminable Berkeley vs System V argument, I'd just
point out that much of the interesting graphics etc has been done on
Berkeley Unix machines). The result would be a full-featured, multi-tasking
(and even multi-user, to support bulletin boards) operating system which
didn't require a networked file server.

Maybe OS-9 is the answer; since I've never used it (though I did once read
some of the manuals), I couldn't answer the question.

In any case, without a resolution of the system question, I think Atari
would be foolish to announce a box which required considerable support
and was only of interest to techies. I wouldn't be surprised to hear that
the TT's arrival awaits only two things: lower-cost 68020's, and some good
application/system software to make people want it.

From 1368312159224002775
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a7c1bd4d5d77b564
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 20:39:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!topaz!husc6!harvard!panda!genrad!decvax!
tektronix!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Re: TDI Modula
Message-ID: <327@ubc-cs.UUCP>
Date: Wed, 23-Jul-86 23:39:36 EDT
Article-I.D.: ubc-cs.327
Posted: Wed Jul 23 23:39:36 1986
Date-Received: Thu, 24-Jul-86 21:49:59 EDT
References: <8607221559.AA04339@Yale-Bulldog.YALE.ARPA>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 24

In article <8607221559.AA04339@Yale-Bulldog.YALE.ARPA> domeshek@YALE.ARPA.UUCP
writes:
>Does anyone out there know what is included in the TDI Modula-2
>developer's package beyond what is included in the basic language
>package? Come to think of it, what's included with the basic
>language?

The basic package includes an editor (which many people including me
don't like very much, but does have a very nice "find next compilation
error" command), compiler, linker, library, Modula-2 desktop, and
Modula-2 options desk accessory (the latter lets you set search paths
among other things). The library includes GEM/VDI interface.

The developer's version adds a number of disassemblers, a simple
post-mortem debugger, source file cross-referencer, a "high-level"
GEM package, source code for a ramdisk and printer spooler in M2,
and Megamax's outstanding resource editor. The latter alone, if
you do any GEM programming, is worth the developer's price.

The system overall is pretty good (there are a few warts on some
of the programs, and there are still reputed to be a fair number
of bugs in the library, though I've not encountered very many).
TDI is a pretty responsive company, and overall I recommend the
product.

From 7330911121048018006
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d1edeb78f3acb73,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 00:41:57 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Need help.
Message-ID: <860724034157.000006AD.AJZL.AA@UMass>
Date: Thu, 24-Jul-86 03:41:57 EDT
Article-I.D.: UMass.860724034157.000006AD.AJZL.AA
Posted: Thu Jul 24 03:41:57 1986
Date-Received: Thu, 24-Jul-86 21:26:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I just copied a FONT LOADER accessory from CLUBII BBS. Problem is
that it doesn't do anything. Anyone have this? I have the fonts,
but no luck. They claim it uses DEGAS fonts. BUT, but, but...the fonts
they give as degas fonts load into degas all wrong. I checked them
with the DEGAS_FONT_EDITOR. And what I got is that in every little
rectangle that you are supposed to fit ONE letter, they crunched TWO
in. So, if I try using it with degas, everytime I press a key, two
letters get printed, one on top of each other. What to do? I checked
several other BBS across the nation, and all that carry DEGAS fonts,
have the fonts with the same problem. So, there must be something I
am doing wrong. Not everybody in the nation would have damaged fonts
up there. HELP!

Rick
(Flash%UMASS.BITNET)
(Neill, this includes the fonts on the Atari BBS, what do you say?)

From -2299018773884606138
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d000a0d17bc650f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 05:52:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: 68020
Message-ID: <499@elmgate.UUCP>
Date: Thu, 24-Jul-86 08:52:45 EDT
Article-I.D.: elmgate.499
Posted: Thu Jul 24 08:52:45 1986
Date-Received: Thu, 24-Jul-86 21:38:28 EDT
References: <860722125056.438578@HIS-PHOENIX-MULTICS.ARPA>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 18

In article <860722125056.438578@HIS-PHOENIX-MULTICS.ARPA>, DPickett@HIS-PHOENIX-
MULTICS.ARPA writes:

>
>   Actually, with its dynamic bus sizing and cache, it is simple to
> make a board with some 32 bit memory (optional but desirable) and a
> 68020 to replace the 68000 directly.

Of course almost any CPU can replace any other if the proper hardware
glue is installed. The much larger problem is handling the kernel level
problems. As I'm sure your aware the stack frames generated by the 68020
(and 010) are not all together compatible. The kernel has to look at the
stored format number or it's a gone'r.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -7696283740828476040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b086645486404dca,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 06:24:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!YALE.ARPA!ram
From: ram@YALE.ARPA (Ashwin Ram)
Newsgroups: net.micro.atari16
Subject: Atari ST Fortran Query
Message-ID: <8607241324.AA28878@Yale-Bulldog.YALE.ARPA>
Date: Thu, 24-Jul-86 09:24:25 EDT
Article-I.D.: Yale-Bul.8607241324.AA28878
Posted: Thu Jul 24 09:24:25 1986
Date-Received: Thu, 24-Jul-86 21:29:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Does anyone know of a Fortran for the Atari 1040ST? Comments on
the Fortran would be real nice but at present I'll be happy even
with an availability report.   Please reply directly to me since
for some reason our mailer has fallen behind the mailing list.

Thanx a lot... Ashwin.

ARPA: Ram-Ashwin@yale
UUCP: ...!{decvax, etc.}!yale!Ram-Ashwin
BITNET: Ram@yalecs

From -6722447282098262079
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 08:07:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!mhuxr!mhuxn!ihnp4!drutx!
druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <741@druhi.UUCP>
Date: Thu, 24-Jul-86 11:07:28 EDT
Article-I.D.: druhi.741
Posted: Thu Jul 24 11:07:28 1986
Date-Received: Fri, 25-Jul-86 20:55:55 EDT
References: <8607141626.AA08436@ames-nas.ARPA> <2198@ihlpg.UUCP> <675@druhi.UUCP>
<719@neon.kcl-cs.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 21
Summary: no, it's not in the public domain

In article <719@neon.kcl-cs.UUCP>, andrew@kcl-cs.UUCP writes:
> In article <675@druhi.UUCP> lbl@druhi.UUCP writes:
> >
> >There is a new working version of ar68 that is available via Compuserve. You
might
> >want to call Atari and have them send you a copy if you aren't a subscriber
> >to Compuserve.
> >
> >Barry Locklear
>
> Is this software in the public domain ? If so could someone post me a copy ?
>
> Many thanks,
>
> Andrew Smith (..!mcvax!ukc!kcl-cs!andrew)

As this is an update to the developer's kit, it is available only
to registered purchasers of the developer kit software from Atari.

Sorry, I should have mentioned this in the original posting!

Barry Locklear

From 6138489288321405997
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f82806e4401c3531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 08:32:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!princeton!allegra!ulysses!mhuxr!mhuxn!ihnp4!drutx!

druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <742@druhi.UUCP>
Date: Thu, 24-Jul-86 11:32:43 EDT
Article-I.D.: druhi.742
Posted: Thu Jul 24 11:32:43 1986
Date-Received: Fri, 25-Jul-86 20:56:09 EDT
References: <332@sdcarl.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 38
Summary: a tip

In article <332@sdcarl.UUCP>, tre@sdcarl.UUCP (Tom Erbe) writes:
>
> .
>   The floppy disk on my ST seems to run very slow. I have seen this on
> other STs, so I think it is a design flaw. If I am not imagining this, where
> does the fault lie? Is it the disk, the controller, or the software? Will
> there be a fix for this from Atari?
> --
>   Tom Erbe
>   Computer Audio Research Lab, UCSD
>   Q-037
>   La Jolla, CA 92093
>   619-452-4384
>   {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

I have read benchmarks that indicate that the ST floppies are rather slow.
The most likely culprits are GEMDOS and the floppy driver code. I haven't seen
GEMDOS code (I certainly would like to!), but I have looked at the driver code.
It really isn't as optimized as it could be.

In fact it is far too understandable to have been optimized! :) :)

But seriously, while looking at the code I discovered something I would like
to pass on:

If the buffer that is specified in a read or write operation is not on a word
boundary, the resulting operation is going to be VVEERRYY SSLLOOWW!! The main
reason for this is that the DMA buffer must be on a word boundary. If the user
buffer is not on a word boundary, the driver must read a sector at a time into
its own word aligned buffer and copy it to the user buffer. If the buffer
IS word aligned, then it merely DMA's the requested sectors into the user buffer
straight from the floppy.

Needless to say, the second option is much faster.

Moral: In your programs, always try to use a word aligned buffer for disk
requests.

Barry Locklear

From -6916303726370312242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a954da44b57f6909,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 10:41:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!XEROX.COM!Ng.PA
From: Ng.PA@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Mac software on ST?
Message-ID: <860724-104707-2688@Xerox>
Date: Thu, 24-Jul-86 13:41:41 EDT
Article-I.D.: Xerox.860724-104707-2688
Posted: Thu Jul 24 13:41:41 1986
Date-Received: Fri, 25-Jul-86 00:12:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Ng.PA@Xerox.COM
Organization: The ARPA Internet
Lines: 12

   On the July issue of Computer Current, I leaned there is a $300 module that plugs into the cartidge port of the ST allows it to run almost all the Macintosh software. Could someone out there in the netland give me more infor on this?
   Could someone also give me a brief review on the 1040 ST developer package?

Thanks,

Nelson

From 6062728451371607880
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 11:04:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Abacus books, Mark Williams C
Message-ID: <397@atari.UUcp>
Date: Thu, 24-Jul-86 14:04:27 EDT
Article-I.D.: atari.397
Posted: Thu Jul 24 14:04:27 1986
Date-Received: Fri, 25-Jul-86 06:16:29 EDT
References: <1532@cwruecmp.UUCP>
Organization: Atari Corp., Sunnyvale CA

Lines: 33

In article <1532@cwruecmp.UUCP>, bammi@cwruecmp.UUCP (Jwahar R. Bammi) writes:
> X *   The timers on the MFP are controlled by a 2.4576 Mhz xtal (Yes the
> X *   Atari Internals book is once again wrong!).

THE BAD
The quality of information in the Abacus books is suprisingly
poor. They contain an enourmous amount of misinformation and
stuff that's just plain /wrong/. I would stay away from these
books, like the plague. The consensus in Atari's software
engineering department is that they're not worth much.

THE GOOD
The Mark Williams C Compiler is shipping. It looks like a
real good job. The compiler is (comparatively) fast, its
documentation is good, and it comes with some nice tools
(make, and so on).

THE MISUNDERSTOOD
We've received several applications here that appear to
depend on the ST's operating system being located at
0xfa0000. This is a no-no. Use the system variable
`_sysbase' (long at 0x4f2) which points to the base of the
running system.
--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 1449936491909556387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 11:12:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: The 68020 Suggestion
Message-ID: <398@atari.UUcp>
Date: Thu, 24-Jul-86 14:12:55 EDT
Article-I.D.: atari.398
Posted: Thu Jul 24 14:12:55 1986
Date-Received: Fri, 25-Jul-86 06:16:42 EDT
References: <860720202512.001@Juliet.Caltech.Edu> <5311@sun.uucp>

Organization: Atari Corp., Sunnyvale CA
Lines: 23

In article <5311@sun.uucp>, cmcmanis@sun.uucp (Chuck McManis) writes:
> While we all admire what Atari has wrought with bringing the price of
> 68000 machines down to earth, your $3000 number is a bit absurd. Mostly
> because the monitor alone to display 1200 X 800 monochrome graphics is
> on the order of $1000 wholesale. Add to that the $200 price of *each*
> 68020 chip, multihundred dollar price of 68881 chips, 4 Meg of ram
> (which at $3 per 256K chip is still $384) Add to a new box, bigger
> power supply, you have to include a hard disk to make it run at any
> speed. No, I don't think $3000 will buy you a Sun workstation ($8000
> will :-)) I think the best that can be said is that in 5 years it
> will probably be possible. Ah well.

I respectfully suggest that the prices quoted above are
representative of the company buying the parts, and not what
the parts really cost.
--

-Landon Dyer, Atari Corp. {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 3926521533859697718
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bee68273ea8bb95f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 11:42:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!decvax!tektronix!tekig5!
waynekn
From: waynekn@tekig5.UUCP (Wayne Knapp)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet? (Really address of Supra?)
Message-ID: <948@tekig5.UUCP>
Date: Thu, 24-Jul-86 14:42:28 EDT
Article-I.D.: tekig5.948
Posted: Thu Jul 24 14:42:28 1986
Date-Received: Fri, 25-Jul-86 21:22:44 EDT
References: <184@sfu_fornax.uucp>
Distribution: net
Organization: Tektronix, Inc., Beaverton, OR
Lines: 22

In article <184@sfu_fornax.uucp>, chapman@sfu_fornax.uucp (John Chapman) writes:
>
> >>A guy I met at a computer store yesterday had a home-built drive consisting of
> >>an Atari --> SCSI board, an off-the-shelf SCSI controller, and a 70 meg drive.

> >>He got the Atari --> SCSI board and disk driver from Supra for $200.00.
> >>I suppose it's the same board that Supra uses in their hard disk for the ST.
> > [....]
> I didn't see the original article double >'d above (guess it didn't make it
> to our site for some reason). Could someone *please* post the address and
> phone number (if you have it) of Supra? or e-mail it to me and save
> net $$.
>   Thanks in advance,
>   john chapman

   I would also like to hear more about this. Where does one get the SCSI
   board? What is used for the os.? Has anyone else done this?

                        Thanks,

                            Wayne Knapp

From 167239500121717683
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,130a69a02c775121
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 12:24:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: 809k disk format
Message-ID: <399@atari.UUcp>
Date: Thu, 24-Jul-86 15:24:07 EDT
Article-I.D.: atari.399
Posted: Thu Jul 24 15:24:07 1986
Date-Received: Fri, 25-Jul-86 06:16:58 EDT
References: <5408@topaz.RUTGERS.EDU>
Organization: Atari Corp., Sunnyvale CA
Lines: 25
Keywords: Does it damage drive?

>   I recently got a PD program for my 1040 which allows you to format
> a disk in 809k format. I'm not sure how this is done, but it really
> slows down drive access time by about half. Does anyone have any
> experiences with this format and does it hurt the drive in anyway?

It will *not* damage the drive. You may find the disk format
unreliable, however. The speed problem may be related to
interleave --- it depends on how the program does the format.

Typically these programs format a disk with 10 512-byte sectors
per track. This could cause problems if your drive's rotational
speed varies more than 1.7%.

Adding tracks is also a no-no. The drives are spec'd to 80
tracks; any tracks outside that range should not be considered
reliable.

--

-Landon Dyer, Atari Corp.   {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From 5694515148230340277
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f82806e4401c3531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 12:57:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <713@batcomputer.TN.CORNELL.EDU>
Date: Thu, 24-Jul-86 15:57:04 EDT
Article-I.D.: batcompu.713
Posted: Thu Jul 24 15:57:04 1986
Date-Received: Fri, 25-Jul-86 06:43:21 EDT
References: <332@sdcarl.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 25

[]

The ST uses a DMA chip for very fast disk reading. Notice, for example, how
fast a long program loads (listen to the clicks as the tracks go by).
The problem with many programs that read/write files very slowly is that
they do it UNIX style, char by char. (It is buffered somewhat (sectorwise?)
but not enough.) The disk spins as the data is handled, and then is not on
the next sector when it's needed, meaning that everything waits till the disk
goes around almost a whole circle. With 9 sectors per track this causes aprox.
an 8-fold slow-down. This is NOT the way to do it! My new version of
microEMACS includes a method of reading (and writing) files through a big
(18K) RAM buffer (you've got a Megabyte: use it!). The speed improvment is
VERY noticeable. It is almost as fast reading a long text file into the
editor (from floppy) as it is copying the file to RAM disk.

In the future we will all have hard disks, it seems. Then it is even MORE
important to use a good buffering scheme. Personally, I believe that this
should be done at the operating system level, as some sort of disk caching.
The methods that worked for UNIX (with big, fast hard disks and a slow CPU

managing a small (per user) block of RAM) are NOT good for us micro users (with a great CPU (for one user) and slow hard disks (or worse)). Until things get better, I do most of my work off a RAM disk (compile and link a 100-line program: 15 seconds! (using Megamax)).

- Moshe Braner, Cornell Univ.

From 8626963368174519763
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2b27f2edde6d52cb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 17:37:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMass.BITNET!FLasH
From: FLasH@UMass.BITNET
Newsgroups: net.micro.atari16
Subject: Due to repeated requests...
Message-ID: <860724203715.00000234.ANFQ.AA@UMass>
Date: Thu, 24-Jul-86 20:37:15 EDT
Article-I.D.: UMass.860724203715.00000234.ANFQ.AA
Posted: Thu Jul 24 20:37:15 1986
Date-Received: Fri, 25-Jul-86 00:17:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

I am posting this to the list for those who don't have it.

Atari BBS is (408) 745-5308

Flash%UMASS.BITNET

From 7763737758545170240
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2b27f2edde6d52cb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-24 17:54:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Due to repeated requests...
Message-ID: <8607250054.AA17724@ames-nas.ARPA>
Date: Thu, 24-Jul-86 20:54:37 EDT
Article-I.D.: ames-nas.8607250054.AA17724
Posted: Thu Jul 24 20:54:37 1986
Date-Received: Fri, 25-Jul-86 00:18:33 EDT
References: <860724203715.00000234.ANFQ.AA@UMass>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Well actually, the atari buletin board is five numbers:

(408) 745-5308
         -5970
         -2642
         -4758
         -5664

each of which connects you to a different line.

     You get a different login number for each line you manage to connect to, and although the download database is shared, the message databases are not.

     What makes it fun is that the lines are on a roter, so that you don't necessarily get the line you call. . .

From 6326670987799649628
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e4e13d25109f9c83
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 01:37:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!husc6!harvard!panda!genrad!decvax!decwrl!pyramid!octopus!harvax!garth!baba
From: baba@garth.UUCP
Newsgroups: net.micro.atari16
Subject: Re: IBM 327x emulators
Message-ID: <345@garth.UUCP>
Date: Fri, 25-Jul-86 04:37:24 EDT
Article-I.D.: garth.345
Posted: Fri Jul 25 04:37:24 1986
Date-Received: Sat, 26-Jul-86 22:06:04 EDT
References: <261@vaxb.calgary.UUCP> <9@eneevax.UUCP> <242@cci632.UUCP>
Reply-To: baba@garth.UUCP (Baba ROM DOS)
Organization: The Institute of Impure Science
Lines: 40

In article <242@cci632.UUCP> rb@ccird1.UUCP (Rex Ballard) writes:
>>>   A friend has asked me to locate an emulator for an IBM 327x
>>>terminal that will run on his (1040) ST. Can anyone provide a pointer
>>>to such a beast -- I'm sure they exist, but I've never seen one.
>>>
>>I'm not so sure that such a beast exists. The 3270 series terminals
>>are best described as workstations, not terminals in the ordinary sense.
>>Like CDC `terminals', only more picky. 3270's don't talk serial at all;
>>they have a ridiculous protocol that involves transferring entire screen
>>pages, and buffered input areas.
>>-dave
>

>This little "oops" just had to get some sort of reply. There are 3270
>emulator packages available for the IBM-PC, two or three of which are
>written in "C" and possibly even port-able to the ST. In addition to
>the software, a very high speed serial interface, probably through the
>DMA port will also be needed. Specifically, the serial chip should
>support SDLC and/or HDLC protocol.

"It's a desert topping!"

     "It's a floor wax!"

Stop! You're both right! 327x is the designation of a family of
IBM display products. They include very dumb terminals that are the
display stations Dave refers to, as well as the relatively intelligent
control boxes, shared between multiple display stations, that Rex speaks
of. The interface between the tubes and the controller is a 2 Mbit/sec
(if I recall correctly) synchronous serial line with a proprietary
encoding scheme. The interface between the controllers and their
hosts can be a serial interface running SNA/SDLC or BSC, or a direct
channel connection. I assume they will put them on their token ring
as well, sooner or later.

Emulating a 327x display station with an Atari or any other personal
computer currently on the market is out of the question without a
significant hardware assist. Emulating a "remote" control station
would just take a lot of rather tricky software work.

                         Baba

From 8579685469439994484
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67b3b67bc638d3c0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 04:03:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: terminal emulator with 132 columns
Message-ID: <8607251323.AA05208@ucbvax.Berkeley.EDU>
Date: Fri, 25-Jul-86 07:03:12 EDT
Article-I.D.: ucbvax.8607251323.AA05208
Posted: Fri Jul 25 07:03:12 1986
Date-Received: Fri, 25-Jul-86 21:28:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

==========
Date: 25 July 1986, 10:19:53 GMT
From: Simon Poole   K538915 at CZHRZU1A
To: INFO-ATA at SU-SCORE

Subj: Wanted: terminal emulator with 132 columns

(I'm writing this in reply to a message I read on UUCP, so maybe this
 response will be at info-atari16 before the original letter)

Leo,
  I just finished writing a VT100 emulator with a Tek4010 vector mode with zooooooooom (probably I'll post it to the net some time) and one of the two things I haven't implemented (yet) is 132 columns, the other is double height/width characters. I just don't see how it can be done without scrolling sideways, to get 132 characters on one screen you need a 4x6 (or 4x8 or 4x16) font and I just don't belive that you will be able to read it at all (you can hardly read it on a VT100), if a scroll sideways (or rather jump sideways) mode would be enough I probaly could build that into my program.

               Simon.

P.S. Neil, its awfully frustrating reading about all the PD programs you have
     on the Atari BBS and having no possibility at getting them (hint, hint).

From 521653381144499655
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,31da03edd565669b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 05:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!FINFUN.BITNET!KOIVISTO
From: KOIVISTO@FINFUN.BITNET
Newsgroups: net.micro.atari16
Subject: This is only a test
Message-ID: <8607260501.AA19815@ucbvax.Berkeley.EDU>
Date: Fri, 25-Jul-86 08:54:00 EDT
Article-I.D.: ucbvax.8607260501.AA19815
Posted: Fri Jul 25 08:54:00 1986
Date-Received: Sat, 26-Jul-86 06:12:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

**** Testing letter ****

From 3777011259578217100
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,605796af5d072317
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 06:34:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!jafischer

From: jafischer@watnot.UUCP (Jonathan Fischer)
Newsgroups: net.micro.atari16
Subject: Re: A 520ST that resets itself?
Message-ID: <11903@watnot.UUCP>
Date: Fri, 25-Jul-86 09:34:53 EDT
Article-I.D.: watnot.11903
Posted: Fri Jul 25 09:34:53 1986
Date-Received: Sat, 26-Jul-86 05:54:00 EDT
References: <1218@mhuxo.UUCP> <706@batcomputer.TN.CORNELL.EDU>
Reply-To: jafischer@watnot.UUCP (Jonathan Fischer)
Organization: U of Waterloo, Ontario
Lines: 13

> (BTW - is there any way to control the order in which programs
>in the auto folder get executed?)
>
>- Moshe.

The order that auto programs get executed is simply the order that they are placed in the auto folder. I.e., the first program you copy into the auto folder will be the first one executed (until you delete that program, natch).

Disclaimer -- my humble opinions are not worthy of disclaimers. Besides, they're absolutely RIGHT!

Jonathan Fischer

From -8373102572316651137
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b086645486404dca
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 06:41:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!watmath!watnot!jafischer
From: jafischer@watnot.UUCP (Jonathan Fischer)
Newsgroups: net.micro.atari16
Subject: Re: Atari ST Fortran Query
Message-ID: <11904@watnot.UUCP>
Date: Fri, 25-Jul-86 09:41:45 EDT
Article-I.D.: watnot.11904
Posted: Fri Jul 25 09:41:45 1986
Date-Received: Sat, 26-Jul-86 06:01:48 EDT
References: <8607241324.AA28878@Yale-Bulldog.YALE.ARPA>
Reply-To: jafischer@watnot.UUCP (Jonathan Fischer)
Organization: U of Waterloo, Ontario
Lines: 18

In article <8607241324.AA28878@Yale-Bulldog.YALE.ARPA> ram@YALE.ARPA (Ashwin Ram) writes:
>
>Does anyone know of a Fortran for the Atari 1040ST? Comments on
>the Fortran would be real nice but at present I'll be happy even

>with an availability report.   Please reply directly to me since
>for some reason our mailer has fallen behind the mailing list.
>
>Thanx a lot... Ashwin.

Prospero Fortran has been available (from the U.K.) for, oh, a month or two.
Unfortunately, it was not reviewed too positively in the latest Antic. The
reviewer did some sort of benchmark, and probably did it wrong, because the
guy I know who has Prospero Fortran wrote the same benchmark and it executed
in about 1/20th of the time that the reviewer listed.
Prospero has ads in Antic, I think. Check it out there.

/* usual disclaimer... no association etc. with Prospero. */
                  Jonathan Fischer

From -6325194753209285249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,605796af5d072317
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 07:22:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site hcrvx1.UUCP
Path: utzoo!hcradm!hcrvx1!hugh
From: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Newsgroups: net.micro.atari16
Subject: Re: A 520ST that resets itself?
Message-ID: <1381@hcrvx1.UUCP>
Date: Fri, 25-Jul-86 10:22:30 EDT
Article-I.D.: hcrvx1.1381
Posted: Fri Jul 25 10:22:30 1986
Date-Received: Sun, 27-Jul-86 06:25:42 EDT
References: <1218@mhuxo.UUCP> <706@batcomputer.TN.CORNELL.EDU>
Reply-To: hugh@hcrvx1.UUCP (Hugh Redelmeier)
Organization: Human Computing Resources, Toronto
Lines: 22

In article <706@batcomputer.TN.CORNELL.EDU> braner@batcomputer.UUCP
(braner) writes:
>My 1040STf also sometimes blinks and reboots. This happens only during the
>booting phase, usually upon finishing with what's in the 'auto' folder and
>before the desktop appears. And only sometimes. Is something wrong with my
>hardware?
My 1040STf behaves the same way. I wonder too. Maybe we both have
a bad auto program. I don't remember the details, but my auto
folder contains a clock setting program (currently a freebee from
Batteries Included, previously some other freebee).

> (BTW - is there any way to control the order in which programs
>in the auto folder get executed?)

I suspect that the order the .prg files are found in the auto folder
control the order in which they are executed. This order is hard to

observe or control. Here is my recipe:
     - remove all files from the auto folder
     - add the .prg files back in the order you want them executed

Hugh Redelmeier (416) 922-1937
{utzoo, ihnp4, decvax}!hcr!hugh

From -2003343390946890150
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 09:16:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: Abacus books, Mark Williams C
Message-ID: <84@uwmacc.UUCP>
Date: Fri, 25-Jul-86 12:16:08 EDT
Article-I.D.: uwmacc.84
Posted: Fri Jul 25 12:16:08 1986
Date-Received: Fri, 25-Jul-86 21:34:31 EDT
References: <1532@cwruecmp.UUCP> <397@atari.UUcp>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 54

>
>THE BAD
>The quality of information in the Abacus books is suprisingly
>poor. They contain an enourmous amount of misinformation and
>stuff that's just plain /wrong/. I would stay away from these
>books, like the plague. The consensus in Atari's software
>engineering department is that they're not worth much.
>
>
>THE MISUNDERSTOOD
>We've received several applications here that appear to
>depend on the ST's operating system being located at
>0xfa0000. This is a no-no. Use the system variable
>`_sysbase' (long at 0x4f2) which points to the base of the
>running system.
>--
>
>-Landon Dyer, Atari Corp.   {sun,lll-lcc,lll-crg!vecpyr}!atari!dyer
>

Gosh Landon ---
   If the boys at Atari feel the Abacus information is often
inaccurate (which, no doubt, is true), then why don't you produce
some decent documentation yourselves at a reasonable price. (Sorry,
but I don't consider paying $300.00 for some books and a so-so C

compiler any great shakes. Very IBMish...naughty-naughty.)
   The Abacus books are flawed, but they at least give us a starting point to work from...plus they are only $20 each...

   One more complaint: I paid $900 for a machine that I really like, but it came with a comic book for documentation. 6 monthes after I have my machine, I find out (thru the net, so thank you to all those on the net) that it has all sorts of little interesting features like: hitting the right mouse button to grab something from an inactive window, hitting ALT-HELP at anytime to produce a screen dump, etc.

   What is Atari doing, punishing me for not paying an additional $300 for the "developer's" kit by withholding useful information about a machine I already paid for? Ick.

   Atari has on its hands an excellent product...but it's support leaves a lot to be desired...

--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

     "I am not so sure
      what you want me for!   'War Games'
      Either your machine is a   - Crosby, Stills and Nash
      fool, or me..."

From -1980647156504046206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ee8e1e3b985d3a0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 10:06:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: Interrupt service routines
Message-ID: <259@cci632.UUCP>
Date: Fri, 25-Jul-86 13:06:42 EDT
Article-I.D.: cci632.259
Posted: Fri Jul 25 13:06:42 1986
Date-Received: Fri, 25-Jul-86 21:37:31 EDT
References: <MDC-SMB-9K5PJ@OFFICE-1> <389@atari.UUcp>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 32
Summary: Thanks, Question, Warning.

In article <389@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:

>In article <MDC-SMB-9K5PJ@OFFICE-1>, SMB.MDC@OFFICE-1.ARPA writes:
>> Is there a way to replace the MFP interrupt service routines with a user
>> written version? I've been looking for a table which contains the address of
>> the ISRs, but haven't been able to locate it.
>
>68901 interrupts are based at 0x100:
>
>> Is the BIOS in a different location in the 1040ST? I have the ST
>> internals book and the BIOS listing doesn't seem to be correct for my
>> computer.
>
>The ROMs for the 520ST and the 1040ST are identical. The BIOS listing
>you have is from the first RAM-loaded release of the system, not from
>the later ROMs. The listing is useful in that it gives examples (e.g.
>how to twiddle the ST's hardware), but DON'T expect the addresses or
>code in the ROM to match your listing.
>-Landon Dyer, Atari Corp.   {lll-lcc,lll-crg!vecpyr}!atari!dyer

Thank you for giving the information. Just out of curiousity, did you
fix the perverse usage of the high address bits so that a 68010 or 68020
could be used in place of the 68000?

You forgot to caution against jumping into the ROM for any reason. This
shouldn't be necessary for the ST since almost all of the "useful routines"
are available as "system calls" or exceptions. Let's hope we can avoid
the "hacker tactics" used on the Atari 800, Apple II, and IBM-PC. Otherwise
Atari can't come up with better versions and bug fixes.

Landon, maybe you could give some "ground rules" about "hostile applications"
that "take over" vectors for private use. Definately not reccomended if
Atari plans to go to multi-tasking in a future ROM release.

From -8075650569721218974
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d480d655abab784,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 11:09:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!apratt
From: apratt@atari.UUcp (Allan Pratt)
Newsgroups: net.micro.atari16
Subject: Re: Double-sided disk format and fonts
Message-ID: <401@atari.UUcp>
Date: Fri, 25-Jul-86 14:09:54 EDT
Article-I.D.: atari.401
Posted: Fri Jul 25 14:09:54 1986
Date-Received: Sat, 26-Jul-86 05:24:58 EDT
Organization: Atari Corp., Sunnyvale CA
Lines: 18
Keywords: same as single-sided, ROM TOS

Double-sided disks are in the same logical format as single-sided disks:

the logical sector numbers all have the same interpretation. The difference
is physical: the sectors are laid out on alternating sides. Logical sectors
0 to 8 are Track 0, Head 0, Sector 1 through Sector 9. Then you go to the
Head 1 for logical 9 to 17, and back to Head 0 on the next track for 18 to
24. Since the disk is bigger, the FAT is usually larger, or the cluster
size larger, or both, so you should be careful to interpret the information
in the boot sector correctly (sectors per fat, sectors per cluster, etc).

About Fonts: There was a font-loader accessory from a magazine (Antic?)
which actually overwrote the font information in RAM. This worked only
under RAM TOS (obviously). I am not familiar with font loaders for ROM
TOS, except that they exist. Perhaps somebody else on the net can speak up?

```
/---------------------------------------------\
| Opinions expressed above do not necessarily  |  -- Allan Pratt, Atari Corp.
| reflect those of Atari Corp. or anyone else. |     ...lll-lcc!atari!apratt
\---------------------------------------------/
```

From -5127883805570074572
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b086645486404dca
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 11:33:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!decvax!tektronix!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Re: Atari ST Fortran Query
Message-ID: <330@ubc-cs.UUCP>
Date: Fri, 25-Jul-86 14:33:17 EDT
Article-I.D.: ubc-cs.330
Posted: Fri Jul 25 14:33:17 1986
Date-Received: Sat, 26-Jul-86 22:11:33 EDT
References: <8607241324.AA28878@Yale-Bulldog.YALE.ARPA>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 7

A company called Prospero software has an ST implementation called
Pro Fortran. There is (I think) another Fortran by Absoft, the people
who wrote Microsoft Fortran for the Mac. You might look in ANTIC magazine
for ads.

I don't know anything about either of these, as my interest in Fortran
is less than epsilon.

From 2711348195082722695
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-07-25 11:53:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!think!mit-eddie!mit-trillian!micah
From: micah@mit-trillian.MIT.EDU (Micah P. Doyle)
Newsgroups: net.micro.atari16
Subject: Re: Abacus books
Message-ID: <925@mit-trillian.MIT.EDU>
Date: Fri, 25-Jul-86 14:53:42 EDT
Article-I.D.: mit-tril.925
Posted: Fri Jul 25 14:53:42 1986
Date-Received: Fri, 25-Jul-86 22:00:02 EDT
References: <1532@cwruecmp.UUCP> <397@atari.UUcp>
Reply-To: micah@trillian.UUCP (Micah P. Doyle)
Organization: MIT Project Athena
Lines: 14

In article <397@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>The quality of information in the Abacus books is suprisingly
>poor. They contain an enourmous amount of misinformation and
>stuff that's just plain /wrong/. I would stay away from these
>books, like the plague. The consensus in Atari's software
>engineering department is that they're not worth much.

Are there any books available (or soon to be available) that are
better? Or is a developers kit the only option?

Micah Doyle
micah@athena.MIT.EDU
mit-eddie!mit-athena!micah

From -4116939149276892250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 11:53:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!watmath!watnot!water!ljdickey
From: ljdickey@water.UUCP (Lee Dickey)
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <470@water.UUCP>
Date: Fri, 25-Jul-86 14:53:48 EDT
Article-I.D.: water.470
Posted: Fri Jul 25 14:53:48 1986
Date-Received: Sat, 26-Jul-86 06:04:41 EDT
References: <8606301912.AA01253@mitre.ARPA>
Organization: U of Waterloo, Ontario
Lines: 2

> Please add me to the Atari mailing list for the ST. gpowell@mitre
Me too.

From -3945216812276800575
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f82806e4401c3531
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 20:13:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: Floppy Disk Speed
Message-ID: <262@cci632.UUCP>
Date: Fri, 25-Jul-86 23:13:45 EDT
Article-I.D.: cci632.262
Posted: Fri Jul 25 23:13:45 1986
Date-Received: Sat, 26-Jul-86 22:02:25 EDT
References: <332@sdcarl.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 32
Summary: Slow compared to what?

In article <332@sdcarl.UUCP> tre@sdcarl.UUCP (Tom Erbe) writes:
>
>.
>   The floppy disk on my ST seems to run very slow. I have seen this on
>other STs, so I think it is a design flaw. If I am not imagining this, where
>does the fault lie? Is it the disk, the controller, or the software? Will
>there be a fix for this from Atari?
>--
>   Tom Erbe

I found just the opposite. If you are comparing to the speed of the Mac
drives, which are "Incredible Woz Machine" technology, then yes, the ST
is a little slower.

SONY actually make 3 1/2" drives in several flavors, each with different
rotational speeds and Seek times. Atari went with a shorter seek time,
but standard rotational speed, appearantly to allow the use of 5 1/4"
inch drives (Which can be interfaced by simply buying a "replacement cable"
and a little soldering/connecting).

The main question is, can the existing drive be put into 2X or 4X rotational
speed? Can the clock on the WD chip be multiplied as well?

If you really want speed, get a Kodak "second drive" and a Supra SCSI
adapter. Then you can get 3MB/disk using special "high density disk",
that give you hard disk (1800 or 3600? RPM) speeds.

The thing to remember is that the "floppy" (either size) should normally
be used as a "download and bootstrap" device once low-cost high-speed
storage is available. Considering that a hard drive could be built

from "surplus" for around $350, maybe less, it makes sense to go with
something "hard".

From -8286387711759282465
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d016af849aa68c4d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-25 22:23:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!eckert
From: eckert@lll-lcc.UUCP (Philip D. Eckert)
Newsgroups: net.micro.atari16
Subject: Help with 'Pawn'
Message-ID: <371@lll-lcc.UUCP>
Date: Sat, 26-Jul-86 01:23:03 EDT
Article-I.D.: lll-lcc.371
Posted: Sat Jul 26 01:23:03 1986
Date-Received: Sat, 26-Jul-86 06:06:37 EDT
Reply-To: eckert@lll-lcc.UUCP (Philip D. Eckert)
Organization: Lawrence Livermore Labs, Lab Comp Ctr
Lines: 7

I first posted this in NET.GAMES, but got not response. So here goes.

I am trying to get past the dragon without having the adventurer with me.
I have read the clues about offering food and illuminating it for him, but
either I am offering the wrong food or I am not "illuminating" it in the
right manner. Direct or indirect answer appreciated.

From -6001365406817903435
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,824f7eb3bc22d681,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 00:42:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!HAWAII-EMH.ARPA!dkb-amos
From: dkb-amos@HAWAII-EMH.ARPA
Newsgroups: net.micro.atari16
Subject: ST Development Package
Message-ID: <8607260805.AA21909@ucbvax.Berkeley.EDU>
Date: Sat, 26-Jul-86 03:42:00 EDT
Article-I.D.: ucbvax.8607260805.AA21909
Posted: Sat Jul 26 03:42:00 1986
Date-Received: Sat, 26-Jul-86 06:40:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I would be interested in comments on the Atari ST Developers

Package. I have a 1040. Is the documentation applicable to the
1040 as well as the 520? Are there other sources of system
details? I have "Presenting the Atari ST" and Compute!'s "ST
Programmer's Guide" but they are of little use for C programming.

Thanks
-Dennis

From -6408014431279763830
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3bf6c5258a3e5374,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 11:55:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!WEIZMANN.BITNET!MLSIRTON
From: MLSIRTON@WEIZMANN.BITNET (Guy Sirton)
Newsgroups: net.micro.atari16
Subject: Hard disks
Message-ID: <8607261854.AA27673@ucbvax.Berkeley.EDU>
Date: Sat, 26-Jul-86 14:55:10 EDT
Article-I.D.: ucbvax.8607261854.AA27673
Posted: Sat Jul 26 14:55:10 1986
Date-Received: Sat, 26-Jul-86 22:11:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I'm interested in getting information about hard disks available
for the ST.
If anyone has the technical information about existing ST hard disks
please E-mail me and I'll summarize to the net.
Also, is it possible to connect hard disks from other micros to the
ST?
An IBM-PC hard disk for example?

Guy

From -7811485347361128506
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd60e092c40c00bc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 13:34:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: SCSI on the ST (Re: Macintosh SCSI Hard disk
Message-ID: <265@cci632.UUCP>
Date: Sat, 26-Jul-86 16:34:00 EDT
Article-I.D.: cci632.265
Posted: Sat Jul 26 16:34:00 1986

Date-Received: Sat, 26-Jul-86 22:23:52 EDT
References: <106@van-bc.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 103
Summary: Get your supra board now!!!

This, among others, was found in net.micro.mac, however, I thought
it might be of interest to ST users as well, I would simply suggest
looking through net.micro.mac to see more options on an SCSI drive.

In article <106@van-bc.UUCP> sl@van-bc.UUCP (Stuart Lynne @ SLI) writes:
>In article <541@hope.UUCP> deano@hope.UUCP writes:
>>   The Challenge of the week....
>>.
>>   I understand that it is fairly simple to hook up a Hard Disk to
>>the MAC+ SCSI Port. The Way I understand it is...

With the ST, you will need to get an SCSI adapter, I currently know
about the Supra card, let's hope others follow, especially Atari.

(Neil, any chance of a $100 SCSI interface?).

>>1. Get an off the shelf hard drive at your local electronics surplus.
>>2. Hook a SCSI Disk controller to the drive.
>>3. Hook the controller to the MAC+ SCSI port (custom cable?)
>>4. Tell the Mac that there is a H.D. (modify H.D. 20 DOC.?)
>>5. format dialog should magically appear, and your on your way.
>>.
>
>It's even easier.
>
>To assemble the hardware.
>
>   1. Buy an off the shelf case & PS for about $50
>   2. Buy a Seagate ST225N (specify rev 9 firmware) for about $450
>   3. Make a small cable with 50 pin header and 50 pin amphenol connectors
>   4. Bolt together case, PS and drive.
>   5. Connect to Mac+ with Apple System Cable and adapter cable.
>
>Total cost should be around $550. I got all my stuff in Canada so I can't
>be sure about US prices. Hamilton Avnet has a good supply of these drives
>with nationwide offices. You may be able to get a better price if you live
>in an area where you can shop around.
>
>Specifically the Seagate has a problem with "Unit Attention". When the Mac
>is reset the SCSI bus is reset. The Seagate goes into a Unit Attention state.
>The Mac+ ROM does not know how to cope and cannot boot off the drive. Turning
>the drive on and off (several times) will eventually allow Mac to boot from
>the drive. With newer drives (rev 9 firmware does work) use the Mode Select
>command to set turn the Unit Attention "feature" off. This needs to be done
>only once (at the same time you format the drive is appropriate). Be sure
>to specify that you need at least rev 9 firmware. There are a bunch of the

>older drives in the field. If you do get one ask to have it sent back to the
>factory to get new firmware.

Does anybody know, does the Supra board have this problem?

>The Seagate is fairly fast (around 40ms average seek). Any faster would be
>wasted on the Mac. The main limitation is data transfer. Using the best
>case, a fast blind transfer will still only allow you to format with a
>2:1 interleave (not Apples routines, they will only get you 3:1).

The Atari doesn't have this limitation (has real DMA port), does it?

>The Seagate is a half height drive and not unduly noisy. I've run two of them
>on my desk without a case without being to annoyed at the noise. In a case
>under the desk, and you'll forget it's on.

>All in all the drive seems to be fairly reliable, fast, and very inexpensive.
>(The only data loss I've encountered was due to user incompatence, and
>I'm the only user!)
>
>There are other SCSI compatible drives about to come onto the market. Priam
>with a 60MB, Quantum 80MB, Maxtor 240MB, CDC 240MB, etc. For the most part
>embedded SCSI will simplify your life when you write the driver (for example
>no need to tell the controller about the disk geometry, its in it's firmware
>so just say format and away you go). Also embedded SCSI is allowing the
>manufacturers to lower their prices by improving their production yields.
>(Because they handle the format, they can use advanced slip sector techniques
>to eliminate bad sectors, allowing them to use what would have been a bad
>platter if it had been put into a 506 style drive.) It also allows them to
>use RLL encoding or other techniques to increase the storage without adding
>extra heads/platters. Priam uses this technique to make a 60MB SCSI out of
>a 40MB ST506 drive.

This "absolute purity required" has resulted in a number of "surplus"
ST-506 drives available as "used" that could still work effectively with
a good SCSI controller. It may be possible to get a $100 controller,
and a $100 drive, and have a hard disk for as little as $400, including
Supra card.

>So we should see an avalanche of large, cheap SCSI drives in the final
>quarter 1986.

Especially considering there is also an SCSI card for the "PC" now. If
Atari either upgrades their DMA port, or comes out with their own SCSI
adapter, the drive options would be unlimited.

>Stuart Lynne   ihpn4!alberta!ubc-vision!van-bc!sl
>
>Disclaimer
>==========
>I am not in any way associated with either Seagate Technologies
>Hamilton Avnet, other than having purchased several drives from them.
>I am not associated with any of the other disk drive manufactures mentioned

>in this article and have not used their products.

I haven't heard from Atari on this one, at least the Supra card is available.
Kinda makes an "integrated drive" from Atari look dissappointing doesn't it?

From 7384029637886974879
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d9f7363e5bc0f2
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,6d9f7363e5bc0f2
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-07-26 18:39:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: C compiler bugs
Message-ID: <737@batcomputer.TN.CORNELL.EDU>
Date: Sat, 26-Jul-86 21:39:30 EDT
Article-I.D.: batcompu.737
Posted: Sat Jul 26 21:39:30 1986
Date-Received: Sun, 27-Jul-86 06:08:20 EDT
References: <888@ucbcad.BERKELEY.EDU> <678@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 92
Xref: mnetor net.micro.amiga:4014 net.micro.atari16:1407

[]

The compiler bugs (especially in the floating-point package) keep
wasting my time... - here are some tidbits that might save YOU some time:

The Megamax library does not have a fabs() function, and abs()
does not always work right for FP. So I added this to math.h:

```
#define fabs(x) (((x)<0.0)?(-(x)):(x))
```

The transcendental functions do NOT warn you if the argument passed to
them is illegal. You get GARBAGE (and you don't even know it!), or it
crashes, or (in the case of log(0)) it HANGS!

I now use LOG() and SQRT() instead of log() and sqrt(). The following
functions were also added to math.h:

```
double LOG(x)
     double x;
{
     if (x <= 0.0) {
          fprintf(stderr,"illegal arg for log()!\n");
          exit(0);
     }
```

```
        x = log(x);
        return (x);
    }

    double SQRT(x)
        double x;
    {
        if (x < 0.0) {
            fprintf(stderr,"illegal arg for sqrt()!\n");
            exit(0);
        }
        x = sqrt(x);
        return (x);
    }
```

If your program gets into an infinite loop, or just a loop that's too long, there is no way to stop it unless it's doing I/O. To enable that, add the statement "keybrk();" here and there in your loops, and #include the following file at the top of your source:

```
    /* Check if a key has been pressed, and if it was
     * a control-C print message and exit
     */

    #include <osbind.h>

    keybrk()
    {
        if (Cconis()) {                  /* any key pressed? */
            if ((Crawcin()&0x7F) == 0x03) {  /* is it ctrl-C?    */
                fputs("\nbreak!\n\n", stderr);
                exit(0);
            }
        }
    }
```

Finally, the simple random-number generator, defined as a macro in stdio.h:

```
    extern long _seed;
    #define srand(x) _seed = x;
    #define rand() (int)(_seed * 6907 + 130253)
```

is no good because a call to rand() does not update _seed, so you keep getting the same nonrandom number again and again! Change to:

```
    #define rand() (int)(_seed = (_seed * 6907 + 130253))
```

Don't forget to do an srand(SEED), with SEED some integer, or else you'll get the same sequence each time you run the program. For an unpredictable sequence (good in games, for example) use the current (encoded!) time as SEED!

If you want a floating-point version, returning a number between 0 & 1:

```
    #define RND  ((double)(rand())/65536.0 + 0.5)
```

(But I would NOT recommend this kind of random number generator for
 serious statistical purposes!)


```
   ----------------------------------------------------------------
    - Moshe Braner

    Corson Hall, Cornell University, Ithaca NY 14853
    (607) 272-3487
    braner@amvax.tn.cornell.edu   (ARPANET)
    braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
    {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)
   ----------------------------------------------------------------
```



```
From 4822887564203453495
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,82eb3e7886e36177,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 22:49:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Personal Pascal demonstration (Part 1 of 5)
Message-ID: <8607270549.AA14115@ames-nas.ARPA>
Date: Sun, 27-Jul-86 01:49:36 EDT
Article-I.D.: ames-nas.8607270549.AA14115
Posted: Sun Jul 27 01:49:36 1986
Date-Received: Sun, 27-Jul-86 06:08:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17
```


I've just written a demonstration program mostly as an exploration of my ST. It's a multiwindow file browser, which allows you to look at up to ten files in GEM windows. You can open and close files, and move forward or backward through the files you are looking at.

My next four messages will consist of a description of the program, the source code for the program, and the source code for each of two support routines.

The main program I wrote, and place fully in the public domain. The only restriction I place is that you credit me if you use the code. The support code I got from OSS's buletin board.

Yes, I know this is buggy, and there has to be a faster way to handle window updates and scrolling, and no I'm not going to support it, but I would be interested in any positive criticism.

From -7776538112059652456
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30ccb333dded5f21,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 22:52:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: OSS Pascal demo (2 of 4 - README)
Message-ID: <8607270552.AA14151@ames-nas.ARPA>
Date: Sun, 27-Jul-86 01:52:08 EDT
Article-I.D.: ames-nas.8607270552.AA14151
Posted: Sun Jul 27 01:52:08 1986
Date-Received: Sun, 27-Jul-86 06:16:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 170

This file contains the readme for my OSS Pascal demo

----- CUT HERE -----

pager.pas is a simple application in OSS Personal Pascal for the Atari ST. I wrote it on a monochrome 1040, but it should work on any system at any resolution.

My intent was to experiment with the GEM interface from Pascal, and try to write some kind of "template" program I could use as a basis for more sophisticated programs later.

Pager is a multiple window file viewer. Files may be opened or closed, and viewing can scroll forward or backward. Pager is organized around the simplest possible event driven loop:

```
Initialize
While still running
get an event
deal with it
Clean up
```

Pager will handle all of the events returned by Get_Event, although it ignores the right mouse button, only performs limited menu service, and only pays attention to the first cursor rectangle event.

Pager also uses built in dialogs, as well as alert boxes, and responds to menu entries. It also demonstrates XBIOS calls as well as timer events.

It does not build it's own dialogs, and doesn't use mouse position information.

Pager starts by offering the user an alert box which allows him to immediately abort the program. If he chooses to continue, pager opens the first file, using the built in "Item Selector" dialog.

In order to spread the overhead of reading files around, the entire file is not read in immediatly, but rather only enough to fill the default window, which is full screen size.

Pager than enters it's procesing loop, which consists mostly of waiting for events to occur and then responding to them.

An unusual event that pager responds to is a ten second interval. If no activity has happened within the last ten seconds, pager will put an alert box up indicating how long it has been since pager has started.

This alert is simply a demonstration of the interval timer, as well as using XBIOS calls to access supervisor memory.

The events which pager responds to are message events, keyboard events, timer events, 'rectangle' events, and button pushed events.

Since pager is a template, I made up a silly use for the rectangle and button events. The cursor takes one of four shapes, depending on the mouse being in or out of the front window, and the left mouse button being down or up. In pager, these cursor shapes don't have any real meaning, they are just window dressing.

Most keyboard events (key strokes) are ignored. However, the HELP key causes a HELP alert box to be posted, which would contain something a litte more useful in a serious program, and the UNDO key causes the quit alert box to be posted.

Most of the work occurs in message events, which fall into several catagories. There are selection events, redraw events, top events, close events, fulled events, arrowed events, horizontal events, veritical events, size events, and move events.

A selection event occurs when the mouse is clicked on a menu selection. Pager allows desk accessories to work and has four menu entries of its own. A menu event can be used to open a new file, to close an open file (and it's window,) to quit the program, or to get an "about pager" alert box.

A close event occurs when the close box has been clicked, and causes pager to close the file, close the window, and free up any related storage.

A full event occurs when the full box has been clicked. Pager uses the full box as a toggle event. If the window is already full, than it is resized to be the last size it was set to by other than a full. If it's not full, then it's set to cover the entire screen.

Since windows start out as full screen size, pager starts with the assumption that the first 'small' size for a window should be 1/4 the screen size, located in the upper left hand quarter of the window.

Size events simply cause the window to grow or shrink, in response to clicking the size box and dragging. Pager allows the window to assume any size.

Move events simply cause the window to be displaced, in response to clicking the title bar and dragging. Pager will allow the window to be placed anywhere GEM will put it.

Arrow events occur from clicking in the elevator bar, or on the arrows at the ends of the elevator bar. Pager responds to arrow clicks by moving the page up or down one line, or by moving the display left or right one character. Pager responds to elevator bar clicks by moving the page up, down, left or right one window full, as appropriate.

Because files are only read as needed, the code for keeping track of the position in the file is a fairly crude, although it appears to be bug free.

However, the code for calculating the position and size of the elevator cars is slightly buggy, suffering from some calculation round off errors which cause the cars to sometimes do nonintuitive things.

Also, until the file has been entirely input, it is not possible to know the full size of the file, so a heuristic is used for the vertical elevator. One full window size is added to the currently known size of the file when calculating the postion and offset of the elevator, so there will always be room to click on either side of the bar until the entire file has been read. Once the entire file is read, the actual file size is used.

Horizontal and Vertical events occur when the elevator car has been clicked and drug to a new location. In this event, Pager calculates the correct viewing offset according to the new positions of the elevator cars and redisplays accordingly.

There is room for much improvement in this area, since "scrolling" consists of erasing and redrawing the entire window, rather than moving the still visible part and adding new data.

The most interesting event Pager has to deal with is the Redraw event, which occurs when a portion of a window which was previously invisible becomes visible.

As you are probably aware, GEM keeps lists of 'visible' rectangles which make up each of the windows. The most efficent way to update a window would be to only redraw the portions which weren't visible before, but which are now.

Unfortunately, what Pager does is to go through the list of visible rectangles, setting the clipping region to the part just made visible and redrawing the entire window. This is the second area where there is much room for improvement.

Pager tries to be relitively bug free and robust, and seems to succede moderately well, (except for the elevator calculations mentioned before.) However, one are where I systematically did an unsafe bit of coding was in obtaining memory. None of the places where new is called to obtain more memory, is there a check for failure. This will probably lead to unpleasentness eventually, and I will probably fix it one of these days.

In writing pager, I discovered that the built in read procedure will not read character data from other than a text type. Since I was considering using random file access to facilitate memory management, I wrote a "Get_string" routine, which will allow me to expand to random access if I need it.

Overall, I have been very impressed with Personal Pascal. I have managed to fairly sophisticated programming using only it, it's manual, and the ABACUS "Internals" manual. It is reasonably bug free; I only found two problems with it while writing pager. It is reasonably easy to learn; I've only had it for two weeks, and pager is only about six hours work. (Although I have had a lot of pascal experience before.) It runs reasonably quickly; pager only takes about fifty seconds to compile and link using a ram disk on my 1040ST. The support from OSS is good. and the price is right.

I've also been very impressed with the 1040ST. I've got a MacUgly (used to have a girl's name) sitting on my desk at work, complete with full blown Aztec C, and I still haven't managed to get anything as complete at pager working using it's interface. (I also have a lot of C experience, since hacking Unix kernels is my living.)

All in all, I'm glad I've got the beasty.

Marty

From -1215537462834869139
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bafe8c3c18f19664,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 22:55:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: Pascal demo (4 of 5)
Message-ID: <8607270555.AA14186@ames-nas.ARPA>
Date: Sun, 27-Jul-86 01:55:28 EDT
Article-I.D.: ames-nas.8607270555.AA14186
Posted: Sun Jul 27 01:55:28 1986
Date-Received: Sun, 27-Jul-86 06:16:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 112

This is the peekpoke.pas. It is part of my OSS Pascal demo.
I did not write the code for this part, but got it from the
OSS Buletin board

----- CUT HERE -----

```
  {$P-}

  FUNCTION peek( address: long_integer ): long_integer;

    TYPE
      byte_ptr = ^byte;

    VAR
      funny: RECORD
               CASE boolean OF
                 true:  ( a: long_integer );
                 false: ( p: byte_ptr );
             END;

    BEGIN
      funny.a := address;
      peek := funny.p^;
    END;

  FUNCTION wpeek( address: long_integer ): long_integer;

    TYPE
      int_ptr = ^integer;

    VAR
      funny: RECORD
               CASE boolean OF
                 true:  ( a: long_integer );
                 false: ( p: int_ptr );
             END;

    BEGIN
      funny.a := address;
      wpeek := funny.p^;
    END;

  FUNCTION lpeek( address: long_integer ): long_integer;

    TYPE
      lint_ptr = ^long_integer;

    VAR
      funny: RECORD
               CASE boolean OF
                 true:  ( a: long_integer );
                 false: ( p: lint_ptr );
```

```
          END;

  BEGIN
    funny.a := address;
    lpeek := funny.p^;
  END;

PROCEDURE poke( address: long_integer; value: byte );

  TYPE
    lint_ptr = ^long_integer;

  VAR
    funny: RECORD
             CASE boolean OF
               true:  ( a: long_integer );
               false: ( p: lint_ptr );
           END;

  BEGIN
    funny.a := address;
    funny.p^ := value;
  END;

PROCEDURE wpoke( address: long_integer; value: integer );

  TYPE
    int_ptr = ^integer;

  VAR
    funny: RECORD
             CASE boolean OF
               true:  ( a: long_integer );
               false: ( p: int_ptr );
           END;

  BEGIN
    funny.a := address;
    funny.p^ := value;
  END;

PROCEDURE lpoke( address, value: long_integer );

  TYPE
    lint_ptr = ^long_integer;

  VAR
    funny: RECORD
             CASE boolean OF
               true:  ( a: long_integer );
               false: ( p: lint_ptr );
           END;
```

```
    BEGIN
      funny.a := address;
      funny.p^ := value;
    END;

  {$P=}
```

```
From -8520277654355552467
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,99874257cedeb013,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 22:58:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: OSS demo (5 of 5 strval.pas)
Message-ID: <8607270558.AA14204@ames-nas.ARPA>
Date: Sun, 27-Jul-86 01:58:01 EDT
Article-I.D.: ames-nas.8607270558.AA14204
Posted: Sun Jul 27 01:58:01 1986
Date-Received: Sun, 27-Jul-86 06:17:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 311


This is the last part of my OSS Pascal demo.  It is the file
strval.pas.  I did not write it, but got it from the OSS PASCAL
buletin board.

     Place strval.pas, peekpoke.pas, and pager.pas in the same folder and
compile pager.pas, using the GEM option on the compiler.

----- CUT HERE -----

{***
 *   Floating Point Conversion routines.
 *   From Real to String and String to Real
 *
 *   By Kevin L. McGrath
 ***}

PROCEDURE Str(Value: Real; VAR St: String);

{* Notes:
 *   This routine is only accurate up to 9 digits becuase of the LongTrunc.
 *   It HAD rounding errors, but they are now fixed (with the LongTrunc)
 *
 * O.S.S. Pascals Floating Point Format:
 *   This is just a guess, but here goes...
 *   One byte of exponent biased by 128 to give a +38 to -38 range.
```

```
 *   Fourty bits of mantissa to give 11 digits of accuracy, One bit sign.
 *   Most floating points are normalized to the left, with the point between
 *   the most significant bit of the mantissa and the second most, so I think
 *   this is two.  To find out, just plug out a routine that has a pointer
 *   to a real, coerce's it into a pointer to a record structure of byte like
 *   this:
 *     Record
 *       Exponent:      Byte;
 *       MantissaOne:   Long;
 *       MantissaTwo:   Long;
 *       MantissaThree: Long;
 *     End;
 *   then you can extract the exponent and mantissa just by doing a
 *   "Ptr.Exponent" or somethin like that.  Well, I haven't had time to get
 *   that fancy with this, but I have used this routine and am sure it works.
 *   Hope you guys at O.S.S. can vert it to some kind of normal ASM function!
 *      Good Luck...   (Nice Compiler)
 *      Call me if there are any probs, dig?
 *}


Const
  Max_Digits    = 09;
  Max_Exponent  = 38;

Var
  Val:          Real;
  TempInt,
  Sig_Digits,
  Dec_Exp,
  I:            Integer;
  Digits:       String;

Begin
  Val := Abs(Value);
  Dec_Exp := 0;

  {* Get the exponent without Natural Log (Ln doesn't seem to work fer me) *}

  If (Val < 1) And (Val > 0) Then
  Begin
    For I := 0 To (Max_Exponent-1) Do
      If (Val < (1/PwrOfTen(I))) And (Val >= (1/PwrOfTen(I+1))) Then
        Dec_Exp := -(I+1);
    Val := Val * PwrOfTen(Abs(Dec_Exp)-1);
  End
  Else
  Begin
    For I := 0 To (Max_Exponent-1) Do
      If (Val >= PwrOfTen(I)) And (Val < PwrOfTen(I+1)) Then
        Dec_Exp := I;
    Val := Val / PwrOfTen(Dec_Exp+1);
  End;
```

```
{ Get decimal digits by stripping }

  Digits := '';
  St := '';

  For I := Max_Digits DownTo 1 Do
  Begin
    { Take care of rounding problems }

    Val := Long_Trunc(Val*PwrOfTen(I)+0.5)/PwrOfTen(I);

    Val := Val*10.0;
    Digits := ConCat(Digits,Chr(48+Trunc(Val)));
    Val := Val-Trunc(Val);

    { Take care of rounding problems }

    Val := Long_Trunc(Val*PwrOfTen(I)+0.5)/PwrOfTen(I);

  End;

{ Format and put result in St }
{ Put sign }

  If Value < 0 Then St := '-';

{ Compute significant digits }

  Sig_Digits := Max_Digits;
  I := Max_Digits - 1;
  While ((Digits[I]='0') And (I>0)) Do
  Begin
    Sig_Digits := Sig_Digits - 1;
    I := I - 1;
  End;
  Sig_Digits := Sig_Digits - 1;

{ Put in exponential or non-exonential }

  If ((Sig_Digits-Max_Digits)<=Dec_Exp) And (Dec_Exp<=Max_Digits) Then
  Begin
    { Non-exponental form }
    { Put decimal point and leading zeros for numbers with negative exponents }

    If Dec_Exp < 0 Then
    Begin
      St := ConCat(St,'.');
      For I := 1 To -Dec_Exp-1 Do
        St := ConCat(St,'0');
    End;

    { Put significant digits }
```

```
  St := ConCat(St,Digits[1]);
  For I := 1 To Sig_Digits-1 Do
  Begin
    If Dec_Exp = 0 Then
      St := ConCat(St,'.');
    St := ConCat(St,Digits[I+1]);
    Dec_Exp := Dec_Exp - 1;
  End;

  { Put trailing zeros }

  While Dec_Exp > 0 Do
  Begin
    St := ConCat(St,'0');
    Dec_Exp := Dec_Exp - 1;
  End;
End
Else
Begin
  { Exponental form }
  { Put first digit }

  St := ConCat(St,Digits[1]);

  { Put decimal point }

  If Sig_Digits > 1 Then
    St := ConCat(St,'.');

  { Put remaining significant digits }

  For I := 1 To (Sig_Digits - 1) Do
    St := ConCat(St,Digits[I+1]);

  { Put the 'E' for the exponent }

  St := ConCat(St,'E');

  { Put exponents sign }

  If Dec_Exp >= 0 Then
    St := ConCat(St,'+')
  Else
  Begin
    St := ConCat(St,'-');
    Dec_Exp := Abs(Dec_Exp);
  End;

  { Put the exponent }

  If Dec_Exp >= 10 Then
  Begin
```

```
      St := ConCat(St,Chr(48+(Dec_Exp Div 10)));
      St := ConCat(St,Chr(48+Dec_Exp-((Dec_Exp Div 10) * 10)));
    End
    Else
    Begin
      St := ConCat(St,'0');
      St := ConCat(St,Chr(48+Dec_Exp));
    End;
  End;
End;


FUNCTION Val( St: String): Real;

Const
  Max_Digits    = 09;

Var
  Dec_Exp,
  Exp_Value,
  Count,
  Position:     Integer;
  Chr:          Char;
  Result:       Real;
  Dec_Sign,
  Exp_Sign:     Boolean;

  PROCEDURE Add_Digit;

  Begin
    Result := (Result * 10) + (Ord(Chr) & $0F);
  End;

  PROCEDURE Read_Chr;

  Begin
    Position := Position + 1;
    If Position > Length(St) Then
      Chr := 'X'
    Else
      Chr := St[Position];
  End;

Begin
  Position := 0;
  Read_Chr;
  Result := 0.0;

{ Get sign }

  Dec_Sign := False;
  If Chr = '+' Then Read_Chr;
  If Chr = '-' Then
```

```
  Begin
    Read_Chr;
    Dec_Sign := True;
  End;

{ Get digits to left of decimal point }

  Dec_Exp := 0;
  Count := Max_Digits;
  While ('0' <= Chr) And (Chr <= '9') Do
  Begin
    If Count > 0 Then
    Begin
      Add_Digit;
      Count := Count - 1;
    End
    Else
      Dec_Exp := Dec_Exp + 1;
    Read_Chr;
  End;

{ Get digits to the right of decimal point }

  If Chr = '.' Then
  Begin
    Read_Chr;
    While ('0' <= Chr) And (Chr <= '9') Do
    Begin
      If Count > 0 Then
      Begin
        Add_Digit;
        Dec_Exp := Dec_Exp - 1;
        Count := Count - 1;
      End;
      Read_Chr;
    End;
  End;

{ Get exponent part }

  If (Chr = 'E') Or (Chr = 'e') Then
  Begin
    Read_Chr;
    Exp_Sign := False;
    If Chr = '+' Then Read_Chr;
    If Chr = '-' Then
    Begin
      Read_Chr;
      Exp_Sign := True;
    End;
    Exp_Value := 0;
    If ('0'<=Chr) And (Chr<='9') Then Exp_Value := (Ord(Chr) & $0F)*10;
    Read_Chr;
```

```
    If ('0'<=Chr) And (Chr<='9') Then Exp_Value := Exp_Value+(Ord(Chr) & $0F);
    If (Chr = 'X') And (Exp_Value >= 10) Then Exp_Value := Exp_Value Div 10;
    If Exp_Sign Then
      Dec_Exp := Dec_Exp - Exp_Value
    Else
      Dec_Exp := Dec_Exp + Exp_Value;
  End;

{ Multiply or divide Result by power of 10 specified by Dec_Exp }

  If Dec_Exp > 0 Then
    Result := Result * PwrOfTen(Dec_Exp)
  Else
    Result := Result / PwrOfTen(Abs(Dec_Exp));

  If Dec_Sign Then Result := -Result;

  Val := Result;

End;


From -5143309500231572171
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d57c39c9dc1d40d3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-26 23:00:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA
Newsgroups: net.micro.atari16
Subject: OSS Demo (3 of 5 pager.pas)
Message-ID: <8607270600.AA14242@ames-nas.ARPA>
Date: Sun, 27-Jul-86 02:00:04 EDT
Article-I.D.: ames-nas.8607270600.AA14242
Posted: Sun Jul 27 02:00:04 1986
Date-Received: Sun, 27-Jul-86 06:19:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 953


This is pager.pas, it's the third part of my OSS Pascal demo. Place this,
    strval.pas, and peekpoke.pas in the same file, and compile pager.pas.

- ----- CUT HERE -----
{
  pager.pas is a demonstration of the GEM interface, as exercised
  by OSS Personal Pascal.  Pager.pas is in the public domain, and
  may be used for any purpose, so long as the author is acknowledged.

  Martin Fouts
}
```

```
PROGRAM pager;

CONST
  {$I GEMCONST.PAS}
  SUPER_MODE = $20;  { GEMDOS call number to enter supervisor mode }
  Max_Wind = 10;
  Delay = 10000; { Time between timeouts (in milliseconds) }
  Max_Char = 80;

TYPE
  {$I GEMTYPE.PAS}
  Wind_No = 1..Max_Wind;
  { Ubuffer = packed array [1..Max_Char] of char;}
  UBuffer = string [255];
  UTPtr = ^Utext;
  Utext = Record
    Prev, Next : UTPtr;
    Uline : Ubuffer;
  End;
  UFile = packed File of char;
  Wind_Rec = Record
    Handle : integer;    { GEM Handle from New_Window }
    InUse : boolean;     { True if this record is in use }
    Title : string;      { Contents of title bar }
    Full : boolean;      { True if last click on full made full window }
    Ufp : UFile;         { File associated with window }
    Ufirst : UTPtr;      { Start of data from this file }
    Ulast : UTPtr;       { End of data from this file }
    UCurrent : UTPtr;    { First line of current screen }
    UCharNo : integer;   { First character of current screen (zero based )}
    ULineNo : integer;   { First line of current screen }
    UWide : integer;     { Width of widest line in this file }
    UHigh : integer;     { Number of lines read in }
    LWide : integer;     { Number of characters wide }
    LHigh : integer;     { Number of characters high }
    X_percent : 0..1000; { Position of slider, initially 0 }
    Y_percent : 0..1000; { Position of slider, initially 0 }
    Ended : boolean;     { True if EOF(Ufp) has occured }
    { Current coordinates }
    windx, windy, windw, windh : integer;
    { Last coordinates less than full size }
    smallx, smally, smallw, smallh : integer;
    { Coordinates of working space }
    workx, worky, workw, workh : integer;
  end;
  Wind_Array = array[Wind_No] of Wind_Rec;

VAR
  wind : Wind_Array;    { Track the windows we are using }
  running : boolean;    { Set to false to quit execution }
  pathname : string;    { Default search path for file opens }
  filename : string;    { Filename returned by select file }
```

```
  mymenu : Menu_Ptr;    { Pointer to menu for this program }
  mytitle : Integer;    { Pointer to first (only) title bar in menu }
  Item1 : Integer;      { First (open) item in File menu }
  Item2 : Integer;      { Second (close) item in File menu }
  Item3 : Integer;      { Third (quit) item in File menu }
  B_Left : Integer;     { Status of Left Button, 0 = up, 1 = down }
  InWindow : Boolean;   { True if in the front (active) window }
  Timeouts : Integer;   { Count the number of timeouts }
  cw, ch : Integer;     { Width and Height of a character }
  bw, bh : Integer;     { Width and Height of a box around a char }
  ticks : long_integer; { Timer count at start of program }
  mouse_init : Boolean; { True if mouse has been initialized }
  menu_init : Boolean;  { True if menu has been initialized }

{$I GEMSUBS.PAS}
{$I PEEKPOKE.PAS}
{$I STRVAL.PAS}

FUNCTION min (x, y : integer) : integer;
BEGIN
  if (x < y)
  THEN min := x
  ELSE min := y;
END;

FUNCTION max (x, y : integer) : integer;
BEGIN
  if (x > y)
  THEN max := x
  ELSE max := y;
END;

PROCEDURE Update_Slides(VAR wind : Wind_Rec);
VAR
  XSize : Integer;
  YSize : Integer;

  FUNCTION Kof(X,Y:integer) : integer;
  { Returns X div Y, normalized to the range 0-1000,
    excess values are 'clipped' to the endpoints of the range }
  VAR
    Ftemp1 : real;
    Ftemp2 : real;
    Itemp : Integer;
  BEGIN
    { These calculations are done this way to avoid integer overflow
      and preserve decimal places. }
    IF (Y = 0) { Avoid divide by zero errors }
      THEN Kof := 0
      ELSE
        BEGIN
          Ftemp1 := X;
          Ftemp2 := Y;
```

```
          ITemp := Trunc((Ftemp1 / Ftemp2) * 1000.0);
          Kof := MAX(MIN(1000,Itemp),1);
        END;
  END;

BEGIN
  WITH wind DO
  BEGIN
    work_rect(handle,WorkX,WorkY,WorkW,WorkH);
    sys_font_size(cw,ch,bw,bh);
    LWide := WorkW div cw; { convert pixel size to character size }
    LHigh := WorkH div ch;
    { Calculate position and size of horizontal elevator }
    X_Percent := Kof(UCharNo+1,UWide);
    XSize := Kof(LWide,UWide);
    { Calculate position and size of vertical elevator }
    IF (Ended)
      THEN
        BEGIN  { Actually know length of file, so use real values }
          Y_Percent := Kof(UlineNo,Uhigh);
          YSize := Kof(LHigh,UHigh);
        END
      ELSE
        BEGIN  { Don't know length, allow one page of end room }
          Y_Percent := Kof(UlineNo,(Uhigh+Lhigh));
          YSize := Kof(LHigh,(UHigh+Lhigh));
        END;
    { Now set the elevator position and size }
    Wind_Set(handle,WF_HSlSize,XSize,0,0,0);
    Wind_Set(handle,WF_VSlSize,YSize,0,0,0);
    Wind_Set(handle,WF_HSlide,X_percent,0,0,0);
    Wind_Set(handle,WF_VSlide,Y_percent,0,0,0);
  END;
END;

FUNCTION super( sp: long_integer) : long_integer;
  GEMDOS($20);

FUNCTION Get_timer : long_integer;
VAR
  ssp : long_integer;
BEGIN
  ssp := super(0);
  Get_timer := 5*lpeek($4ba);
  ssp := super(ssp);
END;

PROCEDURE Get_String(VAR Ufd:Ufile; VAR Uline:Ubuffer;
                     VAR Ended : boolean);
{ Read a carriage return terminated string and return it with
  the carriage return replaced by null }
VAR
  i : integer;
```

```
  c : char;
BEGIN
  i := 0;
  c := chr(0);
  ended := false;
  WHILE (i < Max_Char) AND (c <> chr(13)) AND (NOT Ended) DO
  BEGIN
    c := Ufd^;
    i := i + 1;
    Uline[i] := c;
    Ended := Eof(Ufd);
    IF NOT Ended THEN get(Ufd);
  END;
  Ended := Eof(Ufd);
  IF NOT Ended THEN get(Ufd); { Skip the linefeed }
  Uline[0] := chr(i);
  If i = 0 THEN i := 1;
  Uline[i] := chr(0);
END;

PROCEDURE Init_Menu;
{ Set up the Menu.  GEM Requires all titles first, then all items
  IN ORDER within Title. }
BEGIN
  menu_init := true;
  mymenu := New_Menu(10, ' About Pager');
  mytitle := Add_MTitle(mymenu,' FILE ');
  Item1 :=   Add_MItem(mymenu,mytitle,' Open ');
  Item2 :=   Add_MItem(mymenu,mytitle,' Close ');
  Item3 :=   Add_MItem(mymenu,mytitle,' Quit ');
  Draw_Menu(mymenu);
END;

FUNCTION Match_Window(new_handle : integer) : integer;
{ Find the window record for the specified handle. Return 0 if not found }
VAR
 i, n : Integer;
BEGIN
  n := 0;
  FOR i := 1 to Max_Wind DO
    IF (Wind[i].handle = new_handle) THEN n := i;
  Match_Window := n;
END;

PROCEDURE Redraw_Text(handle,x,y,w,h:integer);
VAR
  i : integer;
  lines : integer;
  lineno : integer;
  ptr : UTPtr;
  finished : boolean;
BEGIN
  i := Match_Window(handle);
```

```
  Set_Clip(x,y,w,h);
  WITH Wind[i] DO
  BEGIN
    Work_Rect(handle,x,y,w,h);
    lines := h div ch;
    ptr := Ucurrent;
    lineno := 1;
    finished := false;
    WHILE (lineno <= lines) AND (NOT finished) DO
      BEGIN
        IF (Ptr = nil)
        THEN
          BEGIN
            IF (NOT Ended) THEN
              BEGIN
                New(ptr);
                Get_String(Ufp,Ptr^.Uline,Ended);
                Draw_String(cw*(-UCharNo),ch*lineno,Ptr^.Uline);
                Uhigh := Uhigh + 1;
                Uwide := MAX(UWide,Length(Ptr^.Uline));
                ptr^.prev := Ulast;
                Ulast^.next := ptr;
                Ulast := ptr;
                ptr^.next := nil;
                ptr := ptr^.next;
              END;
            finished := Ended;
          END
        ELSE
          BEGIN
            Draw_String(cw*(-UCharNo),ch*lineno,Ptr^.Uline);
            Ptr := Ptr^.next;
          END;
        lineno := lineno + 1;
      END;
  END;
  Update_Slides(wind[i]);
END;

FUNCTION Free_Window : integer;
{ Find an unused window. Returns 0 if none available. }
VAR
  i : Integer;
  found : Boolean;
BEGIN
  found := False;
  i := 1;
  WHILE (i < Max_wind) AND (NOT found) DO
  BEGIN
    found := NOT wind[i].InUse;
    i := i + 1;
  END;
  IF found
```

```
    THEN Free_Window := i - 1
    ELSE Free_Window := 0;
END;

PROCEDURE Make_Window(VAR wind : Wind_Rec);
 { Build the data structures for a window }
BEGIN
  WITH wind DO
  BEGIN
    InWindow := false;
    B_Left := 0;
    title := filename;
    handle := New_Window(G_All,title,0,0,0,0);
    full := true;
    InUse := true;
    UWide := 0;
    UHigh := 0;
    X_percent := 0;
    Y_percent := 0;
    ULineNo := 0;
    Ufirst := nil;
    ULast := nil;
    UCurrent := nil;
    UCharNo := 0;
    Ended := False;
  END;
END;

PROCEDURE Draw_Window(VAR wind : Wind_Rec);
 { Draw the window on the screen }
VAR
  x, y, w, h : Integer;
BEGIN
  WITH wind DO
  BEGIN
    Begin_Update;
    Hide_Mouse;
    Open_Window(handle,0,0,0,0);
    Set_Window(handle);
    Bring_To_Front(handle);
    Work_rect(handle,workx,worky,workw,workh);
    Set_Clip(workx,worky,workw,workh);
    smallx := workx;
    smally := worky;
    smallw := workw div 2;
    smallh := workh div 2;
    Update_Slides(wind);
    Show_Mouse;
    End_Update;
  END;
END;

PROCEDURE Update_window(handle : integer);
```

```
VAR
  x, y, w, h : Integer;
  x0, y0, w0, h0 : Integer;
BEGIN
  Begin_Update;
  Hide_Mouse;
  Work_Rect(handle,x0,y0,w0,h0);
  First_Rect(handle,x,y,w,h);  { Locate an area in need of update }
  WHILE (w <> 0) OR (h <> 0) DO
    BEGIN               { For each area of the window }
      Paint_Rect(x-x0,y-y0,w,h); { need to convert absolute to }
      Redraw_Text(handle,x,y,w,h);
      Next_Rect(handle,x,y,w,h); { Find another rectangle to test }
  END;
  Show_Mouse;
  End_Update;
END;

PROCEDURE prev_window(VAR wind : Wind_rec; lines : integer);
VAR
  lineno : integer;
  ptr : UTPtr;
BEGIN
  WITH wind DO
  BEGIN
    work_rect(handle,workx,worky,workw,workh);
    Paint_Rect(0,0,workw,workh);
    ptr := UCurrent;
    IF (ptr <> NIL) THEN
      WHILE (lines > 0) AND (ptr^.prev <> nil) DO
        BEGIN
          lines := lines - 1;
          ULineNo := ULineNo - 1;
          ptr := ptr^.prev;
        END;
    UCurrent := ptr;
    Update_window(handle);
  END;
END;

PROCEDURE next_window(VAR wind : Wind_rec; lines : integer);
VAR
  lineno : INTEGER;
  Ptr : UTPtr;
BEGIN
  WITH wind DO
  BEGIN
    work_rect(handle,workx,worky,workw,workh);
    Paint_Rect(0,0,workw,workh);
    lineno := 1;
    ptr := Ucurrent;
    IF (ptr <> NIL) THEN
      WHILE (lineno <= lines) AND (Ptr^.next <> nil) DO
```

```
        BEGIN
          ptr := ptr^.next;
          lineno := lineno + 1;
          ULineNo := ULineNo + 1;
        END;
    UCurrent := ptr;
    Update_Window(handle);
  END;
END;

PROCEDURE fill_window(VAR wind : Wind_rec);
VAR
  lines : INTEGER;
  lineno : INTEGER;
  Ptr : UTPtr;
BEGIN
  WITH wind DO
  BEGIN
    lines := LHigh;
    reset(Ufp,filename); { Open the file for reading }
    lineno := 1;
    WHILE (lineno <= lines) AND (NOT ended) DO
      BEGIN
        new(Ptr);
        If (UFirst = nil) THEN UFirst := Ptr;
        Ptr^.Prev := Ucurrent;
        IF (UCurrent <> Nil) THEN Ucurrent^.Next := Ptr;
        Ptr^.Next := Nil;
        UCurrent := Ptr;
        Get_String(Ufp,Ptr^.Uline,Ended);
        lineno := lineno + 1;
        UHigh := UHigh + 1;
        UWide := MAX(UWide,Length(Ptr^.Uline));
      END;
    ULast := UCurrent;
    UCurrent := UFirst;
  END;
  UPdate_Slides(wind);
END;

FUNCTION Init_Window : Boolean;
{ Attempt to create a new window and open a file.  Returns false if aborted by
  the filename dialog, or if there are no windows left }
VAR
  n : Integer;
  temp : Boolean;
  i : integer;
  trying : Boolean;
PROCEDURE IO_CHECK(flag:boolean); EXTERNAL;
FUNCTION IO_RESULT : INTEGER; EXTERNAL;
BEGIN
  n := Free_Window;  { Find a window record for this window }
  temp := n > 0;
```

```
  IF NOT temp      { No window available, so fail }
    THEN n := Do_Alert('[3][No More Windows][ OK ]',1)
         { Have a window, so look for a file spec }
    ELSE
      BEGIN
        trying := Get_In_file(pathname,filename);
        WHILE Trying DO
          BEGIN  { Try to open the specified file }
            IO_Check(false);       { We want to handle I/O problems }
            reset(wind[n].Ufp,filename);
            i := IO_Result;
            IO_check(true);
            if (i = 0)
              THEN
                BEGIN
                  temp := true;
                  trying := false;
                END
              ELSE
                BEGIN
                  i := Do_Alert('[3][Open failed!][ OK ]',1);
                  temp := Get_In_file(pathname,filename);
                  trying := temp;
                END;
          END;
      END;
  IF temp THEN  { Set up the window }
    BEGIN
      Make_Window(wind[n]);
      Draw_Window(wind[n]);
      Fill_Window(wind[n]);
    END;
  Init_Window := temp;
END;

PROCEDURE Start_up;
{ Initialize the mouse and the menu and open the first window }
VAR
  i : integer;
  x, y, w, h : Integer;
BEGIN
  { First, give user a chance to bag the program }
  i := Do_Alert(
     '[1][ File Pager | A Program by Martin Fouts ][ Ready | Cancel ]',2);
  running := (i = 1);
  pathname := 'A:*.*';
  mouse_init := false;
  menu_init := false;
  IF running THEN
    BEGIN
      Init_Menu;
      Init_Mouse;
      mouse_init := true;
```

```
      Sys_Font_Size(cw,ch,bw,bh);
      Paint_Color(White);
      running := Init_Window;
      timeouts := 0;
      ticks := Get_timer; { What time is it? }
    END;
END;

PROCEDURE Process;
{ Where the work gets done.  Handle a keyboard or message event }
VAR
  i : integer;
  message : Message_Buffer;  { These are all returned by get_event }
  key : Integer;
  bcnt : Integer;
  bstate : Integer;
  mx : Integer;
  my : Integer;
  kbd_state : Integer;
  Cur_X, Cur_Y, Cur_W, Cur_H : Integer;

  PROCEDURE Do_Message;   { Process a Message event }

    PROCEDURE Close_It(n:Integer); { Close a window }
    VAR
      windno, x0, y0, w0, h0 : Integer;
    BEGIN
      Close_Window(n);
      Delete_Window(n);
      Set_Window(Front_Window);
      Work_Rect(Front_Window, x0, y0, w0, h0);
      Set_Clip(x0, y0, w0, h0);
      windno := Match_Window(n);
      WITH Wind[windno] DO
        BEGIN
          InUse := False;
          Close(Ufp);
          IF (UFirst <> Nil) THEN
            WHILE (Ufirst <> Nil) DO
              BEGIN
                UCurrent := Ufirst^.Next;
                Dispose(Ufirst);
                UFirst := UCurrent;
              END;
        END;
    END;

    PROCEDURE Do_Selection; { Process a menu selection event }

    VAR
      temp : integer;

      PROCEDURE Menu_Open; { File Menu Open Item selected }
```

```
  VAR
    temp : boolean;
  BEGIN
    temp := Init_Window;   { Open A Window }
  END;

  PROCEDURE Menu_Close; { File Menu Close Item selected }
  BEGIN
    Close_It(Front_Window);
  END;

  PROCEDURE Menu_Quit;  { File Menu Quit Item selected }
  VAR                   { Use an alert to verify the Quit }
    temp : integer;
  BEGIN
    temp :=
      Do_Alert('[3][ Do you really want to Quit? ][ Quit | Continue ]',2);
      running := (temp <> 1);  { Return FALSE to Quit! }
  END;

BEGIN
  Menu_Normal(mymenu,message[3]); { Turn off menu highlight }
  IF (message[3] = 3) THEN  { Special case, the INFO box }
    temp := Do_Alert('[1][A Sample Program][ OK ]',0)
  ELSE IF (message[4] = item1) THEN Menu_Open
  ELSE IF (message[4] = item2) THEN Menu_Close
  ELSE IF (message[4] = item3) THEN Menu_Quit;
END; { Procedure Do_Selection }

PROCEDURE Do_Redraw;  { Handle a redraw message }
VAR
 temp, x, y, w, h : Integer;
 x0, y0, w0, h0 : Integer;
BEGIN
  Begin_Update;        { Prevent interference }
  Hide_Mouse;          { Keep the mouse out of the way }
  temp := Get_Window;  { Remember the active window }
  Set_Window(message[3]); { Make the updated window active }
  Work_Rect(message[3],x0,y0,w0,h0); { Find out about it }
  Set_Clip(x0,y0,w0,h0);
  First_Rect(message[3],x,y,w,h);  { Locate an area in need of update }
  WHILE (w <> 0) OR (h <> 0) DO
    BEGIN               { For each area of the window }
      IF Rect_Intersect(message[4],message[5],message[6],message[7],
                        x,y,w,h) THEN
        BEGIN           { Find the area which must be updated and do so }
          Paint_Rect(x-x0,y-y0,w,h); { need to convert absolute to }
          Redraw_Text(message[3],x,y,w,h);
        END;                          { relitive coordinates for Paint }
      Next_Rect(message[3],x,y,w,h); { Find another rectangle to test }
    END;
  Show_Mouse;           { Make the mouse active again }
  End_Update;           { Allow GEM activity again }
```

```
  Set_Window(temp);     { Restore the active window }
  Work_Rect(temp,x0,y0,w0,h0);
  Set_Clip(x0,y0,w0,h0); { And set it up as the i/o port }
END;

PROCEDURE Do_Newtop;     { Bring a new window to the top }
BEGIN
  Bring_To_Front(message[3]);
  Set_Window(message[3]);
END;

PROCEDURE Do_Close;       { Close a window (and it's file) }
BEGIN
  Close_It(message[3]);
END;

PROCEDURE Do_Fulled;      { Handle a click on the full box }
var
  n, x, y, w, h : integer;
BEGIN
  n := Match_Window(message[3]);  { Find the window }
  WITH wind[n] DO
    BEGIN
      IF Wind[n].Full     { If already full then shrink the window }
      THEN
        BEGIN
          Set_WSize(handle, smallx, smally, smallw, smallh);
          windx := smallx;
          windy := smally;
          Windw := smallw;
          windh := smallh;
        END
      ELSE
        BEGIN                   { If small make largest size possible }
          Wind_Get(handle,WF_FullXYWH,windx,windy,windw,windh);
          Set_Wsize(handle,windx,windy,windw,windh);
        END;
      Full := NOT Full;    { Swap the full mode }
      Update_Slides(wind[n]);
    END;
END;

PROCEDURE Do_Arrowed;      { Handle an arrow being clicked }
VAR
  n : integer;

  PROCEDURE Page_up;
  BEGIN
    prev_window(wind[n],wind[n].Lhigh);
  END;

  PROCEDURE Page_down;
  BEGIN
```

```
  next_window(wind[n],wind[n].Lhigh);
END;

PROCEDURE Row_up;
BEGIN
  WITH wind[n] DO
    BEGIN
      if (Ucurrent <> nil) THEN
        if (Ucurrent^.prev <> nil) THEN
          BEGIN
            Ucurrent := Ucurrent^.prev;
            update_window(handle);
            ULineno := ULineno - 1;
          END;
    END;
END;

PROCEDURE Row_down;
BEGIN
  WITH wind[n] DO
    BEGIN
      if (Ucurrent <> nil) THEN
        if (Ucurrent^.next <> nil) THEN
          BEGIN
            Ucurrent := Ucurrent^.next;
            update_window(handle);
            ULineno := ULineno + 1;
          END;
    END;
END;

PROCEDURE Page_left;
BEGIN
  WITH wind[n] DO
    BEGIN
      if (UCharNo >= Lwide)
        THEN UCharNo := UCharNo - Lwide
        ELSE UCharNo := 1;
      update_window(handle);
    END;
END;

PROCEDURE Page_right;
BEGIN
  WITH wind[n] DO
    BEGIN
      if (wind[n].UCharNo <= (Uwide - Lwide - 2))
        THEN UCharNo := UCharNo + LWide
        ELSE UcharNo := Uwide - Lwide - 2;
      update_window(handle);
    END;
END;
```

```
  PROCEDURE Column_left;
  BEGIN
    if (wind[n].UCharNo > 0 ) THEN
      BEGIN
        wind[n].UCharNo := wind[n].UCharNo - 1;
        update_window(wind[n].handle);
      END;
  END;

  PROCEDURE Column_right;
  BEGIN
    WITH wind[n] DO
      BEGIN
        if (UCharNo <= (Uwide - Lwide)) THEN
          BEGIN
            UCharNo := UCharNo + 1;
            update_window(handle);
          END;
      END;
  END;

  PROCEDURE No_move;
  BEGIN
  END;

BEGIN
  n := Match_window(message[3]);
  CASE message[4] OF
    0: Page_up;
    1: Page_down;
    2: Row_up;
    3: Row_down;
    4: Page_left;
    5: Page_right;
    6: Column_left;
    7: Column_right;
    OTHERWISE: No_move;
  END;
END;

FUNCTION NofK(X,Y:integer) : integer;
VAR
  temp1, temp2 : real;
BEGIN
  temp1 := X;
  temp1 := temp1 / 1000.0;
  temp2 := Y;
  NofK := trunc(temp1*temp2) - 1;
END;

PROCEDURE Do_Hor;  { Horizontal slider movement }
VAR
  n : integer;
```

```
BEGIN
  n := Match_Window(message[3]);
  WITH wind[n] DO
    BEGIN
      UCharno := NofK(message[4],Uwide);
      update_window(handle);
    END;
END;

PROCEDURE Do_Ver;  { Vertical slider movement }
VAR
  n : integer;
  newline : integer;
BEGIN
  n := Match_Window(message[3]);
  WITH wind[n] DO
    BEGIN
      newline := NofK(message[4],Uhigh);
      IF (newline < Ulineno)
        THEN prev_window(wind[n],Ulineno-newline)
        ELSE
          IF (newline > Ulineno)
            THEN next_window(wind[n],newline-Ulineno);
    END;
END;

PROCEDURE Do_Size;
{ Change the size of the current window, and remember the new size }
VAR
  n : integer;
BEGIN
  n := Match_Window(message[3]);
  WITH wind[n] DO
    BEGIN
      Set_Wsize(handle,message[4],message[5],message[6],message[7]);
      smallx := message[4];
      smally := message[5];
      smallw := message[6];
      smallh := message[7];
      windx := smallx;
      windy := smally;
      windw := smallw;
      windh := smallh;
      Update_Slides(wind[n]);
    END;
END;

PROCEDURE Do_Move;
{ Move the current window to a new place }
VAR
  n : integer;
BEGIN
  n := Match_Window(message[3]);
```

```
  WITH wind[n] DO
    BEGIN
      Set_Wsize(handle,message[4],message[5],message[6],message[7]);
      smallx := message[4];
      smally := message[5];
      smallw := message[6];
      smallh := message[7];
      windx := smallx;
      windy := smally;
      windw := smallw;
      windh := smallh;
      Update_Slides(wind[n]);
    END;
END;

PROCEDURE Do_Nothing;
BEGIN
END;

BEGIN
  CASE message[0] of
    MN_Selected : Do_Selection;
    WM_Redraw   : Do_Redraw;
    WM_Topped   : Do_Newtop;
    WM_Closed   : Do_Close;
    WM_Fulled   : Do_Fulled;
    WM_Arrowed  : Do_Arrowed;
    WM_HSlid    : Do_Hor;
    WM_Vslid    : Do_Ver;
    WM_Sized    : Do_Size;
    WM_Moved    : Do_move;
    Otherwise   : Do_Nothing;
  END;
END;

PROCEDURE Do_Keyboard;
VAR
  temp : integer;
BEGIN
  IF key = $06200 THEN { HELP Key pushed }
    temp := Do_Alert('[1][ I can''t fix your problems ][ Continue ]',1);
  IF key = $06100 THEN { UNDO Key pushed }
  BEGIN
    temp :=
      Do_Alert('[3][ Do you really want to Quit? ][ Quit | Continue ]',2);
      running := (temp <> 1);  { Return FALSE to Quit! }
  END;
END;

PROCEDURE New_Mouse(f:Boolean; n:Integer);
VAR
  i : Integer;
BEGIN
```

```
      IF f THEN i := 1 ELSE i := 0;
      i := i + (n * 2);
      CASE i OF
        0: Set_Mouse(M_Point_Hand);
        1: Set_Mouse(M_Outln_Cross);
        2: Set_Mouse(M_Arrow);
        3: Set_Mouse(M_Thin_Cross);
        OtherWise: Set_Mouse(M_Bee);
      END;
    END;

    PROCEDURE Do_Button;
    { Mostly for form, change the cursor when the left Button changes }
    BEGIN
      B_Left := 1 - B_Left;
      New_Mouse(InWindow,B_Left);
    END;

    PROCEDURE Do_Rect1;
    { Mostly for form, use the cursor shape to track if the mouse is in
      or out of the active window }
    BEGIN
      InWindow := Not InWindow;
      New_Mouse(InWindow,B_Left);
    END;

    PROCEDURE Do_Timer;
    { This one's just here to fill out the template }
    VAR
      i : integer;
      r : real;
      message : String;
      rval : String;
    BEGIN
      r := (Get_Timer - Ticks) / 1000.0; { Convert to seconds elapsed }
      Str(r,rval);
      message := Concat('[1][ Program run | ', rval,
                        ' | seconds ][ Continue ]');
      i := Do_Alert(message,1);
    END;

BEGIN  { Wait for a GEM message or a keyboard event }
  Work_Rect(Front_Window,Cur_X,Cur_Y,Cur_W,Cur_H);
  i := Get_Event(E_Keyboard|E_Message|E_Button|E_Mrect_1|E_Timer,
                 1, B_Left, 1,  { Wait for left button Change }
                 Delay,         { Wait for timeout }
                 InWindow,Cur_X,Cur_Y,Cur_W,Cur_H, { Front Window border }
                 False,0,0,0,0, { No Rectangle 2 }
                 message,       { Returns message if E_Message }
                 key,           { Returns key pressed if E_Keyboard }
                 bcnt,          { Returns button count if E_Button }
                 bstate,        { Returns button status if E_Button }
                 mx, my,        { Mouse position if E_Button }
```

```
                kbd_state);    { Keyboard state if E_Keyboard }

  IF (i & E_Message) <> 0  THEN Do_Message;
  IF (i & E_Keyboard) <> 0 THEN Do_Keyboard;
  IF (i & E_Timer) <> 0 THEN Do_Timer;
  IF (i & E_MRect_1) <> 0 THEN Do_Rect1;
  IF (i & E_Button) <> 0 THEN Do_Button;

END; { Procedure Process }

PROCEDURE Clean_up;
VAR
  i : integer;
BEGIN
  FOR I := 1 to Max_wind DO
    IF wind[i].InUse THEN
      BEGIN
        Close_Window(wind[i].handle);
        Delete_Window(wind[i].handle);
      END;
  IF mouse_init THEN Set_Mouse(M_Arrow);
  IF menu_init THEN
    BEGIN
      Erase_Menu(mymenu);
      Delete_Menu(mymenu);
    END;
  Exit_Gem;
END;

PROCEDURE Go_For_It; { This is where it happens, Jack }
BEGIN
  running := false;
  Start_up;
  While running do Process;
  Clean_up;
END;

BEGIN { template }
  IF Init_Gem >= 0 THEN Go_For_It;
END. { PROGRAM template }


From 8630006943415671564
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,74394dab008b350e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-27 12:12:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!UMich-MTS.MAILNET!Howard_Chu
From: Howard_Chu@UMich-MTS.MAILNET
Newsgroups: net.micro.atari16
Subject: ARC sources
Message-ID: <1409470@UMich-MTS.Mailnet>
```

Date: Sun, 27-Jul-86 15:12:44 EDT
Article-I.D.: UMich-MT.1409470
Posted: Sun Jul 27 15:12:44 1986
Date-Received: Sun, 27-Jul-86 21:43:19 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

This is really to James Turner, but I don't happen to have his
exact address handy... Sorry.

Well, I heard you're working on Unix & ST ports of the ARC program,
and I was wondering how it's been coming along. I've been trying to
do the same thing myself to a unix 4.2bsd system. I've got XARC
to almost completely compile, but there are 3 routines that the
source looks for that I really haven't figured out yet...
(I've got descriptions for 2 of them... I'll try to write my own
work around, eventually...) These are makefnam, filedir, and
setstamp. What have you been doing with these?

Howard Chu
Howard_Chu%UMich-MTS.Mailnet@MIT-Multics.ARPA
hyc@umix.cc.umich.edu

Every rule has an exception - except this one.

From 7947611455037645331
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff25f6b4bae6ebee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 07:57:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!mwtilden
From: mwtilden@watmath.UUCP (M.W. Tilden, Hardware)
Newsgroups: net.micro.atari16
Subject: Need Schematic Diagram Package for ST!!!
Message-ID: <427@watmath.UUCP>
Date: Mon, 28-Jul-86 10:57:05 EDT
Article-I.D.: watmath.427
Posted: Mon Jul 28 10:57:05 1986
Date-Received: Tue, 29-Jul-86 00:32:33 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 36

hi.

Gentlemen. We are in need of a quality schematic diagram
package for the 1040 ST. We have seen 'Graphic Artist' already
and found it lacking. We need something along the 'Futurenet'
or 'Scema' style package and component libraries. (IBM? Don't make me barf!)

Has anyone heard of anything currently avaliable?

Has anyone heard of anything on the way?

Let us know. Thanx.

--

Mark Tilden
Hardware Design Lab. M.F.C.F
University of Waterloo.
Canada, N2L-3G1

work: (519)-885-1211 ext.2457, home: 888-7111
UUCP: ..!{utzoo,decvax,ihnp4,allegra}!watmath!mwtilden
ARPA: mwtilden%watmath%waterloo.csnet@csnet-relay.arpa
CSNET: mwtilden%watmath@waterloo.CSNET
(so send me mail, why don'cha?)

"MY OPINIONS, YOU HEAR!? MINE! MINE! MINE! MINE! MINE! AH HAHAHAHAHAHAHAHAHA!!"

From 971136214548876353
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3864345ac7ced3a5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 10:08:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!ut-sally!husc6!harvard!panda!genrad!decvax!bellcore!
ulysses!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Hmmmm...
Message-ID: <860728130829.00000894.ABQU.AA@UMass>
Date: Mon, 28-Jul-86 13:08:29 EDT
Article-I.D.: UMass.860728130829.00000894.ABQU.AA
Posted: Mon Jul 28 13:08:29 1986
Date-Received: Thu, 31-Jul-86 02:52:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Seems INTERNET is down, I oddles of bounceb-backs from there.

Anyway, first of all, does anybody still read this list? I get more
ST help from Info-Pascal and Info-68k than I do from here? Anybody
awake out there? So far I have asked a couple questions, and no serious
replies. Tsk tsk tsk.

Well, I have another one. I just learned a rumor than the SUPRA hard
drive is supposed to be MUCH faster than the Atari Hard drive. I am
planning to buy a hard drive, now if it is true that the SUPRA is faster,
I would not mind paying a couple extra dollars for a faster drive.
Any help out there, please????

BTW, any help on my previous questions on OSS Personal Pascal or
FONTLOADER?????

Rick
FLASH%UMASS.BITNET

From -2706345896549337958
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67b3b67bc638d3c0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 11:03:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: terminal emulator with 132 columns
Message-ID: <402@atari.UUcp>
Date: Mon, 28-Jul-86 14:03:31 EDT
Article-I.D.: atari.402
Posted: Mon Jul 28 14:03:31 1986
Date-Received: Tue, 29-Jul-86 01:29:04 EDT
References: <8607251323.AA05208@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 25

In article <8607251323.AA05208@ucbvax.Berkeley.EDU>, K538915@CZHRZU1A.BITNET
writes:

> Neil, its awfully frustrating reading about all the PD programs you have
> on the Atari BBS and having no possibility at getting them (hint, hint).

So what would you like me to do about it? That's why we have the BBS -- to
distribute the software. What alternatives are there? We'd like to go with
a national service (i.e. CompuServe, GENIE) but most of the software is there
already so obvoiusly you can't afford that. And we don't want to get into
the business of duplicating disks of the stuff (and having to support it).

--->Neil
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 1553853530259845634
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 11:15:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Abacus books, Mark Williams C
Message-ID: <403@atari.UUcp>
Date: Mon, 28-Jul-86 14:15:37 EDT
Article-I.D.: atari.403
Posted: Mon Jul 28 14:15:37 1986
Date-Received: Tue, 29-Jul-86 01:29:20 EDT
References: <1532@cwruecmp.UUCP> <397@atari.UUcp> <84@uwmacc.UUCP>
Organization: Atari Corp/Mktg
Lines: 40
Summary:]

In article <84@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:

>   If the boys at Atari feel the Abacus information is often
> inaccurate (which, no doubt, is true), then why don't you produce
> some decent documentation yourselves at a reasonable price. (Sorry,
> but I don't consider paying $300.00 for some books and a so-so C
> compiler any great shakes. Very IBMish...naughty-naughty.)
>   The Abacus books are flawed, but they at least give us a starting
> point to work from...plus they are only $20 each...
>

Which is why we've been working on a reference book for commercial
publication. Hope to get it out by Xmas.

>   One more complaint: I paid $900 for a machine that I really like,
> but it came with a comic book for documentation. 6 monthes after I
> have my machine, I find out (thru the net, so thank you to all those
> on the net) that it has all sorts of little interesting features like:
> hitting the right mouse button to grab something from an inactive window,
> hitting ALT-HELP at anytime to produce a screen dump, etc.

Page 16 of the 520ST user manual talks about the ATL HELP screen dump.

The right mouse button trick is an accidental side-effect of the code in the OS. You folks on the net knew about it before we did! If not for groups like the net, all the little goodies in the computer (which we couldn't hope to document) would ever be known. Thanks!
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -7842814462800386267
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,190cfb50e8a85fb1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 11:41:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!columbia!caip!cbmvax!bpa!burdvax!psuvax1!psuvm.bitnet!zsr
From: ZSR@PSUVM.BITNET
Newsgroups: net.micro.atari16
Subject: C. Itoh Printer Driver
Message-ID: <6759ZSR@PSUVM>
Date: Mon, 28-Jul-86 14:41:38 EDT
Article-I.D.: PSUVM.6759ZSR
Posted: Mon Jul 28 14:41:38 1986
Date-Received: Wed, 30-Jul-86 00:47:05 EDT
Expires: Wed, 27-Aug-86 01:00:00 EDT
Lines: 21

I just purchased my Atari 1040 ST five days ago and already I love it. There is some trouble in Paradise, however. My printer is a C. Itoh Prowriter A.P. Plus (similar to some of C. Itoh's Apple printers) that does not emulate an Epson. This means that I cannot use my printer for any kind of graphics such as with DEGAS, VIP Professional, or the regular Print Screen option of the desktop. Is there anyone out there who has written or can get ahold of a printer driver for the C. Itoh Prowriter, either that becomes a part of the GEM desktop (for print screen & VIP Professional) and/or for DEGAS? Unfortunatly, I don't have a modem but I do have Hippo-C (light a candle for me), if there is C or 68k source code available. Thank you to any kind souls

who can help me with this dillemma.

Christopher Johnson
(ZSR @ PSUVM)
61 Wilson Street
West Lawn, PA 19609

From 2443046092752826801
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 14:31:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!uwvax!uwmacc!oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16
Subject: Re: Abacus books...
Message-ID: <91@uwmacc.UUCP>
Date: Mon, 28-Jul-86 17:31:49 EDT
Article-I.D.: uwmacc.91
Posted: Mon Jul 28 17:31:49 1986
Date-Received: Mon, 28-Jul-86 21:44:29 EDT
References: <1532@cwruecmp.UUCP> <1491@rsch.wisc.edu>
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 43

In article <1491@rsch.wisc.edu> dyer@atari.UUcp (Landon Dyer) writes:
>
>The quality of information in the Abacus books is suprisingly
>poor. They contain an enourmous amount of misinformation and
>stuff that's just plain /wrong/. I would stay away from these
>books, like the plague. The consensus in Atari's software
>engineering department is that they're not worth much.
>
   As far as I've seen, there are two (maybe 2.5) sources of documentation for the ST. One is Abacus, the other is the so-called Developer's Kit (the extra .5 is Tim Oren's useful and accurate PRO*GEM tutorial). For some of us, paying $300 for some reportedly ill-organized documentation which is bundled with some stuff we neither want nor would use is *not* a valid option (which of course leaves us with Abacus). If the people at Atari are really concerned about the quality of existing documentation, perhaps they should think about unbundling the Developer's Kit documentation. Considering it costs about $60 for the basic Abacus set (Internals, 68000, and GEM), I'd think some accessible "official" documentation would not only help out those of us who have already purchased STs, but would make the machine(s) more attractive to potential buyers and developers (who would, in turn, produce more software, which would sell more machines, etc).
   And as for the Abacus books, yes, they are lacking in some respects. The

information is sketchy in some important places, and they make the mistake of assuming that we all own the "Developer's Kit". However, they contain a significant amount of basic information (which is, amazingly, not provided with the machine), as well as examples of working, functional code. The latest book, Tricks and Tips, contains C or ASM source code for a ramdisk, a screen dump utility (mono and color), and a print spooler. It also provides BASIC listings which will generate both the executable files and resource files of the aforementioned programs, which allows those who don't have the necessary tools (C compiler and/or assembler and/or resource file generator) a chance to join the fun. With all that and more for a mere $20, does that sound like something to "avoid like the plague"?

Anyway, I've heard that DRI is cleaning up the documentation. Are there any current plans to sell that separately?

--
- Joel Plutchak
uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
ARPA: uwvax!uwmacc!oyster@rsch.wisc.edu

Can you say "opinion"? I *knew* you could!

From 4792008335221465080
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 15:03:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Abacus books, Mark Williams C
Message-ID: <96100017@unido.UUCP>
Date: Mon, 28-Jul-86 18:03:00 EDT
Article-I.D.: unido.96100017
Posted: Mon Jul 28 18:03:00 1986
Date-Received: Tue, 29-Jul-86 03:06:35 EDT
References: <397@atari.UUCP>
Sender: notes@unido.UUCP
Lines: 27
Nf-ID: #R:atari:-39700:unido:96100017:000:1285
Nf-From: unido!uh Jul 28 23:03:00 1986

Another hint:

The Abacus books are English translations of books written by one of the biggest German Atari Dealers (Data Becker in Duesseldorf; Becker also imports fine American cars to Germany). Many German developers think that Data Becker has better connections to Atari in America than the not even small German subsidary of Atari. The informations contained in the books are mostly from the developers documentation, only in a much better order and not so much PC specific. So think:

1. Developers documentation in English
2. German Data Becker books (1. Translation)
3. English Abacus books (2. Translation)
So don't be suprised about errors. There are many chances to make some. But:
Data Becker also publishes a magazine in which (the only in Germany) Mr. Stumpf
(German Atari leader) and Jack Tramiel himself are interviewed at Tramiels
home at a nice American (Canadian??) lake (including pictures, very nice :-)).
So we have to ask: Why are those Abacus books not better in their quality???
(Neil?)

Conclusion: The ST is great, but Atari is not even better than any other
firm in this business.

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@unido.uucp, uh@unido.bitnet

From 4068291499109158621
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a954da44b57f6909
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-28 16:50:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!lll-crg!seismo!cmcl2!philabs!sbcs!
helm!dave
From: dave@helm.UUCP (David Goldblatt)
Newsgroups: net.micro.atari16
Subject: Re: Mac software on ST?
Message-ID: <551@helm.UUCP>
Date: Mon, 28-Jul-86 19:50:38 EDT
Article-I.D.: helm.551
Posted: Mon Jul 28 19:50:38 1986
Date-Received: Sat, 9-Aug-86 01:35:27 EDT
References: <860724-104707-2688@Xerox>
Reply-To: dave@helm.UUCP (David Goldblatt)
Organization: helm, Farmingdale, Long Island, NY
Lines: 35
Keywords: Mac, ST, combination thereof

In article <860724-104707-2688@Xerox> Ng.PA@Xerox.COM writes:
>
>   On the July issue of Computer Current, I leaned there is a $300
>module that plugs into the cartidge port of the ST allows it to run
>almost all the Macintosh software. Could someone out there in the
>netland give me more infor on this?
>   Could someone also give me a brief review on the 1040 ST developer
>package?
>
>
>Thanks,
>

>Nelson

There was a blurb in either ANTIC, ANALOG, or Byte a couple of months ago describing that David Small [of magazine fame, including Outpost:Atari in the now-defunct Creative Computing] had developed a box which let a ST run Mac software, including graphics. There was only one little problem in this: to make one's ST think it's a Macintosh, it must BE a Macintosh - simple brainwashing doesn't work; you need a new brain. Basically, what he did was develop a DMA port device which amongst other things, contained the Macintosh ROMs. That's all well and good, until you recall the 'unimportant' fact that the Macintosh ROMs are copyrighted.. Last I heard, Small was waiting for some sort of response from Apple as to whether he could market the device, either by including ROMs purchased from Apple, or having the buyer purchase them from an Apple dealer. It SOUNDED good, but it wouldn't be the first time someon failed to market something along those lines..

-dg-

...philabs!sbcs!helm!dave
...!trixie!polyof!helm!dave

"Just another BITNETter..."

From 7497961699840308736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fb584d4033eee6eb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 05:11:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!nbires!hao!hplabs!pyramid!gould9!ncr-sd!ncrcae!wingard
From: wingard@ncrcae.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Music Studio song file format query
Message-ID: <2319@ncrcae.UUCP>
Date: Thu, 17-Jul-86 08:11:40 EDT
Article-I.D.: ncrcae.2319
Posted: Thu Jul 17 08:11:40 1986
Date-Received: Fri, 18-Jul-86 05:49:22 EDT
References: <MDC-SMB-9K5QA@OFFICE-1>
Reply-To: wingard@ncrcae.UUCP (Steve Wingard)
Organization: NCR Corp, E&M-Columbia, W Columbia, SC
Lines: 4

I'd be very interested in this information too... Anybody heard the rumor that Music Studio files for different machines (ST vs. Amiga vs. PC) are totally incompatible with each other? Can anyone confirm or deny this?

From -5362706178695531139

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebdc7c77aa8c8540,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 06:08:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!topaz!nike!ucbcad!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: re: 520 and BLITTER
Message-ID: <8607171308.AA00710@ucbvax.Berkeley.EDU>
Date: Thu, 17-Jul-86 09:08:48 EDT
Article-I.D.: ucbvax.8607171308.AA00710
Posted: Thu Jul 17 09:08:48 1986
Date-Received: Fri, 18-Jul-86 01:10:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

In-Reply-To: Your message of 16 Jul 1986 1201-Edt (Wednesday).

>Shudder, horrors] You don't want to CUT THE PINS OFF the 68000, just
>unsolder them carefully, remove it, and solder in the socket in its plae.

John, I WANT to!
Your discription about removing a 64 pin IC was quite well, but...
I did that several times, mostly with success. But I also screwed up
a pcb by fighting to long with it. Especialy when you've got very small
pin wholes on double sided pcb's it happens that you can't suck out the
solder properly.
The pcb is very expensive, the price of the CPU is 30$ or less. For the
unexperienced it might be less dangerous just to cut the pins and
solder them out one by one. Even for this method you need something
to suck the wholes free. And what do you do with your unsoldered CPU?
You can't clean the pins properly, so they wont fit well in the socket.

By the way, the blitter chip wont need new software? It just uses the
traps? When will it be available?

And finally, I know there are special clip-on sockets, where there is
no need to remove the CPU. And why don't you solder the Blitter chip
directly on the CPU?

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -8033542638280483126
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc0e20a6a90355b4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 08:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET

Newsgroups: net.micro.atari16
Subject: BLITTER AND 520
Message-ID: <8607171835.AA05912@ucbvax.Berkeley.EDU>
Date: Thu, 17-Jul-86 11:13:00 EDT
Article-I.D.: ucbvax.8607171835.AA05912
Posted: Thu Jul 17 11:13:00 1986
Date-Received: Fri, 18-Jul-86 04:39:18 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

The blitter will supposedly come with new ROMs. I suspect that there
will be more than just the blitter chip and the socket for the 68000 on
the blitter board. By the way, this thing is also expected to provide
half-toning which I had always thought was bordering white lines with grey.
The idea behind this is that your eye sees less contrast between any element
of the line and the surrounding background and bloops over the jaggles on
diiagonal lines. The result is the illusion of a perfect line. My point is
that if this is to work on monochrome systems then some modification of the
viideo circuitry is necessary to get grey as well as black and white. Perhaps
the half-toning will only be supported on the color systems. Or it will
require a little bit more than sticking it in the 68000 socket to make it go.
I guess we just need more technical informationn on the blitter's projected
capabilities and installation scheme. But there appears to be good grounds
for remaining optimistic about installing one in the 520st. Could any
one at ATARI (neil?) please shed some light on any ofthese points?

peter lorraine
qbzj@cornella.bitnet

From 3643052334973224693
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ee8e1e3b985d3a0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 09:37:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Interrupt service routines
Message-ID: <389@atari.UUcp>
Date: Thu, 17-Jul-86 12:37:41 EDT
Article-I.D.: atari.389
Posted: Thu Jul 17 12:37:41 1986
Date-Received: Fri, 18-Jul-86 05:58:24 EDT
References: <MDC-SMB-9K5PJ@OFFICE-1>
Organization: Atari Corp., Sunnyvale CA
Lines: 45

In article <MDC-SMB-9K5PJ@OFFICE-1>, SMB.MDC@OFFICE-1.ARPA writes:
> Is there a way to replace the MFP interrupt service routines with a user
> written version? I've been looking for a table which contains the address of
> the ISRs, but haven't been able to locate it.

68901 interrupts are based at 0x100:

Vector	Function
0x100	(disabled) Centronics BUSY
0x104	(disabled) RS232 Carrier Detect
0x108	(disabled) RS232 Clear-To-Send
0x10c	(disabled) 68901 timer D (RS232 baud rate)
0x110	(disabled) GPU operation done
0x114	200hz System clock (timer C)
0x118	Keyboard/MIDI (wire-ORed interrupts from both 6850s)
0x11c	(disabled) Floppy/hard disk controller
0x120	(disabled) Horizontal blanking counter (timer B)
0x124	RS232 transmit error
0x128	RS232 transmit buffer emtpy
0x12c	RS232 receive error
0x130	RS232 receive buffer full
0x134	(disabled) 68901 timer A
0x138	(disabled) RS232 ring indicator
0x13c	(disabled) Polled monitor type

> Is the BIOS in a different location in the 1040ST? I have the ST
> internals book and the BIOS listing doesn't seem to be correct for my
> computer.

The ROMs for the 520ST and the 1040ST are identical. The BIOS listing
you have is from the first RAM-loaded release of the system, not from
the later ROMs. The listing is useful in that it gives examples (e.g.
how to twiddle the ST's hardware), but DON'T expect the addresses or
code in the ROM to match your listing.

-Landon
--

-Landon Dyer, Atari Corp.   {lll-lcc,lll-crg!vecpyr}!atari!dyer

/---\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\---/

From -4475365583220442272
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29b1dda3d23f95f0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 09:46:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!andromeda!topaz!ll-xn!mit-amt!mit-eddie!genrad!decvax!tektronix!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP
Newsgroups: net.micro.atari16

Subject: Re: battery backup for clock
Message-ID: <185@molihp.UUCP>
Date: Thu, 17-Jul-86 12:46:50 EDT
Article-I.D.: molihp.185
Posted: Thu Jul 17 12:46:50 1986
Date-Received: Sat, 19-Jul-86 08:25:52 EDT
References: <1517@alvin.mcnc.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 42

In article <1517@alvin.mcnc.UUCP> ravi@mcnc.UUCP (Ravi Subrahmanyan) writes:
>
>I'd like to have some information on a battery backup for the internal
>clock in the 520 ST. I know someone posted a scheme for doing this
>many months back; has anyone tried anything of the sort? With
>success? I would appreciate hearing about any experiences anyone may
>have had concerning this. Please reply directly to me at the address
>given below, I'll summarise to the net if I get something. Thanks,
>

  I have been playing with ways to keep the time from being destroyed on my ST. I never turn my machine off, so I don't need battery backup, but I do want to get up after a reset without having to set the time again and again. A major culprit is the control panel desk accessory, which sets the date to noon, May 17, 1985 whether there is a time still valid in the keyboard clock or not. When I tried doing without the control panel, my time was fine as long as I had a calendar desk accessory on the boot disk. I assume what is happening is that the keyboard clock is undisturbed over a reboot cycle, and the desk accessory is setting the TOS time to that in the keyboard clock. When a power cycle is done, or when that calendar is not around, the time comes up as noon, Nov 20, 1985.

  Anyway, the control panel is 15K and doesn't work the way it should, so I was more than happy to turf it and solve the problems of not having it. One thing was that I had to write a (one line!) program to set the printer driver to expect an Epson printer for screen dumps. This preference is recorded in the desktop.inf file, but is ignored without the control panel. Curiously, the mouse and keyboard sensitivities ARE used without the control panel. To set the time, you also need a program which sets the keyboard clock time; until you power off again, your time will be fine.

  BTW, a followup from Anees Munshi said he cut the RESET line going to the keyboard. I *think* that line is only pulled low on power-up, and the reset is a non-maskable interrupt. That would explain why the time can survive a reboot but not a power-up with my method.

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
     #
My thoughts are my own, and are void where prohibited by law.
     #

"There was something fishy about the butler. I think he was a
    #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
    #

From -8313275023674507599
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 10:48:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!decvax!tektronix!
tekgen!tekcbi!garya
From: garya@tekcbi.UUCP (Gary Andresen)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <855@tekcbi.UUCP>
Date: Thu, 17-Jul-86 13:48:02 EDT
Article-I.D.: tekcbi.855
Posted: Thu Jul 17 13:48:02 1986
Date-Received: Sat, 19-Jul-86 03:48:21 EDT
References: <157@cci632.UUCP> <351@apollo.mntgfx.UUCP> <226@cci632.UUCP>
Reply-To: garya@tekcbi.UUCP (Gary Andresen)
Distribution: net
Organization: Tektronix, Inc., Beaverton, OR.
Lines: 47

I have purchased the ST --> SCSI host adapter and driver software from
Supra ~$200. I was able to connect an Adaptec SC4000 SCSI disk controller
and a Micropolis 1304 (40 meg) hard drive . Guess what ....
IT worked first time !!

The Supra will work with the Xebec controllers also, I don't remember the
model numbers, but call Supra and they will tell you.

The software that comes with the package contains a head parking program,
a formating program (this program will look for bad sectors and map them out
if you select this option.), plus a boot program. The documentation
covers building a hard disk system, ex. wiring , power supply requirments,
placement of boards and so on. And of course how to get it
all running.

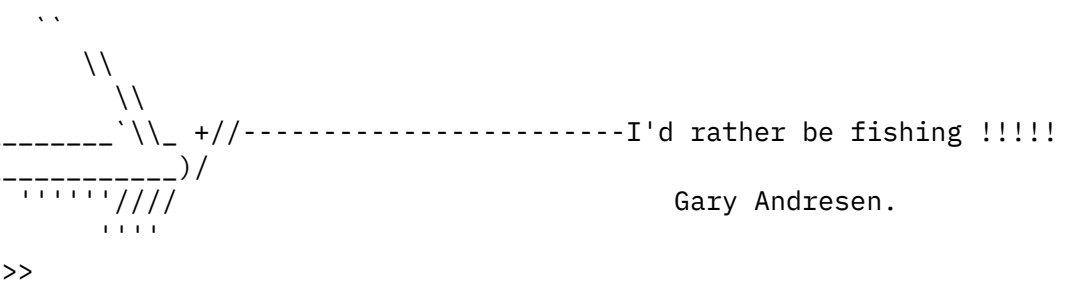
The Atari is limited to ~ 16 Meg partitions so I have two 15 meg and a 12
meg partitions. These are hard drive icons C D E.

The ST will not boot off the hard disk, but you can put a Auto folder on
your boot disks that has a program to mount the hard disk. This takes
approx. the same amount of time as normal boot, but the hard disk is up and
running. Its pretty wierd seeing 5 drive icons on the screen but the hard
drive I am running is bery bery fast. The drive has a 6ms track to track
seek and 30 ms average, and I am running a 4 us step.

Needless to say this a Hell of a system.

I am very pleased with the Supra adapter.
With a daisy chained 50 pin connector could you mayber hook up another
SCSI device (Tape drive for instance ..... cross your fingers.)????

==========
Normal Disclaimer: Not affiliated with Supra in any way !!!!
==========



From 7968596079289065608
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e4e13d25109f9c83
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 15:21:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!lll-crg!gymble!umcp-cs!eneevax!hsu
From: hsu@eneevax.UUCP (Dave Hsu)
Newsgroups: net.micro.atari16
Subject: Re: IBM 327x emulators
Message-ID: <9@eneevax.UUCP>
Date: Thu, 17-Jul-86 18:21:14 EDT
Article-I.D.: eneevax.9
Posted: Thu Jul 17 18:21:14 1986
Date-Received: Fri, 18-Jul-86 05:30:20 EDT
References: <261@vaxb.calgary.UUCP>
Reply-To: hsu@eneevax.UUCP (Dave Hsu)
Organization: Imperial Widget Research Center, Kingdom of Maryland
Lines: 29

In article <261@vaxb.calgary.UUCP> brinsmead@calgary.UUCP (Mark Brinsmead) writes:
>
>   A friend has asked me to locate an emulator for an IBM 327x
>terminal that will run on his (1040) ST. Can anyone provide a pointer
>to such a beast -- I'm sure they exist, but I've never seen one.
>
>   Mark Brinsmead

I'm not so sure that such a beast exists. The 3270 series terminals

are best described as workstations, not terminals in the ordinary sense.
Like CDC `terminals', only more picky. 3270's don't talk serial at all;
they have a ridiculous protocol that involves transferring entire screen
pages, and buffered input areas.

There is no such thing as a 3270 emulator. What you need is either
a normal terminal emulator run through a front end (like a Series/One
running the Yale package) or one of those elusive Applelink SNA
adapters that purportedly came out for the Macintosh, and something to make
your ST talk Applelink.

-dave
--
David Hsu (301) 454-1433 || -8798   "It was Dave, not me..honest!" -eneevax
Communication & Signal Processing Lab / Engineering Computer Facility
The University of Maryland   -~-   College Park, MD 20742
ARPA:hsu@eneevax.umd.edu UUCP:[seismo,allegra,rlgvax]!umcp-cs!eneevax!hsu

"Who cometh to the bridge of death must answer me these questions three,
 'ere the other side he see....aiggggh!"

From -3281747359186901107
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7ef68fcd6f3d6c79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 18:58:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!tarvydas
From: tarvydas@utcsri.UUCP (Paul Tarvydas)
Newsgroups: net.micro.atari16
Subject: Re: .o file format description wanted
Message-ID: <3120@utcsri.UUCP>
Date: Thu, 17-Jul-86 21:58:59 EDT
Article-I.D.: utcsri.3120
Posted: Thu Jul 17 21:58:59 1986
Date-Received: Thu, 17-Jul-86 22:24:57 EDT
References: <3856@utah-cs.UUCP>
Reply-To: tarvydas@utcsri.UUCP (Paul Tarvydas)
Organization: CSRI, University of Toronto
Lines: 20
Summary:

It turns out that the .o format IS documented - DRI CP/M 68K manual,
section 3 "Command File Format". It's similar to Unix in that the
executable format is the same as the object format, except that
the symbols have been resolved and possibly stripped out. "Relmod"
does some further processing, but this is after everything has been linked,
and I haven't bothered to finger out what it's effect is.

You can easily identify the sections of a .o file described in the
manual by using "dump.prg" on some (small) .o file. As far as I can

tell, the symbol types "defined", "equated" and "equated register"
are possibly white elephants - they're probably used as flags by
the assembler, then the whole symbol table is just dumped out to
the .o file; but, I haven't investigated that thoroughly yet, so
don't stake your life on it.

Send me mail if you want to discuss it further - I'm still exploring.

Paul Tarvydas
Tarvydas-Sanford Controls Inc.
...{ihnp4|...}!utcsri!tarvydas

From 2324427443020176468
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f23d4870a070c747,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-17 20:57:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!UMass.BITNET!MCOHAN
From: MCOHAN@UMass.BITNET (Michael Cohan, U of Mass/Amherst)
Newsgroups: net.micro.atari16
Subject: CD-ROM?
Message-ID: <860717235733.00000E13.ADTJ.AA@UMass>
Date: Thu, 17-Jul-86 23:57:33 EDT
Article-I.D.: UMass.860717235733.00000E13.ADTJ.AA
Posted: Thu Jul 17 23:57:33 1986
Date-Received: Sat, 19-Jul-86 00:53:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Can anyone out there (Neil?) tell me anything about the status of the
Activenture CD-ROM encyclopedia that Atari demo'd last year? Is there
any possibility of Atari actually producing it for sale any time in
the forseeable future? I had heard that J.T. couldn't get a supplier
to sell the players to him at a price that would allow him to sell it
at the price he wanted. Is that likely to change any time soon?
   I sure would love to get my hands on one of those-- and it would
send Atari's sales through the roof, too.

From -4030830536294208245
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d9f7363e5bc0f2,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,6d9f7363e5bc0f2,start
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-07-18 00:21:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!nbires!hao!hplabs!ucbvax!ucbcad!pavepaws!metcalf
From: metcalf@pavepaws.UUCP
Newsgroups: net.micro.amiga,net.micro.atari16

Subject: C compiler bugs
Message-ID: <888@ucbcad.BERKELEY.EDU>
Date: Fri, 18-Jul-86 03:21:23 EDT
Article-I.D.: ucbcad.888
Posted: Fri Jul 18 03:21:23 1986
Date-Received: Sat, 19-Jul-86 02:56:11 EDT
Sender: news@ucbcad.BERKELEY.EDU
Reply-To: metcalf@pavepaws.UUCP (Chris Metcalf)
Organization: University of California, Berkeley
Lines: 70
Xref: utcs net.micro.amiga:3940 net.micro.atari16:1328

I've been doing some work lately on writing machine- and compiler-independent graphics code, and as a result came up with a variety of bugs for Lattice, Megamax, and Aztec compilers (Lattice and Aztec are available both on Amiga and ST; Megamax is an ST-only phenomenon). Compiler bugs are one of the most annoying facts of life that a software writer has to live with; I thought I could spare some of you some grief by listing a few of the interesting ones I've found.

Lattice: this was my favorite bug. It seems that my release of the Lattice compiler (on the Amiga, 3.03) has a very small problem in its floating-point library; if a float becomes almost equal to +/-2.000000 (in fact, if its binary is 0x40000002 or 0xC0000002) then all multiplications using it fail. Multiplying this value of -2 by itself gives -2, for example; and multiplying it by anything else gives 0. This is not a good thing for people who need even vaguely reliable floating-point math. I stumbled across this strange bug purely by chance, and it took a LONG time to track it down. Here's a piece of code to show what I mean:

```
main()
{
     float f;
     *(long *)&f = 0xc0000002;
     printf("%f * %f = %f!!\n", f, f, f * f);
}
```

If you get "-2 * -2 == -2!!" then your compiler is in trouble... and there aren't any easy fixes. Using double math doesn't help, since Lattice (bizarrely) casts floats to double just to multiply; the double killer-value is 0xc000000040000000. All you can do is pray your code doesn't hit it. Mine does, with dismal regularity; Lattice users lose.

Megamax: my version (1.0) has a little float-math trouble as well. If you have some expression whose value is 0, and negate it and assign it to a variable, hey presto! its value is -2. Thus "float a = 0; a = -a" will set a to -2. (Compiler bugs seem to like this number..) This problem at least has a workaround; if you say "a = 0 - a" the problem doesn't appear. Also a problem, and equally annoying, is that floating-point comparisons don't work very well. Try, for example, "printf("%d\n",2.0<-1.0)". It prints 1. This (you may notice) is not correct. I fixed this on an ad hoc basis in my code by checking -2 > 1.0 (which does work).

Aztec 3.20a: when I had fixed the Megamax bug, I wiped the sweat from my brow and turned to my trusty Aztec Manx compiler to recompile the altered source. What should I find but the program failing again! After more work, I finally traced it down to the expression "a[i] = 0 - b[i]" (yes, one of the lines I had "fixed" so Megamax would accept it...). It seems that the Aztec compiler has trouble with expressions of this form, where one subscripted float is subtracted from a constant and assigned to another subscripted float (it may be a more general problem, but variable subscripts at least are required). The result is that b[i] is ignored, and a[i] is assigned the constant. Why this is I don't know; my knowledge of 68000/68881 is weak but the assembler output looked ok to me. The workaround for this one turned out to be assigning "0 - b[i]" to an intermediate variable, and assigning that to a[i]. So it goes... nobody can do float math right.

Another smaller bug fell out after I had all of these in order; one of the Lattice compiler's infamous CXERR messages (#25) resulted when compiling a perfectly innocuous piece of code. It appears that Lattice has trouble accepting more "register" declarations than it has registers! Rather than ignoring subsequent register declarations, it starts handing out non-existent registers. Combining my knowledge of CXERR meanings (from an Amiga Mail issue) with the fact that Lattice only allows four address and six data register values let me fix that one, but it was an annoyance. (If anyone wants the list of CXERR meanings, let me know and I'll type them in.)

Hopefully this will help somebody, somewhere. Five compiler bugs in two days was a little too much, and hopefully some programmer can come a little closer to maintaining his sanity as a result of this posting. Good luck...
Chris Metcalf (metcalf@yale.ARPA) ...!decvax!yale!metcalf
metcalf@yalecs.BITNET ...!ihnp4!hsi!yale!metcalf

From -4276390550108318027
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dc0e20a6a90355b4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-18 12:12:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ll-xn!mit-amt!mit-eddie!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: BLITTER AND 520
Message-ID: <1525@cwruecmp.UUCP>
Date: Fri, 18-Jul-86 15:12:56 EDT
Article-I.D.: cwruecmp.1525
Posted: Fri Jul 18 15:12:56 1986
Date-Received: Sun, 20-Jul-86 03:44:23 EDT
References: <8607171835.AA05912@ucbvax.Berkeley.EDU>
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 28

> The blitter will supposedly come with new ROMs. I suspect that there
> will be more than just the blitter chip and the socket for the 68000 on

> the blitter board. By the way, this thing is also expected to provide
> half-toning which I had always thought was bordering white lines with grey.
> The idea behind this is that your eye sees less contrast between any element
> of the line and the surrounding background and bloops over the jaggles on
> diiagonal lines. The result is the illusion of a perfect line. My point is
> that if this is to work on monochrome systems then some modification of the
> viideo circuitry is necessary to get grey as well as black and
> white. Perhaps the half-toning will only be supported on the color
> systems. Or it will require a little bit more than sticking it in
> the 68000 socket to make it go.

What you describe above is known as Antialiasing. In half toning a
group of pixels - normally a square group like 4x4 - behaves like one
pixel, and depending upon how many of the pixels are on you get
illusions of different shades of gray or even patterns. Of course you
loose out on resolution, but it is useful for filling type operations.

Can someone at Atari tell us if the blitter will support gray levels
too? Landon or Neil perhaps.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 7775814824882486903
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f161de5e794688f5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-18 14:11:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: ST Resource TOC of August 1986 ANTIC
Message-ID: <1379@ihuxi.UUCP>
Date: Fri, 18-Jul-86 17:11:36 EDT
Article-I.D.: ihuxi.1379
Posted: Fri Jul 18 17:11:36 1986
Date-Received: Sun, 20-Jul-86 05:00:45 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 63

*****[Ignore header path]*****

Note: I have posted the ST Resource portion of ANTIC magazine here for the
benefit of ST owners who do not read net.micro.atari8. The complete
ANTIC table of contents can be found there if you are interested.

-Kit-

August 1986 ANTIC TOC
Theme: Online Communications

page article

*****The ST Resource*****

55 LINKLINE
Run your 8-bit Atari from your ST. Use your 8-bit as an intelligent printer buffer, etc. Requires making a cable.

62 ONLINE PICTURE VIEWER
A continuation of the article started last issue. You'll need that issue if you want to have the complete set of programs.

65 dBMAN
A review of this dBase III workalike. Atari Corp has just obtained the exclusive worldwide marketing rights for dBMAN. A GEM version will appear in the near future.

67 N-VISION
A review of the program that ANTIC calls the first serious competition for DEGAS. You can mix pictures with music by using Music Studio (also developed by Audio Light, Inc but marketed by Activision). Some 'clip art' graphics are included and Audio Light plans to release additional clip art disks.

71 ST Product News
SOFTWARE
Pro Fortran-77 (Prospero Software)
Hippo Backgammon (Hippopotamus Software)
Winnie The Pooh (Sierra On-Line)
BOOKS
ST GEM Programmer's Reference (Abacus Software)

75 NEW PRODUCTS
A listing of recently announced or released software, hardware and books for the ST.

*****End ST Resource****

Comments: This is a very good issue for anyone contemplating buying a modem and getting started in telecommunications. Most of the Atari specific modems and some of the generic modems are discussed as well as several telecommunications software packages. The September issue will feature an article on how to tune in weather satellite pictures on your Atari (either ST or 8-bit). My TOC should be a lot earlier for that issue. I like to beat the issue to news stand so no one has a problem finding it if they want to buy it.

Kit Kimes

AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

From 1067876047331863352
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e92eb744ac44664,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-18 16:28:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: environments?
Message-ID: <642@marlin.UUCP>
Date: Fri, 18-Jul-86 19:28:55 EDT
Article-I.D.: marlin.642
Posted: Fri Jul 18 19:28:55 1986
Date-Received: Sun, 20-Jul-86 05:20:48 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 14

I recently downloaded hack for the ST from net.sources.games. Unfortunately, my 13 year old daughter is now on my back because she can't get below level 3.

The problem is the version of hack that was posted requires double sided disk drives. I only have two single sided drives. There is a cure for this listed in the README file of hack, but it requires a file that ends with .env This is supposed to set an environment variable to allow for two single sided drives. Hack didn't come with this file.

Is it part of a shell program or just something I missed? I really don't want to buy a d/s drive just to get Heather off my back :-)

The Navy -- not just a job. its an adventure.

From 1454389167127842629
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7906cb55108b6aed
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-18 20:56:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!cornell!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Ramblins.
Message-ID: <233@cci632.UUCP>

Date: Fri, 18-Jul-86 23:56:35 EDT
Article-I.D.: cci632.233
Posted: Fri Jul 18 23:56:35 1986
Date-Received: Mon, 21-Jul-86 21:38:24 EDT
References: <860712132429.00001299.AANZ.AA@UMass>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 25
Summary: Are newer ST's more flexible?

In article <860712132429.00001299.AANZ.AA@UMass> Flash@UMass.BITNET (Rick Flashman) writes:

>He also rumored that BI is planning a terminal program that will do
>multiple emulation. From VT220, Regis Graphics, to Techtronix 1040.

Would it be possible to "capture" the pictures on the ST in, say DEGAS format? Not essential, but boy would it be nice !!!

>Not much else. But he did talk about the BLITTER chip. Which should be
>out at the end of the summer. (Or so he claims Tramiel himself told him).
>From what I hear, it is a board that you will plug into the socket of
>the 68000 in the ST, it has the blitter chip on it. You then plug the
>68000 into it) Sorry for those with a 520ST, only the 1040ST has a
>removable 68000 chip.

O.K. Neal, What's the story here. I knew that the early machines didn't socket the 68K, but what about the more recent releases/revisions of the 520? Has the RAM expansion header been added yet?

>Seems that with GDOS, the ST will become resolution independent, so
>Atari is rumored to be considering releasing a 1,024 x 1,024 resolution
>monitor. One source mentioned that it will also have 8 colors. I dunno.

I had guessed this could be done, is there a chance of getting/setting various high-res interlaced modes.

From -32187857869970215
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3bfc8e6d74f9e159,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-18 22:02:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!think!mit-eddie!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Proff output to printer/screen
Message-ID: <1527@cwruecmp.UUCP>
Date: Sat, 19-Jul-86 01:02:44 EDT
Article-I.D.: cwruecmp.1527
Posted: Sat Jul 19 01:02:44 1986

Date-Received: Sun, 20-Jul-86 07:49:29 EDT
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 25

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
A number of people have sent mail asking how proff output can be sent
directcly to the printer, or to the screen. Instead of replying to
everyone individually, i am responding here.

Firstly, you will need either the new release of the Alcyon Package,
or the new versions of gemlib and libf (avail on CompuServe ataridev).
All you have to do is to re-link the objects with these libraries.
(One of the many bugs in the old libraries was that it would not
handle fopen to LST: or CON: correctly).

To get the output to go directly to the printer enter

     proff [<whatever options>] input.prf LST:

To get the output to the screen enter

     proff [<whatever options>] input.prf CON:

--
                       Jwahar R. Bammi
                    Usenet: .....!decvax!cwruecmp!bammi
                     CSnet: bammi@case
                   Arpa: bammi%case@csnet-relay
                CompuServe: 71515,155

From 6662949137536312899
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,90382ed3a557207c,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,90382ed3a557207c,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,90382ed3a557207c,start
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-07-19 06:45:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.68k
Subject: OS-9 68K status
Message-ID: <1296@lsuc.UUCP>
Date: Sat, 19-Jul-86 09:45:46 EDT
Article-I.D.: lsuc.1296
Posted: Sat Jul 19 09:45:46 1986
Date-Received: Sat, 19-Jul-86 10:51:49 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto

Lines: 34
Xref: lsuc net.micro.atari16:1325 net.micro.amiga:3909 net.micro.68k:713
Summary: August for ST

This message is the culmination of a number of expensive long distance phone calls between myself, TLM Systems and Microware:

The Atari ST port for OS-9 68K has just passed Beta test. Microware is awaiting a copy of the documentation from TLM Systems and is expected to give written approval of the port forthwith. Distribution of the port to the public is now expected to begin around the beginning of August. Call TLM Systems if you are interested.

The work on the Amiga port is progressing, but it looks like it will not be near completion very soon. More than that I can't say. I can say that I have a hard choice to make whether I'm going to buy an Amiga or an ST for myself. Unfortunately the Amiga price is not at all reasonable in the Toronto area. The going price is about $2,800.00 for 256K and Color Monitor. I feel that that's at least $500.00 over priced.

I *will* be getting my own 68020 OS-9 system some time next month, however. It will be the brand new Frank Hogg QT-20X. This is a 68020 system on a motherboard which can be mounted into an IBM-PC case or a rack mounted case. It starts essentially with 2.5 Meg. and 4 serial ports. Options include memory protection, graphics and up to 14.5 Meg. expansion (yes, 14.5 Meg!) and 28 serial ports. I'll probably get a system worth about $5,000.00 to $6,000.00 US. I'm still deciding on the exact configuration. With OS-9, I'll have object code compatibility for many of my programs between the Atari ST or Amiga (whichever I buy) and the QT-20X.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -2938868715406851057
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,106a0f8898de864c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-19 08:51:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!think!mit-eddie!genrad!decvax!cwruecmp!pm
From: pm@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: set date and time
Message-ID: <1528@cwruecmp.UUCP>
Date: Sat, 19-Jul-86 11:51:59 EDT

Article-I.D.: cwruecmp.1528
Posted: Sat Jul 19 11:51:59 1986
Date-Received: Sun, 20-Jul-86 07:49:59 EDT
Reply-To: pm@cwruecmp.UUCP (Prabhaker Mateti)
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 116

Here is a simple program to set date and time on the ST. As you will see,
the reset button does NOT cause the keyboard timer to lose its time. However,
TOS does; so you need to do Tsettime() and Tsetdate() after reset.

-------cut here-------cut here-------cut here-------cut here-------cut here--

```
/*
     td.c -- a simple program to set the time and date on Atari ST

     pm @ Case
*/

#include <osbind.h>

long td;           /* time and date, in internal form */
char tds[] = "00mm/dd/yy hh:mm:ss";   /* 00 are wasted space */
char new[20];           /* input buffer, fmt as above */

twodigits(a, p)             /* the last two decimal digits of a
     */
register int  a;       /* are stuffed into p[0], p[1]
     */
register char *p;
{
     *p++ = (a%100)/10 + '0';
     *p++ = a%10 + '0';
}

timestr(t)
register int  t;
{
     register int  sec, min, hr;

     sec = (t & 0x001F) << 1;
     min = (t >> 5)  & 0x003F;
     hr  = (t >> 11) & 0x001F;
     twodigits(hr,  &tds[11]);
     twodigits(min, &tds[14]);
     twodigits(sec, &tds[17]);
}

datestr(d)
register int  d;
{
     register int day, mon, yr;

     day = (d & 0x001F);
```

```
     mon = (d >> 5) & 0x000F;
     yr  = ((d >> 9) & 0x01FF) + 1980;
     twodigits(mon, &tds[2]);
     twodigits(day, &tds[5]);
     twodigits(yr,  &tds[8]);
}

set(p, m, i)           /* Assign bit field <i:j> of td with a
     */
register int  p;       /* computed value from new[p], new[p+1]
     */
register long m;       /* if they are decimal digits.
     */
register int  i;       /* j == i - 1 + #1's in mask m
     */
{
     register int  a, b;
     register long ll;

     a = new[p++];
     b = new[p];
     if ( (a == 0) || (b == 0)
     ||   (a > '9')|| (a < '0')
     ||   (b > '9')|| (b < '0')   ) return;

     ll = (long) ((a - '0') *10 + b - '0');
     if (i == 0) ll >>= 1;  /* couple of kludges! for 2*sec and yr */
     if (i == 25) ll -= 80;
     ll = (ll << i) & m;
     td = (td & ~m) | ll;
}


main()
{
     register int  *p;

     p = (int *) &td;

     /* \033e (enable cursor) if this prg is invoked from desktop */
     Cconws("\033e\r\nikbd current date and time:  ");
     td =  Gettime();
     datestr(p[0]);
     timestr(p[1]);
     Cconws(&tds[2]);

     Cconws("\r\n\n\
to change the time and date, type in the new values in exactly\r\n\
the same format;  to leave it alone, just type return.\r\n\
\nmm/dd/yy hh:mm:ss\r\n");

     new[0] = (char) 18;
     Cconrs(new);
```

```
    Cconout('\n');

    /* set   hours; min; sec; mon; date; year; */
    set(2,  (long) (0x0000000F << 21), 21);   /* month */
    set(5,  (long) (0x0000001F << 16), 16);   /* day */
    set(8,  (long) (0x0000003F << 25), 25);   /* yr, 20th century */
    set(11, (long) (0x0000001F << 11), 11);   /* hr */
    set(14, (long) (0x0000003F << 5),  5);    /* min */
    set(17, (long) (0x0000001F),       0);    /* sec */

    Settime(td);       /* set ikbd clock */
    Tsettime(p[1]);
    Tsetdate(p[0]);
}

/* -eof- */

--

prabhaker mateti                 decvax!cwruecmp!pm
department of computer engineering & science   pm@Case
case western reserve university           (pm%Case@csnet-relay)
cleveland, oh 44106                  (216) 368-2816


From 1267018319811118267
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5f4fa23311f824f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-19 10:41:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!andromeda!topaz!nike!ucbcad!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: megamax bug?
Message-ID: <8607191804.AA14701@ucbvax.Berkeley.EDU>
Date: Sat, 19-Jul-86 13:41:27 EDT
Article-I.D.: ucbvax.8607191804.AA14701
Posted: Sat Jul 19 13:41:27 1986
Date-Received: Sun, 20-Jul-86 06:24:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 16

While trying to compile a program using Megamax C (ported from DRI C) with
type casting changes (coercion -- a real pain).  The problem seems to be with
a pointer to a function.  For example:

long  (* ptr)()
 .
 .   code
```

 .
return ((*ptr)(var1,var2,var3))

When it gets to this point, returning the result of the jump thru the pointer to the function, it blows up. I could do this in assembly and insert it, but that is a pain...
Any answers, comments.

Thanks, Mike

From -7245724913568639228
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-19 11:49:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!pyramid!voder!kontron!stephan
From: stephan@kontron.UUCP (Stephan W. Wendl)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <930@kontron.UUCP>
Date: Sat, 19-Jul-86 14:49:00 EDT
Article-I.D.: kontron.930
Posted: Sat Jul 19 14:49:00 1986
Date-Received: Sun, 20-Jul-86 06:32:33 EDT
References: <157@cci632.UUCP> <351@apollo.mntgfx.UUCP> <226@cci632.UUCP>
<855@tekcbi.UUCP>
Distribution: net
Organization: Kontron Electronics, Mt. View, CA
Lines: 14

> I have purchased the ST --> SCSI host adapter and driver software from
> Supra ~$200. I was able to connect an Adaptec SC4000 SCSI disk controller
> and a Micropolis 1304 (40 meg) hard drive . Guess what ....
> IT worked first time !!
>

It's beautyful. It's wunderful. It's .... not working as it is supposed to be. The kernel still has a severe "bug" (=design flaw) in it limiting you to certain amount of directories (including subdirectories). The effect is that the system locks up after a certain number of disc access operations. I can't believe that this should be a problem difficult to fix. To the end user it might be very annoying.

Stephan Wendl.

From 5110052528499005838
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7969d1972111c4e4,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-07-19 12:27:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!mcvax!ukc!icdoc!qmc-cs!graham
From: graham@cs.qmc.ac.uk (Graham Roberts)
Newsgroups: net.micro.atari16
Subject: Control Panel
Message-ID: <173@cs.qmc.ac.uk>
Date: Sat, 19-Jul-86 15:27:43 EDT
Article-I.D.: cs.173
Posted: Sat Jul 19 15:27:43 1986
Date-Received: Tue, 22-Jul-86 00:33:04 EDT
Reply-To: graham@cs.qmc.ac.uk (Graham Roberts)
Organization: CS Dept, Queen Mary College, University of London, UK.
Lines: 13

I was playing with the control panel recently and noticed something strange.
It appears to be constructed from an object tree displayed inside a window.
The "window" can be moved and closed. Most of the time the panel is redrawn
when it is uncovered or selected but sometimes it disappears.
However, the panel can still be displayed when there are four other windows
already on the screen. I thought there was a limit of four windows?
So, how is the control panel displayed and controlled??
Does it use a window?

Graham
graham@uk.ac.qmc.cs

From 2164542883559878619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7a70b501f241404e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-19 17:09:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!topaz!nike!ucbcad!ucbvax!
UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: megamax bug, YES!!
Message-ID: <8607200204.AA19611@ucbvax.Berkeley.EDU>
Date: Sat, 19-Jul-86 20:09:59 EDT
Article-I.D.: ucbvax.8607200204.AA19611
Posted: Sat Jul 19 20:09:59 1986
Date-Received: Sun, 20-Jul-86 07:57:41 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 22

Well, I hate to say it, but there is a definite bug in Megamax C. The relative
addressing did not work. When I was replacing a system vector with the

address of a routine, the relative offset from the PC was not correct, and the system would crash every time I would call the routine via (*ptr)(var1,var2,..)

Example of what I am doing...

```
long   *vector= .....    /*vector address*/
....
...
xbios(38,install);
....
...
install()
*vector=(long)routine_name;
....
...
```

basically, that is it.
The relative offset (as I examined the routine in SID) was incorrect by about 24 bytes. If anyone from Megamax is out there, I can send the source to you, so you can try it for yourself.

From 8134898558149119666
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,21e97cd7ca767f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-19 21:00:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!nbires!hao!hplabs!tektronix!uw-beaver!ssc-vax!uvicctr!collinge
From: collinge@uvicctr.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520 AND BLITTER (Getting chips out)
Message-ID: <177@uvicctr.UUCP>
Date: Sun, 20-Jul-86 00:00:39 EDT
Article-I.D.: uvicctr.177
Posted: Sun Jul 20 00:00:39 1986
Date-Received: Mon, 21-Jul-86 21:38:10 EDT
References: <8607161601.AA21826@mitre-bedford.ARPA>
Reply-To: collinge@uvicctr.UUCP (Doug Collinge)
Organization: University of Victoria, Victoria B.C. Canada
Lines: 21

In article <8607161601.AA21826@mitre-bedford.ARPA> jhs@disunix.UUCP.UUCP writes:
>Shudder, horrors! You don't want to CUT THE PINS OFF the 68000, just
>unsolder them carefully, remove it, and solder in the socket in its place.
> ...
>Another method that can be used is a "solder wick".

The worry is that you damage your board. But solder wick works astonishingly well and very quickly, minimizing heat. I have found that, having done the solder wick thing and the pin is not quite clear, a GENTLE wiggle on the pin will almost invariably free it. Yes, the wick gets THAT MUCH solder. If

not another treatment from the other side of the board usually does it.
Doug.

--
Doug Collinge
School of Music, University of Victoria,
PO Box 1700, Victoria, B.C.,
Canada, V8W 2Y2
decvax!nrl-css!uvicctr!collinge
decvax!uw-beaver!uvicctr!collinge
ubc-vision!uvicctr!collinge

From 8326525851506700491
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e92eb744ac44664
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-20 06:12:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!nbires!hao!hplabs!pyramid!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: environments?
Message-ID: <443@imagen.UUCP>
Date: Sun, 20-Jul-86 09:12:34 EDT
Article-I.D.: imagen.443
Posted: Sun Jul 20 09:12:34 1986
Date-Received: Mon, 21-Jul-86 21:37:11 EDT
References: <642@marlin.UUCP>
Organization: The Houses of the Holy
Lines: 21

>
>
> I recently downloaded hack for the ST from net.sources.games. Unfortunately,
> my 13 year old daughter is now on my back because she can't get below level 3.
~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~

my son came up with another solution, once the program is loaded and running
just put in a different disk (your 'library' disk) and use that to store the
level info etc., he claims that it works fine
--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
~~~~~~~~~~~~~~~~~

GEnie   : D-ARCANGEL

From -9151126397506874750
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bee68273ea8bb95f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-20 19:11:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!topaz!ll-xn!mit-amt!mit-eddie!genrad!decvax!
tektronix!uw-beaver!ubc-vision!sfu_fornax!chapman
From: chapman@sfu_fornax.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet? (Really address of Supra?)
Message-ID: <184@sfu_fornax.uucp>
Date: Sun, 20-Jul-86 22:11:25 EDT
Article-I.D.: sfu_forn.184
Posted: Sun Jul 20 22:11:25 1986
Date-Received: Thu, 24-Jul-86 21:11:34 EDT
Distribution: net
Organization: Computing Science Dept, SFU, Burnaby, B.C. Canada
Lines: 21

>
>>A guy I met at a computer store yesterday had a home-built drive consisting of
>>an Atari --> SCSI board, an off-the-shelf SCSI controller, and a 70 meg drive.
>>He got the Atari --> SCSI board and disk driver from Supra for $200.00.
>>I suppose it's the same board that Supra uses in their hard disk for the ST.
>
> [....]

I didn't see the original article double >'d above (guess it didn't make it
to our site for some reason). Could someone *please* post the address and
phone number (if you have it) of Supra? or e-mail it to me and save
net $$.

     Thanks in advance,

               john chapman

{ihnp4,watmath,uw-beaver}!ubc-vision!sfucmpt!sfulccr!chapman

From -3538966207790153700
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-20 20:25:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!nike!ucbcad!ucbvax!JULIET.CALTECH.EDU!
ccl
From: ccl@JULIET.CALTECH.EDU.UUCP

Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <860720202512.001@Juliet.Caltech.Edu>
Date: Sun, 20-Jul-86 23:25:12 EDT
Article-I.D.: Juliet.860720202512.001
Posted: Sun Jul 20 23:25:12 1986
Date-Received: Mon, 21-Jul-86 07:41:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

I hope that Atari listens to the suggestions posted by this
conference. I feel that Atari should continue to keep competition
off balance by coming out with a 68020 based micro instead of
the DMA box they plan on marketing. I think that the DMA port
should be reserved for the harddisk. A 68020 machine, with
the power of a S*n workstation, could be produced for under
$3000, estimating conservatively. I also think that Atari
should come out very soon with an inexpensive upgrade to add R/W
and the additional address lines to the ROM port to maximize
the potential of the STs. Though I do not own an ST, I am very
interested in these "new" 68000 machines. (aside: 68000s at
8Mhz now sell for under $10.00)

Any info on laserprinters, CDs and the graphics upgrade for the STs
would be very welcome.

Lingus (CCL @ CITROMEO)

From 2881723423714118474
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,94f486696f232c01,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-20 22:24:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!brl-adm!caip!ut-sally!husc6!yale!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Xbtimer usage example
Message-ID: <1532@cwruecmp.UUCP>
Date: Mon, 21-Jul-86 01:24:39 EDT
Article-I.D.: cwruecmp.1532
Posted: Mon Jul 21 01:24:39 1986
Date-Received: Tue, 22-Jul-86 00:20:18 EDT
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 179

Here is the Xbtimer sample program promised in an earlier message.
Packed in shar format.

#!/bin/sh

```
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    xbtimer.c
# This archive created: Mon Jul 21 01:22:10 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'xbtimer.c'" '(4181 characters)'
if test -f 'xbtimer.c'
then
     echo shar: over-writing existing file "'xbtimer.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'xbtimer.c'
X#include <osbind.h>
X#include <stdio.h>
X
X#define VOID int
X
X
X/*
X * Xbtimer.c
X *  Sample code that demonstrates the use of TIMER A on the 68901 MFP
X *  Also demonstrates  how to take over the process terminate interrupt.
X *
X *  WHAT:
X *
X *  The program begins by installing the address of the function
X *  'terminate' into the exception vector 0x102 (Process terminate
X *  exception, saving its old pointer. It then starts up Timer A on
X *  the MFP, configured to interrupt the function 'count' at 48Hz. The
X *  main loop continuously displays the value of a counter, that the
X *  function 'count' increments. On hitting CTRL-C, the 'terminate' function
X *  is called to handle the termination. It stops Timer A, then
X *  restores the origonal process terminate vector and
X *  returns (to the default system Interrupt Service Routine).
X *
X *  HOW:
X *  The timers on the MFP are controlled by a 2.4576 Mhz xtal (Yes the
X *  Atari Internals book is once again wrong!). Using
X *  timer 'a' in the delay mode with a prescale set at 200 (ie. by
X *  setting the timer 'a' control register to 7)
X *  gives you a 12288 Hz counter (2457600/200). Using a count
X *  of 256 (ie. by loading the timer 'a' data register with 0)
X *  you get an interrupt frequency of 48 Hz (12288/256). For other
X *  values for the control & data registers see the 68901 manual
X *  available for free by calling Motorola, or see the Atari Internals
X *  book.
X *
X *  The timer interrupt is handled by the function 'count'. This function
X *  increments the long counter, then clears Bit 5 of the ISRA (In
X *  Service Register A), and then returns from the exception by doing
X *  an RTE. NOTES: In the ST the 68901 always operates in the
```

```
X *  Software End of Interrupt Mode (ie. bit 3 of the Vector Register VR
X *  is always set). In this mode the ISR bit of the ISRA is automatically
X *  set when an interrupt occurs and the processor requests the interrupt
X *  vector. (The ISR bit corresponding to the Timer A interrupt is bit 5
X *  of the ISRA). As long as the bit is set, that interrupt and any other
X *  interrupts of lower priority cannot occur. Once the bit is cleared
X *  the same interrupt or any lower priority interrupts can once again
X *  occur. This is why it is important to clear BIT 5 of the ISRA before
X *  performing the RTE. The address of the ISRA register is 0xfffA0F
X *
X *
X *  Compile and link with gemstart.o, osbind.o, gemlib,  libf
X *
X *
X *  Author:
X *       Comments/Questions etc to
X *       Jwahar R. Bammi
X *       .....!decvax!cwruecmp!bammi
X *       bammi@case.CSNET
X *       bammi%case@csnet-relay.ARPA
X *
X */
X
X/* Static globals */
X
X/* Internal software ticks counter */
Xlong counter = 0L;
X
X/* Saved Process terminate vector */
XVOID (*t_handle)();
X
X/* My process terminate handler */
XVOID terminate()
X{
X    VOID count();
X
X    /* Shut of Timer - by writing 0 to the control register of Timer A */
X    Xbtimer(0, 0, 0, count);
X    /* Clear bit 5 of ISRA just in case it was set */
X    asm("bclr.b #5,$fffa0f");
X
X    /* Restore the old process terminate vector */
X    Setexc(0x0102, t_handle);
X
X    /*
X     * by doing an RTS here we return to the systems default
X     * Interrupt service routine that dispatched the ^C interrupt
X     * to this routine. It will take care of doing the RTE
X     */
X
X    /*
X     * Note that we could have done an unlk R4 to restore the stack frame
X     * and then jumped to the origonal handler too. (saved in t_handle)
```

```
X     *
X     */
X}
X
X/* MFP Timer A interrupt handler */
XVOID count()
X{
X    /* Increment counter */
X    counter++;
X
X    /* Restore stack frame */
X    asm("unlk R14");
X
X    /* clear bit 5 of ISRA on the MFP */
X    asm("bclr.b #5,$fffa0f");
X
X    /* Return from exception */
X    asm("rte");
X}
X
X
X/* Main */
Xmain()
X{
X    char *save_ssp;         /* Saved System Stack Pointer */
X
X    /* Get into Supervisor mode */
X    save_ssp = Super(0L);
X
X    /* Get current Process Terminate vector */
X    t_handle = Setexc(0x0102, -1L);
X
X    /* Set up our own Process Terminate Handler */
X    Setexc(0x0102, terminate);
X
X    /* Start the timer */
X    Xbtimer(0, 7, 0, count);
X
X    /* Get out of Supervisor mode */
X    Super(save_ssp);
X
X    /* Continuously display counter */
X
X    while(1 == 1)
X    {
X         char buf[12];
X
X         sprintf(buf,"%09ld\r",counter);
X         Cconws(buf);
X    }
X
X    /* If it gets here .. */
X    Cconws("\r\nHeh! How did I end up here?\r\n");
```

```
X}
SHAR_EOF
if test 4181 -ne "`wc -c 'xbtimer.c'`"
then
     echo shar: error transmitting "'xbtimer.c'" '(should have been 4181
characters)'
fi
#    End of shell archive
exit 0


--
                       Jwahar R. Bammi
                    Usenet:  .....!decvax!cwruecmp!bammi
                     CSnet:  bammi@case
                   Arpa:  bammi%case@csnet-relay
                CompuServe:  71515,155


From -2361195996250929977
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 03:04:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP (Andrew Smith)
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <719@neon.kcl-cs.UUCP>
Date: Mon, 21-Jul-86 06:04:37 EDT
Article-I.D.: neon.719
Posted: Mon Jul 21 06:04:37 1986
Date-Received: Wed, 23-Jul-86 07:29:36 EDT
References: <8607141626.AA08436@ames-nas.ARPA> <2198@ihlpg.UUCP> <675@druhi.UUCP>
Reply-To: andrew@kcl-cs.UUCP (Andrew B Smith))
Organization: Department of Computing, Kings College, University of London.
Lines: 13

In article <675@druhi.UUCP> lbl@druhi.UUCP writes:
>
>There is a new working version of ar68 that is available via Compuserve.  You
might
>want to call Atari and have them send you a copy if you aren't a subscriber
>to Compuserve.
>
>Barry Locklear

Is this software in the public domain ? If so could someone post me a copy ?

Many thanks,

Andrew Smith  (..!mcvax!ukc!kcl-cs!andrew)
```

From 2900005774505220456
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e4e13d25109f9c83
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 05:23:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!im4u!ut-sally!husc6!yale!decvax!tektronix!uw-beaver!cornell!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: IBM 327x emulators
Message-ID: <242@cci632.UUCP>
Date: Mon, 21-Jul-86 08:23:18 EDT
Article-I.D.: cci632.242
Posted: Mon Jul 21 08:23:18 1986
Date-Received: Wed, 23-Jul-86 07:13:48 EDT
References: <261@vaxb.calgary.UUCP> <9@eneevax.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 37
Summary: Some hints.

In article <9@eneevax.UUCP> hsu@eneevax.UUCP (Dave Hsu) writes:
>In article <261@vaxb.calgary.UUCP> brinsmead@calgary.UUCP (Mark Brinsmead) writes:
>>
>>   A friend has asked me to locate an emulator for an IBM 327x
>>terminal that will run on his (1040) ST. Can anyone provide a pointer
>>to such a beast -- I'm sure they exist, but I've never seen one.
>>
>>   Mark Brinsmead
>
>I'm not so sure that such a beast exists. The 3270 series terminals
>are best described as workstations, not terminals in the ordinary sense.
>Like CDC `terminals', only more picky. 3270's don't talk serial at all;
>they have a ridiculous protocol that involves transferring entire screen
>pages, and buffered input areas.
>
>There is no such thing as a 3270 emulator. What you need is either
>a normal terminal emulator run through a front end (like a Series/One
>running the Yale package) or one of those elusive Applelink SNA
>adapters that purportedly came out for the Macintosh, and something to make
>your ST talk Applelink.
>
>-dave

This little "oops" just had to get some sort of reply. There are 3270 emulator packages available for the IBM-PC, two or three of which are written in "C" and possibly even port-able to the ST. In addition to the software, a very high speed serial interface, probably through the DMA port will also be needed. Specifically, the serial chip should

support SDLC and/or HDLC protocol. There are several likely candidates
including Intel, NEC, and Motorola parts. Again, the old "1 address line"
limitation of the DMA port is likely to create a bit of inconvenience.
I suppose you could call some of the makers of IBM-PC SNA adapters to see
if they have done an ST port yet. It is quite likely that at least one
of them either has already done it, or will be doing it soon.

There may also be some SCSI->SNA adapters coming in the near future, so
watch for them as well.

From -7827999963207776019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e104ba7f7bacc6dc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 10:49:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: What is wrong with this program???
Message-ID: <96100016@unido.UUCP>
Date: Mon, 21-Jul-86 13:49:00 EDT
Article-I.D.: unido.96100016
Posted: Mon Jul 21 13:49:00 1986
Date-Received: Tue, 22-Jul-86 09:05:23 EDT
Sender: notes@unido.UUCP
Lines: 79
Nf-ID: #N:unido:96100016:000:2737
Nf-From: unido!uh   Jul 21 18:49:00 1986

What is wrong with this program???

I want to write some sort of interrupt handler in TDI Modula-2 for the
Atari ST series, using the IOTransfer procedure.
Following is a small Modula-2 test program which has the same task as
the Megamax C interrupt test program, which have been posted two or three
weeks ago in net.micro.atari16. I used the TDI Version 2.10a Modula-2 compiler.
The documentation is very poor at this point, so if anybody knows a
hint how to get this program running, please mail to

uh@unido

Many thanks in advance.
----------------------------cut here---------------------------------
```
MODULE INTRTEST;

FROM SYSTEM  IMPORT ADDRESS, PROCESS, NEWPROCESS, TRANSFER, IOTRANSFER;
FROM XBIOS   IMPORT Timer, SetTimerInterrupt;
FROM Storage IMPORT ALLOCATE;
FROM InOut   IMPORT WriteInt, WriteLn;

CONST INTTIMER = 77; (*Interrupt number of timer A interrupt*)
```

```
VAR I     : CARDINAL;
    N     : CARDINAL;
    ROOT  : PROCESS;
    INT   : PROCESS;
    IADDR : ADDRESS;

PROCEDURE DUMMY;
BEGIN
   (*Should a CODE(RTE) stand here ?!?*)
END DUMMY;

PROCEDURE INTHANDLER;
BEGIN
   LOOP                                  (*Interrupt handler never ends*)
      IOTRANSFER(INT,ROOT,4*INTTIMER); (*Give controll back to root; but only
\012                                        until a timer A interrupt arrives*)
      INC(N);                            (*Count interrupts*)
   END;
END INTHANDLER;

BEGIN
   N := 0;                                  (*Initialize interrupt counter*)
   SetTimerInterrupt(TimerA,1,100,DUMMY); (*Set timer A interrupt to dummy
                           procedure until IOTRANSFER takes
                           over control*)
   ALLOCATE(IADDR,1024);                    (*Create process space, then ..*)
   NEWPROCESS(INTHANDLER,IADDR,1024,INT); (*.. create the process*)
   TRANSFER(ROOT,INT);                      (*Give control to new created
                           process*)
   I := 0;                                  (*Now wait a while*)
   WHILE I < 30000 DO
      INC(I);
   END;
   SetTimerInterrupt(TimerA,0,0,PROC(0)); (*Disable Timer A (I hope that
                            will do?!?)*)
   WriteInt(N,10);                          (*Display number of interrupts ..*)
   WriteLn;                                 (*.. during wait*)
END INTRTEST.
```

--------------------------cut here---------------------------------

This program bombs: 3 mushrooms (aah bombs).
But first if you hack something on the keyboard (i.e. move the mouse) when the program is ended (N is 0).

Some words about my configuration:
- 260ST upgraded to 1MB,
- SF 354,
- SM124,
- TOS in ROM.

Please, please help!!!

Uwe Hoch

Computer Science Department, University of Dortmund
4600 Dortmund 50, P.O. Box 500500, W.-Germany
E-mail address: uh@unido.uucp, uh@unido.bitnet

From 7113467336094598315
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eab4935374a7e8c5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 12:51:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!mhuxo!gjphw
From: gjphw@mhuxo.UUCP (WYANT)
Newsgroups: net.micro.atari16
Subject: Connecting a 520ST to a SONY monitor?
Message-ID: <1217@mhuxo.UUCP>
Date: Mon, 21-Jul-86 15:51:41 EDT
Article-I.D.: mhuxo.1217
Posted: Mon Jul 21 15:51:41 1986
Date-Received: Wed, 23-Jul-86 02:08:14 EDT
Organization: AT&T Bell Laboratories, Murray Hill
Lines: 34

This is a series of detailed questions about connecting an Atari 520ST to a SONY monitor/receiver. Surely, someone must have done this by now and has some advice for the complete novice.

We are trying to connect a 520ST with a 13 inch SONY monitor/receiver (model KV-1311CR). The 1311CR has facilities for both an analog RGB input and a digital (TTL) RGB input. The TTL is supposed to be directly compatible with the IBM pc. Are the monitor signal levels from the 520ST comparable to those from an IBM (i.e., TTL) or must the analog RGB connections be used?

Most other postings that I have read about this has someone using a SONY XBR monitor/receiver with the 520ST. Unlike its bigger XBR siblings, the 1311CR has a single composite sync input rather than separate horizontal and vertical sync inputs. One method for joining the two sync signals into something that resembles a composite sync signal is to attach the horizontal directly to the sync input pin and use an 100 ohm resistor for tying the vertical sync to the horizontal line. Has anyone any experience with this method? Any better suggestions for adding the two sync signals from the Atari together?

Finally, there are three pins on the analog RGB connection that control various modes (e.g., where to select the audio signal fro where to accept fast blanking). Are these pins "naturally high" (nothing illegal, just typical TTL levels) so that unless some grounding is provided, the high state (RGB mode) is selected?

If you know anything about connecting a 520ST to a SONY monitor, please send some email with your comments. Thank you for your time.

Patrick Wyant
AT&T Bell Laboratories
Naperville, IL
*!ihnp4!{mhuxo,ihwld}!gjphw

From 2172298078900498974
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,605796af5d072317,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 12:55:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site mhuxo.UUCP
Path: utzoo!decvax!bellcore!ulysses!mhuxr!mhuxt!mhuxv!mhuxo!gjphw
From: gjphw@mhuxo.UUCP (WYANT)
Newsgroups: net.micro.atari16
Subject: A 520ST that resets itself?
Message-ID: <1218@mhuxo.UUCP>
Date: Mon, 21-Jul-86 15:55:36 EDT
Article-I.D.: mhuxo.1218
Posted: Mon Jul 21 15:55:36 1986
Date-Received: Wed, 23-Jul-86 01:15:35 EDT
Distribution: na
Organization: AT&T Bell Laboratories, Murray Hill
Lines: 22

We have been seeing an unusual problem with our Atari 520ST lately that someone may know about. Our 520ST has been upgraded by the dealer to 1 Mb and TOS in ROM. We also have a double sided disk drive rather than the standard single sided drive.

For certain disks, the console appears to reset itself while reading a disk. This reset is equivalent to manually depressing the reset button on the back of the console (i.e., the monitor blinks and the disk drive begins reading the disk again). I have not yet established any pattern to this problem. It happens on some copy protected game disks and on disks with TOS files (e.g., the TOS disk). This problem is intermittent, and since it doesn't happen consistently, I suspect the problem is mechanical (disk drive timing, crossed wiring in the console). How could poor drive timing cause the console to reset itself?

Any suggestions? Email would be appreciated. Thank you.

Patrick Wyant
AT&T Bell Laboratories
Naperville, IL
*!ihnp4!{mhuxo,ihwld}!gjphw

From -5430622465793107667
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,57916fce7636d0f6

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 13:27:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Missing ProGem parts
Message-ID: <186@molihp.UUCP>
Date: Mon, 21-Jul-86 16:27:34 EDT
Article-I.D.: molihp.186
Posted: Mon Jul 21 16:27:34 1986
Date-Received: Wed, 23-Jul-86 07:31:44 EDT
References: <1986Jul16.095400.15416@utfyzx.uucp>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 6

  So the black hole sucks things away from Toronto, too. Hmmm, maybe we
could sit down with a UUCP map on this...

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
      #
My thoughts are my own, and are void where prohibited by law.
     #

From -7363910219303302843
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ab430d6e48107578,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 13:50:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!nbires!hao!hplabs!ucbvax!sdcsvax!sdcarl!tre
From: tre@sdcarl.UUCP (Tom Erbe)
Newsgroups: net.micro.atari16
Subject: Mark Williams C
Message-ID: <331@sdcarl.UUCP>
Date: Mon, 21-Jul-86 16:50:14 EDT
Article-I.D.: sdcarl.331
Posted: Mon Jul 21 16:50:14 1986
Date-Received: Tue, 22-Jul-86 03:42:23 EDT
Reply-To: tre@sdcarl.UUCP (Tom Erbe)
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 32

.
I just got the information sheet on MWC for the Atari ST. I thought I would
share some of the info with the net. The package includes:

1- a pretty complete looking C compiler (cc for one step compilation)
2- linker
3- assembler

4- a lint-like error checker
5- a symbolic debugger (no csd)
6- a fair looking command shell
7- microEmacs
8- make
9- an archiver
10- egrep
11- sort
12- diff
13- cmp
14- pr
15- tail
16- uniq
17- wc
18- 600 pages of documentation

It is available now for under $200. Their number is 312-472-6659 if you are
interested.
--
     Tom Erbe
     Computer Audio Research Lab, UCSD
     Q-037
     La Jolla, CA 92093
     619-452-4384
     {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From 3464399624454281985
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,6d9f7363e5bc0f2
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,6d9f7363e5bc0f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 15:39:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: C compiler bugs
Message-ID: <678@batcomputer.TN.CORNELL.EDU>
Date: Mon, 21-Jul-86 18:39:23 EDT
Article-I.D.: batcompu.678
Posted: Mon Jul 21 18:39:23 1986
Date-Received: Thu, 24-Jul-86 00:34:06 EDT
References: <888@ucbcad.BERKELEY.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 194
Xref: mnetor net.micro.amiga:3972 net.micro.atari16:1363

[]

Yes, nobody seems to get floating-point right!!

I am very disgusted because I'm into scientific computation.
I am very anxious to see a FP chip connected to the ST!!

I am here reposting a fix to the Megamax FP comparision bug.
Since I've done this it has worked fine. But beware: Megamax
gives you NO error messages upon division-by-0 and similar
errors - you just get garbage, and occasionally crashes.

I took a close look, using the mmdis disassembler,
at the double.o file (extracted from the double.l library with
the mmlib program.) Only one (1) byte is wrong, looks like a typo.
In the routine _fcom, where it says BSET #31,D1 it should say D2.

To patch it, use the following 'bth' and 'htb' programs:
Bth.prg translates the bytes of any file into both hex and
ASCII representation. The output can be edited on any text editor,
and then fed into the htb program to get it back
into binary. (Only the hex part needs to be changed, the ASCII part
is treated as a comment.) (Yes, Virginia, there is no way to assemble
the output of mmdis!)

In this case, tell bth.prg to read double.l. In the output file,
look (on line 47) for the sequence "46 82 46 83 08 C1".
Change the C1 to C2. Run it through htb.prg to create newdbl.l,
and your done. From now on, mmlink yourprog.o newdbl.l.
You can fix the single-precision float.o in syslib the same way -
look for the same sequence and do the same change.

```
/* BTH - a program to create a hex file from a binary file.
   by Moshe braner, 860613.
*/

#include <stdio.h>

#define  hinibble(b)  (((b)>>4) & 0x0F)
#define  lonibble(b)  ((b) & 0x0F)
#define  tohex(b)     ((b)<0xA ? ((b)+'0') : ((b)-0xA+'A'))

main() {
     register int c, b, i, t;
     int  n, m;
     FILE *infp, *outfp;
     char infname[80], outfname[80];
     char col[16];

     printf("\n\nBinary To Hex conversion program.  MB 8606.\n\n");
     printf("Enter name of source file: ",stdout);
     gets(infname);
     /* open file with "br" to avoid skipping of '\r's
        by Megamax library
     */
```

```
     if ((infp=fopen(infname,"br")) == NULL) {
          printf("cannot open source file!\n");
          exit(0);
     }
     printf("Enter name of output file: ");
     gets(outfname);
     if ((outfp=fopen(outfname,"w")) == NULL) {
          printf("cannot open output file!\n");
          exit(0);
     }
     m = 0;
     for (n=0; ; n++) {
          b=getc(infp);
          if (b != EOF)
               col[m++] = b;
          if ((b==EOF && m>0) || m>=16) {
               for (i=0; i<m; i++) {
                    t = col[i];
                    c = tohex(hinibble(t));
                    putc(c, outfp);
                    c = tohex(lonibble(t));
                    putc(c, outfp);
                    putc(' ', outfp);
               }
               for (; i<16; i++) {
                    putc(' ', outfp);
                    putc(' ', outfp);
                    putc(' ', outfp);
               }
               putc(' ', outfp);
               putc('*', outfp);
               putc(' ', outfp);
               for (i=0; i<m; i++) {
                    c = col[i];
                    if (c>=' ' && c<='~')
                         putc(c, outfp);
                    else
                         putc('.', outfp);
               }
               putc('\n', outfp);
               m = 0;
          }
          if (b == EOF)
               break;
     }
     printf("\nRead and translated %d bytes.\n", n);
}

-------------------------------------------------------------------

/* HTB - program to create a binary file from a hex file.
   by Moshe braner, 860606.
*/
```

```
#include <stdio.h>

#define  ishex(c)  ((c>='0'&&c<='9')||(c>='A'&&c<='F')||(c>='a'&&c<='f'))

/* the following macro assumes ishex(c) and ASCII: */
#define  hexval(c) ((c<'A')?(c-'0'):((c<'a')?(c-'A'+0xA):(c-'a'+0xA)))

main() {
     register int c, b, n;
     FILE *infp, *outfp;
     char infname[80], outfname[80];

     printf("\n\nHex To Binary conversion program.  MB 8606.\n\n");
     printf("Enter name of source file: ",stdout);
     gets(infname);
     if ((infp=fopen(infname,"r")) == NULL) {
          printf("cannot open source file!\n");
          exit(0);
     }
     printf("Enter name of output file: ");
     gets(outfname);
     /* open file with "bw" to avoid translation of '\n's
        to \r\n by Megamax library
     */
     if ((outfp=fopen(outfname,"bw")) == NULL) {
          printf("cannot open output file!\n");
          exit(0);
     }
     n = 0;
     while ((c=getc(infp)) != EOF) {
          /* rest of line after '*' is a comment: */
          if (c == '*') {
               while ((c=getc(infp)) != '\n' && c != EOF);
               continue;
          }
          /* read one or two characters for one output byte: */
          if (ishex(c)) {
               b = hexval(c);
               if ((c=getc(infp)) == EOF)
                    break;
               if (ishex(c))
                    b = 16*b + hexval(c);
               if (putc(b,outfp) != b) {
                    printf("error writing file!\n");
                    exit(0);
               }
               n++;
          }
     }
     printf("\nWrote %d bytes.\n", n);
}
-------------------------------------------------------------------
```

Another Megamax bug: after you open a file for reading using fopen("r"), you SOMETIMES get some extra garbage at the end of the file. It is some characters that appear near the end of the file, repeated in a garbled order. I got around it by using fopen("br") and doing the CRLF-->LF conversion myself.

While we're at it, did anybody find out how to get IO redirection to work right for C programs compiled with Megamax and used under Micro C-Shell? (Even though it works when using a program as .ttp from the desk top, the same program when invoked from microcsh as "progname > outfile" gives two bombs.) Somebody from Megamax posted a claim that it works, but it does NOT! (I use a 1040STf, completely off a (RA)M-disk. Monochrome.) I wrote Megamax (twice) and Beckemeyer, but got no answers. I also wish microcsh was not so DRI oriented - e.g. 'echo' is a separate program on disk, but a DRI-specific 'cc' is taking up space in the microcsh core. How about having an environment variable that tells microcsh which compiler is used? (and activates the appropriate IO redirection scheme...)

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

braner@amvax.tn.cornell.edu (ARPANET)
braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
{decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -3008046478801976013
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,96130358e807426,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 17:09:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!sunybcs!ugblee
From: ugblee@sunybcs.UUCP (Bong Lee)
Newsgroups: net.micro.atari16
Subject: GO?
Message-ID: <458@sunybcs.UUCP>
Date: Mon, 21-Jul-86 20:09:31 EDT
Article-I.D.: sunybcs.458
Posted: Mon Jul 21 20:09:31 1986
Date-Received: Wed, 23-Jul-86 09:14:21 EDT
Reply-To: ugblee@gort.UUCP (Daniel Lee)
Distribution: na
Organization: SUNY/Buffalo Computer Science
Lines: 6

Keywords: version for ST
Summary: For ST?

Hi. I know that there is a game in public domain called GO for Macintosh.
Is there a version for ST for the game? Can you tell me how I can get it?

Thanks. (in advance)

Daniel.

From 8328922218549896690
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 17:15:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!brl-adm!caip!ut-sally!pyramid!decwrl!sun!cmcmanis
From: cmcmanis@sun.UUCP
Newsgroups: net.micro.atari16
Subject: Re: The 68020 Suggestion
Message-ID: <5311@sun.uucp>
Date: Mon, 21-Jul-86 20:15:41 EDT
Article-I.D.: sun.5311
Posted: Mon Jul 21 20:15:41 1986
Date-Received: Tue, 22-Jul-86 09:10:57 EDT
References: <860720202512.001@Juliet.Caltech.Edu>
Organization: Sun Microsystems, Inc.
Lines: 35

Lingus (CCL @ CITROMEO) writes :
>
> I hope that Atari listens to the suggestions posted by this
> conference. I feel that Atari should continue to keep competition
> off balance by coming out with a 68020 based micro instead of
> the DMA box they plan on marketing. I think that the DMA port
> should be reserved for the harddisk. A 68020 machine, with
> the power of a S*n workstation, could be produced for under
> $3000, estimating conservatively. I also think that Atari
> should come out very soon with an inexpensive upgrade to add R/W
> and the additional address lines to the ROM port to maximize
> the potential of the STs. Though I do not own an ST, I am very
> interested in these "new" 68000 machines. (aside: 68000s at
> 8Mhz now sell for under $10.00)
>
> Any info on laserprinters, CDs and the graphics upgrade for the STs
> would be very welcome.
>
> Lingus (CCL @ CITROMEO)

While we all admire what Atari has wrought with bringing the price of
68000 machines down to earth, your $3000 number is a bit absurd. Mostly
because the monitor alone to display 1200 X 800 monochrome graphics is

on the order of $1000 wholesale. Add to that the $200 price of *each*
68020 chip, multihundred dollar price of 68881 chips, 4 Meg of ram
(which at $3 per 256K chip is still $384) Add to a new box, bigger
power supply, you have to include a hard disk to make it run at any
speed. No, I don't think $3000 will buy you a Sun workstation ($8000
will :-)) I think the best that can be said is that in 5 years it
will probably be possible. Ah well.

--Chuck McManis

Note: These are my opinions and my mine alone, they do not represent those
of Sun MicroSystems.

From 1182192485179019768
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fcbf3d35262a7e8f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-21 20:31:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!im4u!ut-sally!
seismo!mcvax!ukc!warwick!cvaxa!unx1!qsfa1
From: qsfa1@unx1.UUCP (Graham Thomas)
Newsgroups: net.micro.atari16
Subject: Spreadsheet availability
Message-ID: <120@unx1.UUCP>
Date: Mon, 21-Jul-86 23:31:12 EDT
Article-I.D.: unx1.120
Posted: Mon Jul 21 23:31:12 1986
Date-Received: Mon, 11-Aug-86 04:40:17 EDT
Reply-To: qsfa1@unx1.UUCP (Graham Thomas)
Organization: CC University of Sussex
Lines: 16
Keywords: VIP, KUMA, etc

lineater fodder

Anyone seen a GEM version of VIP Professional yet?

Any other good spreadsheets available? (I discount Kuma's K-Spread,
which is clumsy and limited).

--
Graham Thomas

UUCP: ...!mcvax!ukc!warwick!cvaxa!unx1!qsfa1
JANET: qsfa1@uk.ac.sussex.vax2

phone: +44 (0)273 686758 (Science Policy Research Unit)

From -5861466646651075719
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d000a0d17bc650f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 05:50:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!HIS-PHOENIX-MULTICS.ARPA!DPickett
From: DPickett@HIS-PHOENIX-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: 68020
Message-ID: <860722125056.438578@HIS-PHOENIX-MULTICS.ARPA>
Date: Tue, 22-Jul-86 08:50:00 EDT
Article-I.D.: HIS-PHOE.860722125056.438578
Posted: Tue Jul 22 08:50:00 1986
Date-Received: Wed, 23-Jul-86 19:18:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Actually, with its dynamic bus sizing and cache, it is simple to make a board with some 32 bit memory (optional but desirable) and a 68020 to replace the 68000 directly. The 68020 can detect that the memory is only 16 or 8 bit as it selects it, and use more cycles if necessary for the data being accessed. This makes it the most drop-in-able of 32 bit micros, it could go into the 800xl or such, and address all the little guy's memory and peripherals as part of its address range. It should be an addin, not a followon only.

From -6614004394551489179
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a7c1bd4d5d77b564,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 08:59:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!YALE.ARPA!domeshek
From: domeshek@YALE.ARPA (Eric Domeshek)
Newsgroups: net.micro.atari16
Subject: TDI Modula
Message-ID: <8607221559.AA04339@Yale-Bulldog.YALE.ARPA>
Date: Tue, 22-Jul-86 11:59:31 EDT
Article-I.D.: Yale-Bul.8607221559.AA04339
Posted: Tue Jul 22 11:59:31 1986
Date-Received: Wed, 23-Jul-86 08:16:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

Does anyone out there know what is included in the TDI Modula-2 developer's package beyond what is included in the basic language package? Come to think of it, what's included with the basic

language? I'd appreciate comments from anyone with experience
using either version. How about developer's packages in general;
are there any out there worth the cost?

Thanks in advance. If you don't want to clutter the net you can
send directly to me as:

Net: ARPA: Domeshek-Eric@yale
     UUCP: ...!yale!Domeshek-Eric
     BITNET: Domeshek@yalecs

-Eric

From 9094464271169149915
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,90382ed3a557207c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 11:05:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!
iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: OS-9 68K status
Message-ID: <54600101@iuvax.UUCP>
Date: Tue, 22-Jul-86 14:05:00 EDT
Article-I.D.: iuvax.54600101
Posted: Tue Jul 22 14:05:00 1986
Date-Received: Fri, 25-Jul-86 20:55:36 EDT
References: <1296@lsuc.UUCP>
Lines: 4
Nf-ID: #R:lsuc:-129600:iuvax:54600101:000:173
Nf-From: iuvax!franco   Jul 22 13:05:00 1986

I think the Amigas in the Toronto area are overpriced by alot more than
$500 (US or Canadian) considering Commodore has all but thrown in the
towel on the Amiga and itself.

From -4265224429329114866
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,568dcc366a95459,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 120a1f,568dcc366a95459,start
X-Google-Attributes: gid120a1f,public
X-Google-ArrivalTime: 1986-07-22 12:11:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16,net.wanted.sources
Subject: 68000 Assembler in C?

Message-ID: <354@unmvax.UUCP>
Date: Tue, 22-Jul-86 15:11:52 EDT
Article-I.D.: unmvax.354
Posted: Tue Jul 22 15:11:52 1986
Date-Received: Thu, 24-Jul-86 21:47:37 EDT
Organization: Univ. of New Mexico, Albuquerque
Lines: 24
Xref: mnetor net.micro.atari16:1377 net.wanted.sources:2085

We are considering replacing the TI-9900 micros in our lab (used for our Computer Organization class) with a 68000 based machine - probably an Atari ST. We have found it most effective to have the students edit on the University Unix machine and download code to the micros. We have a cross assembler on the Unix system and they down load object code.

An Atari ST is a real machine with several assemblers available. I have not seen source in C for such an assembler. Ideally, we'd like the source for a 68K assembler in C so they can get the syntax mistakes out on Unix, download to the Atari (or whatever we use), and then use the SAME assembler to assemble the executable program.

So - is there a PD 68000 assembler written in C that produces executable code for an ST that could be ported to be a Unix cross assembler?

--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From 8562808847888233003
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f82806e4401c3531,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 12:49:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!sdcsvax!sdcarl!tre
From: tre@sdcarl.UUCP (Tom Erbe)
Newsgroups: net.micro.atari16
Subject: Floppy Disk Speed
Message-ID: <332@sdcarl.UUCP>
Date: Tue, 22-Jul-86 15:49:58 EDT
Article-I.D.: sdcarl.332
Posted: Tue Jul 22 15:49:58 1986
Date-Received: Wed, 23-Jul-86 19:20:50 EDT
Reply-To: tre@sdcarl.UUCP (Tom Erbe)
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 13

.
     The floppy disk on my ST seems to run very slow. I have seen this on other STs, so I think it is a design flaw. If I am not imagining this, where does the fault lie? Is it the disk, the controller, or the software? Will there be a fix for this from Atari?
--
     Tom Erbe
     Computer Audio Research Lab, UCSD
     Q-037
     La Jolla, CA 92093
     619-452-4384
     {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From -4350611009727928104
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58d82d3a769f42e1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 12:56:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: accessing pd software
Message-ID: <8607222048.AA09326@ucbvax.Berkeley.EDU>
Date: Tue, 22-Jul-86 15:56:00 EDT
Article-I.D.: ucbvax.8607222048.AA09326
Posted: Tue Jul 22 15:56:00 1986
Date-Received: Wed, 23-Jul-86 08:40:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

Could someone tell me how to find out what public domain software is accessible from BITNET? I am limited to using kermit from an IBM machine here at Cornell. Is there some library or kermit server out there that I could access? Thanks very much.
ps. I got my 520st on the weekend and it looks great on the monochrome monitor and surprisingly good on my color tv. My dealer says that Graphikon (sp?) will be releasing a new terminal program in the near future that supports vt202, REGIS, and tek4104 graphics modes. This could be the terminal program I am waiting for.
                                peter lorraine qbzj@cornella.bitnet

From -4228485561036100478
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5f0df83576678dbb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 16:30:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!mnetor!seismo!lll-crg!topaz!ll-xn!mit-amt!mit-eddie!genrad!decvax!
tektronix!uw-beaver!ubc-vision!mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)
Newsgroups: net.micro.atari16
Subject: Double sided disk format
Message-ID: <740@mprvaxa.UUCP>
Date: Tue, 22-Jul-86 19:30:52 EDT
Article-I.D.: mprvaxa.740
Posted: Tue Jul 22 19:30:52 1986
Date-Received: Thu, 24-Jul-86 21:12:02 EDT
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 4

Read the description of the single sided disk format and found it quite
informative. Would someone expand on that and describe how a double sided
disk is laid out?
Taylor Jackson

From 8318194659277470570
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dae9b192eb65d956,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 17:41:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!BONNIE.UCI.EDU!
escott
From: escott@BONNIE.UCI.EDU (Scott Menter)
Newsgroups: net.micro.atari16
Subject: Stock Program for Micros
Message-ID: <8607222216.AA11071@ucbvax.Berkeley.EDU>
Date: Tue, 22-Jul-86 20:41:02 EDT
Article-I.D.: ucbvax.8607222216.AA11071
Posted: Tue Jul 22 20:41:02 1986
Date-Received: Wed, 23-Jul-86 19:21:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

Hello.

A friend has asked me to seek out for him a microcomputer program to do
stock market analysis, projections, etc. Just what type of microcomputer
the software runs on is not so important; he will make his purchase
based upon which has the best stock market software.

Can anybody recommend any such software? A little about what each one
does would be nice, seeing as I know *nothing* about stocks and I'm
going to have to pass along to my friend the responses I get. Maybe
if I find something sufficiently neat, I'll get into it too! Of course,
that requires money... ah, forget it.

Anyway, thanks very much in advance for your time. Sorry this message

has such a "generic" quality to it; I'm sending it to a bunch of PC
oriented bboards (sorry also if you've been forced to hit the "N" key
several times as a result of this!).

Please respond to me personally, as opposed to on this bboard, since I
don't normally read micro-oriented bboards.

Thanks again.

 +---+
  E. Scott Menter   Internet: escott@ics.uci.edu
  UCI Systems Support Group   UUCP: ...!ucbvax!ucivax!escott

  "If it gets me nowhere, I'll go there proud."
 +---+

From -8072993565520840807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a7c1bd4d5d77b564
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-22 17:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!UW-JUNE.ARPA!rling
From: rling@UW-JUNE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: TDI Modula
Message-ID: <522460506.rling@uw-june>
Date: Tue, 22-Jul-86 20:55:00 EDT
Article-I.D.: uw-june.522460506.rling
Posted: Tue Jul 22 20:55:00 1986
Date-Received: Wed, 23-Jul-86 19:26:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 53

The regular version of TDI Modula-2 (release 2.00A) ($79.95) includes:

- GEM based editor
- compiler
- optimizing linker (removes uncalled procedures)
- its own desktop that allows edit/compile/link of files by
  merely clicking on file icons
- a desk accessory that sets the search paths for the Modula-2
  system, heap size and some other compile/link options
- modules that provide full interface to GEM DOS, AES, VDI,
  BIOS and XBIOS
- 370 page manual

The developers version ($149.95), in addition, includes:

- symbolic debugger that uses GEM windows

- source file cross referencer
- symbol and link file disassembler
  symbol file decodes to give a definition module and link file decodes to give code in 68K assembly language
- Megamax resource construction program

The editor is GEM based but also makes use of function keys. It is quite slow both in editing and reading and writing files. It makes use of error files produced during compilation to flag errors. When the cursor is at an error, a short description of the error is displayed.

The optimizing linker is a real improvement. It is not unusual to get a 75% reduction in the size of the final program. With optimization, the final code size is comparable to that produced by the Alcyon C. (Your mileage may differ.)

The Modula-2 desktop facilitates the edit/compile/link cycle. Files are represented as icons and are separated into 5 categories (DEF, IMP, SYM, LNK, PRG). Clicking on the definition or implementation icons invokes the editor on the source file; clicking on the symbol or link file icons invokes the compiler and clicking on the program icon invokes the linker (if the link file is not present or is out-of-date, the compiler is called first).

There is space for 4 search paths each being a maximum of 15 characters long. I think that both of these are severe limitations. You can't go very deep into the file structure unless you have really short directory names.

The symbol and link file decoders are useful in finding compiler bugs and bugs in other people's programs.

Speaking of bugs; there are already updates for a few of the I/O modules. I've also found one in the XBIOS module (using the link file decoder, of course). Sometimes I think that WE are the beta testers.

The manual contains no documentation on GEM, AES or VDI.

- Robert Ling <rling@uw-june.arpa>

From -4303944934103368718
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,90638a879aeb8616,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 05:25:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: GEM Kermit
Message-ID: <8607231225.AA23492@ncsc.ARPA>
Date: Wed, 23-Jul-86 08:25:35 EDT
Article-I.D.: ncsc.8607231225.AA23492
Posted: Wed Jul 23 08:25:35 1986
Date-Received: Thu, 24-Jul-86 02:56:08 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Hi; about a month ago Bernhard Nebel from BITNET announced a version of Kermit for the 520ST (GEM Kermit). Is there anyone on the net who would be willing to make a copy for me, provided I send a formatted disk? Bernhard has offered, but I think it would be faster if I could get it from someone in Conti-U.S. Thanks for any help.

Jim Moore
NCSC

From -9186541222416533958
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9349ae177a1f74c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 08:24:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CZHETH5A.BITNET!SIGNAL
From: SIGNAL@CZHETH5A.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607231523.AA24957@ucbvax.Berkeley.EDU>
Date: Wed, 23-Jul-86 11:24:05 EDT
Article-I.D.: ucbvax.8607231523.AA24957
Posted: Wed Jul 23 11:24:05 1986
Date-Received: Thu, 24-Jul-86 02:59:04 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

I have an ATARI 520 ST from Nov 85 and bought a SUPRA 20 MB Hard Disk.
First Problems (I couldn't start programs which were sited on the harddisk)
were solved by changing the GLUE-Chip of my ATARI to a newer version
(seemed to be a timing problem).

Like that it worked quite well with one exception:
Every couple of days it happens, that a file on the harddisk cannot be read.
The message "No response from drive C, check connections ..., cancel or retry"
appears every time you want to read, copy or even delete this file. The problem
never arrives during writing, but always with existing files. The only
solution is to reformat or zero the hard disk.
I tried a little bit with a ATARI 1040 ST and it seems to me that this problem
doesn't arrive there or it arrives at least less often.

So the problem might be a timing problem may be also of the ATARI?
Have you heard about similar problems and/or know possible solutions?

Christoph Loeffler
Swiss Federal Institute of Technology

Zurich, Switzerland

From -8063425369191520347
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3776630396b997d7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 11:23:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!DB0ZIB21.BITNET!FU8861
From: FU8861@DB0ZIB21.BITNET
Newsgroups: net.micro.atari16
Subject: Request of Atari-Notes
Message-ID: <8607231822.AA27912@ucbvax.Berkeley.EDU>
Date: Wed, 23-Jul-86 14:23:46 EDT
Article-I.D.: ucbvax.8607231822.AA27912
Posted: Wed Jul 23 14:23:46 1986
Date-Received: Thu, 24-Jul-86 03:30:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Dear Sir
I'd like to get the new issues of your magazin
GB

From -8458335388875574601
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58d82d3a769f42e1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-23 13:13:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!mnetor!seismo!caip!sri-spam!nike!ucbcad!ucbvax!XEROX.COM!
JDavidson.WBST
From: JDavidson.WBST@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: accessing pd software
Message-ID: <860723-131401-1728@Xerox>
Date: Wed, 23-Jul-86 16:13:11 EDT
Article-I.D.: Xerox.860723-131401-1728
Posted: Wed Jul 23 16:13:11 1986
Date-Received: Thu, 24-Jul-86 03:37:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

The BBS supports 300/1200/2400 Baud and will understand whatever
character size stop bits etc when you logon. All the acurate info on
ACORN is on this BBS as well.   {John}

From 61049355565226182

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7906cb55108b6aed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 10:24:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: Ramblins.
Message-ID: <860712132429.00001299.AANZ.AA@UMass>
Date: Sat, 12-Jul-86 13:24:29 EDT
Article-I.D.: UMass.860712132429.00001299.AANZ.AA
Posted: Sat Jul 12 13:24:29 1986
Date-Received: Sat, 12-Jul-86 22:56:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 55

(BTW, this is my second attempt to send this letter, first letter returned 28 times from 28 different places. All for the same reason, somewhere the name "info-atari16" in the TO line was changed to "10003info-atari16" or "1000311654".)

Hello,

Just got my copy of THUNDER from B.I. I am very impressived by this product, worth the money. So, run out and get it.

On B.I.:

I went this past tuesday to Boston University for a product demostration of the new B.I. ST products. The president of the company himself, Mr. Michael H. Reichmann was there to demo the products. Well, I must first of all thank him for doing such. He turned out to be a very courteous gentleman who knew what he was talking about.

I am sorry I didn't take notes on it all, but this is what I can recall. He showed THUNDER, and HOMEPACK along with several others. First of all, they are very good programs. Homepack looks very good. Degas Elite he was not allowed to show by his lawyers, but he detailed it. It will allow up to four windows, 3d rotation of objects, clip_art (like a Mac!), and full color shading. Tom spent 8 months working on this baby. Anyways, he also showed I*S Talk. If you need a terminal for any use, get this. It is bug free, not like Flash, and it allows full cut & paste like Red_Rider on a Mac. VERY NICE, it also has a miny THUNDER built in. (BTW, Thunder is a 50,000 word spelling dictionary). He showed BTS spreadsheet (BTS = Between The Sheets). Looks very good, and some other stuff. I am very impressed with the overall quality of the graphics.

Paperclip Elite is not finished, he revealed. They are waiting for Atari to ship them GDOS (Neill?). But as soon as they get it, it will go out. (Some time this fall). It is basically a 1st Word with GDOS (fonts and stuff like on a mac). It also allows to merge graphics from DEGAS and DEGAS ELITE (use clip_art to make logos!) It also has thunder built in.

He also rumored that BI is planning a terminal program that will do multiple emulation. From VT220, Regis Graphics, to Techtronix 1040.

Not much else. But he did talk about the BLITTER chip. Which should be out at the end of the summer. (Or so he claims Tramiel himself told him). From what I hear, it is a board that you will plug into the socket of the 68000 in the ST, it has the blitter chip on it. You then plug the 68000 into it) Sorry for those with a 520ST, only the 1040ST has a removable 68000 chip.

Seems that with GDOS, the ST will become resolution independent, so Atari is rumored to be considering releasing a 1,024 x 1,024 resolution monitor. One source mentioned that it will also have 8 colors. I dunno.

Well, that is all I can think of, I have other net mail to update. (Like Kinmail, heh)

Flash%UMass.Bitnet

From 6427347546806421031
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9ac09dff80e80762,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 15:16:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: OSS Pascal query.
Message-ID: <860712181621.00001467.ABEV.AA@UMass>
Date: Sat, 12-Jul-86 18:16:21 EDT
Article-I.D.: UMass.860712181621.00001467.ABEV.AA
Posted: Sat Jul 12 18:16:21 1986
Date-Received: Sat, 12-Jul-86 23:14:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

I am a user of OSS pascal, and I am having problems writing this program. I need some way to scroll a window full of text. But OSS pascal is missing that feature. Could somebody who knows OSS Pascal and GEM well enough, be kind of enough of suggesting some solution to this problem?

Flash%UMass.BITNET

From -7218893208727646853
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a96b148c620800e8

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 16:23:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!alberta!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: TDI Modula-2 V2.0 released?
Message-ID: <304@ubc-cs.UUCP>
Date: Sat, 12-Jul-86 19:23:39 EDT
Article-I.D.: ubc-cs.304
Posted: Sat Jul 12 19:23:39 1986
Date-Received: Wed, 16-Jul-86 22:36:33 EDT
References: <29@nvpna1.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Distribution: net.micro.atari16
Organization: UBC Department of Computer Science
Lines: 22

In article <29@nvpna1.UUCP> dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
writes:
>Rumours say that TDI's Modula-2 version 2.0 is on the way to replace version
>1.4 and 1.10. However I still haven't seen it yet. Has anybody in netland
>seen it, or even better used it already? If not, does anybody how long it
>will take until version 2.0 shows up?

I've had my copy for the last three weeks. It's really great; the horrendous
problems which the original version had with pathnames involving
subdirectories have been completely eliminated, and the Modula desktop is a
real convenience (though it still has a couple of annoying quirks). The
documentation is *much* better, and, all in all, it's a real improvement.

The developer's version costs about US$70 more, but it's worth it: you get
the ETHZ post-mortem debugger, and the Megamax Resource Construction Set.
This latter is a big win over the DRI one: for one thing, it works, and
for another, it generates Modula-syntax header files.

The only thing is that TDI still seems to have problems in the shipping
area. It arrived (via UPS second-day service) three weeks after they assured
me all back orders had been shipped. I never bothered to track it down,
so the fault might have been TDI's or UPS's.

From -553803152304293474
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7bda412cbfb1e7d4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 16:31:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!alberta!ubc-vision!ubc-ean!ubc-
cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 'uw' for the 520ST wanted (server part only)

Message-ID: <305@ubc-cs.UUCP>
Date: Sat, 12-Jul-86 19:31:59 EDT
Article-I.D.: ubc-cs.305
Posted: Sat Jul 12 19:31:59 1986
Date-Received: Wed, 16-Jul-86 22:36:44 EDT
References: <148@tnocsda.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 4

I must have missed something. I didn't realise that there *was* a uw
port for the ST. Does it use the same server as the Mac version? Could
somebody post a copy (or E-mail it to me)?

From 9495137171306572 65
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,86d061a4f315849e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 17:48:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!ll-xn!mit-amt!mit-eddie!mit-trillian!micah
From: micah@mit-trillian.UUCP
Newsgroups: net.micro.atari16
Subject: Mark Willians Company C Programming System
Message-ID: <836@mit-trillian.MIT.EDU>
Date: Sat, 12-Jul-86 20:48:28 EDT
Article-I.D.: mit-tril.836
Posted: Sat Jul 12 20:48:28 1986
Date-Received: Sun, 13-Jul-86 06:54:43 EDT
Reply-To: micah@trillian.UUCP (Micah P. Doyle)
Organization: MIT Project Athena
Lines: 12

The July issue of Byte mentions a new C system from The Mark Willians
Company for the Atari ST. This comes with a full C compiler,
libraries, shell, etc. for $179.95. Has anyone seen this (or know
how good Mark Williams Company compilers have been on other
computers)? How good is the system and how does it stack up to other
compilers (like MegaMax) currently on the market? Any information
anyone can give me on this would be appreciated.

--
Micah Doyle
micah@athena.MIT.EDU
mit-eddie!mit-athena!micah

From 9153860550189936520
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 19:51:14 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <608@batcomputer.TN.CORNELL.EDU>
Date: Sat, 12-Jul-86 22:51:14 EDT
Article-I.D.: batcompu.608
Posted: Sat Jul 12 22:51:14 1986
Date-Received: Sun, 13-Jul-86 06:59:15 EDT
References: <8606301912.AA01253@mitre.ARPA> <128@wlbreng1.UUCP> <298@sunybcs.UUCP>
<543@hope.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 14

Please add me to the Atari mailing list for the ST, too.

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -3294096160637915950
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,830a1af64dfc5b74
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 19:51:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!cornell!batcomputer!braner
From: braner@batcomputer.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Micro Emacs
Message-ID: <609@batcomputer.TN.CORNELL.EDU>
Date: Sat, 12-Jul-86 22:51:44 EDT
Article-I.D.: batcompu.609
Posted: Sat Jul 12 22:51:44 1986
Date-Received: Sun, 13-Jul-86 06:59:31 EDT
References: <5297@topaz.RUTGERS.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 40

I almost dare say that my enhanced version of microEMACS is
done. It includes built-in help, complementing-brace search,
paragraph reformatting, and many smaller improvments.

The Atari ST version makes extensive use of the function keys,
both labelled (e.g. Help, Undo) and not (F1-F10). Access to
the alternate character set (MSB set) has been added, too.

If you send me a (3.5", single-sided, Atari ST formatted)
disk in an appropriate SASE I will return it with both the source
code (in C, about 175K) and the executable version (compiled with
Megamax, about 43K). The source can be compiled on UN*X, CP/M,
MSDOS and VMS, too.

The Proff formatter is a nice companion to microEMACS, if you
don't insist on wysiwyg. (Proff is a dot-command sort of thing,
complete with variables and macros. If you want wysiwyg I don't
see what's wrong with 1st Word. Most printers won't print fancy
fonts except as ugly dot-matrix graphics. And I think
shadow-outline is illegible... Anyway, you don't have macros
with parameters to save you typing in wysiwyg editors. And the
Proff text can be sent over to a UN*X system and itroff-ed to a
laser printer.) I finally compiled Proff (the source is public),
after adding some pointer and register stuff for speed and
smaller size. The resulting 37K file formats proffman.prf (some
32 pages of output) in 25 seconds (reading from and writing to
a ram disk, of course). If you want it too, say so.

- Moshe Braner

Corson Hall, Cornell University, Ithaca NY 14853
(607) 272-3487

For electronic mail, my address is:

     braner@amvax.tn.cornell.edu   (ARPANET)
     braner%amvax.tn.cornell.edu@WISCVM.BITNET (Bitnet)
     {decvax,ihnp4,cmcl2,vax135}!cornell!amvax!braner (USENET)

From -7268547479633175882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29b1dda3d23f95f0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 21:08:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: battery backup for clock
Message-ID: <1861@utecfa.UUCP>

Date: Sun, 13-Jul-86 00:08:46 EDT
Article-I.D.: utecfa.1861
Posted: Sun Jul 13 00:08:46 1986
Date-Received: Sun, 13-Jul-86 03:35:25 EDT
References: <1517@alvin.mcnc.UUCP>
Organization: Engineering Computing Facility, University of Toronto
Lines: 31
Keywords: 520ST ST clock backup

[+]

Hello All!

In response to the question about setting up a battery backup to the
ikbd (intelligent keyboard) clock:

My experience has shown that when the RESET* line is
pulled low while reseting the ST, this -ve edge
propogates to all the chips listening to the RESET* line
(the ikbd chip being one of them). This causes the
ikbd chip to reset, and in the process of going through
the reset, it sets the time to some magic date in 1985.

Is this true, or is something else changing the time.
I cut the RESET line going to the keyboard, and now
I don't lose the time across resets which seems to indicate
that this is indeed the problem. However, I don't recommend
doing this because it will void your warranty, and if there
is a better solution, your board will be marred for life :-)
Mine is so hacked beyond recognition that one more hack ...

     Anees Munshi

-
          Anees Munshi
          @ University of Toronto Engineering Comp. Facility :A
          {allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
                 {ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

From -6522996493190644534
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,723ccb9e8072ace
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 22:36:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro.atari16
Subject: Using kermit on Unix. (Re: Binary Downloads
Message-ID: <217@cci632.UUCP>

Date: Sun, 13-Jul-86 01:36:53 EDT
Article-I.D.: cci632.217
Posted: Sun Jul 13 01:36:53 1986
Date-Received: Wed, 16-Jul-86 03:29:26 EDT
References: <356@lll-lcc.UUcp>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 27
Summary: Generic hints.

In article <356@lll-lcc.UUcp> eckert@lll-lcc.UUCP (Philip D. Eckert) writes:
>HELP.... I am trying to Download binary files from the VAX to my ST and am
>having no luck whatsoever. I set the terminal emulator (PC/Intercomm) to
>Kermit Image and am using KERMIT with the -is option to send the file, but alas I
have been without success. Am I going to have to wait until I get a copy of
>UUDECODE for the ST, or is there a secret I am unaware of? Thank you for any
>help you can give me.

If you can't get a copy of uudecode, maybe it can be reposted?
It might be a good idea to cross-ref it to net.micro as well.

In reguards to kermit. It is important to make sure that you

"set file-type binary" on unix kermit.

If you are using multiplexers such as micoms, you may need to
lower the baud rate before you connect/login.

Be sure you check the status on the ST side to make sure there
are no nak packets.

there seem to be some problems with unix kermit, or features,
that make transfers a little less "automatic" than other kermits.

Some versions of unix-kermit can run in 8 bit no-parity mode, and
the non-unix kermit can be set the same way. I don't believe
this is the default.

From -988126593969237900
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,384a7b4eaeb3dd8
X-Google-Attributes: gid129c11,public
X-Google-Thread: 1479fb,384a7b4eaeb3dd8
X-Google-Attributes: gid1479fb,public
X-Google-Thread: 140593,384a7b4eaeb3dd8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 23:32:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro,net.micro.atari16,net.micro.ti

Subject: Re: Optimum transmission speed over telephone lines
Message-ID: <218@cci632.UUCP>
Date: Sun, 13-Jul-86 02:32:03 EDT
Article-I.D.: cci632.218
Posted: Sun Jul 13 02:32:03 1986
Date-Received: Wed, 16-Jul-86 03:29:39 EDT
References: <1207@mhuxo.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 68
Xref: utcs net.micro:14723 net.micro.atari16:1291 net.micro.ti:210
Summary: Would you believe almost 19200 baud analog.

In article <1207@mhuxo.UUCP> gjphw@mhuxo.UUCP (WYANT) writes:
>
> While considering the purchase of a 1200 baud modem, I began wondering
>if there is some optimum data rate for modem operations over the U.S.
>telephone lines. I have seen a few advertisements for 2400 baud modems,
>and read mention of 9600 bps modems becoming available. Where does
>the retransmission rate due to lost bits negate the higher data
>transmission rate?
>What might serve to be the most efficient data rate
>using ordinary (unconditioned) telephone lines?

Well let's first consider the theoretical maximum.
The yellow book indicates that the analog value of the line will be
"polled" 9600 times/second, and a dynamic range of 64 db can be
represented in 1 db steps (7 binary bits, but only six are "reliable").
So in theory, you could jam a d/a converter and get nearly 23 Kbaud.
Of course this isn't quite reliable for real communications, and
the phone company might have fits. This technique has been used
for several "illicit" perposes, most commonly fooling the phone
company into thinking you got a wrong number, when in fact, during
the few seconds you were connected, you had sent a 3 page report. :-).

Now, to be legal, the fastest legal standard is the V.33 or "Trellis
Coding" standard. Most modem makers are combining this with mnp
protocol, and a relatively standard version of compression.
In addition, the mnp error checking can be shut off for situations
where external error checking is needed (long modem->computer lines,
multiplexors,...).

Vanilla V.33 give a generic full duplex 9600 baud rate, with reasonable
error rates for "terminal mode" types of transmission, where a lost
bit doesn't cost too much. The compression nearly doubles the data
rates in many situations, but multiplies the effects of errors. The
MNP protocol allows error detection/correction.
Most of these modems also "double buffer" the line, allowing synch or
asynch in, and synch or asynch out. This is necessary because after
compression and error checking/correction the rate can vary from
19200 baud in "perfect" conditions to as low as 10Kb in "very noisy
conditions" (including data that won't compress nicely).

>Would the long distance
>digital telephone trunks be a more serious limiting factor than local or
>short haul analog lines?

Actually just the opposite. The distance to the pcm converter provides
the greatest possiblity for LC filtering, standing waves, ringing, and
several other problems. The digital lines are very easy to get good
repeaters for, and the loss of a millivolt can be recovered. Not so
on the analog lines. Even in trellis coding, a millivolt or an extra
pf on the line can mean a 300 baud drop in speed.

Let's hope that telephone companies can get ISDN (digital/analog)
services available at reasonable rates. Then we can talk in terms
of 56 Kb/line, over multiple lines if desired. It would be nice
if a parallel modem interface, rather than serial was a valid option as
well.

>
> Any suggestions?

I'm writing this at home, so there may be some errors, so,

Any corrections?
>   Patrick Wyant
>   AT&T Bell Laboratories
                                 ^^^^
Why do I feel this is a sucker question? :-).

From -4797096330419513355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c4005f79d7baf5fc
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-12 23:32:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!
ssc-vax!uvicctr!collinge
From: collinge@uvicctr.UUCP
Newsgroups: net.micro.atari16
Subject: Re: WANTED: terminal emulator
Message-ID: <176@uvicctr.UUCP>
Date: Sun, 13-Jul-86 02:32:50 EDT
Article-I.D.: uvicctr.176
Posted: Sun Jul 13 02:32:50 1986
Date-Received: Wed, 16-Jul-86 08:03:41 EDT
References: <268@sunybcs.UUCP> <1681@eagle.ukc.ac.uk>
Reply-To: collinge@uvicctr.UUCP (Doug Collinge)
Organization: University of Victoria, Victoria B.C. Canada
Lines: 20
Keywords: 132 columns

In article <1681@eagle.ukc.ac.uk> pc@ukc.ukc.ac.uk (R.P.A.Collinson) writes:

>Hmm.. well the Monochrome ST has 640 pixels across the screen.
>640/132=4.84 (recurring) - this is a bit little to see. In fact, I
>
>My conclusion therefore is that 132 character wide terminals are not
>really possible on the ST for humans not equipped with binoculars.

I used a home-brew 7x3 font to get 70 cols on my Apple for months of heavy
work. Perfectly readable with a little work on the font and I didn't have
to wear binoculars. On the ST it might be a bit teensy, however...
Doug.

--

Doug Collinge
School of Music, University of Victoria,
PO Box 1700, Victoria, B.C.,
Canada, V8W 2Y2
decvax!nrl-css!uvicctr!collinge
decvax!uw-beaver!uvicctr!collinge
ubc-vision!uvicctr!collinge

From 752426614549606929
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1cfd6e34f9660ff,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 06:00:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Editing error
Message-ID: <12222606099.9.G.ABRAMS@SU-SCORE.ARPA>
Date: Mon, 14-Jul-86 09:00:34 EDT
Article-I.D.: SU-SCORE.12222606099.9.G.ABRAMS
Posted: Mon Jul 14 09:00:34 1986
Date-Received: Mon, 14-Jul-86 22:32:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

We are breaking in several new helpers in moderating info-atari. Last
week there was an error in editing the distributioinn list in that line
numbers were left in the list. The problem has been corrected.

We regrtet the inconvenience.

From 8388311975432542592
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,febf0c79a170cb9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 07:05:00 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles $Revision: 1.7.0.10 $; site maggot
Path: utzoo!linus!raybed2!applicon!bambi!maggot!seefromline
From: barada@applicon.UUCP
Newsgroups: net.micro.atari16
Subject: Need BIOS documentation for MIDI
Message-ID: <24200003@maggot>
Date: Mon, 14-Jul-86 10:05:00 EDT
Article-I.D.: maggot.24200003
Posted: Mon Jul 14 10:05:00 1986
Date-Received: Wed, 16-Jul-86 08:06:28 EDT
Lines: 15
Nf-ID: #N:maggot:24200003:000:407
Nf-From: applicon.UUCP!barada   Jul 14 10:05:00 1986

--

Well I have had my 520 for a while now, and finally bought lattice
C for it. The compiler is nice, but I am upset that there is no
MIDI support in the library for it. All is not lost, there exist
bios and xbios call stubs though. Could someone mail me the bios and xbios
commands and formats so I can do my MIDI work that way???

Thanx much,

Peter Barada
(MIDI Junkie)

{ihnp4|decvax}!ima!pbear!peterb

From -1480748230737219868
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,86e0c485b8212049,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 09:20:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: looking at memory from OSS Pascal?
Message-ID: <8607141621.AA08341@ames-nas.ARPA>
Date: Mon, 14-Jul-86 12:20:59 EDT
Article-I.D.: ames-nas.8607141621.AA08341
Posted: Mon Jul 14 12:20:59 1986
Date-Received: Mon, 14-Jul-86 22:38:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

     Before I go out and hack the assembler code myself, does anybody

have a peek routine which will work with OSS Pascal?

From 5486077825121979735
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 09:26:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Format of ar68 libraries?
Message-ID: <8607141626.AA08436@ames-nas.ARPA>
Date: Mon, 14-Jul-86 12:26:15 EDT
Article-I.D.: ames-nas.8607141626.AA08436
Posted: Mon Jul 14 12:26:15 1986
Date-Received: Mon, 14-Jul-86 22:39:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Where can I find documentation on the format of archive libraries? (Other than the developer's kit, which I can't afford just yet :-)

Marty

From 8210628434818830217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30a3c4f86fb034ad,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 09:34:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Need uuencoded xmodem binary
Message-ID: <8607141634.AA08638@ames-nas.ARPA>
Date: Mon, 14-Jul-86 12:34:43 EDT
Article-I.D.: ames-nas.8607141634.AA08638
Posted: Mon Jul 14 12:34:43 1986
Date-Received: Mon, 14-Jul-86 23:01:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Would someone please send me a uuencoded binary of the xmodem program

for the ST?

     Thanks in Advance.

Marty

From -1656680864300744568
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,941d3f85724cbcc1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 10:37:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!YALE.ARPA!farrell
From: farrell@YALE.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: MIDI software
Message-ID: <8607141737.AA00403@Yale-Bulldog.YALE.ARPA>
Date: Mon, 14-Jul-86 13:37:57 EDT
Article-I.D.: Yale-Bul.8607141737.AA00403
Posted: Mon Jul 14 13:37:57 1986
Date-Received: Mon, 14-Jul-86 23:05:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Does anyone out there have any experience with MIDI software?
Does anyone out there have a Yamaha DX7? What kind of price did
you get on your synth? I am especially interested in software that
lets you program voices and MIDI commands and send them to the DX7,
like DX Droid. I have as 1040ST.

            -- Rob
address: Farrell@Yale

From -2766541636505709019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,86d061a4f315849e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 11:49:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watnot.UUCP
Path: utzoo!watmath!watnot!cbbrowne
From: cbbrowne@watnot.UUCP (Christopher Browne)
Newsgroups: net.micro.atari16
Subject: Re: Mark Willians Company C Programming System
Message-ID: <11877@watnot.UUCP>
Date: Mon, 14-Jul-86 14:49:09 EDT
Article-I.D.: watnot.11877
Posted: Mon Jul 14 14:49:09 1986
Date-Received: Tue, 15-Jul-86 01:21:26 EDT

References: <836@mit-trillian.MIT.EDU>
Organization: U of Waterloo, Ontario
Lines: 12

> The July issue of Byte mentions a new C system from The Mark Willians
> Company for the Atari ST. This comes with a full C compiler,
> libraries, shell, etc. for $179.95. Has anyone seen this (or know
> how good Mark Williams Company compilers have been on other
> computers)? How good is the system and how does it stack up to other
> compilers (like MegaMax) currently on the market? Any information
> anyone can give me on this would be appreciated.
>
> --
> Micah Doyle
> micah@athena.MIT.EDU
> mit-eddie!mit-athena!micah

From 3866683195674557370
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,880625417d323ce4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 12:46:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!SCORE.STANFORD.EDU!
Postmaster
From: Postmaster@SCORE.STANFORD.EDU.UUCP
Newsgroups: net.micro.atari16
Subject: Test message - may be ignored...
Message-ID: <12222680017.40.BILLW@SU-SCORE.ARPA>
Date: Mon, 14-Jul-86 15:46:37 EDT
Article-I.D.: SU-SCORE.12222680017.40.BILLW
Posted: Mon Jul 14 15:46:37 1986
Date-Received: Mon, 14-Jul-86 23:06:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: BILLW@SU-SCORE.ARPA
Organization: The ARPA Internet
Lines: 6

This should hopefully enable us to prune some of the dead
addresses from the atari mailing list.

Bill Westfield
Postmaster@Score

From -1775319001151334597
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 13:05:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <182@molihp.UUCP>
Date: Mon, 14-Jul-86 16:05:55 EDT
Article-I.D.: molihp.182
Posted: Mon Jul 14 16:05:55 1986
Date-Received: Wed, 16-Jul-86 22:38:46 EDT
References: <8606301912.AA01253@mitre.ARPA>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 6

In article <8606301912.AA01253@mitre.ARPA> gpowell@MITRE.ARPA (Gordon Powell)
writes:
>Please add me to the Atari mailing list for the ST. gpowell@mitre

Would you please add me as well?? Thanks!

...!ubc_vision!molihp!robt   Robert Thurlow

From -7689162401795225837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fe80c4a58f46b8bc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 14:12:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!NOSC.ARPA!uhrich%cod
From: uhrich%cod@NOSC.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: remove me from mailing list
Message-ID: <8607142112.AA12482@cod.ARPA>
Date: Mon, 14-Jul-86 17:12:03 EDT
Article-I.D.: cod.8607142112.AA12482
Posted: Mon Jul 14 17:12:03 1986
Date-Received: Tue, 15-Jul-86 04:51:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

----
please, because I get atari16 news.

thanx.

From -61066052428123707
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 15:24:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <30@nvpna1.UUCP>
Date: Mon, 14-Jul-86 18:24:21 EDT
Article-I.D.: nvpna1.30
Posted: Mon Jul 14 18:24:21 1986
Date-Received: Mon, 14-Jul-86 23:01:45 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Organization: Philips Research Laboratories Eindhoven
Lines: 15

In some article someone writes:
> In some other article someone else writes:
> > In yet another article yet another person writes:
> > > Please add me to the Atari mailing list for the ST.
> > Would you please add me as well?? Thanks!
> me too.
Ditto! Please?

Wouldn't it be possible for the moderator of the mailing list to send out his address, so all subscribers can send a message directly to him? If not please add my name to the mailing list as well.

Frans Dorrestein, mcvax!prle1!nvpna1!dorrestn

From 8235023011788727598
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d51fc449873eca25,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 18:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: modems and starter kit
Message-ID: <8607150126.AA08301@ucbvax>
Date: Mon, 14-Jul-86 21:18:00 EDT
Article-I.D.: ucbvax.8607150126.AA08301
Posted: Mon Jul 14 21:18:00 1986
Date-Received: Tue, 15-Jul-86 04:52:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

I should be getting a 520st this weekend (47st Photo at 495 dolars) and would appreciate any response to a few questions. A few people on the network were discussing the AVATEK (sp?) 1200 baud modem a while back.

Does this connect to the serial port? Also, are the terminal programs
available port-specific? That is will the same terminal program that
I could use to connect to the serial line in my office also be used
with a modem with a parallel port? Or is this inexpensive modem a
serial device? Also, is there someone in the Ithaca NY area with a
copy of the starter kit?
         thanks in advance,
           peter lorraine (qbzj@cornella.bitnet)
           a-13 clark hall, dept. of physics
           cornell university, ithaca, ny, 14853
           (607) 255-3391

From -289576880635830242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 18:38:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!nike!ucbcad!ucbvax!hplabs!qantel!lll-lcc!
eckert
From: eckert@lll-lcc.UUcp (Philip D. Eckert)
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <366@lll-lcc.UUcp>
Date: Mon, 14-Jul-86 21:38:20 EDT
Article-I.D.: lll-lcc.366
Posted: Mon Jul 14 21:38:20 1986
Date-Received: Wed, 16-Jul-86 03:19:09 EDT
References: <30@nvpna1.UUCP>
Reply-To: eckert@lll-lcc.UUCP (Philip D. Eckert)
Organization: Lawrence Livermore Labs, Lab Comp Ctr
Lines: 1

ME TOO!, I would like to be added to the ST mailing list. Thank you.

From 334416182332907959
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7906cb55108b6aed
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 21:03:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!decvax!tektronix!reed!dinadan!
percival!zippy
From: zippy@percival.UUCP (Michael Zenner)
Newsgroups: net.micro.atari16
Subject: Re: Ramblins.
Message-ID: <196@percival.UUCP>
Date: Tue, 15-Jul-86 00:03:46 EDT
Article-I.D.: percival.196
Posted: Tue Jul 15 00:03:46 1986
Date-Received: Wed, 16-Jul-86 04:53:07 EDT

References: <860712132429.00001299.AANZ.AA@UMass>
Reply-To: zippy@percival.UUCP (Michael Zenner)
Organization: The Nerds of the Round Table, Portland, OR.
Lines: 18

In article <860712132429.00001299.AANZ.AA@UMass> Flash@UMass.BITNET (Rick
Flashman) writes:
> But he did talk about the BLITTER chip. Which should be
>out at the end of the summer. (Or so he claims Tramiel himself told him).
>From what I hear, it is a board that you will plug into the socket of
>the 68000 in the ST, it has the blitter chip on it. You then plug the
>68000 into it) Sorry for those with a 520ST, only the 1040ST has a
>removable 68000 chip.
>
This is news to me, I recently cut the CPU from my 1040, then replaced it
with a fresh 68000 (in a socket, of course)...
I have never heard of an ST that came "Pre-Socketed", but it is quite a minor
and inexpensive operation(<$10US), and requires only a minumum amount of
skill... I would hate to see al those 520 owners left without such a great
board over something so relatively minor as a non-socketed chip...

--
          Michael Zenner
...!tektronix!reed!percival!zippy

From -6243829099197328691
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-14 22:31:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!alberta!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <312@ubc-cs.UUCP>
Date: Tue, 15-Jul-86 01:31:29 EDT
Article-I.D.: ubc-cs.312
Posted: Tue Jul 15 01:31:29 1986
Date-Received: Wed, 16-Jul-86 22:38:58 EDT
References: <8606301912.AA01253@mitre.ARPA> <182@molihp.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 4

Why are we getting all these "please add me..." messages? Many of them
seem to be followups to net.micro.atari16 postings. If you get n.m.a16,
then you are on the mailing list already.

From 8920363843420927750
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,d51fc449873eca25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 06:58:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP.UUCP
Newsgroups: net.micro.atari16
Subject: Re: modems and starter kit
Message-ID: <8607151358.AA07940@mitre-bedford.ARPA>
Date: Tue, 15-Jul-86 09:58:29 EDT
Article-I.D.: mitre-be.8607151358.AA07940
Posted: Tue Jul 15 09:58:29 1986
Date-Received: Wed, 16-Jul-86 03:36:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 16

The Avatex 1200-baud modem comes with an RS-232-C serial port, which should work with any computer which supports a serial RS-232 port. The Avatex modem has a bank of switches on the back which allow you to "assert" (set to logical "1" or "true") several of the standard control lines such as DATA TERMINAL READY (DTR) or, alternatively, let your program control them. What this means is that if your program does not set these lines up properly, you can still get the modem to put out a carrier by setting the switches properly. I found this handy with my Atari 800XL when one of my terminal emulators didn't seem to turn on the carrier. I now routinely leave DTR asserted by the modem switch, as I am not likely to turn on the modem without the computer.

I don't know much about modems with parallel ports. Usually the port controller does the conversion to serial, not the modem itself, I thought.

-John Sangster
jhs@mitre-bedford.arpa

From -8000391753981805923
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 08:41:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <183@molihp.UUCP>
Date: Tue, 15-Jul-86 11:41:45 EDT
Article-I.D.: molihp.183
Posted: Tue Jul 15 11:41:45 1986
Date-Received: Wed, 16-Jul-86 22:39:22 EDT
References: <8606301912.AA01253@mitre.ARPA> <182@molihp.UUCP> <312@ubc-cs.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA

Lines: 8

In article <312@ubc-cs.UUCP> manis@ubc-cs.UUCP (Vince Manis) writes:
>Why are we getting all these "please add me..." messages? Many of them
>seem to be followups to net.micro.atari16 postings. If you get n.m.a16,
>then you are on the mailing list already.

  I just had the facts of life explained to me by our news admin. Oops.

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
       #

From 8736205599938856789
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,21e97cd7ca767f2f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 08:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: 520 AND BLITTER
Message-ID: <8607152346.AA28198@ucbvax>
Date: Tue, 15-Jul-86 11:51:00 EDT
Article-I.D.: ucbvax.8607152346.AA28198
Posted: Tue Jul 15 11:51:00 1986
Date-Received: Wed, 16-Jul-86 03:56:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

The otherday Rick Flashman cited the president of Batteries Included
as having said that the blitter upgrade to the 1040 would be accomplished
by removing the 68000 from its socket, plugging the blitter board into the
socket and then remounting the 68000 on the new card. Are there any
hardware differences between the 520 and 1040 that would prevent yu
from cutting the pins off the 68000, soldering on a socket, buying
a new 68000 (what are they... $20?) and installing the blitter board. My
understanding was that the footprints were very similar. The only problem
with this upgrade path might be a lack of sace within the case of the 520
or possibly the power supply. It wouldn't be much fun to do, but it sure
sounds easier than the memory upgrade. It sure would be nice to get the
blitter on a 520st. Anyone have any useful technical information to add to
this?
          peter lorraine

From -2348314465603024234
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,39661be7954d3b62,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 09:36:27 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!parcvax!rocksvax!sunybcs!ugthomps
From: ugthomps@sunybcs.UUCP (Gregory Thompson)
Newsgroups: net.micro.atari16
Subject: Re: ST mailing list
Message-ID: <409@sunybcs.UUCP>
Date: Tue, 15-Jul-86 12:36:27 EDT
Article-I.D.: sunybcs.409
Posted: Tue Jul 15 12:36:27 1986
Date-Received: Wed, 16-Jul-86 07:12:14 EDT
Sender: nobody@sunybcs.UUCP
Reply-To: ugthomps@sunybcs.UUCP (Gregory Thompson)
Organization: SUNY/Buffalo Computer Science
Lines: 3
Summary: mailing list additions

References:

please add me to the mailing list as well.....
thanks...
              Greg

From -8377431449295489585
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d850548f758e80
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 09:54:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!paone
From: paone@caip.UUCP
Newsgroups: net.micro.atari16
Subject: Re: How to use Xbtimer() ?
Message-ID: <2748@caip.RUTGERS.EDU>
Date: Tue, 15-Jul-86 12:54:52 EDT
Article-I.D.: caip.2748
Posted: Tue Jul 15 12:54:52 1986
Date-Received: Wed, 16-Jul-86 05:20:45 EDT
References: <2874@sdcrdcf.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 15
Keywords: xbtimer, help

```
C: void xbtimer(timer, control, data, vector)
   int timer,control, data;
   logn vector;
```

This function allows you to start a timer in the MFP 68901, timer
is the number of the timer in the 68901. Timer A:0 Timer B:1 ect...

The other two dat and control are placed in the data and control
registers. The long parameter is the address of the interrupt routine.

I really think it would be more useful in assembly then C, but since I
don't have an assembler to use this I can't.

     Phil Paone

From -2416862409180119523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 10:26:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <2198@ihlpg.UUCP>
Date: Tue, 15-Jul-86 13:26:12 EDT
Article-I.D.: ihlpg.2198
Posted: Tue Jul 15 13:26:12 1986
Date-Received: Wed, 16-Jul-86 06:48:07 EDT
References: <8607141626.AA08436@ames-nas.ARPA>
Organization: AT&T Bell Laboratories
Lines: 30

>   Where can I find documentation on the format of archive libraries?
> (Other than the developer's kit, which I can't afford just yet :-)
> Marty

Even the developers kit doesn't document the format of ar68 files.

I would very much like to get this information myself. Since ar68 doesn't
work (half the time it gives: error reading file ... messages, always gives
this for any file with file static objects) I am hoping to right my own.

Some other questions:

Is there any way to give the kit's linker a file list longer than 128 chars.
I tried the [com[tail.lnk]] option but it seems to truncate that to 128 chars
also. ar68 heaved it's guts on almost every module for this project.
Has anyone figured out what ar68 is doing wrong?

This was my solution:

link68 [u]
h.68k=gs,a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,0,1,2,3,4,5,6,7,8,9,g
l,lf

where a-z and 0-9 are files renamed to a.o b.o etc.
and gs is gemstart.o renamed and gl is gemlib renamed and lf is libf renamed

Does anyone know how to pass an environment to a program? Without the

aes/vdi kludge package if possible.

Note: I was promised an update for my developers kit around april. I still have not seen hide nor hair of it? Listening Neil@ ?
--j.a.tainter

From -3730901175208026052
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d51fc449873eca25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 11:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!akgua!akguc!mtune!mtuxo!houxm!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: modems and starter kit
Message-ID: <54600099@iuvax.UUCP>
Date: Tue, 15-Jul-86 14:02:00 EDT
Article-I.D.: iuvax.54600099
Posted: Tue Jul 15 14:02:00 1986
Date-Received: Thu, 17-Jul-86 07:02:09 EDT
References: <17215534@ucbvax.UUCP>
Lines: 7
Nf-ID: #R:ucbvax:-1721553400:iuvax:54600099:000:161
Nf-From: iuvax!franco   Jul 15 12:02:00 1986

You can get the STarter Kit by mailing 5 disks formatted single sided, SASE and packing material to

John Franco
2535 Spicewood Lane
Bloomington, Indiana 47401

From -890959777719730116
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 119eed,8022c2d94efe1981
X-Google-Attributes: gid119eed,public
X-Google-Thread: 152df8,8022c2d94efe1981
X-Google-Attributes: gid152df8,public
X-Google-Thread: 142096,8022c2d94efe1981
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,8022c2d94efe1981
X-Google-Attributes: gid140593,public
X-Google-Thread: 12da6b,8022c2d94efe1981
X-Google-Attributes: gid12da6b,public
X-Google-ArrivalTime: 1986-07-15 11:54:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!decvax!decwrl!pyramid!amiga!skipper!cbmvax!daveh

From: daveh@cbmvax.UUCP
Newsgroups: net.lang.c,net.micro.mac,net.micro.amiga,net.micro.atari16,net.decus
Subject: Re: C compiler survey
Message-ID: <532@cbmvax.cbmvax.cbm.UUCP>
Date: Tue, 15-Jul-86 14:54:13 EDT
Article-I.D.: cbmvax.532
Posted: Tue Jul 15 14:54:13 1986
Date-Received: Wed, 16-Jul-86 08:52:30 EDT
References: <2269@cbosgd.UUCP>
Organization: Commodore Technology, West Chester, PA
Lines: 42
Xref: utcs net.lang.c:9764 net.micro.mac:6930 net.micro.amiga:3911
net.micro.atari16:1298 net.decus:422

> Xref: cbmvax net.lang.c:1847 net.micro.mac:1824 net.micro.amiga:1783
net.micro.atari16:1232 net.decus:136
>
> I'm writing a book about portable C software, and I'd like to make it
> as accurate and complete as possible. While I'm reasonably familiar
> with several versions of UNIX, and with somewhat familiar with MS DOS,
> I haven't made much use of some other important operating systems where
> C is heavily used, including the Macintosh, Amiga, Atari ST, VMS, IBM
> MVS, and so on.
>
> Thanks in advance,
>
>   Mark Horton
>   mark@cbosgd.ATT.COM
>   mark@Berkeley.EDU
>   cbosgd!mark

Well, I've been using Lattice C 3.03 on an Amiga for over half a year (almost
as long as its been available). I could send you the book on it, though I
hear that the book is basically the same as their PC implementation. The
Lattice package contains much of the simple UNIX compatibility stuff,
though it is missing some of the more advanced UNIX packages that are
available on most UNIX systems these days. Lattice had a reputation for
compiling slowly (TRUE) and for being overly large (somewhat TRUE). The
problem with it, though, is more the way they organized their linker library
than anything else. All-in-all, things port to the Amiga at least as well
as anything I've tried to port from UNIX to something like VMS, and usually
much better. The rumor mill says that Lattice is due for a new release
soon, with a linker library more suited to the Amiga's linker and a
compiler capable of producing more efficient code.

--
/\/\/\

-The Kinks

These opinions are my own, though for a small fee they be yours too.
\/\/\/

Date-Received: Wed, 16-Jul-86 22:45:28 EDT
References: <8607151358.AA07940@mitre-bedford.ARPA>
Lines: 13

Someone mentioned that this modem was available for $79. Could someone
let me know where?

--

/Dave Edick/

{hplabs,ihnp4}!qantel!dosadi!root

"Anything to the exclusion of everything else is a perversion"
                  - Samuel Delany

From 5755023594242013656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,2e1032422e66a2e,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 129c11,2e1032422e66a2e,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 10cb58,2e1032422e66a2e,start
X-Google-Attributes: gid10cb58,public
X-Google-Thread: 140593,2e1032422e66a2e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-15 21:20:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!princeton!allegra!ulysses!bellcore!decvax!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari8,net.micro.atari16,na.forsale,net.micro
Subject: Atari, CPM equipment for sale.
Message-ID: <1520@alvin.mcnc.UUCP>
Date: Wed, 16-Jul-86 00:20:05 EDT
Article-I.D.: alvin.1520
Posted: Wed Jul 16 00:20:05 1986
Date-Received: Thu, 17-Jul-86 06:33:42 EDT
Distribution: net
Organization: Microelectronics Center of NC; RTP, NC
Lines: 67
Keywords: Atari, ATR8000, drives, sale
Xref: watmath net.micro.atari8:338 net.micro.atari16:1331 na.forsale:632
net.micro:15093

The following stuff is available for sale:

1) ATR8000:
64K, with CP/M. Has an RS232 port, a Centronics (printer) port, and disk-drive port. In the Atari mode the rs232 and printer ports replace the 850 interface, and the disk drive port allows generic disk drives to be added in addition to regular 810/1050/Indus etc. drives. I've used 2 Tandon 100-2 drives (double sided, double density 360 K each) in addition to a 1050 and an Indus. The ATR also provides a 48K printer buffer (built in in Atari mode). It works with all the old Atari machines.

In the CP/M mode, it is a full CP/M machine using the ATARI as a terminal. The full complement of CP/M software can be run (Wordstar, Turbo Pascal, ZCPR3, Dbase II, etc.) You'll get the 80 column cartridge which works if you have a black&white TV or a monitor (works great on a commodore 1702). Plus, of course, all the software you could possibly ask for: all the stuff mentioned above, plus Mbasic, Smodem, tons and tons of utilities, C compilers, assmeblers; you name it.

It is also possible to add an MSDOS board (IBM PC compatibility without graphics) to the ATR, or use it for a hard disk for the Atari.

2) Two Tandon 100-2 double-sided, double density drives. The drives are in cases, with power supplies, and are in pefect working condition and perfectly aligned. They come with all necessary cables.

3) A 1200XL and 835 modem; no big deal, but useful for spare GTIA's and ANTIC's; plus Action!, BASIC, a few zillion games, utilities, Atariwriter, lots of telecommunications stuff, and more. Good for giving the kids their own machine to fight over and call BBS's with...

For those who would like more info on the ATR8000, check out BYTE, December 83, page 329, or ANALOG's july '86 issue for a descriptive article.

As far as prices are concerned, I'll accept anything reasonable (be bold, make an offer!). I'm primarily interested in getting the equipment out because I simply can't afford to spend time with it any more. It is a lot of fun to play with, but I do have to graduate.. For a reference on list prices, the ATR used to list for $500.00, and the disk drives now go for $100 each for a bare drive, + $75 (approx) for case and power supply. Offer whatever you can afford, I'm very flexible on pricing. Please reply to

{decvax,ihnp4}!mcnc!ravi

Dept. of Electrical Engg,
Duke University,
Durham, NC 27706
work 919-684-3123
home 919-383-1031

From 5553278973500694378
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ee8e1e3b985d3a0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 06:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OFFICE-1.ARPA!SMB.MDC
From: SMB.MDC@OFFICE-1.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Interrupt service routines
Message-ID: <MDC-SMB-9K5PJ@OFFICE-1>
Date: Wed, 16-Jul-86 09:39:00 EDT
Article-I.D.: OFFICE-1.MDC-SMB-9K5PJ
Posted: Wed Jul 16 09:39:00 1986
Date-Received: Wed, 16-Jul-86 22:50:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Is there a way to replace the MFP interrupt service routines with a user written version? I've been looking for a table which contains the address of the ISRs, but haven't been able to locate it.

Is the BIOS in a different location in the 1040ST? I have the ST internals book and the BIOS listing doesn't seem to be correct for my computer.

From -2303652514616942645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fb584d4033eee6eb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 06:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OFFICE-1.ARPA!SMB.MDC
From: SMB.MDC@OFFICE-1.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Music Studio song file format query
Message-ID: <MDC-SMB-9K5QA@OFFICE-1>
Date: Wed, 16-Jul-86 09:53:00 EDT
Article-I.D.: OFFICE-1.MDC-SMB-9K5QA
Posted: Wed Jul 16 09:53:00 1986
Date-Received: Wed, 16-Jul-86 22:40:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 7

Can anyone shed some light on the format of the Music Studio song file format. I would like to extract the MIDI data and timing information and convert this information to a form suitable for loading into a stand-alone MIDI sequencer for live performance without a computer. Any help will be appreciated. Thanks in advance.

Steve Bate, bate@office-1.arpa

From 637048061170448596
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,57916fce7636d0f6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 06:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!utfyzx!harrison
From: harrison@utfyzx.UUCP
Newsgroups: net.micro.atari16
Subject: Missing ProGem parts
Message-ID: <1986Jul16.095400.15416@utfyzx.uucp>
Date: Wed, 16-Jul-86 09:54:00 EDT
Article-I.D.: utfyzx.1986Jul16.095400.15416
Posted: Wed Jul 16 09:54:00 1986
Date-Received: Wed, 16-Jul-86 19:22:32 EDT
Reply-To: harrison@utfyzx.UUCP (David Harrison)
Organization: Dept. of Physics, Univ. of Toronto
Lines: 10

A posting by bammi@cwruecmp led mj@myrias to conclude that he had not received ProGem parts 13 and 14. It led me to conclude that we had not received ProGem parts 10 through 14, since we have seen nothing since part 9. Can someone forward me the missing parts and appendices? Also, I have seen no response to mj's query about why this group is so flakey, but would sure like to know what's going on.
--
    David Harrison, Dept. of Physics, Univ. of Toronto
    {ihnp4,utzoo}!utcs!utfyzx!harrison

From -7686613054411588599
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,21e97cd7ca767f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 09:01:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520 AND BLITTER

Message-ID: <8607161601.AA21826@mitre-bedford.ARPA>
Date: Wed, 16-Jul-86 12:01:35 EDT
Article-I.D.: mitre-be.8607161601.AA21826
Posted: Wed Jul 16 12:01:35 1986
Date-Received: Wed, 16-Jul-86 22:56:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 55

Shudder, horrors! You don't want to CUT THE PINS OFF the 68000, just unsolder them carefully, remove it, and solder in the socket in its place.

Removing an IC is not a picnic, but it can be done successfully with the right equipment. One needs a low-wattage soldering iron such as an Ungar, designed for PC board soldering. Also a "Solder Sucker" or "Solda-Pullt" or some such device which acts as a micro vacuum cleaner to suck the solder out of each PC board hole into which a pin of the IC to be removed is inserted and soldered. You heat each "pad" as the area around the hold is called, and often it paradoxically helps to add fresh solder, mostly for the effect of the fresh flux. If the exhortation "strike while the iron is hot" ever applied, it does here. While the solder is freshly melted, and helped along by the fresh solder flux, apply and activate the vacuum device and slurp out all the solder you can get. Remove the heat as quickly as possible. If it didn't work, let it cool a bit before trying again.

Another method that can be used is a "solder wick". This is a tiny strip of woven copper wire which has lots of surface area for its size. Melt the solder and touch it to the pad and it will soak up an amazing amount of solder by capillary action. I have found that solder wick works best for final removal of solder, after getting the bulk of it with a vacuum device.

Yet another trick that is often useful is to clean off your soldering iron and apply heat with it from BELOW the board, with the soldering tip offering a downhill path for solder to flow away on. This seems to work best for removing excess solder from the pad if it is NOT TOUCHING the IC pin.

The final trick that sometimes helps is heating and blowing through the hole, either just with your lips or with some kind of tube or -- best of all -- compressed air gun. The problem with this is that it causes little blobs of solder to fly all over the place -- that's why the vacuum approach is better if it works.

When you have cleaned out all the solder you can, you can usually start prying the IC out gently. Sometimes a few pins will still be sticking to the board with a light coat of solder. You may need to re-heat these, or you may be able to free some of them with tweezers or an Exacto knife. At this point, you are on your own, but you will probably be able to work out a solution. Heating a pin and prying the IC usually gains you more ground each time than you realize until the IC finally pops out easily.

My advice to anyone attempting to remove an IC for the first time, especially a big one like the 68000, is to follow the Golden Rule: "Never Force Anything"

-- following this will probably enable you to get the 68000 out intact and in a reasonable amount of time. Also, be sure you have the right equipment --a rule which will save you a lot of grief not only in this situation but many others involving electronic equipment as well. Don't attempt to do such a task until you have the right equipment (solder sucker and solder wick and low-wattage iron and fresh roll of Ersin 60/40 solder and tweezers etc.) Don't apply heat too freely. Do all of this and you will probably do OK.

-John Sangster
jhs@mitre-bedford.arpa

From -6693839087396429359
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fb584d4033eee6eb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 09:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!nike!ucbcad!ucbvax!OFFICE-1.ARPA!SMB.MDC
From: SMB.MDC@OFFICE-1.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Music Studio song file format query
Message-ID: <MDC-SMB-9K60F@OFFICE-1>
Date: Wed, 16-Jul-86 12:55:00 EDT
Article-I.D.: OFFICE-1.MDC-SMB-9K60F
Posted: Wed Jul 16 12:55:00 1986
Date-Received: Wed, 16-Jul-86 22:51:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Can anyone shed some light on the format of the Music Studio song file format. I would like to extract the MIDI data and timing information and convert this information to a form suitable for loading into a stand-alone MIDI sequencer for live performance without a computer. Any help will be appreciated. Thanks in advance.

Steve Bate, bate@office-1.arpa

From 8898121289915759592
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 10:17:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!akgua!akguc!mtune!mtuxo!houxm!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <675@druhi.UUCP>

Date: Wed, 16-Jul-86 13:17:42 EDT
Article-I.D.: druhi.675
Posted: Wed Jul 16 13:17:42 1986
Date-Received: Thu, 17-Jul-86 07:00:18 EDT
References: <8607141626.AA08436@ames-nas.ARPA> <2198@ihlpg.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 12
Summary: new ar68 available

In article <2198@ihlpg.UUCP>, tainter@ihlpg.UUCP writes:
> Even the developers kit doesn't document the format of ar68 files.
>
> I would very much like to get this information myself. Since ar68 doesn't
> work (half the time it gives: error reading file ... messages, always gives
> this for any file with file static objects) I am hoping to right my own.

There is a new working version of ar68 that is available via Compuserve. You might
want to call Atari and have them send you a copy if you aren't a subscriber to Compuserve.

Barry Locklear

From 2939840913830350019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 10:36:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <388@atari.UUcp>
Date: Wed, 16-Jul-86 13:36:34 EDT
Article-I.D.: atari.388
Posted: Wed Jul 16 13:36:34 1986
Date-Received: Thu, 17-Jul-86 02:30:52 EDT
References: <8607141626.AA08436@ames-nas.ARPA> <2198@ihlpg.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 22

In article <2198@ihlpg.UUCP>, tainter@ihlpg.UUCP (Tainter) writes:
> Is there any way to give the kit's linker a file list longer than 128 chars.

Sure. LINK68 can handle *many* files, to wit:

```
foo.68k=bar.o, baz.o, bletch.o,
argle.o, bargle.o, this.o, is.o, a.o,
silly.o, list.o, of.o, names.o, all.o, ending.o,
in.o, a.o, period.o, and.o, a.o, letter.o, o.o
```

Just put a newline wherever a line would exceed 128
characters; that's probably your problem.

>   ar68 heaved it's guts on almost every module for this project.
> Has anyone figured out what ar68 is doing wrong?

AR68 (as shipped with the developer's package) simply
doesn't work. A working version is available on the ST
Developer's SIG on Compuserve.

-Landon

From -2321539571003855061
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 11:21:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <226@cci632.UUCP>
Date: Wed, 16-Jul-86 14:21:14 EDT
Article-I.D.: cci632.226
Posted: Wed Jul 16 14:21:14 1986
Date-Received: Wed, 16-Jul-86 22:41:34 EDT
References: <157@cci632.UUCP> <351@apollo.mntgfx.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Distribution: net
Organization: CCI, Rochester Development, Rochester, NY
Lines: 18

In article <351@apollo.mntgfx.UUCP> dclemans@mntgfx.UUCP writes:
>All of Supra's hard disks for the ST are SCSI drives; there's a small board
>in the drive box that converts the DMA port lines into the host part of
>a SCSI interface.

Is there an SCSI out plug somewhere on the drive? This has been
proposed as part of the SCSI convention.

>According to their price list the SCSI board is available seperately.
>Supra is in Albany, Oregon (USA).

Is there any indications as to limits of the SCSI interface?

Is one able to boot from the Supra Drive?

This is getting exciting!!

Rex B.

From 4033238250967369557
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7ef68fcd6f3d6c79,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 13:46:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!ut-sally!utah-cs!sandra
From: sandra@utah-cs.UUCP
Newsgroups: net.micro.atari16
Subject: .o file format description wanted
Message-ID: <3856@utah-cs.UUCP>
Date: Wed, 16-Jul-86 16:46:26 EDT
Article-I.D.: utah-cs.3856
Posted: Wed Jul 16 16:46:26 1986
Date-Received: Wed, 16-Jul-86 22:46:30 EDT
Organization: University of Utah CS Dept
Lines: 6

Does *anybody* know the format of the .o files produced by the DRI C
compiler/assembler? The developer's kit doesn't appear to contain
any information about this. Please, if you have a description of the
format, let the rest of us in on it too!

-Sandra Loosemore (sandra@utah-cs)

From 4747977965614172861
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9d11a8d835315d32,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 13:49:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!topaz!nike!ucbcad!ucbvax!AMES-NAS.ARPA!fouts
From: fouts@AMES-NAS.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: UEmacs?
Message-ID: <8607162049.AA18282@ames-nas.ARPA>
Date: Wed, 16-Jul-86 16:49:14 EDT
Article-I.D.: ames-nas.8607162049.AA18282
Posted: Wed Jul 16 16:49:14 1986
Date-Received: Thu, 17-Jul-86 05:49:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

     Can someone send me the uuencoded binary for UEmacs for the ST?

Thanks, Marty

From -9102005521326209523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,384a7b4eaeb3dd8
X-Google-Attributes: gid129c11,public
X-Google-Thread: 1479fb,384a7b4eaeb3dd8
X-Google-Attributes: gid1479fb,public
X-Google-Thread: 140593,384a7b4eaeb3dd8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 15:28:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!henry
From: henry@utzoo.UUCP (Henry Spencer)
Newsgroups: net.micro,net.micro.atari16,net.micro.ti
Subject: Re: Optimum transmission speed over telephone lines
Message-ID: <6944@utzoo.UUCP>
Date: Wed, 16-Jul-86 18:28:11 EDT
Article-I.D.: utzoo.6944
Posted: Wed Jul 16 18:28:11 1986
Date-Received: Wed, 16-Jul-86 18:28:11 EDT
References: <1207@mhuxo.UUCP>, <218@cci632.UUCP>
Organization: U of Toronto Zoology
Lines: 11

> Let's hope that telephone companies can get ISDN (digital/analog)
> services available at reasonable rates...

Hold not thy breath over the "reasonable rates" part. Most residential
users don't need ISDN, and the phone companies tend to be under a fair
bit of pressure to make as much money as possible off other services to
keep the residential rates low. IDSN will be a "premium", "business"
service, and will be priced accordingly.
--
                    Henry Spencer @ U of Toronto Zoology
                    {allegra,ihnp4,decvax,pyramid}!utzoo!henry

From -2309122504852816345
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e9f5e4daa32807ea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 17:27:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!columbia!topaz!ll-xn!nike!ucbcad!ucbvax!decvax!
cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Format of ar68 libraries?
Message-ID: <1522@cwruecmp.UUCP>
Date: Wed, 16-Jul-86 20:27:16 EDT
Article-I.D.: cwruecmp.1522
Posted: Wed Jul 16 20:27:16 1986
Date-Received: Fri, 18-Jul-86 01:07:01 EDT

References: <8607141626.AA08436@ames-nas.ARPA> <2198@ihlpg.UUCP>
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 82

> >   Where can I find documentation on the format of archive libraries?
> > (Other than the developer's kit, which I can't afford just yet :-)
> > Marty
>
> Even the developers kit doesn't document the format of ar68 files.
     The documentation that comes with the upgraded develeopers kit
specifies all sorts of file formats, including ar68. The format is as
follows:
     The first word is the Magic # 0xff65
Then each constituent file is preceded by a file header
     char fname[14];
     long modti   last mod time
     char userid
     char gid group id
     int mode mode word (see Fattrib)
     long filesize   size of file

     <filesize bytes>

     .. and so on

>
> I would very much like to get this information myself. Since ar68 doesn't
> work (half the time it gives: error reading file ... messages, always gives
> this for any file with file static objects) I am hoping to right my own.
>
     A working version of ar68 is available on CompuServe
     developers sig and comes with the upgrade too.

> Some other questions:
>
> Is there any way to give the kit's linker a file list longer than 128 chars.
> I tried the [com[tail.lnk]] option but it seems to truncate that to 128 chars
> also. ar68 heaved it's guts on almost every module for this project.
> Has anyone figured out what ar68 is doing wrong?
>
> This was my solution:
>
> link68 [u]
h.68k=gs,a,b,c,d,e,f,g,h,i,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z,0,1,2,3,4,5,6,7,8,9,g
l,lf
>
> where a-z and 0-9 are files renamed to a.o b.o etc.
> and gs is gemstart.o renamed and gl is gemlib renamed and lf is libf renamed
>
     The continuation character is '\' so lines can be as long as
you wish. tail.lnk can contain lines continued with \ too.

The alternate linker lo68 is avail. on CompuServe too. At least it
understands paths.

> Does anyone know how to pass an environment to a program? Without the
> aes/vdi kludge package if possible.
>
     See Pexec() the third arguement is the environ ment. In the
called program the address of the environment can be accessed via the
base page (i don't offhand remember the offset into the basepage).
The format of the envoronment is
     <string1>\0<string2>\0 ... <stringn>\0\0
where each string is of the form
     NAME=VALUE
The default environment set up by the OS is null.

Not that if you stuff your envrionment into the buffer set up by the
OS before invoking another program, its total lenght (including all
the \0's) cannot be >20, as that is the size of the buffer allocated
by the OS. But using Pexec() you can set up any length environment you wish.

> Note: I was promised an update for my developers kit around april. I still have
> not seen hide nor hair of it? Listening Neil@ ?
     It has been avail. now for quite a while, by send $20 to Atari
C/O John Feagans.

> --j.a.tainter
Hope that helps
--

                      Jwahar R. Bammi
                  Usenet: .....!decvax!cwruecmp!bammi
                   CSnet: bammi@case
                Arpa: bammi%case@csnet-relay
             CompuServe: 71515,155

From 2936645169626331321
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d850548f758e80
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-16 17:32:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!columbia!topaz!ll-xn!nike!ucbcad!ucbvax!decvax!
cwruecmp!bammi
From: bammi@cwruecmp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: How to use Xbtimer() ?
Message-ID: <1523@cwruecmp.UUCP>
Date: Wed, 16-Jul-86 20:32:52 EDT
Article-I.D.: cwruecmp.1523
Posted: Wed Jul 16 20:32:52 1986
Date-Received: Fri, 18-Jul-86 01:07:14 EDT

References: <2874@sdcrdcf.UUCP> <2748@caip.RUTGERS.EDU>
Organization: CWRU Dept. Epid. & Biostat., Cleveland, OH
Lines: 34

> C: void xbtimer(timer, control, data, vector)
>   int timer,control, data;
>   logn vector;
>
> This function allows you to start a timer in the MFP 68901, timer
> is the number of the timer in the 68901. Timer A:0 Timer B:1 ect...
>
> The other two dat and control are placed in the data and control
> registers. The long parameter is the address of the interrupt routine.
>
> I really think it would be more useful in assembly then C, but since I
> don't have an assembler to use this I can't.
>
>
>   Phil Paone

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
Another point:
    The routine designated in the vector must return using RTE and
not RTS, as it is handling the intr.

    Assembly can be imbedded in alcyon C by using the asm
construct like:

    asm("rte");

so you don't really need an assembler to force an RTE. I'll try and
dig up some samle Xbtimer code that i once wrote.
--
                    Jwahar R. Bammi
                  Usenet: .....!decvax!cwruecmp!bammi
                   CSnet: bammi@case
                  Arpa: bammi%case@csnet-relay
               CompuServe: 71515,155

From -5915736337584430383
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 21:37:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070434.AA18206@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 00:37:47 EDT

Article-I.D.: ucbvax.8607070434.AA18206
Posted: Mon Jul 7 00:37:47 1986
Date-Received: Mon, 7-Jul-86 07:34:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 498

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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT
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        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
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  08:32:43-PDT
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  10:33:34 CDT
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        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul 6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
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        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul 6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul 6 15:53:42
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To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: by cernvax Sun Jul 6 15:13:26
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
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Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
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To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
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Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


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Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
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To:  info-atari16@su-score.arpa


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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Date: Sun, 6 Jul 86 08:56:01 +0200
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  23:43:36-PDT
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        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
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        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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To:  info-atari16@su-score.arpa


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To:  info-atari16@su-score.arpa


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Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
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To:  info-atari16@su-score.arpa


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  23:53:13 CDT
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        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
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  21:40:41-PDT
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Date: Sun, 6 Jul 86 05:56:14 +0200
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
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Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
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  21:50:45 CDT
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        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
```

```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5199580962656796253
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 21:45:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070445.AA18368@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 00:45:54 EDT
Article-I.D.: ucbvax.8607070445.AA18368
Posted: Mon Jul 7 00:45:54 1986
Date-Received: Mon, 7-Jul-86 07:35:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 498

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

```
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:33:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
Received: by cernvax Sun Jul  6 18:24:42
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul  6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul 6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul  6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul  6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at

```
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
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        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -7632852227936946945
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 23:09:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070608.AA19150@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 02:09:41 EDT
Article-I.D.: ucbvax.8607070608.AA19150
Posted: Mon Jul 7 02:09:41 1986
Date-Received: Tue, 8-Jul-86 03:59:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 498

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:19:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:15:07-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:16:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11918; Sun, 6 Jul 86 18:06:53 +0200
Received: by cernvax Sun Jul 6 18:06:34
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:24:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:20:55-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:21:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11769; Sun, 6 Jul 86 17:16:06 +0200
Date: Sun, 6 Jul 86 17:16:06 +0200
Received: by cernvax Sun Jul 6 17:15:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:36:28 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:32:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:33:40 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11612; Sun, 6 Jul 86 16:25:34 +0200
Received: by cernvax Sun Jul 6 16:25:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul 6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul  6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul  6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul  6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul  6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.

```
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
```

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

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  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
```

Subject:	millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 550718919537259518
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 23:53:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070652.AA19478@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 02:53:04 EDT
Article-I.D.: ucbvax.8607070652.AA19478
Posted: Mon Jul 7 02:53:04 1986
Date-Received: Tue, 8-Jul-86 03:59:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 513

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:15:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:11:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:54:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA12149; Sun, 6 Jul 86 19:48:45 +0200
Date: Sun, 6 Jul 86 19:48:45 +0200
Received: by cernvax Sun Jul 6 19:48:28
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:33:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
Received: by cernvax Sun Jul  6 18:24:42
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul  6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul 6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

```
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT

Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 1967254658924062044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 00:10:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070709.AA19755@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 03:10:26 EDT
Article-I.D.: ucbvax.8607070709.AA19755
Posted: Mon Jul 7 03:10:26 1986
Date-Received: Tue, 8-Jul-86 04:01:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 513

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:15:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:11:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:54:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA12149; Sun, 6 Jul 86 19:48:45 +0200
Date: Sun, 6 Jul 86 19:48:45 +0200
Received: by cernvax Sun Jul 6 19:48:28
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:33:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
Received: by cernvax Sun Jul  6 18:24:42
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul  6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul 6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul  6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul  6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at

```
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
```

```
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
```

```
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5133862530975301615
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 00:47:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070747.AA20049@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 03:47:51 EDT
Article-I.D.: ucbvax.8607070747.AA20049
Posted: Mon Jul 7 03:47:51 1986
Date-Received: Tue, 8-Jul-86 04:02:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 513

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:40:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  10:06:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:06:55 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA12067; Sun, 6 Jul 86 18:57:08 +0200
Date: Sun, 6 Jul 86 18:57:08 +0200
Received: by cernvax Sun Jul 6 18:56:28
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:19:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:15:07-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:16:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11918; Sun, 6 Jul 86 18:06:53 +0200
Received: by cernvax Sun Jul 6 18:06:34
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:24:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:20:55-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:21:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11769; Sun, 6 Jul 86 17:16:06 +0200
Date: Sun, 6 Jul 86 17:16:06 +0200
Received: by cernvax Sun Jul 6 17:15:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:36:28 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:32:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:33:40 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11612; Sun, 6 Jul 86 16:25:34 +0200
Received: by cernvax Sun Jul 6 16:25:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul  6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul  6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul  6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul  6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at

```
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
```

```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
```

```
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
```

        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -6938798437797386967
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 01:33:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070832.AA20421@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 04:33:26 EDT
Article-I.D.: ucbvax.8607070832.AA20421
Posted: Mon Jul 7 04:33:26 1986
Date-Received: Tue, 8-Jul-86 04:03:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 527

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:30:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:26:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  23:27:41 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA13107; Mon, 7 Jul 86 06:21:20 +0200
Received: by cernvax Mon Jul  7 06:21:04
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:15:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:11:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:54:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA12149; Sun, 6 Jul 86 19:48:45 +0200
Date: Sun, 6 Jul 86 19:48:45 +0200
Received: by cernvax Sun Jul  6 19:48:28
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:33:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
Received: by cernvax Sun Jul  6 18:24:42
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul  6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

```
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul  6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul  6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

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  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
```

```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
```

  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -1610108201513268700
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 01:58:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU

Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070858.AA20588@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 04:58:43 EDT
Article-I.D.: ucbvax.8607070858.AA20588
Posted: Mon Jul 7 04:58:43 1986
Date-Received: Tue, 8-Jul-86 04:03:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 527

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:42:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:27:02-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  23:27:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA13107; Mon, 7 Jul 86 06:21:20 +0200
Received: by cernvax Mon Jul 7 06:21:04
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:15:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  21:11:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:54:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA12149; Sun, 6 Jul 86 19:48:45 +0200
Date: Sun, 6 Jul 86 19:48:45 +0200
Received: by cernvax Sun Jul 6 19:48:28
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:33:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:29:38-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:30:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11965; Sun, 6 Jul 86 18:24:58 +0200
Received: by cernvax Sun Jul 6 18:24:42
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul 6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul 6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul 6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul  6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul  6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul  6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul  6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.

```
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
```

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

```
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

```
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
```

Subject:	millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -2816182266500103699
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 02:34:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!sri-spam!nike!ucbcad!ucbvax!
WISCVM.WISC.EDU!ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070934.AA20881@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 05:34:47 EDT
Article-I.D.: ucbvax.8607070934.AA20881
Posted: Mon Jul 7 05:34:47 1986
Date-Received: Tue, 8-Jul-86 07:05:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 527

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/07/86 at 01:06:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  23:01:16-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/07/86 at
  01:01:55 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA13300; Mon, 7 Jul 86 07:55:33 +0200
Received: by cernvax Mon Jul 7 07:55:17
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 23:40:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  10:06:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  12:06:55 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

```
        id AA12067; Sun, 6 Jul 86 18:57:08 +0200
Date: Sun, 6 Jul 86 18:57:08 +0200
Received: by cernvax Sun Jul  6 18:56:28
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 11:19:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  09:15:07-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  11:16:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11918; Sun, 6 Jul 86 18:06:53 +0200
Received: by cernvax Sun Jul  6 18:06:34
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:24:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:20:55-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:21:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11769; Sun, 6 Jul 86 17:16:06 +0200
Date: Sun, 6 Jul 86 17:16:06 +0200
Received: by cernvax Sun Jul  6 17:15:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:36:28 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:32:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:33:40 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11612; Sun, 6 Jul 86 16:25:34 +0200
Received: by cernvax Sun Jul  6 16:25:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
```

Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul 6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul 6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul 6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul 6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul  6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT

```
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 6698937581724400243
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1479fb,384a7b4eaeb3dd8
X-Google-Attributes: gid1479fb,public
X-Google-Thread: 129c11,384a7b4eaeb3dd8
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,384a7b4eaeb3dd8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 03:05:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!ecn-pc!sandersr
From: sandersr@ecn-pc.UUCP (Robert C Sanders)
Newsgroups: net.micro,net.micro.atari16,net.micro.ti
Subject: Re: Optimum transmission speed over telephone lines
Message-ID: <542@ecn-pc.UUCP>
Date: Mon, 7-Jul-86 06:05:42 EDT
Article-I.D.: ecn-pc.542
Posted: Mon Jul 7 06:05:42 1986
Date-Received: Tue, 8-Jul-86 05:37:30 EDT
References: <1207@mhuxo.UUCP>
Reply-To: sandersr@ecn-pc.UUCP (Robert C Sanders)
Organization: Electrical Engineering Department , Purdue University
Lines: 35
Xref: watmath net.micro:15008 net.micro.atari16:1261 net.micro.ti:208

In article <1207@mhuxo.UUCP> gjphw@mhuxo.UUCP (WYANT) writes:
>
> While considering the purchase of a 1200 baud modem, I began wondering
>if there is some optimum data rate for modem operations over the U.S.
>telephone lines. I have seen a few advertisements for 2400 baud modems,

First; almost ALL of the 1200 baud manufacturers, esspecially the onces
who first designed them, offer 2400 baud modems. There are many available.

>and read mention of 9600 bps modems becoming available. Where does
>the retransmission rate due to lost bits negate the higher data
>transmission rate?

Yes, there are 9600 baud modems out. Two major manufacturers are marketing
them (net- help me with the names!). From the articles that I have read
(PC World, BYTE, MAC World), the modems use a mathematical coding scheme to
encode the data to acheive an equivilant 9600-baud thoughput. Then, they
adjust themselves by testing the line and determining the optimum speed --
they will drop to lower rates (8400, 5600, 4800, etc) in a continuously
variable manner to get the maximum speed realiably. Because of this constant
variability and change, both ends have to use the type modem from the same
manufacturer, unless of course you set the modems to use the industry standard
speeds of 2400, 1200, or 300. These modems, if I remember right, are Hayes
command set compatible, with extensions for their own capabilities.

                    - bob
--

Continuing Engineering Education Telecommunications
Purdue University

"Time is a mouse that requires constant feeding..." -- me

     ...!ihnp4!pur-ee!pc-ecn!sandersr

From -8205768312838175517
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15517a,ee0e9ad17632dfad,start
X-Google-Attributes: gid15517a,public
X-Google-Thread: 129c11,384a7b4eaeb3dd8
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,384a7b4eaeb3dd8
X-Google-Attributes: gid140593,public
X-Google-Thread: 1479fb,384a7b4eaeb3dd8
X-Google-Attributes: gid1479fb,public
X-Google-ArrivalTime: 1986-07-07 03:10:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!inuxc!pur-ee!ecn-pc!sandersr
From: sandersr@ecn-pc.UUCP (Robert C Sanders)
Newsgroups: net.micro,net.micro.atari16,net.micro.ti,net.micro.pc
Subject: Re: Optimum transmission speed over telephone lines

Message-ID: <543@ecn-pc.UUCP>
Date: Mon, 7-Jul-86 06:10:47 EDT
Article-I.D.: ecn-pc.543
Posted: Mon Jul 7 06:10:47 1986
Date-Received: Tue, 8-Jul-86 05:37:46 EDT
References: <1207@mhuxo.UUCP> <542@ecn-pc.UUCP>
Reply-To: sandersr@ecn-pc.UUCP (Robert C Sanders)
Organization: Electrical Engineering Department , Purdue University
Lines: 35
Xref: watmath net.micro:15009 net.micro.atari16:1262 net.micro.ti:209
net.micro.pc:9019

In article <1207@mhuxo.UUCP> gjphw@mhuxo.UUCP (WYANT) writes:
>
> While considering the purchase of a 1200 baud modem, I began wondering
>if there is some optimum data rate for modem operations over the U.S.
>telephone lines. I have seen a few advertisements for 2400 baud modems,

First; almost ALL of the 1200 baud manufacturers, esspecially the onces
who first designed them, offer 2400 baud modems. There are many available.

>and read mention of 9600 bps modems becoming available. Where does
>the retransmission rate due to lost bits negate the higher data
>transmission rate?

Yes, there are 9600 baud modems out. Two major manufacturers are marketing
them (net- help me with the names!). From the articles that I have read
(PC World, BYTE, MAC World), the modems use a mathematical coding scheme to
encode the data to acheive an equivilant 9600-baud thoughput. Then, they
adjust themselves by testing the line and determining the optimum speed --
they will drop to lower rates (8400, 5600, 4800, etc) in a continuously
variable manner to get the maximum speed realiably. Because of this constant
variability and change, both ends have to use the type modem from the same
manufacturer, unless of course you set the modems to use the industry standard
speeds of 2400, 1200, or 300. These modems, if I remember right, are Hayes
command set compatible, with extensions for their own capabilities.

                    - bob
--

Continuing Engineering Education Telecommunications
Purdue University

"Time is a mouse that requires constant feeding..." -- me

     ...!ihnp4!pur-ee!pc-ecn!sandersr

From 5661226421290682158
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a96b148c620800e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 03:51:25 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!seismo!mcvax!philmds!prle1!nvpna1!
dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: TDI Modula-2 V2.0 released?
Message-ID: <29@nvpna1.UUCP>
Date: Mon, 7-Jul-86 06:51:25 EDT
Article-I.D.: nvpna1.29
Posted: Mon Jul 7 06:51:25 1986
Date-Received: Fri, 11-Jul-86 04:56:38 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Distribution: net.micro.atari16
Organization: Philips Research Laboratories Eindhoven
Lines: 6

Rumours say that TDI's Modula-2 version 2.0 is on the way to replace version
1.4 and 1.10. However I still haven't seen it yet. Has anybody in netland
seen it, or even better used it already? If not, does anybody how long it
will take until version 2.0 shows up?

Frans Dorrestein.

From 8804379754717626932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 08:18:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ihnp4!aicchi!rns
From: rns@aicchi.UUCP (Schreiner)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <777@aicchi.UUCP>
Date: Mon, 7-Jul-86 11:18:19 EDT
Article-I.D.: aicchi.777
Posted: Mon Jul 7 11:18:19 1986
Date-Received: Tue, 8-Jul-86 06:37:57 EDT
References: <157@cci632.UUCP>
Reply-To: rns@aicchi.UUCP (Schreiner)
Distribution: net
Organization: RS Consulting
Lines: 16

In article <157@cci632.UUCP> rb@ccird1.UUCP (Rex Ballard) writes:
>Has anybody noticed or heard of an SCSI interface to the
>DMA port of the ST, and if it is available yet?

Is there a 'SCSI' document on line any where ?
Can someone tell me where I can get a copy of a SCSI tech. document ?

TIA

--


```
     Ron Schreiner       ******       RS Consulting
     ...ihnp4!ronsat!rns    ******** ___  P.O.  Box 594
     CSI 76515,3152         ****\   (__   Mundelein, Il
     (312) 949-4719          *** \_____)     60060-0594
```


From -1280234823229971354
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6cd472b4f609395,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 09:27:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!hplabs!tektronix!
tekgen!tekred!richa
From: richa@tekred.UUCP (Rich Amber)
Newsgroups: net.micro.atari16
Subject: wysiwyg text processor
Message-ID: <619@tekred.UUCP>
Date: Mon, 7-Jul-86 12:27:47 EDT
Article-I.D.: tekred.619
Posted: Mon Jul 7 12:27:47 1986
Date-Received: Wed, 9-Jul-86 02:25:17 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 19
Keywords: LISTEN UP ATARI!!!

I have been searching for a good word processor for my 520ST ever
since I got it. I have spent good money on a lot of poor word
processors that made big promises on the package and couldn't
back that up once the disk was slipped in the drive. 1st_Word
is missing a lot (only one font). Regency promised that would be
different, but didn't explain until I ripped the package open that
I must have a certain type of printer to get different fonts and
the stupid program works like a unix editor.

Listen folks, my request is simple. I want a word processor for
my ST that works like MacWrite. I want to see, on the screen, what
my text file looks like. And I want to be able to change sizes and
fonts independantly of other hardware. If it's already out there,
I haven't found it and would be afraid to put my dollars on the line
without a review. If it's not out there, why not? You software
guys are hurting this machine by selling it short with crappy
programs. I NEED this capability. Must I trade my ST for a Mac?

Rich Amber

From 387838453427178797
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,8a425f90fa871f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 09:35:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!hplabs!qantel!vlsvax1!cms
From: cms@vlsvax1.UUCP (Chuck M. Sweeney)
Newsgroups: net.micro.atari16
Subject: Re: MicroRTX, multi-tasking for ST (Really SCSI Interface)
Message-ID: <199@vlsvax1.UUCP>
Date: Mon, 7-Jul-86 12:35:22 EDT
Article-I.D.: vlsvax1.199
Posted: Mon Jul 7 12:35:22 1986
Date-Received: Wed, 9-Jul-86 02:34:37 EDT
References: <127@cci632.UUCP> <427@imagen.UUCP>
Reply-To: cms@vlsvax1.UUCP (Michael Sweeney)
Distribution: net
Organization: Voelker-Lehman Fremont CA
Lines: 24

>the power and flexibility of UNIX (tm). There is a rumor that they
>have a device that fits on the bus connector and gives a full SCSI
>interface, does anyone know more about this ?????
>
>Name: James M. Turner

==========

I have seen the prototype of the SCSI interface and it does in fact
work. The status as of June 30 was that the developer (Beckemeyer
Development Tools) received a shipment of PC boards from a supplier
that were FUBAR. They are waiting for a re-do (might have it by now).
Boards will be available for just under $100 and include a real time
clock that will set the system clock in the ST on boot. Contact
Beckemeyer for more information.

I have no affiliation with Beckemeyer Development Tools other than as
a user of Micro C-Shell and I *like* it.

==========
Sweeney |
vlsvax1!cms | "As usual, Jim, If you are killed or captured, the company
415 490 3555 | will deny any knowlege of you or your opinions."
==========

From 2717058069284932190
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,830a1af64dfc5b74,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 09:51:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)

Newsgroups: net.micro.atari16
Subject: Micro Emacs
Message-ID: <5297@topaz.RUTGERS.EDU>
Date: Mon, 7-Jul-86 12:51:05 EDT
Article-I.D.: topaz.5297
Posted: Mon Jul 7 12:51:05 1986
Date-Received: Tue, 8-Jul-86 05:15:09 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 8

Hi,
I was wondering if anyone out there could send me microemacs.
The version I got from the net a few months ago is chopped.

Thanks,

Phil Paone

From -2262976253114074861
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30e179255d6ca0f5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 10:17:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: editors
Message-ID: <387@atari.UUcp>
Date: Mon, 7-Jul-86 13:17:29 EDT
Article-I.D.: atari.387
Posted: Mon Jul 7 13:17:29 1986
Date-Received: Tue, 8-Jul-86 06:32:31 EDT
References: <4047@decwrl.DEC.COM>
Organization: Atari Corp/Mktg
Lines: 21

In article <4047@decwrl.DEC.COM>, fanelli@phdvax.dec.com writes:
> I have yet to find a really good editor for the ST. What I would really like
> is something like VEDIT - simple, quick, and powerful. Any suggestions?

There is a public domain version of EDT available for the ST. It is on the
Atari BBS and on CompuServe.

--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris CIS: 70007,1135 Delphi: NEILHARRIS
GENIE: nharris WELL: neil Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
1196 Borregas Ave.
Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 5130907296983387807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9845366fd5f2e33d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 10:22:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!decvax!decwrl!pyramid!
hplabs!tektronix!reed!omssw2!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Disk organization on ST
Message-ID: <350@apollo.mntgfx.UUCP>
Date: Mon, 7-Jul-86 13:22:20 EDT
Article-I.D.: apollo.350
Posted: Mon Jul 7 13:22:20 1986
Date-Received: Thu, 10-Jul-86 01:16:40 EDT
References: <8607011752.AA01749@ucbvax.Berkeley.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 14
Summary: ST (GEMDOS) disk structure

The ST (i.e., GEMDOS) uses the MS-DOS (3.X) disk and directory structure with
a couple of "minor" quirks: (these are the ones I know about; there may
be others).

a. The media type is only put into the BPB. It is not put into the
   FAT. Thus an MS-DOS disk driver that only looks at the FAT to get
   the media type will not be able to read an ST disk. In the other
   direction, the ST will only be able to read the disk if the BPB
   was fully built (i.e., MS-DOS 2.X and greater).

b. The ARCHIVE bit in the file attributes seems to have exactly the
   opposite meaning for the ST as for MS-DOS.

dgc

From 5394686886018105463
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 10:29:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!decvax!decwrl!pyramid!
hplabs!tektronix!reed!omssw2!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <351@apollo.mntgfx.UUCP>
Date: Mon, 7-Jul-86 13:29:45 EDT
Article-I.D.: apollo.351
Posted: Mon Jul 7 13:29:45 1986
Date-Received: Thu, 10-Jul-86 01:21:11 EDT
References: <157@cci632.UUCP>
Distribution: net
Organization: Mentor Graphics, Beaverton OR
Lines: 8
Summary: Info about SCSI on the ST

All of Supra's hard disks for the ST are SCSI drives; there's a small board
in the drive box that converts the DMA port lines into the host part of
a SCSI interface.

According to their price list the SCSI board is available seperately.
Supra is in Albany, Oregon (USA).

dgc

From -6010021495607990018
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7a0a1c9329a73de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 10:53:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!decvax!decwrl!pyramid!
hplabs!tektronix!reed!omssw2!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP
Newsgroups: net.micro.atari16
Subject: Re: rsc info
Message-ID: <352@apollo.mntgfx.UUCP>
Date: Mon, 7-Jul-86 13:53:43 EDT
Article-I.D.: apollo.352
Posted: Mon Jul 7 13:53:43 1986
Date-Received: Thu, 10-Jul-86 01:21:23 EDT
References: <8607020432.AA12058@ucbvax.Berkeley.EDU>
Organization: Mentor Graphics, Beaverton OR
Lines: 18
Summary: Getting address of RCS text fields...

One way to get the address of text fields in a loaded resource is
as follows:

Assume that "BOX" is the name you gave to the dialog box that
contains the editable field. Assume further that "FIELD" is the
name of the editable field. Then with the following code fragment:

```
#include ".h file created by resource construction program"
OBJECT *obj;
TEDINFO *ted;

    rsrc_gaddr(R_TREE,BOX,&obj);
    ted = (TEDINFO *)obj[FIELD].ob_spec;
```

the expression "ted->te_ptext" gives you the address of
the te_ptext field, etc.

dgc


```
From -2624926553526590851
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f41c35792e2649fa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 11:56:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!ucdavis!ucrmath!hope!wardlaw
From: wardlaw@hope.UUCP (Johnie Wardlaw)
Newsgroups: net.micro.atari16
Subject: DEGAS and objc_draw() help
Message-ID: <539@hope.UUCP>
Date: Mon, 7-Jul-86 14:56:20 EDT
Article-I.D.: hope.539
Posted: Mon Jul  7 14:56:20 1986
Date-Received: Tue, 8-Jul-86 06:34:36 EDT
Distribution: net
Organization: University of California, Riverside
Lines: 22
```


I have a question:

I have a 1040 ST and I use the Megamax C compiler. What I want to do is
load in a DEGAS picture into memory and then copy parts of it into BITBLK
images that can be drawn using the objc_draw() routine. I think that it
is reading in okay, but I can't be sure because it isn't putting anything
on the screen in ANY of the resolutions. What I do is read the DEGAS file
into a 32000 byte character array (allocated with malloc()) and then
use type casting to read the bytes into the integer array. I declared
each of my images as an OBJECT (not OBJECT *). Could this be the problem?
I create the BITBLK record with malloc(). Nothing is drawn. Any help
would be greatly appreciated!   Thanks in advance,


```
     /*********************************************************\
     ** Johnie Wardlaw,      Undergraduate:  Computer Science **
     ** University of California, Riverside                   **
     ** {ucbvax!ucdavis, ihnp4!ucla-cs} ucrmath!hope!wardlaw  **
     **                                **
     ** "If that was foreplay, I'm a dead man!"          **
```

```
     **            -- Cocoon (alien sex scene)      **
     \*********************************************************/


From -7611930452850361529
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88f28d7f311425c8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 12:26:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
tektronix!uw-beaver!cornell!rochester!pt.cs.cmu.edu!h.cs.cmu.edu!wvh
From: wvh@h.cs.cmu.edu.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Public domain software
Message-ID: <1027@h.cs.cmu.edu>
Date: Mon, 7-Jul-86 15:26:08 EDT
Article-I.D.: h.1027
Posted: Mon Jul  7 15:26:08 1986
Date-Received: Thu, 10-Jul-86 01:06:51 EDT
References: <5201@topaz.RUTGERS.EDU>
Organization: Carnegie-Mellon University, CS/RI
Lines: 13
Keywords: foo bar



I only recently purchased an Atari 1040ST, and would appreciate any pointers
which anyone could give me to archives of Public Domain Software for the ST.
(Especially any which I could access via FTP.)  I have also seen many posts on
net.micro.atari16 which refer to other posts which I have not seen.  If there
are any 1040ST related mailing lists to which I could subscribe, please sign
me up.

Thanks very much in advance.

     Bill von Hagen
     ARPA : wvh@gauss.ece.cmu.edu


From -5805040682048174100
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,19cefcef39721108,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 16:05:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!mit-eddie!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: tut.prf again
Message-ID: <1515@cwruecmp.UUCP>
Date: Mon, 7-Jul-86 19:05:52 EDT
Article-I.D.: cwruecmp.1515
```

Posted: Mon Jul 7 19:05:52 1986
Date-Received: Tue, 8-Jul-86 06:44:54 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 97

There was a mistake in tut.prf that i posted about 10 days ago
with ProGem Parts 13-14. It was missing the line ".so wind9.prf".
Attached is the corrected version. Thanks to all that pointed the
error out. Apologies for the oversight on my part.

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    tut.prf
# This archive created: Mon Jul  7 19:03:17 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'tut.prf'" '(1250 characters)'
if test -f 'tut.prf'
then
     echo shar: over-writing existing file "'tut.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'tut.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Tutorial
X.!
X.!*************************************************************************
X.!
X.!
X.so macros.prf
X.so wind1.prf
X.so wind2.prf
X.so wind3.prf
X.so wind4.prf
X.so wind5.prf
```

```
X.so wind6.prf
X.so wind7.prf
X.so wind8.prf
X.so wind9.prf
X.so wind10.prf
X.so wind11.prf
X.so wind12.prf
X.so wind13.prf
X.so wind14.prf
X.!
X.! Add any further Parts Above
X.!
X.cl 0 APPENDICES
X.so apndx1.prf
X.so apndx2.prf
X.so apndx3.prf
X.so apndx4.prf
X.so apndx5.prf
X.so apndx6.prf
X.so apndx7.prf
X.so apndx8.prf
X.so apndx9.prf
X.so apndx10.prf
X.!
X.! Add any further Appendicies Above
X.!
X.so toc.prf
X.!
X.!
X.!*****************************************************************************
X.!
X.!           End Tutorial
X.!
X.!*****************************************************************************
SHAR_EOF
if test 1250 -ne "`wc -c 'tut.prf'`"
then
     echo shar: error transmitting "'tut.prf'" '(should have been 1250
characters)'
fi
#   End of shell archive
exit 0


--
                      Jwahar R. Bammi
                   Usenet:  .....!decvax!cwruecmp!bammi
                    CSnet:  bammi@case
                  Arpa:  bammi%case@csnet-relay
               CompuServe:  71515,155


From 5364762506468089960
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 18:18:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!mordor!lll-crg!lll-lcc!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <2665@islenet.UUCP>
Date: Mon, 7-Jul-86 21:18:44 EDT
Article-I.D.: islenet.2665
Posted: Mon Jul 7 21:18:44 1986
Date-Received: Fri, 11-Jul-86 08:17:25 EDT
References: <157@cci632.UUCP> <432@imagen.UUCP>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Distribution: net
Organization: Islenet Inc., Honolulu
Lines: 20

In article <432@imagen.UUCP> turner@imagen.UUCP (D'arc Angel) writes:
>> Has anybody noticed or heard of an SCSI interface to the
>> DMA port of the ST, and if it is available yet?
>
>i have heard of one company out here that is supposed to have such
>a device, to keep thing non-commercial etc. send me email if you
>want to know the details etc.
>
>--
>Name: James M. Turner

Please, I think it would be to the advantage of the net to give any
and all details -- I *don't* consider this commercialization. There
is a fine line between an add and information -- this network has
been set up for informational purposes, is it not?

Perhaps I've got it all wrong. Maybe the reason this is done is that
people like to get email?

Aloha,

From 152348882180159702
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 18:28:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!mordor!lll-crg!lll-lcc!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: (none) what?
Message-ID: <2666@islenet.UUCP>

Date: Mon, 7-Jul-86 21:28:59 EDT
Article-I.D.: islenet.2666
Posted: Mon Jul 7 21:28:59 1986
Date-Received: Fri, 11-Jul-86 08:17:38 EDT
References: <8607060259.AA04769@ucbvax.Berkeley.EDU>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 14

Did anyone else receive a large quantity of messages from ARPA that
look like they have come from BITNET and from cernvax somewhere along
the line?

The result was quite a flush of "(none)" articles here. Must have cost
someone a pretty penny. Does someone document all this? Surely it is
done. I mean, the DoD is keeping track, right?

Aloha,

Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons
"On Thursday, the world came to an end."

From 829121044355383592
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,258cb62bd5e09f2f
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-07 19:35:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decuac!c3pe!john
From: john@c3pe.UUCP
Newsgroups: net.micro,net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <170@c3pe.UUCP>
Date: Mon, 7-Jul-86 22:35:01 EDT
Article-I.D.: c3pe.170
Posted: Mon Jul 7 22:35:01 1986
Date-Received: Mon, 7-Jul-86 23:36:35 EDT
References: <1204@mhuxo.UUCP>
Distribution: na
Lines: 20
Summary: Avatex problems

I have been using an Avatex 1200 modem for about 6 months now, and have
only a few complaints. First thing, when I use it as a dial in for my
Altos system, it will go into some sort of sick mode after waiting for
a call for too long (too long being around 30 minutes). At this point,

the HS and RD lights will stay on until I turn it off and back on. I have
also noticed that if you use it for too long (greater than 6 to 8 hours),
it tends to mix garbage with the data. Also, it should have a detachable
phone cord and a much sturdier power cord receptacle. I couldn't tell you
if the first 2 problems are for just my modem, or if they apply to all
Avatex modems. Another thing, I can't figure out how to tell the modem to
stop saying CONNECT or CONNECT 1200 when someone dials in. This makes
my Altos think that someone is try to login on user CONNECT... Anyone
out there know how to shut off its messages (all of them)?

--
John P. Landahl III
..!seismo!dolqci!hqhomes!john
..!seismo!decuac!c3pe!john

From 4064313971184861471
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,384a7b4eaeb3dd8
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,384a7b4eaeb3dd8
X-Google-Attributes: gid140593,public
X-Google-Thread: 1479fb,384a7b4eaeb3dd8
X-Google-Attributes: gid1479fb,public
X-Google-ArrivalTime: 1986-07-08 05:02:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!unirot!halloran
From: halloran@unirot.UUCP (Bob Halloran)
Newsgroups: net.micro,net.micro.atari16,net.micro.ti
Subject: Re: Optimum transmission speed over telephone lines
Message-ID: <830@unirot.UUCP>
Date: Tue, 8-Jul-86 08:02:30 EDT
Article-I.D.: unirot.830
Posted: Tue Jul 8 08:02:30 1986
Date-Received: Wed, 9-Jul-86 02:00:45 EDT
References: <1207@mhuxo.UUCP> <542@ecn-pc.UUCP>
Reply-To: halloran@unirot.UUCP (Bob Halloran)
Organization: Public Access Un*x, Piscataway NJ (The Soup Kitchen)
Lines: 42
Xref: watmath net.micro:15014 net.micro.atari16:1268 net.micro.ti:210

In article <542@ecn-pc.UUCP> sandersr@ecn-pc.UUCP (Robert C Sanders) writes:
>In article <1207@mhuxo.UUCP> gjphw@mhuxo.UUCP (WYANT) writes:
>>and read mention of 9600 bps modems becoming available. Where does
>>the retransmission rate due to lost bits negate the higher data
>>transmission rate?
>
>Yes, there are 9600 baud modems out. Two major manufacturers are marketing
>them (net- help me with the names!). From the articles that I have read
>(PC World, BYTE, MAC World), the modems use a mathematical coding scheme to
>encode the data to acheive an equivilant 9600-baud thoughput. Then, they
>adjust themselves by testing the line and determining the optimum speed --
>they will drop to lower rates (8400, 5600, 4800, etc) in a continuously

>variable manner to get the maximum speed realiably. Because of this constant
>variability and change, both ends have to use the type modem from the same
>manufacturer, unless of course you set the modems to use the industry standard
>speeds of 2400, 1200, or 300. These modems, if I remember right, are Hayes
>command set compatible, with extensions for their own capabilities.

The modem in question is the Telebit Trailblazer, marketed under an OEM
agreement by Digital Communications Assoc. (makers of IRMA PC-3270 card)
as the 'DCA Fastlink'. The only difference is the faceplate. The modem
uses an on-board 68K plus the TI signal processing chip plus lotsa RAM.
It breaks up the bandwidth of the phone line into something like 512
subchannels, then moves data through them at roughly 18kbps. On the
receiving end, the subchannels are recombined, CRC checks are performed,
and the data stream is presented at 9600 baud. The major advantage of
this modem over the CCITT V.32 modems now reaching the market is that
under less-than-ideal line conditions (i.e. most of the time), the CPU
will drop only those subchannels showing poor signal-to-noise, allowing
falloff in increments of < 100 bps. The V.32 modems fall back by halving
(9600 to 4800 to ...). It emulates 103, 212 and V.22bis (300, 1200 and
2400 respectively) modems and uses the Hayes command set. Friends have
used them and love them for bulk data transfer. In a 'worst-case' test
they did, they 'looped back' between two Fastlinks in their office via
MCI, SPRINT, and ATT and still got > 7Kb throughput.

                        Bob Halloran, Consultant
==
UUCP: topaz!caip!unirot!halloran   DDD: (201)251-7514
USPS: 19 Culver Ct, Old Bridge NJ 08857   ATTmail: RHALLORAN
Disclaimer: I speak for myself.

Quote: "No matter where you go, there you are." - Buckaroo Banzai

From 4032013884127851085
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d14dadc39990be4d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-08 08:11:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: Bug in Lattice C 3.03.02
Message-ID: <135@druxu.UUCP>
Date: Tue, 8-Jul-86 11:11:40 EDT
Article-I.D.: druxu.135
Posted: Tue Jul 8 11:11:40 1986
Date-Received: Thu, 10-Jul-86 01:33:46 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 21
Keywords: Lattice C, HACK

I ran across a problem in the Lattice C library, version 3.03.02 (I
believe that is correct) where file handles are not released to GEMDOS

when the file is closed. The manifestation is I created files with
     fopen(name,"wb") and closed them with fclose()
but the first write to the 21st file resulted in 2 bombs and a crash. I
have verified this with a small program that did nothing more than fopen(),
write a line, fclose() 26 times and it died on 21. This problem does NOT
exist in the version 3.03.04 library (it has problems with fprintf() to
stderr, instead).

What this means is that those of you playing the version of PC HACK that
I compiled with the 3.03.02 libraries might see bombs around the time
you reach the 20th or 21st level. I haven't gotten that far to verify
the problem exists. You might also see them if you save a game after
the 10th level.

Rodney Black
AT&T Information Systems
11900 North Pecos St
Denver, CO 80234
ihnp4!druxu!rwb

From 8579140087075993019
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-08 09:18:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!pyramid!hplabs!felix!preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <1335@felix.UUCP>
Date: Tue, 8-Jul-86 12:18:14 EDT
Article-I.D.: felix.1335
Posted: Tue Jul 8 12:18:14 1986
Date-Received: Wed, 9-Jul-86 03:21:59 EDT
References: <157@cci632.UUCP>
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 22
In-Reply-To: <616@sdcc12.UUCP>

>A guy I met at a computer store yesterday had a home-built drive consisting of
>an Atari --> SCSI board, an off-the-shelf SCSI controller, and a 70 meg drive.
>He got the Atari --> SCSI board and disk driver from Supra for $200.00.
>I suppose it's the same board that Supra uses in their hard disk for the ST.

[...]

>Another drawback is that as it stands you can't boot off the hard disk.
>You must do a short boot from the floppy drive, and then the hard drive takes
>over. I'm not sure if GEMDOS has any provisions to auto-configure off the DMA

>port. I doubt it. The upshod is that you can't call your hard disk "drive A:
"

The BIOS listing in the developer's kit has a section (sasi.s?) where
the ST tries to do a boot off the DMA port. I'll bet the Atari -->
SCSI board just doesn't respond to the boot sequence properly. (I don't
have the developer's kit here...).

==========
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston

From 2378199386650538452
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c4005f79d7baf5fc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-08 16:30:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!seismo!mcvax!ukc!pc
From: pc@ukc.ac.uk (R.P.A.Collinson)
Newsgroups: net.micro.atari16
Subject: Re: WANTED: terminal emulator
Message-ID: <1681@eagle.ukc.ac.uk>
Date: Tue, 8-Jul-86 19:30:15 EDT
Article-I.D.: eagle.1681
Posted: Tue Jul 8 19:30:15 1986
Date-Received: Fri, 11-Jul-86 06:08:50 EDT
References: <268@sunybcs.UUCP>
Reply-To: pc@ukc.ukc.ac.uk (R.P.A.Collinson)
Organization: U of Kent at Canterbury, Canterbury, UK
Lines: 16
Keywords: 132 columns

Hmm.. well the Monochrome ST has 640 pixels across the screen.
640/132=4.84 (recurring) - this is a bit little to see. In fact, I
think that the 6*6 character set in the ST (106 characters) is too
small to do any real work with.

I used the 8*8 character set for a bit and found this tiring - this was
not because of the smallness of the characters but that the aspect
ratio was wrong, I think. The letters in words were too far apart.

I have found that the best small set is one derived from the 8*8 set -
a 7*8 set is possible to work with but only gives 91 screen
characters. I add two extra lines between the characters giving me a
40 line, 91 character wide terminal.

My conclusion therefore is that 132 character wide terminals are not
really possible on the ST for humans not equipped with binoculars.

From 1363034282690615514

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e207151083a02a8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 04:33:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Message loop
Message-ID: <12221279450.12.G.ABRAMS@SU-SCORE.ARPA>
Date: Wed, 9-Jul-86 07:33:04 EDT
Article-I.D.: SU-SCORE.12221279450.12.G.ABRAMS
Posted: Wed Jul 9 07:33:04 1986
Date-Received: Thu, 10-Jul-86 01:23:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

The looping message problem has been eliminated.

A new subscriber was added to the list on Thursday, July 3. His mailer
and the SCORE mailer decided to ping-pong a message. The problem was
discovered by the Postmaster at SCORE on Sunday July 6 and the new
address deleted from the distribution list. The individual and the
Postmaster at his site were notified.

We all regret the inconvenience.

From 5246067079649097805
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 08:16:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!seismo!cmcl2!lanl!sam
From: sam@lanl.ARPA (Sam A Matthews)
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <5015@lanl.ARPA>
Date: Wed, 9-Jul-86 11:16:27 EDT
Article-I.D.: lanl.5015
Posted: Wed Jul 9 11:16:27 1986
Date-Received: Fri, 11-Jul-86 04:55:47 EDT
References: <8606301912.AA01253@mitre.ARPA> <128@wlbreng1.UUCP> <298@sunybcs.UUCP>
Organization: Los Alamos National Laboratory
Lines: 20

> In article <128@wlbreng1.UUCP> pete@wlbreng1.UUCP (0000-Pete_Lyall) writes:
> >In article <8606301912.AA01253@mitre.ARPA> gpowell@MITRE.ARPA (Gordon Powell)
writes:
> >>Please add me to the Atari mailing list for the ST. gpowell@mitre

> >
> >Would you please add me as well?? Thanks!
> >
> >.....!ihnp4!wlbr!wlbreng1!pete
>
> me too.
>
> ugblee@gort.UUCP

Ditto! Please?

Sam Matthews
sam@lanl.ARPA
(ihnp4 or cmcl2)!lanl!sam

```
  /\|/\
--> * <--
  \/|\/
```

"We put a star in a box."

From -7604521726999127815
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6cd472b4f609395
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 13:08:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!rlgvax!vrdxhq!verdix!ogcvax!sequent!mntgfx!dclemans
From: dclemans@mntgfx.UUCP (Dave Clemans)
Newsgroups: net.micro.atari16
Subject: Re: wysiwyg text processor
Message-ID: <371@apollo.mntgfx.UUCP>
Date: Wed, 9-Jul-86 16:08:45 EDT
Article-I.D.: apollo.371
Posted: Wed Jul 9 16:08:45 1986
Date-Received: Fri, 11-Jul-86 08:18:59 EDT
References: <619@tekred.UUCP>
Organization: Mentor Graphics, Beaverton OR
Lines: 13
Keywords: LISTEN UP ATARI!!!
Summary: The ST and multiple fonts

The reason that the ST hasn't in general supported multiple fonts (except for some "special" programs that have been floating around) is that the portion of GEM for the 68000 (GDOS) hasn't had a production release yet. One company, MiGraph, is shipping a preliminary version with their EZ-Draw package, but most companies are waiting for the final version.

A final release of GDOS is supposed to happen "any day now" according to what I've seen in messages on the Compuserve Atari Developers sig. Products using it would come

out
a few months afterwards. I know of at least three wysiwyg text processors that
are
scheduled to come out in the third quarter of this year, in anticipation of the
GDOS release.

dgc

From -6011026956214807324
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6df68a56ee2ec0f1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 14:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!NDSUVM1.BITNET!UD040164
From: UD040164@NDSUVM1.BITNET (a.d. jensen)
Newsgroups: net.micro.atari16
Subject: 1 Meg Upgrade
Message-ID: <8607092026.AA05397@ucbvax.Berkeley.EDU>
Date: Wed, 9-Jul-86 17:13:00 EDT
Article-I.D.: ucbvax.8607092026.AA05397
Posted: Wed Jul 9 17:13:00 1986
Date-Received: Fri, 11-Jul-86 07:06:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=- Line Easter -=-=-=-=-=-=-=-=-=-=-=-=-=-

Well, I took the advise of many and bought a 520ST from 47th Street
Photo for $500. I sure am glad I did -- I love the new system. However,
as hard as it is for me to believe (I was using a 800xl), I have found
that 512k is not enough memory for my needs.

There has been information posted all over about upgrading your ST to 1
meg, but, alas, I am no engineer, or even a decent solderer. Where can
I send my ST for an upgrade that:

A) Is relatively inexpensive and reliable
B) Has a quick turn around
C) Will _not_ void my Atari warranty.

As an aside, it would be neat if one could have an upgrade that simply
plugged into the cartridge port, so that clods like me could do it ourselves.
I think that it might be real seller, provided that it was possible.

BTW, why doesn't the line: 10 C$=INKEY$: IF C$="" THEN 10
in ST Basic allow you to enter a single key? It stays in the loop indef-
initly, and stores that characters you type until after you BREAK out.

a.d. jensen
Department of Geography,
University of North Dakota

From 5505403043777942023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6df68a56ee2ec0f1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 14:36:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1 Meg Upgrade
Message-ID: <8607092136.AA14905@mitre-bedford.ARPA>
Date: Wed, 9-Jul-86 17:36:50 EDT
Article-I.D.: mitre-be.8607092136.AA14905
Posted: Wed Jul 9 17:36:50 1986
Date-Received: Fri, 11-Jul-86 07:09:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 15

Two places which I know of that do upgrades are

Nite Lite Systems Billerica, MA	(617) 663-4463 BBS: 663-4221 should get the job done in a few days (but ask him)	Paul Swanson, prop. is VERY competent and
CompuClub Framingham, MA	(617) 879-5232 (800) MY-ATARI the upgrade (approx)	Seem like nice peopl and charge around $140 for

By the way, are you interested in selling your 800XL?

-John Sangster
jhs@mitre-bedford.arpa

From -1019162891973637748
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a2ba989f2cc3a85c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 20:23:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!ron1!polyof!john
From: john@polyof.UUCP (John Buck)
Newsgroups: net.micro.atari16
Subject: garbage from BITNET/CERNVAX/ACS19
Message-ID: <213@polyof.UUCP>

Date: Wed, 9-Jul-86 23:23:34 EDT
Article-I.D.: polyof.213
Posted: Wed Jul 9 23:23:34 1986
Date-Received: Fri, 11-Jul-86 21:38:42 EDT
Distribution: net
Organization: Polytechnic Inst. of NY, Farmingdale
Lines: 7

What are all these (wasteful!) messages from ACS19....CERNVAX...BITNET stuff
and why are the coming. I just got through cleaning out about 300K worth
of them from this and a few other newsgroups. Seems like lots of BITNET
headers were contained in these files.

Whoever is responsible for sending these things, please stop.
(or at least investigate what is going on!)

From -2302735334600793937
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d7d850548f758e80,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-09 21:02:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!ukma!psuvm.bitnet!psuvax1!burdvax!sdcrdcf!
glenn
From: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Newsgroups: net.micro.atari16
Subject: How to use Xbtimer() ?
Message-ID: <2874@sdcrdcf.UUCP>
Date: Thu, 10-Jul-86 00:02:23 EDT
Article-I.D.: sdcrdcf.2874
Posted: Thu Jul 10 00:02:23 1986
Date-Received: Fri, 11-Jul-86 07:43:15 EDT
Reply-To: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Organization: System Development Corporation R&D, Santa Monica
Lines: 14
Keywords: xbtimer, help

  Has anyone figured out how to use the Xbtimer() extended BIOS function ?
I would sure appreciate a kind soul telling me how to set up a timer, turn it
on and turn it off.

  I don't want to use the 200Hz system clock, I do want to use the A timer of
the 68901 via Xbtimer().

Thanks,
Glenn C. Scott

Glenn C. Scott
System Development Corporation, 2525 Colorado Ave, Santa Monica, CA. 90406
213-820-4111 X5653   UUCP: glenn@sdcrdcf.UUCP   ARPA: Scott@DOCKMASTER.ARPA

From -8011817824788017729
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,19cefcef39721108
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-10 08:49:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!clyde!cbatt!cbosgd!ihnp4!alberta!myrias!mj
From: mj@myrias.UUCP
Newsgroups: net.micro.atari16
Subject: Re: tut.prf again
Message-ID: <257@myrias.UUCP>
Date: Thu, 10-Jul-86 11:49:17 EDT
Article-I.D.: myrias.257
Posted: Thu Jul 10 11:49:17 1986
Date-Received: Sat, 12-Jul-86 22:50:52 EDT
References: <1515@cwruecmp.UUCP>
Organization: Myrias Research, Edmonton
Lines: 9

ProGem hits once again. I gather from the posting that parts 13 and 14
of the text were posted recently. Does ANYBODY actually seen it? Could
somebody mail me the missing posting? Does anybody has some clues why a
traffic in this group behaves in a such frustrating way?

Michal Jaegermann
Myrias Research Corporation
Edmonton, Alberta, Canada
...ihnp4!alberta!mj

From 4597317953785446087
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-10 09:15:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!husc6!harvard!think!mit-eddie!genrad!decvax!decwrl!
ucbvax!ucdavis!ucrmath!hope!wardlaw
From: wardlaw@hope.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <543@hope.UUCP>
Date: Thu, 10-Jul-86 12:15:28 EDT
Article-I.D.: hope.543
Posted: Thu Jul 10 12:15:28 1986
Date-Received: Fri, 11-Jul-86 23:20:14 EDT
References: <8606301912.AA01253@mitre.ARPA> <128@wlbreng1.UUCP> <298@sunybcs.UUCP>
Organization: University of California, Riverside
Lines: 11

Please add me to the Atari mailing list for the ST, too.

```
     /*********************************************************\
     ** Johnie Wardlaw,      Undergraduate:  Computer Science **
     ** University of California, Riverside                   **
     ** {ucbvax!ucdavis, ihnp4!ucla-cs} ucrmath!hope!wardlaw  **
     **                                **
     ** "If that was foreplay, I'm a dead man!"          **
     **            -- Cocoon (alien sex scene)      **
     \*********************************************************/


From -7675921907344364585
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f762b9b70777620f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-10 11:25:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!husc6!harvard!think!mit-eddie!genrad!decvax!decwrl!
sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: scsi interface for the ST
Message-ID: <437@imagen.UUCP>
Date: Thu, 10-Jul-86 14:25:13 EDT
Article-I.D.: imagen.437
Posted: Thu Jul 10 14:25:13 1986
Date-Received: Fri, 11-Jul-86 23:20:02 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 19

~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~

this is kinda awkward since i refuse to turn this into an ad for
Beckmeyer, but i did call them and they said it would be another
month before they were ready to release the board, i guess i will
have to say that i have some particulars (xfer speed etc.) and if
you are curious please send me email......
--
----
     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name:     James M. Turner
Mail:     Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T:     (408) 986-9400
UUCP:     ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie     : D-ARCANGEL


From -4412031005880831407
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29b1dda3d23f95f0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-10 19:05:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!husc6!harvard!panda!genrad!decvax!mcnc!ravi
From: ravi@mcnc.UUCP (Ravi Subrahmanyan)
Newsgroups: net.micro.atari16
Subject: battery backup for clock
Message-ID: <1517@alvin.mcnc.UUCP>
Date: Thu, 10-Jul-86 22:05:53 EDT
Article-I.D.: alvin.1517
Posted: Thu Jul 10 22:05:53 1986
Date-Received: Sat, 12-Jul-86 04:26:57 EDT
Organization: Microelectronics Center of NC; RTP, NC
Lines: 13
Keywords: 520ST ST clock backup

I'd like to have some information on a battery backup for the internal clock in the 520 ST. I know someone posted a scheme for doing this many months back; has anyone tried anything of the sort? With success? I would appreciate hearing about any experiences anyone may have had concerning this. Please reply directly to me at the address given below, I'll summarise to the net if I get something. Thanks,

-ravi

[ihnp4!mcnc!ravi]
[decvax!mcnc!ravi]

From -8397972431674268546
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ccbea4eb9b528a7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-10 22:15:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!husc6!harvard!think!mit-eddie!genrad!decvax!decwrl!
ucbvax!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP
Newsgroups: net.micro.atari16
Subject: compress/uncompress?
Message-ID: <641@marlin.UUCP>
Date: Fri, 11-Jul-86 01:15:06 EDT
Article-I.D.: marlin.641
Posted: Fri Jul 11 01:15:06 1986
Date-Received: Fri, 11-Jul-86 23:20:38 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 18

I recently transfered a binary of Hack writtin for the Atari 520ST from
my host to my Atari. Unfortunately, I do not have access to Compress/
Uncompress.

Has anybody ported it to the 520? I have the source in "c" for an IBM
version, but the programming is over my head. I'm still trying to learn
the language.

If my address is not sufficient from your host, try:

        ETCS(SW) Lynn B. Dobbs
        Code 33
        Naval Ocean Systems Center
        San Diego, CA 92152-5000
        USA

Thanks.

From -9198245229015618620
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30e179255d6ca0f5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 00:34:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!mcvax!philmds!nlgvax!chris
From: chris@nlgvax.UUCP (Chris van Schagen)
Newsgroups: net.micro.atari16
Subject: Re: editors
Message-ID: <49@nlgvax.UUCP>
Date: Fri, 11-Jul-86 03:34:36 EDT
Article-I.D.: nlgvax.49
Posted: Fri Jul 11 03:34:36 1986
Date-Received: Sat, 12-Jul-86 04:24:44 EDT
References: <4047@decwrl.DEC.COM> <387@atari.UUcp>
Reply-To: chris@nlgvax.UUCP (Chris van Schagen)
Distribution: net
Organization: Philips NatLab Geldrop
Lines: 32
Keywords: EDT public domain editor
Summary: EDT PD availability

In article <387@atari.UUcp> neil@atari.UUCP writes:
>
>There is a public domain version of EDT available for the ST. It is on the
>Atari BBS and on CompuServe.
>--
>--->Neil @ Atari

Could anybody tell me how or where to get this in the netherlands ?
It is a bit expensive to do that by phone from the U.S., and i don't even

know the number to dial.
Another possebility is : Can sombody send it to me or the net ?

Very many thanks in advance from me and probably other VAX/VMS and ATARI users.

>>
Author : J. C. v. Schagen | Philips Research
UUCP   : ...!mcvax! - philmds!chris@nlgvax | Project Centre Geldrop
               - prlb!schagen@nvpgds1.SERI |
Mail   : Willem alexanderlaan 7b, Geldrop | The Netherlands
==
| Disc. : std. | Don't flame me, i'm only the pianoplayer. |
==
--
>>>
Author : J. C. v. Schagen | Philips Research
UUCP   : ...!mcvax! - philmds!chris@nlgvax | Project Centre Geldrop
               - prlb!schagen@nvpgds1.SERI |
Mail   : Willem alexanderlaan 7b, Geldrop | The Netherlands
==
| Disc. : std. | Don't flame me, i'm only the pianoplayer. |
==

From 5047988072539060425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30e179255d6ca0f5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 00:42:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!mcvax!philmds!nlgvax!chris
From: chris@nlgvax.UUCP (Chris van Schagen)
Newsgroups: net.micro.atari16
Subject: Re: editors
Message-ID: <51@nlgvax.UUCP>
Date: Fri, 11-Jul-86 03:42:59 EDT
Article-I.D.: nlgvax.51
Posted: Fri Jul 11 03:42:59 1986
Date-Received: Sat, 12-Jul-86 04:24:57 EDT
References: <4047@decwrl.DEC.COM> <387@atari.UUcp>
Reply-To: chris@nlgvax.UUCP (Chris van Schagen)
Organization: Philips NatLab Geldrop
Lines: 21
Keywords: EDT PD editor
Summary: PD EDT availability

In article <387@atari.UUcp> neil@atari.UUCP writes:
>
>There is a public domain version of EDT available for the ST. It is on the
>Atari BBS and on CompuServe.

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It is a bit expensive to get it via the phone from the U.S., and i don't even

know the number to dial.
Another possebility is : Can sombody send it to me or the net ?

Many thanks in advance from me and probably many other VAX/VMS and Atari users.

--
>>
Author : J. C. v. Schagen | Philips Research
UUCP   : ...!mcvax! - philmds!chris@nlgvax | Project Centre Geldrop
               - prlb!schagen@nvpgds1.SERI |
Mail   : Willem alexanderlaan 7b, Geldrop | The Netherlands
==
| Disc. : std. | Don't flame me, i'm only the pianoplayer. |
==

From 8974735801404020876
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,579c9a32dc6fd456,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 05:32:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!gatech!cuae2!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: STarter Kit News
Message-ID: <54600098@iuvax.UUCP>
Date: Fri, 11-Jul-86 08:32:00 EDT
Article-I.D.: iuvax.54600098
Posted: Fri Jul 11 08:32:00 1986
Date-Received: Sat, 12-Jul-86 23:09:20 EDT
Lines: 21
Nf-ID: #N:iuvax:54600098:000:852
Nf-From: iuvax!franco   Jul 11 07:32:00 1986

Thanks to Rodney Black the game HACK has been added to the STarter Kit
(only the executable and help files which amount to an entire disk).

Also, thanks to Mitch Bradley, the latest version of FORTHMACS has replaced
the older version in the STarter Kit. FORTHMACS is interesting because it
is much more than FORTH - it is a development environment and many tools have
been provided in FORTHMACS (which is why it requires an entire disk).

If you want the STarter Kit utilities only, send three floppies formatted
single sided, SASE and packing material to the address below. If you want
FORTHMACS add another disk. If you want HACK add another disk.

John Franco
2535 Spicewood Lane
Bloomington, IN 47401
USA

From outside of the US please send postal coupons or US dollars in the
following amount: From Canada send $1.25, from Europe send $3.00.

From -3728949398514131557
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4568d780697b2026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 07:52:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520st composit output
Message-ID: <205@cci632.UUCP>
Date: Fri, 11-Jul-86 10:52:02 EDT
Article-I.D.: cci632.205
Posted: Fri Jul 11 10:52:02 1986
Date-Received: Wed, 16-Jul-86 05:21:22 EDT
References: <860701-162634-4288@Xerox> <8607022017.AA02840@mitre-bedford.ARPA>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 55
Summary: Bandwidths, options, and references.

In article <8607022017.AA02840@mitre-bedford.ARPA> jhs@disunix.UUCP writes:
>Composite signals are made by black magic to fit into a nominal 6 MHz TV
>channel -- in fact I believe the video portion has to fit into 4.5 MHz.
>To do this it is necessary to low-pass filter the luminance signal to leave
>room for the chroma signal, and also to bandpass filter the chroma (or lowpass
>filter it in baseband form before putting it on the color subcarrier).
>Anyway, these lowpass operations amount to smearing of detail in the picture
>or intentionally limiting resolution. Apparently the chroma suffers the
>worst, which is why in color TV pictures the red areas sometimes appear to be
>painted on sloppily so they spill outside the area that was supposed to be
>red.

One factor in this filter (for monchrome) is that the "filter" is actually
an analog filter, which means that it is rated in terms of db or mv / ns,
some people have been able to get higher resolution from monochrome simply
by using less signal contrast, and letting the tv provide the contrast
enhancement.

The problem with using a standard color TV is that the TV has "stripes" or
pixels that are dyed for each color. If you try to double the resolution,
this will cause two pixels of different colors to be fired at each dyed
pixel. The effect can be quite unusual :-). High resolution monitors
running in low resolution mode simply cycle the same three color "bits"
twice.

>If you could get the baseband luminance signal out of the Atari before it has
>been filtered, you might get the resolution you desire. I have no data on the

>circuit, but maybe somebody out there knows if this signal is available to be
>brought out. I speculate that it may be available somewhere over on the
>monochrome monitor output. If it is still active somewhere even when you have
>plugged into the other jack, you may be able to get access to it.

>Too bad they didn't provide an option of 60-Hz standard monochrome output as
>well as composite.

The problem here is that the television actually runs 30Hz with interlace to
get 60 Hz signals. On the ST, the mono mode is normally 70 Hz non-interlaced.
This means you have to have 2.x times the bandwidth of a normal tv. It would
be possible to get a relatively flicker free signal using 70 Hz interlaced
into a normal black and white TV.

>The other trick that comes to mind is to run your monochrome monitor off the
>GREEN output of the RGB output. That is supposed to give a reasonable
>monochrome picture for most normal scenes.

The question here is, does the green output provide sufficient blanking
and retrace levels to keep the mono in sync?

I would suggest that you take a look at "The Cheap Video Cookbook" and
"The Son of Cheap Video". In addition to some of the ideas mentioned
above, they have a nice "recipe" for an RGB to composite monchrome
adapter using mostly descrete logic and one or two transistors.

You also may want to look at the spec sheets for the MC137X motorola
line for an RGB to TV converter.

From 1930585684532089111
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7bda412cbfb1e7d4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 10:40:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!mcvax!tnocsda!hvt
From: hvt@tnocsda.UUCP
Newsgroups: net.micro.atari16
Subject: 'uw' for the 520ST wanted (server part only)
Message-ID: <148@tnocsda.UUCP>
Date: Fri, 11-Jul-86 13:40:03 EDT
Article-I.D.: tnocsda.148
Posted: Fri Jul 11 13:40:03 1986
Date-Received: Sat, 12-Jul-86 07:19:29 EDT
Lines: 18

Can somebody please mail me 'uw' for the Atari ST 520 ?

We have no esoteric decompression tools, so the binary > ascii translation
must be kept simple. On the Atari side we only have kermit to download it,
no special binhex tools or what have you.

I only need the (40-50KB) program that runs on the atari. Our 4.2 Unix system
already has the uw host-part up & running. (We run uw on the Macintosh but
want to know how the Atari-uw compares).

Thanks in advance for any response,

Henk Vantyen
mcvax!tnocsda!hvt

From 1805937907028967074
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9609371e96e40d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 14:56:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!cmcl2!lanl!sam
From: sam@lanl.UUCP
Newsgroups: net.micro.atari16
Subject: I need some help...
Message-ID: <5119@lanl.ARPA>
Date: Fri, 11-Jul-86 17:56:48 EDT
Article-I.D.: lanl.5119
Posted: Fri Jul 11 17:56:48 1986
Date-Received: Sat, 12-Jul-86 01:46:05 EDT
Organization: Los Alamos National Laboratory
Lines: 15

[]

Can any kind soul out there tell me how to get a complete set of manuals
for the 1040ST before I buy one? The people who work at the Atari stores
in my area are not very helpful, in fact they barely can make Neochrome
work. Asking them technical questions is as useful as pushing a rope. :)

Any help would be greatly appreciated. I figure a set of manuals are a lot
cheaper than buying the machine only to find out I can't deal with it...

Thanks in advance.

Sam Matthews   /\|/\   "We put a star
sam@lanl.ARPA   --> * <--   in a box."
(ihnp4 or cmcl2)!lanl!sam   \/|\/

From -8436477993267011126
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,8cfba91f40c58d21,start
X-Google-Attributes: gid15c82e,public

X-Google-Thread: 140593,8cfba91f40c58d21,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 15:27:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!topaz!appelbau
From: appelbau@topaz.UUCP
Newsgroups: net.micro.atari16,net.micro.atari8
Subject: ST BBS!!
Message-ID: <5320@topaz.RUTGERS.EDU>
Date: Fri, 11-Jul-86 18:27:45 EDT
Article-I.D.: topaz.5320
Posted: Fri Jul 11 18:27:45 1986
Date-Received: Fri, 11-Jul-86 23:20:51 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 10
Keywords: ST BBS
Xref: utcs net.micro.atari16:1261 net.micro.atari8:322

The following is the number of a BBS that is run on a 520ST. It has
downloads for both the ST and the 8 bits.
   Fizbans Towers BBS!
  (201)-583-5758.

--
Marc L. Appelbaum
Arpa: appelbau@topaz.RUTGERS.EDU
Uucp: ...{allegra, harvard, seismo, sri-iu, ut-sally}!topaz!appelbau

From 1502849788718287359
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7f4eb09c2616f006,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-11 22:42:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!seismo!caip!nike!ucbcad!ucbvax!MIT-MULTICS.ARPA!
USER=6CJG%UB-MTS%UMich-MTS.MAILNET
From: USER=6CJG%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <203973@UB-MTS>
Date: Sat, 12-Jul-86 01:42:26 EDT
Article-I.D.: UB-MTS.203973
Posted: Sat Jul 12 01:42:26 1986
Date-Received: Sat, 12-Jul-86 22:57:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Bon voyage info-atari16! Hope to see you all on the Club Network
someday. You've really helped make it great! Over 300 ST files
so far at last count? This is the box to be with!

Terry Conklin
Club Network Coordinator
Club II   (313) 334-8877   U.S.
Club LANS (517) 372-3131

From 5612935659855943129
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,26feab568dbb4907,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 16:30:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: millisecond timer
Message-ID: <8607060024.AA03682@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 19:30:58 EDT
Article-I.D.: ucbvax.8607060024.AA03682
Posted: Sat Jul 5 19:30:58 1986
Date-Received: Sun, 6-Jul-86 04:30:09 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 6

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -8201908290219611439
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,26feab568dbb4907
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 16:30:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: millisecond timer
Message-ID: <8607060037.AA03778@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 19:30:58 EDT
Article-I.D.: ucbvax.8607060037.AA03778
Posted: Sat Jul 5 19:30:58 1986
Date-Received: Sun, 6-Jul-86 04:30:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA

Organization: The ARPA Internet
Lines: 6

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -6770907987409366390
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 18:24:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060124.AA04168@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 21:24:58 EDT
Article-I.D.: ucbvax.8607060124.AA04168
Posted: Sat Jul 5 21:24:58 1986
Date-Received: Sun, 6-Jul-86 04:38:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5114450994010454738
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 18:37:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060137.AA04236@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 21:37:30 EDT
Article-I.D.: ucbvax.8607060137.AA04236
Posted: Sat Jul 5 21:37:30 1986
Date-Received: Sun, 6-Jul-86 04:39:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -3665549615347193327
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 19:23:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060223.AA04554@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 22:23:36 EDT
Article-I.D.: ucbvax.8607060223.AA04554
Posted: Sat Jul 5 22:23:36 1986
Date-Received: Sun, 6-Jul-86 04:44:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 49

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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From -1439131635316032833
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 19:35:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060235.AA04634@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 22:35:38 EDT
Article-I.D.: ucbvax.8607060235.AA04634
Posted: Sat Jul 5 22:35:38 1986
Date-Received: Sun, 6-Jul-86 04:44:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 63

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
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  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
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mike

From -2203231579598993815
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 19:47:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060247.AA04706@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 22:47:45 EDT
Article-I.D.: ucbvax.8607060247.AA04706
Posted: Sat Jul 5 22:47:45 1986
Date-Received: Sun, 6-Jul-86 05:44:07 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 78

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
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Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT

Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
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  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
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  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
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Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
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X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 20:00:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060259.AA04769@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 23:00:12 EDT
Article-I.D.: ucbvax.8607060259.AA04769
Posted: Sat Jul 5 23:00:12 1986
Date-Received: Sun, 6-Jul-86 05:44:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 92

X-Bitnet-Sender:
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  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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  19:18:58-PDT
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  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
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Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
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X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 20:12:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060312.AA04934@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 23:12:59 EDT
Article-I.D.: ucbvax.8607060312.AA04934
Posted: Sat Jul 5 23:12:59 1986
Date-Received: Sun, 6-Jul-86 05:47:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 107

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
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  21:26:32 CDT
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        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -643463685253278542
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 20:29:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060328.AA05022@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 23:29:01 EDT
Article-I.D.: ucbvax.8607060328.AA05022
Posted: Sat Jul 5 23:29:01 1986
Date-Received: Sun, 6-Jul-86 05:47:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 121

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
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        from SMTPUSER@WISCVM.BITNET via rscs.
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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  18:27:14-PDT
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  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
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        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
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  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't seem to be doing the right job. Is there someway to do our own math to get millisecond timing? Say polling the clock?

mike

From -8210925432632297987
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 20:42:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060341.AA05154@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 23:42:24 EDT
Article-I.D.: ucbvax.8607060341.AA05154
Posted: Sat Jul 5 23:42:24 1986
Date-Received: Sun, 6-Jul-86 05:48:08 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 136

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

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mike

From -4538296419897711627
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 20:56:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060356.AA05252@ucbvax.Berkeley.EDU>
Date: Sat, 5-Jul-86 23:56:56 EDT
Article-I.D.: ucbvax.8607060356.AA05252
Posted: Sat Jul 5 23:56:56 1986
Date-Received: Sun, 6-Jul-86 05:48:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 150

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT

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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 8167032991381866678
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 21:45:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060445.AA06177@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 00:45:59 EDT
Article-I.D.: ucbvax.8607060445.AA06177
Posted: Sun Jul 6 00:45:59 1986
Date-Received: Sun, 6-Jul-86 05:48:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 165

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54

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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
Subject:      millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job.  Is there someway to do our own math to get
millisecond timing?  Say polling the clock?

mike


From -296427674250552499
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
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X-Google-ArrivalTime: 1986-07-05 22:00:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060459.AA06269@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 01:00:07 EDT
Article-I.D.: ucbvax.8607060459.AA06269
Posted: Sun Jul 6 01:00:07 1986
Date-Received: Sun, 6-Jul-86 05:49:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 179

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
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  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -424108785678310925
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 22:43:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060543.AA06676@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 01:43:44 EDT
Article-I.D.: ucbvax.8607060543.AA06676
Posted: Sun Jul 6 01:43:44 1986

Date-Received: Mon, 7-Jul-86 00:30:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 194

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT

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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
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        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 1226470024238278364
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 22:57:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)

Message-ID: <8607060556.AA06756@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 01:57:04 EDT
Article-I.D.: ucbvax.8607060556.AA06756
Posted: Sun Jul 6 01:57:04 1986
Date-Received: Mon, 7-Jul-86 00:30:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 208

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
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Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
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To: info-atari16@su-score.arpa

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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul  6 04:46:57
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  19:26:35 CDT
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        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
Subject:      millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
```

We are trying to get the time in milliseconds, and the event_timer call doesn't seem to be doing the right job. Is there someway to do our own math to get millisecond timing? Say polling the clock?

mike

From 5551193433221814386
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 23:11:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060611.AA06886@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 02:11:54 EDT
Article-I.D.: ucbvax.8607060611.AA06886
Posted: Sun Jul 6 02:11:54 1986
Date-Received: Mon, 7-Jul-86 00:32:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 223

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51

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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200

Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -1194234283322214402
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 23:24:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060623.AA06998@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 02:24:19 EDT

Article-I.D.: ucbvax.8607060623.AA06998
Posted: Sun Jul 6 02:24:19 1986
Date-Received: Mon, 7-Jul-86 00:32:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 237

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

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  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
Subject:      millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job.  Is there someway to do our own math to get
millisecond timing?  Say polling the clock?

mike


From 8443674337456080947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 23:36:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060635.AA07143@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 02:36:17 EDT
Article-I.D.: ucbvax.8607060635.AA07143
Posted: Sun Jul  6 02:36:17 1986
Date-Received: Mon, 7-Jul-86 00:32:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 252
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT

Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5997676217893404565
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 23:49:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16

Subject: (none)
Message-ID: <8607060649.AA07399@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 02:49:48 EDT
Article-I.D.: ucbvax.8607060649.AA07399
Posted: Sun Jul 6 02:49:48 1986
Date-Received: Mon, 7-Jul-86 00:34:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 266

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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  19:18:58-PDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT

Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -1106211503044997934
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 00:08:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060707.AA07721@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 03:08:12 EDT
Article-I.D.: ucbvax.8607060707.AA07721
Posted: Sun Jul 6 03:08:12 1986
Date-Received: Mon, 7-Jul-86 00:36:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 281

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

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  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
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  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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  21:52:26-PDT
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  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Date: Sun, 6 Jul 86 05:56:14 +0200
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To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
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        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
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Date: Sun, 6 Jul 86 05:31:19 +0200
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
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To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
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Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
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To: info-atari16@su-score.arpa

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To:  info-atari16@su-score.arpa


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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


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  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -5044841034548625113
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 00:24:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060724.AA07876@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 03:24:47 EDT
Article-I.D.: ucbvax.8607060724.AA07876
Posted: Sun Jul 6 03:24:47 1986
Date-Received: Mon, 7-Jul-86 00:36:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 295

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT

Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200

Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT

Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 753884725619084572
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 00:40:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060740.AA07962@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 03:40:28 EDT
Article-I.D.: ucbvax.8607060740.AA07962
Posted: Sun Jul 6 03:40:28 1986
Date-Received: Mon, 7-Jul-86 00:36:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 310

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at

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  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
```

```
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
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Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA

To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -2871605533576646752
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 01:09:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060807.AA08211@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 04:09:06 EDT
Article-I.D.: ucbvax.8607060807.AA08211
Posted: Sun Jul 6 04:09:06 1986
Date-Received: Mon, 7-Jul-86 00:41:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 324

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at

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  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
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        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
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        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200

Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5610632433550624862
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 01:21:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060820.AA08333@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 04:21:15 EDT

Article-I.D.: ucbvax.8607060820.AA08333
Posted: Sun Jul 6 04:21:15 1986
Date-Received: Mon, 7-Jul-86 00:42:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 310

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
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        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
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To: info-atari16@su-score.arpa

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  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
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        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
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  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
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To: info-atari16@su-score.arpa

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Received: by cernvax Sun Jul  6 05:30:54
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
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        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
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        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by cernvax Sun Jul 6 02:23:30
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To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 8828323318263958540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 01:34:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060833.AA08466@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 04:34:14 EDT
Article-I.D.: ucbvax.8607060833.AA08466
Posted: Sun Jul 6 04:34:14 1986
Date-Received: Mon, 7-Jul-86 00:42:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 339

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
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  00:02:06-PDT
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  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
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  22:47:39-PDT
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  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

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  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
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        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
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```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
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  20:28:06 CDT
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        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
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  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
Subject:      millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job.  Is there someway to do our own math to get
millisecond timing?  Say polling the clock?

mike


From 9100467688701079321
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 01:45:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
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Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060845.AA08547@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 04:45:44 EDT
Article-I.D.: ucbvax.8607060845.AA08547
Posted: Sun Jul 6 04:45:44 1986
Date-Received: Mon, 7-Jul-86 00:43:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 324

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 6571176332426906857
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 02:01:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060900.AA08671@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 05:01:37 EDT
Article-I.D.: ucbvax.8607060900.AA08671
Posted: Sun Jul 6 05:01:37 1986
Date-Received: Mon, 7-Jul-86 00:43:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 339

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't seem to be doing the right job. Is there someway to do our own math to get millisecond timing? Say polling the clock?

mike

From 3371610837631268932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 02:23:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060922.AA08930@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 05:23:38 EDT
Article-I.D.: ucbvax.8607060922.AA08930
Posted: Sun Jul 6 05:23:38 1986
Date-Received: Mon, 7-Jul-86 00:43:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 353

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200

Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by cernvax Sun Jul 6 09:12:21
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
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Date: Sun, 6 Jul 86 08:56:01 +0200
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

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  23:29:30-PDT
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Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
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Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Date: Sun, 6 Jul 86 07:58:02 +0200
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: by mint.cern (cernvax) (4.12/3.14)
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
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Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT

Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -5847389320136986211
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 02:36:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607060936.AA09097@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 05:36:39 EDT
Article-I.D.: ucbvax.8607060936.AA09097
Posted: Sun Jul 6 05:36:39 1986
Date-Received: Mon, 7-Jul-86 00:43:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 353

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT

Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200

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Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
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  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
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        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT

Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 6183197747289251662
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 03:01:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061001.AA09281@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 06:01:51 EDT
Article-I.D.: ucbvax.8607061001.AA09281
Posted: Sun Jul 6 06:01:51 1986
Date-Received: Mon, 7-Jul-86 00:44:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 368

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200

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Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200

```
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 7770727555309952376
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 03:14:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061013.AA09423@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 06:14:11 EDT
Article-I.D.: ucbvax.8607061013.AA09423
Posted: Sun Jul 6 06:14:11 1986
Date-Received: Mon, 7-Jul-86 00:47:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 368

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT

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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200

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Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
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Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 2627536105035434312
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 04:00:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061059.AA09678@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 07:00:34 EDT
Article-I.D.: ucbvax.8607061059.AA09678
Posted: Sun Jul 6 07:00:34 1986
Date-Received: Mon, 7-Jul-86 00:48:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 382

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:

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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul  6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
```

```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
```

```
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
```

```
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
```

```
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -5098589675992780581
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 05:06:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061206.AA10685@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 08:06:35 EDT
Article-I.D.: ucbvax.8607061206.AA10685
Posted: Sun Jul 6 08:06:35 1986
Date-Received: Mon, 7-Jul-86 00:52:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 382

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

```
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT

Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 1231066506421901184
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 05:55:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061255.AA10880@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 08:55:34 EDT
Article-I.D.: ucbvax.8607061255.AA10880
Posted: Sun Jul 6 08:55:34 1986
Date-Received: Mon, 7-Jul-86 00:53:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 397

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.

```
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
```

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

```
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

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  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
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  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
```

Subject:	millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 1390212376908242986
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 06:08:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061307.AA10972@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 09:08:16 EDT
Article-I.D.: ucbvax.8607061307.AA10972
Posted: Sun Jul 6 09:08:16 1986
Date-Received: Mon, 7-Jul-86 01:11:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 397

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul  6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get

millisecond timing? Say polling the clock?

mike

From -2377548834012113918
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 06:20:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061320.AA11037@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 09:20:44 EDT
Article-I.D.: ucbvax.8607061320.AA11037
Posted: Sun Jul 6 09:20:44 1986
Date-Received: Mon, 7-Jul-86 01:12:04 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 411

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul 6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 10:22:14
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Date: Sun, 6 Jul 86 08:25:30 +0200
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        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
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  00:48:31 CDT
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        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.

```
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
```

  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 1776105924808682606
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 06:33:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061332.AA11112@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 09:33:13 EDT
Article-I.D.: ucbvax.8607061332.AA11112
Posted: Sun Jul 6 09:33:13 1986
Date-Received: Mon, 7-Jul-86 01:12:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 411

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86

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  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul  6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul  6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
```

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        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 6729197558401201080
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 06:49:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061349.AA11183@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 09:49:42 EDT
Article-I.D.: ucbvax.8607061349.AA11183
Posted: Sun Jul 6 09:49:42 1986
Date-Received: Mon, 7-Jul-86 01:12:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 426

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200

Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul 6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul 6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86

```
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul  6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul  6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
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To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
```

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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul 6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -9076779227030247566
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 07:03:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061403.AA11255@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 10:03:53 EDT
Article-I.D.: ucbvax.8607061403.AA11255
Posted: Sun Jul 6 10:03:53 1986
Date-Received: Mon, 7-Jul-86 01:18:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 426

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200

Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86

```
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

```
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
```

```
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)

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        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -5477036884283207594
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 07:38:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061437.AA11415@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 10:38:21 EDT
Article-I.D.: ucbvax.8607061437.AA11415
Posted: Sun Jul 6 10:38:21 1986
Date-Received: Mon, 7-Jul-86 01:19:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 440

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul 6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul 6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul 6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul 6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200

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Received: by cernvax Sun Jul  6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul  6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul  6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
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  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200

Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul 6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

```
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5536325271465538462
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 07:51:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061451.AA11487@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 10:51:29 EDT
Article-I.D.: ucbvax.8607061451.AA11487
Posted: Sun Jul 6 10:51:29 1986
Date-Received: Mon, 7-Jul-86 01:19:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 440

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul 6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul 6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200

Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT

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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200

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Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
```

```
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
```

Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -8928700080523532947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30e179255d6ca0f5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 08:16:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!decwrl!fanelli@phdvax.dec.com
From: fanelli@phdvax.dec.com
Newsgroups: net.micro.atari16
Subject: editors
Message-ID: <4047@decwrl.DEC.COM>
Date: Sun, 6-Jul-86 11:16:53 EDT

Article-I.D.: decwrl.4047
Posted: Sun Jul 6 11:16:53 1986
Date-Received: Mon, 7-Jul-86 02:11:33 EDT
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 4

I have yet to find a really good editor for the ST. What I would really like
is something like VEDIT - simple, quick, and powerful. Any suggestions?

              mike

From -6607016947082541704
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 08:26:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061525.AA11694@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 11:26:14 EDT
Article-I.D.: ucbvax.8607061525.AA11694
Posted: Sun Jul 6 11:26:14 1986
Date-Received: Mon, 7-Jul-86 01:23:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 455

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul 6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86

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  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul  6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul  6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul  6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul  6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul 6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul 6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200

Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

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  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
```

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        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
```

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Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT

Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 954548787355363685
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 08:50:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061550.AA11848@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 11:50:39 EDT
Article-I.D.: ucbvax.8607061550.AA11848
Posted: Sun Jul 6 11:50:39 1986
Date-Received: Mon, 7-Jul-86 01:24:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 455

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul 6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86

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  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul  6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul  6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul  6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul  6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200

Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

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  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
```

```
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
```

```
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT

Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -5658394220799110831
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 09:21:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061620.AA12302@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 12:21:09 EDT
Article-I.D.: ucbvax.8607061620.AA12302
Posted: Sun Jul 6 12:21:09 1986
Date-Received: Mon, 7-Jul-86 01:25:57 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 469

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:36:28 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:32:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:33:40 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11612; Sun, 6 Jul 86 16:25:34 +0200
Received: by cernvax Sun Jul 6 16:25:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT

```
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul  6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul  6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul  6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul  6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200
Received: by cernvax Sun Jul  6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul  6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul  6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
```

Received: by cernvax Sun Jul 6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

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  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul  6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
```

Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul 6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul 6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul 6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul 6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86

```
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul  6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
```

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        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul  6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:   ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date:         Sat, 05 Jul 86 18:30:58 CDT
Reply-To:  ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To:  INFO-ATARI16@SU-SCORE.ARPA
Subject:      millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job.  Is there someway to do our own math to get
millisecond timing?  Say polling the clock?

mike


From -888611573895533128
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 09:35:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061634.AA12415@ucbvax.Berkeley.EDU>
Date: Sun, 6-Jul-86 12:35:13 EDT
Article-I.D.: ucbvax.8607061634.AA12415
Posted: Sun Jul  6 12:35:13 1986
Date-Received: Mon, 7-Jul-86 01:26:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 469


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
```

```
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul  6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul  6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200

Received: by cernvax Sun Jul 6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul 6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT

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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul  6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul  6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul  6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul  6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200

```
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  20:23:49-PDT
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Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
```

```
X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
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Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5968449294149334399
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 10:10:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607061710.AA12613@ucbvax.Berkeley.EDU>

Date: Sun, 6-Jul-86 13:10:24 EDT
Article-I.D.: ucbvax.8607061710.AA12613
Posted: Sun Jul 6 13:10:24 1986
Date-Received: Mon, 7-Jul-86 01:26:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 484

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:24:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:20:55-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:21:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11769; Sun, 6 Jul 86 17:16:06 +0200
Date: Sun, 6 Jul 86 17:16:06 +0200
Received: by cernvax Sun Jul 6 17:15:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:36:28 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:32:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:33:40 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11612; Sun, 6 Jul 86 16:25:34 +0200
Received: by cernvax Sun Jul 6 16:25:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:47:43 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:44:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:44:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11467; Sun, 6 Jul 86 15:33:35 +0200
Date: Sun, 6 Jul 86 15:33:35 +0200
Received: by cernvax Sun Jul 6 15:33:16
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:19:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:01:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:02:36 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11346; Sun, 6 Jul 86 14:57:14 +0200
Received: by cernvax Sun Jul 6 14:56:57
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:53:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:50:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  06:29:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11084; Sun, 6 Jul 86 13:19:51 +0200
Date: Sun, 6 Jul 86 13:19:51 +0200
Received: by cernvax Sun Jul 6 13:19:29
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:58:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:55:11-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:56:04 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10993; Sun, 6 Jul 86 12:50:45 +0200
Received: by cernvax Sun Jul 6 12:50:28
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 05:12:12 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  03:07:56-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:08:44 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10850; Sun, 6 Jul 86 12:03:51 +0200
Date: Sun, 6 Jul 86 12:03:51 +0200

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Received: by cernvax Sun Jul  6 12:03:34
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:33:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:27:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:28:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10719; Sun, 6 Jul 86 11:23:48 +0200
Received: by cernvax Sun Jul  6 11:23:31
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:59:02 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:55:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:55:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10609; Sun, 6 Jul 86 10:49:05 +0200
Date: Sun, 6 Jul 86 10:49:05 +0200
Received: by cernvax Sun Jul  6 10:48:41
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:43:36 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:26:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:27:03 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10532; Sun, 6 Jul 86 10:22:31 +0200
Received: by cernvax Sun Jul  6 10:22:14
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:18:37 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:15:09-PDT
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul 6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul 6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
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  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200

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Received: by cernvax Sun Jul  6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul  6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
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Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa
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X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul 6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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  21:38:48 CDT
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        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul 6 04:35:06
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul 6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200

Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul 6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul 6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
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Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT

Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From 5392600229158093715
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 119eed,8022c2d94efe1981,start
X-Google-Attributes: gid119eed,public
X-Google-Thread: 142096,8022c2d94efe1981,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,8022c2d94efe1981,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 140593,8022c2d94efe1981,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 12da6b,8022c2d94efe1981,start
X-Google-Attributes: gid12da6b,public
X-Google-ArrivalTime: 1986-07-06 18:19:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!burl!clyde!cbatt!cbosgd!mark
From: mark@cbosgd.UUCP (Mark Horton)
Newsgroups: net.lang.c,net.micro.mac,net.micro.amiga,net.micro.atari16,net.decus
Subject: C compiler survey
Message-ID: <2269@cbosgd.UUCP>
Date: Sun, 6-Jul-86 21:19:14 EDT
Article-I.D.: cbosgd.2269
Posted: Sun Jul 6 21:19:14 1986
Date-Received: Mon, 7-Jul-86 07:17:12 EDT
Distribution: na
Organization: AT&T Bell Laboratories, Columbus, Oh
Lines: 20
Xref: burl net.lang.c:7404 net.micro.mac:7059 net.micro.amiga:3948
net.micro.atari16:1269 net.decus:465

I'm writing a book about portable C software, and I'd like to make it
as accurate and complete as possible. While I'm reasonably familiar
with several versions of UNIX, and with somewhat familiar with MS DOS,
I haven't made much use of some other important operating systems where
C is heavily used, including the Macintosh, Amiga, Atari ST, VMS, IBM
MVS, and so on.

I'd like to hear from users of these other systems who are very familiar
with their C implementations. I'd like to know which compiler and C
library are most widely used on that system, where I can get a copy of
the manual, and any comments about portability to that particular system.
If you might be interested in reviewing a copy of the book to check for
correctness (when it's ready) I'd also be most appreciative.

Thanks in advance,

     Mark Horton
     mark@cbosgd.ATT.COM
     mark@Berkeley.EDU
     cbosgd!mark

From -382407436134754705
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-06 21:17:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!WISCVM.WISC.EDU!
ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET
From: ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607070417.AA17930@ucbvax.Berkeley.EDU>
Date: Mon, 7-Jul-86 00:17:54 EDT
Article-I.D.: ucbvax.8607070417.AA17930
Posted: Mon Jul 7 00:17:54 1986
Date-Received: Mon, 7-Jul-86 07:34:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 484

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 10:48:57 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  08:32:43-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  10:33:34 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11789; Sun, 6 Jul 86 17:28:57 +0200
Date: Sun, 6 Jul 86 17:28:57 +0200
Received: by cernvax Sun Jul 6 17:28:40
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA

```
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:49:15 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  07:45:35-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  09:46:18 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11645; Sun, 6 Jul 86 16:41:08 +0200
Received: by cernvax Sun Jul  6 16:40:50
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 09:01:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:57:46-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:58:39 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11518; Sun, 6 Jul 86 15:53:58 +0200
Date: Sun, 6 Jul 86 15:53:58 +0200
Received: by cernvax Sun Jul  6 15:53:42
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:31:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  06:17:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  08:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11388; Sun, 6 Jul 86 15:13:42 +0200
Received: by cernvax Sun Jul  6 15:13:26
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 08:06:03 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:57:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  07:18:29 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA11235; Sun, 6 Jul 86 14:09:18 +0200
Date: Sun, 6 Jul 86 14:09:18 +0200
Received: by cernvax Sun Jul  6 14:08:48
        from SMTPUSER@WISCVM.BITNET via rscs.
```

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 07:04:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  05:01:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  05:41:24 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10959; Sun, 6 Jul 86 12:34:45 +0200
Received: by cernvax Sun Jul 6 12:34:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:59:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:56:20-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:57:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10815; Sun, 6 Jul 86 11:51:16 +0200
Date: Sun, 6 Jul 86 11:51:16 +0200
Received: by cernvax Sun Jul 6 11:50:52
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 04:21:08 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  02:17:18-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  04:18:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10682; Sun, 6 Jul 86 11:09:44 +0200
Received: by cernvax Sun Jul 6 11:09:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:31:20 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:18:28-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:19:02 CDT

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Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10504; Sun, 6 Jul 86 10:13:42 +0200
Date: Sun, 6 Jul 86 10:13:42 +0200
Received: by cernvax Sun Jul  6 10:13:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 03:06:16 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  01:02:21-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  03:02:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10437; Sun, 6 Jul 86 09:49:05 +0200
Received: by cernvax Sun Jul  6 09:48:37
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:38:41 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:34:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:35:46 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10380; Sun, 6 Jul 86 09:31:16 +0200
Date: Sun, 6 Jul 86 09:31:16 +0200
Received: by cernvax Sun Jul  6 09:30:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:23:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:19:31-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:20:25 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10324; Sun, 6 Jul 86 09:12:45 +0200
Received: by cernvax Sun Jul  6 09:12:21
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
```

Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 02:05:52 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sun 6 Jul 86
  00:02:06-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  02:02:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10266; Sun, 6 Jul 86 08:56:01 +0200
Date: Sun, 6 Jul 86 08:56:01 +0200
Received: by cernvax Sun Jul 6 08:55:35
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:47:50 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:43:36-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:44:23 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10189; Sun, 6 Jul 86 08:39:43 +0200
Received: by cernvax Sun Jul 6 08:39:21
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:33:46 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:29:30-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:30:21 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10133; Sun, 6 Jul 86 08:25:30 +0200
Date: Sun, 6 Jul 86 08:25:30 +0200
Received: by cernvax Sun Jul 6 08:25:12
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:22:05 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:16:10-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:17:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10100; Sun, 6 Jul 86 08:12:37 +0200
Received: by cernvax Sun Jul 6 08:12:20
        from SMTPUSER@WISCVM.BITNET via rscs.

To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 01:09:39 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  23:01:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  01:02:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10055; Sun, 6 Jul 86 07:58:02 +0200
Date: Sun, 6 Jul 86 07:58:02 +0200
Received: by cernvax Sun Jul 6 07:57:45
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:55:18 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:47:39-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:48:31 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA10020; Sun, 6 Jul 86 07:44:08 +0200
Received: by cernvax Sun Jul 6 07:43:51
        from SMTPUSR2@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/06/86 at 00:41:31 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  22:37:59-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/06/86 at
  00:38:52 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09914; Sun, 6 Jul 86 07:13:39 +0200
Date: Sun, 6 Jul 86 07:13:39 +0200
Received: by cernvax Sun Jul 6 07:13:15
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:58:30 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:52:26-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at

```
  23:53:13 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09744; Sun, 6 Jul 86 06:49:07 +0200
Received: by cernvax Sun Jul  6 06:48:51
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 23:44:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  21:40:41-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  23:00:54 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09623; Sun, 6 Jul 86 05:56:14 +0200
Date: Sun, 6 Jul 86 05:56:14 +0200
Received: by cernvax Sun Jul  6 05:55:58
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:54:23 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:45:08-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:46:01 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09600; Sun, 6 Jul 86 05:42:41 +0200
Received: by cernvax Sun Jul  6 05:42:24
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:40:26 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:35:09-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:35:59 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09578; Sun, 6 Jul 86 05:31:19 +0200
Date: Sun, 6 Jul 86 05:31:19 +0200
Received: by cernvax Sun Jul  6 05:30:54
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
```

```
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:27:13 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:23:49-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:24:37 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09532; Sun, 6 Jul 86 05:19:31 +0200
Received: by cernvax Sun Jul  6 05:19:15
        from SMTPUSR2@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 22:10:56 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  20:03:04-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  22:03:57 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09490; Sun, 6 Jul 86 05:00:10 +0200
Date: Sun, 6 Jul 86 05:00:10 +0200
Received: by cernvax Sun Jul  6 04:59:51
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:58:38 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:49:54-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:50:45 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09472; Sun, 6 Jul 86 04:47:14 +0200
Received: by cernvax Sun Jul  6 04:46:57
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:46:11 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:37:57-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:38:48 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09440; Sun, 6 Jul 86 04:35:23 +0200
Date: Sun, 6 Jul 86 04:35:23 +0200
Received: by cernvax Sun Jul  6 04:35:06
```

```
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:34:01 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:25:42-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  21:26:32 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09412; Sun, 6 Jul 86 04:23:01 +0200
Received: by cernvax Sun Jul  6 04:22:45
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 21:21:55 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  19:18:58-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:39:26 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09295; Sun, 6 Jul 86 03:36:42 +0200
Date: Sun, 6 Jul 86 03:36:42 +0200
Received: by cernvax Sun Jul  6 03:36:25
        from SMTPUSER@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:36:04 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:27:14-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  20:28:06 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09269; Sun, 6 Jul 86 03:24:21 +0200
Received: by cernvax Sun Jul  6 03:24:05
        from SMTPUSR1@WISCVM.BITNET via rscs.
To:  info-atari16@su-score.arpa


X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 20:23:19 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  18:20:03-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
```

  19:40:10 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09188; Sun, 6 Jul 86 02:37:39 +0200
Date: Sun, 6 Jul 86 02:37:39 +0200
Received: by cernvax Sun Jul 6 02:37:22
        from SMTPUSR1@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender:
  ACS19%UHUPVM1.BITNET%WISCVM.ARPA%cernvax.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:35:06 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:25:47-PDT
Received: from (DAEMON)CERNVAX.BITNET by WISCVM.ARPA on 07/05/86 at
  19:26:35 CDT
Received: by mint.cern (cernvax) (4.12/3.14)
        id AA09170; Sun, 6 Jul 86 02:23:47 +0200
Received: by cernvax Sun Jul 6 02:23:30
        from SMTPUSER@WISCVM.BITNET via rscs.
To: info-atari16@su-score.arpa

X-Bitnet-Sender: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/05/86 at 19:22:47 CDT
Received: from WISCVM.ARPA by SU-SCORE.ARPA with TCP; Sat 5 Jul 86
  17:19:38-PDT
Received: from (MAILER)UHUPVM1.BITNET by WISCVM.ARPA on 07/05/86 at
  18:39:48 CDT
Received: by UHUPVM1 (Mailer X1.23b) id 1936; Sat, 05 Jul 86 18:33:52
  CDT
Date: Sat, 05 Jul 86 18:30:58 CDT
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
To: INFO-ATARI16@SU-SCORE.ARPA
Subject: millisecond timer

Does anyone have some source for using the xbtimer function of the MFP.
We are trying to get the time in milliseconds, and the event_timer call doesn't
seem to be doing the right job. Is there someway to do our own math to get
millisecond timing? Say polling the clock?

mike

From -3419235728804186465
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,268f673f81daeaf7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 14:16:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!reading!
sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)

Newsgroups: net.micro.atari16
Subject: Re: CP/M emulator - a query
Message-ID: <189@sage.cs.reading.Ac.Uk>
Date: Fri, 20-Jun-86 17:16:17 EDT
Article-I.D.: sage.189
Posted: Fri Jun 20 17:16:17 1986
Date-Received: Tue, 24-Jun-86 04:23:15 EDT
References: <543@snow.warwick.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 36

In article <543@snow.warwick.UUCP> fkc@snow.UUCP (Frank K Carver) writes:
>[A> <sigh>]
>
>a) The program INIT if run from drive A: as `INIT A:' will try to write
>   to the utilities disk (bad idea I think)
>b) I only have a single disk drive, and it does not prompt for swapping
>   if I give it `INIT B:'

thats write, despite what the documentation says, i only works properly
if you have a double disk system (like me) - and then you can init
both single or double sisded disks ok.

>c) I have a few ramdisks, but none seem to be `INIT'able with eg.
>   `INIT D:'

I had this problem too, using real disks the disk must be freshly formated
not just empty (ie all files deleted) otherwise init says 'not empty disk'.
It presumably does a check to see what is on the disk somewhere. In that
case, it should be possible to modify the source code of a ram disk to set
it self up as needed.

It would have been nice if the emulator set up all free mem as a ram disk
anyway - as it wont be needed for anything else.

By the way, if you got the bits from mikes, does that mean you live in
the southend area (i do).
My home address is 51 Chapel Lane, Benfleet, Essex, SS7 2PW
                   Tel 0702 557468
I am at Reading Univ doing a CS degree

If you do live near, perhaps you might like to drop in some time (after july
the 3rd when term ends) and we could swap PD software etc.

Simon Gordon

Gordon@sage@reading

From 6788075127544012561
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a2a99b513ecae938

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 14:28:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!reading!
sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Screen saver/dimmer
Message-ID: <190@sage.cs.reading.Ac.Uk>
Date: Fri, 20-Jun-86 17:28:21 EDT
Article-I.D.: sage.190
Posted: Fri Jun 20 17:28:21 1986
Date-Received: Tue, 24-Jun-86 04:23:28 EDT
References: <8606172339.AA28794@ucbvax.Berkeley.EDU>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 36

In article <8606172339.AA28794@ucbvax.Berkeley.EDU> K538915@CZHRZU1A.BITNET.UUCP
writes:
>2 screen savers: the first one cycles thru the palette registers
>   (you could make this one even fancier, but i've
>   only got a monochrome set),
>   the second one turns the internal gereration of the
>   horizontal and vertical sync pulses off. This results
>   in a nice black screen, but it also means you lose
>   the hblank and vblank interrupts.
>   ----->>>any routine in the vblank queue stops
>   ----->>>disk changes will not be noticed
>   ----->>>drives will not be deselected
>   so dont flame me if you scramble your disk!!
>   If anybody finds a way of using a timer interrupt
>   to get around this: tell me!
>
Ive got a rather good screen saver which i will try to send in some time.
Once the program is run it is hooked into the screendump VBL interupt.
If you type alt help the full pallette and screen data are saved to disk
in degas format. I have converters to go degas>neo neo>degas.

(unfortunately my st isnt connected to the net, so it may be a while before
i can do so)

Thsi works with allmost all games (not bratacus as it replaces the os)
(only monochrome pawn as in colour a split mode is used so they take over
the interupts.)

It apears to have no side affects - i used this to give my local dealer a
good slide demo, and when one of the assistants saw the megaroids screen he
 decided
to play it - and couldnt work out why it didnt work

ps. Im also writing a backup program that can duplicate ANY floppy disk
on the ST. Ill tell you all when its finished.

Simon@sage@reading

From -7994023806293001849
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12c767,91dab69940435b0
X-Google-Attributes: gid12c767,public
X-Google-Thread: 140593,91dab69940435b0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 14:30:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!reading!
sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Re: Hack 1.0.3 for Atari ST
Message-ID: <191@sage.cs.reading.Ac.Uk>
Date: Fri, 20-Jun-86 17:30:43 EDT
Article-I.D.: sage.191
Posted: Fri Jun 20 17:30:43 1986
Date-Received: Tue, 24-Jun-86 04:23:41 EDT
References: <161@unido.UUCP> <162@unido.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 2
Xref: linus net.games.hack:1955 net.micro.atari16:957

Im interested in getting it in anyway, trouble is im in england uk so posting
disks isnt ideal.

From -6683720724293504328
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,45930535ce80826b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 15:32:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!ut-sally!pyramid!
voder!kontron!stephan
From: stephan@kontron.UUCP (Stephan W. Wendl)
Newsgroups: net.micro.atari16
Subject: latest download files from atari BBS
Message-ID: <859@kontron.UUCP>
Date: Fri, 20-Jun-86 18:32:39 EDT
Article-I.D.: kontron.859
Posted: Fri Jun 20 18:32:39 1986
Date-Received: Sun, 22-Jun-86 04:23:18 EDT
Organization: Kontron Electronics, Mt. View, CA
Lines: 678

I hope that I do not violate any copyrights by posting a list of
downloadable files from the atari BBS.

system 3 408-745-2642
sig   8 [*] ST Computers

Number	Filename	Bytes	Description
50	VIPTAX.NAT	23168	TAX TEMPLATE FOR VIP/NO GUARANTEE OF ACCURACY
51	3DMOLECU.BAS	7040	ST BASIC 3D MOLECULE DISPLAY PROGRAM / COLOR ONLY
52	PATTERNS.DAT	384	DATA FOR 3D MOLECULE PROGRAM
53	NACL.DAT	640	DATA FILE FOR 3D MOLECULE
54	CRC6H6.DAT	3200	DATA FILE FOR 3D MOLECULE
55	C7H7O2N.DAT	640	DATA FILE FOR 3D MOLECULE
56	B5H9.DAT	768	DATA FILE FOR 3D MOLECULE
57	B10H14.DAT	768	DATA FILE FOR 3D MOLECULE
58	ZARATH.PRG	8320	THEME FROM 2001 COURTESY OF VIP
59	NECP3C.PRT	2048	NEC P3 COLOR PRINTER DRIVER FOR DEGAS PICS
60	NECP3BW.PRT	2048	NEC P3 B & W PRINTER DRIVER FOR DEGAS
61	OKI20C.PRT	2048	OKIDATA 20 COLOR PRINTER DRIVER FOR DEGAS
62	SG10.PRT	2048	SG10 PRINTER DRIVER FOR DEGAS
63	1STWSG10.DOC	1920	DOC FOR SG10 PRINTER SET UP
64	1STSG10.HEX	6144	SG10 SOURCE FILE FOR 1ST WORD CONFIG PROGRAM
65	PRINTDIR.PRG	12032	PRINTS DISK DIRECTORY FROM ST DISK
66	PRINTDIR.RSC	768	RESOURCE FILE FOR PRINTDIR.PRG
67	PRINTDIR.DOC	768	DOC FILE FOR PRINTDIR.PRG
68	MEMTEST.PRG	768	MEMTEST FOR THE ST
69	MEMTEST.DOC	768	MEMTEST DOCUMENTATION
70	CONVRT	13952	CONVERTS ATASCII TO ASCII, STRIPS CONT.CHAR.S
71	NOVERIFY	512	SETS NOVERIFY FOR DISK WRITES
72	RAMDSK1M	1280	RAMDISK PROGRAM FOR THOSE WITH 1MEG UPGRADES
73	97KRAM.ACX	1264	97K RAMDISK DESK ACC., NAME "DESK#.ACC"
74	BICALC.ACX	8064	DESK ACC., SEE BICALC.DOC
75	FREERAM.ACX	2560	DESK ACC., SHOWS FREE RAM
76	FINPAK.BAS	16384	FINANCIAL PACKAGE IN BASIC
77	GEMZZX.DAT	612	STWRITER .DAT FILE FOR GEMINE 10X
78	BICALC.DOC	1536	DOC FOR BICALC DESK ACCESSORY
79	DUMP.DOC	5632	MEMDUMP PROGRAM DOC
80	GEM1STW.HEX	9728	1ST WORD GEMINI 10X PRINTER CONFIG. SOURCE FILE
81	PROIBM.HEX	10112	PROWRITER IN IBM MODE 1STWORD PRINTER SOURCE FILE
82	ELIZA.TOS	8704	ELIZA THE ST PSYCHIATRIST
83	BTTODEGA.PRG	7334	8 BIT CUSTOM FONT TO DEGAS FONT CONVERTER
84	CONVRT2.PRG	14720	ATASCII TO ASCII IN 1ST WORD FORMAT
85	DUMP.TOS	1536	MEM DUMP PROGRAM
86	DVORAK.TOS	1408	SETS DVORAK KEYBOARD ON THE ST
87	OLDKEY.TOS	256	REVERTS TO THE STANDARD ST KEYBOARD
88	XLISP.DOC	54784	Documentation for XLISP.TTP.
89	MAZEMAKR.TOS	5888	MAKES RANDOM MAZES
90	LIFE.PRG	6016	Low res game of "Life" from ANALOG
91	PIXLATE.PRG	9472	Translate pictures between DEGAS and NEO format.
92	BIORYTHM.BAS	3712	BASIC PROGRAM TO DO BIORYTHM CHARTS
93	RAMACC.DOC	1536	DOC FOR THE RMD.ACC STUFF
94	RMD158K.ACX	1408	158K RAMDISK DESK ACC./NEEDS ROM FOR SPACE
95	RMD208K.ACX	1408	208K RAMDISK DESK ACC/NEEDS ROM FOR SPACE

96	RMD349K.ACX	1408	349K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE
97	RMD648K.ACX	1408	648K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE OR 1040ST
98	RMD709K.ACX	1408	709K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE OR 1040ST
99	CAL.ACC	7168	CALENDAR DESK ACCESSORY
100	DOODLER.LOG	3712	Doodle prgram from Analog in Logo
101	TARGET2.PRG	16768	Two player shootout with mouse control.
102	PRNTCTRL.SET	512	Regent Word printer control codes
103	MOUSE.PRG	8064	Mouse mode demo program
104	SNAPSHOT.ACX	2816	Desk accessory saves screen in DEGAS format.
105	SWITCHBX.BAS	5248	Change the name of a window in BASIC
106	CALENDAR.ACX	7168	Calendar desk accessory, rename CALENDAR.ACC
107	RASTCALC.ACC	7990	rename CALCULAT.ACC/runs on color systems
108	MODTIME.PRG	1664	sets system clock from DAK or Prometheus modem
109	CRIBBAGE.BAS	21376	Cribbage, a little out of register in hires but OK
110	BG.BAS	11008	Backgammon in med-res color
111	ELLIPSE.BAS	1280	Demo of the PELLIPSE command, FAST!!
112	OTHELLO.BAS	16256	Runs in hires but out of register with board
113	HELPER2.PRG	15616	Configure and print to EPSON from desktop
114	CONTROL.ACC	15488	Desk control panel,no clock reset on res change
115	EMULATOR.ACC	6528	Updated VT52 emulator desk accessory.
116	CLEWSO2.BAS	7936	Clewso in Basic
117	LOGO17.PRG	98770	Updated LOGO language program
118	LOGO.RSC	4906	.RSC file for LOGO17
119	LOGO17.DOC	12032	Document file for LOGO17.PRG
120	FRACTREE.PRG	15104	Fractal tree demo
121	FRAC3D.PRG	10752	3D FRACTAL DEMO
122	CRABS.ACC	6272	Humorous desktop acc. Needs CRAB.RSC. It's for you
123	CRAB.RSC	640	RESOURCE FILE FOR CRABS.ACC
124	RTC12.TOS	14464	REAL TIME KEYBOARD CLOCK PROGRAM
125	RTC12.DOC	4992	DOC FOR RTC12.TOS
126	BLUE.ACC	1024	SETS SCREEN COLORS, SAVES RAM
127	CLI.MOD	33408	Command line interpreter
128	CLI.ACC	34304	Command Line Interpreter desk.acc
129	SONNET.TXT	1280	None.
130	RDCV2.TOS	19712	Multicopy disk copier/reasonable disk copier
131	RDCV2.DOC	14720	DOC for (R)easonable (D)isk (C)opier (V)ersion 2
132	JX80C.PRT	2176	DEGAS printer driver for JX-80
133	MICKY.PRG	4736	Everyone's favorite little rodent. Cute program.
134	TWOGAME.PRG	35584	2 games in low-res. MasterMind and Box-the-Dragon
135	BACKGAMM.BAS	11136	ST Basic Backgammon.
136	MEGAROID.RSC	2688	Resource file for Megaroids/ST asteroids game
137	MEGAROID.PRG	46848	ST Asteroids game, Demo of Megamax C
138	H&DLABEL.CMD	896	H&D BASE command file, prints labels from maillist
139	RUNH&D.CMD	1664	H&D BASE cmd. file, runs other programs from H&D
140	RD1040.ACC	6016	RD .acc for one megs, STTALK works with this/ 360K
141	SKYSCAPE.BAS	16256	Description of sky view on any day.
142	PIANO.PRG	15872	Keyboard piano demo
143	MOD10X.PRG	2176	Program to mod EZdraw to run with the Gemini 10x
144	POPCORN.PRG	15232	Another bouncing ball demo, different!
145	RTX.TOS	17920	Multitasking shell demo
146	SCRATCH.BAS	16640	Basic adventure, works only in color.
147	1STPRNTR.DOC	3200	1ST_WORD printer driver modification instructions
148	CELEST.DOC	7680	Documentation for CELEST.PRG

149	CELEST.PRG	30848	Simple space war game for up to 4 players.
150	SUPERBOX.TOS	5376	Psychedilic graphics demo, best in low res.
151	EM.TTP	30208	MICROEMACS, get EM.TQT, the squeezed tutorial file
152	EM.TQP	72576	Rename EM.TQT and unsqueeze, Emacs tutorial
153	ANTIC.DOC	14208	ANTIC REPORT ON West Coast Computer Faire
154	SETUP.IC	1492	PC Intercom Ataribase file, edit to UR pwords
155	GEMDEM.PRG	23296	DEMO OF GEM GRAPHIC ROUTINES
156	GEMDEM.RSC	1408	RESOURCE FILE FOR GEMDEM
157	SECTEDIT.PRG	16512	PD sector editor program
158	SECTEDIT.DOC	3712	doc for sectedit file
159	RAMDSK1M	1280	RAMDISK FOR ONE MEG UPGRADES
160	STSIEVE.PAS	13824	PERSONAL PASCAL SIEVE BENCHMARK
161	SPIRAL.PRG	18048	PATTERN MAKER FOR THE ST SCREEN
162	CHGFORM.PRG	26368	1ST WORD FILES TO STRAIGHT ASCII
163	TPRINT.TTP	11648	TITLE PRINTER
164	TPRINT.DOC	640	DOC FOR TPRINT.TTP
165	PRINT.PRG	8448	DESKTOP PRINTING PROGRAM
166	MRAMDISK.ACC	7424	RAMDISK SETTING DESK ACCESSORY
167	MCQUIZ.TOS	19840	MULTIPLE CHOICE QUIZ PROGRAM
168	PALLET.ACC	1152	SEE PALLET DOC. USE WITH GET PALLET PRG
169	PALLET.DOC]	1408	DOC FOR THE PALLET SERIES
170	GETPAL.PRG	6528	USE WITH PALLET.ACC
171	MOUNT.PRG	7040	MANDELBROT MOUNTAIN DEMO PROGRAM
172	SLIDE.DOC	3200	DOC FOR THE SNAPSHOT, SNAPSAVE, SLIDESET SERIES
173	SLIDESET.PRG	1280	SHOWS SCREENS CAUGHT WITH SNAPSHOT AND SNAPSAVE
174	SNAPSHOT.TOS	640	SEE SLIDE.DOC, TAKE PICTURE OF THE SCREEN
175	SNAPSAVE.TOS	768	SAVE THE SNAPSHOT IN DEGAS FORMAT, SEE SLIDE.DOC
176	FMTCOPY.UTL	17792	FORMATTING AND MULTIPLE COPY UTILILITY
177	DIRPRINT.ACC	2944	PRINTS THE DISK DIRECTORY
178	MICHTBBS.REV	640	REVIEW OF MICHTRON BBS
179	ZOOMRACK.REV	4992	REVIEW OF ZOOMRACKS DATABASE BY QUICKVIEW
180	BLACK.PRG	18048	blackjack game for color systems/med-res
181	EUROPE.DOC	13696	Antic reports on Hanover and London computer shows
182	DISKDIAG.TOS	19328	Disk seek tester from San Leandro U.G.
183	JOURNEY.BAS	18688	JOURNEY TO THE CENTER OF THE EARTH, BASIC
184	PROTCALL.DOC	4992	doc on a new BBS type service
185	SUNDOG.TXT	22175	Expert advice on playing SUNDOG!
186	3DDEMO.PRG	13952	This one should be shouted, GREAT!! demo of CAD
187	SURFACE.PRG	8192	DEMO PROGRAM OF 3D SURFACES
188	EDIT_SPR.DOC	4992	doc for sprite editor program
189	EDIT_SPR.PRG	35456	sprite editor program
190	ROMTVI.FIX	5888	suggested fix for tv interference from user
191	WWSTUG	2560	info on joining WORLD WIDE ST USER GROUP
192	STBATTLE.TOS	13696	Battle Ship for the ST. From Penguin Opus.
193	LIFE2.PRG	6784	A faster version of the LIFGE program
194	DLXPIANO.PRG	53504	Use the ST as a piano and save the music/need .RSC
195	DLXPIANO.RSC	10112	.RSC file for deluxe pian.prg
196	PUZZLE.PRG	12568	Mono only shareware. Needs next four files.
197	PUZMUSIC.X32	11264	File for mono only PUZZLE.PRG
198	PUZZLE.RAS	1178	File for mono only PUZZLE.PRG
199	PUZZLES.PQX	72994	Squeezed file for mono only PUZZLE.PRG
200	SCREEN.PQX	32195	Squeezed file for mono only PUZZLE.PRG
201	CHECKERS.PRG	34728	Play checkers against your ST.

202	FRACTAL.PRG	5888	Fractal program from Germany
203	SCRNSAVE.ACC	8448	Shuts off screen when computer is on and not used.
204	ASCII.DOC	20736	Doc and simpler tables of the ASCII code set
205	FDI.DOC	10880	floppy disk indexing program, documentation for
206	FDI.TOS	55808	floppy disk indexer, works well
207	P321.HEX	9984	1st Word printer source file for Toshiba321
208	PRINTPAS.PRG	8704	prints pascal source neatly
209	SUNDOGST.UFF	3962	sundog information file
210	XMOTERM.TOS	5632	'nother public domain ST term program
211	OSSFRMAT.PRG	17792	400K disk format,Personal Pascal
212	THATSWAY.SNG	14080	music data file
213	WITCHY.SNG	8960	music data file
214	EPSONLX.TOS	9344	change setting on Epson LX
215	UEMACS.TTP	30208	microemacs text editor
216	EM.TQP	72576	emacs tutorial, squeezed, unsqueezer in SIG 7
217	FLSPAT.DOC	8320	Documentation for patch for Flash term prg.
218	RAMDISK.DOC	3072	doc for ramdisk that survives system reset
219	VIDEX.DOC	8704	doc on vidtex on Compuserve
220	RAMDISK.PRG	768	ramdisk prg. that survives reset
221	RAMDSK1M.PRG	768	1meg machine rdisk that survives reset
222	VT100.PRG	16256	PD vt-100 prg., no doc.
223	RYTHMS.SNG	5504	another file for the Music Studio
224	STARWARS.SNG	2176	music studio file
225	FLSPAT.TOS	4224	Flash patch, allows dialling multiple numbers
226	MAK1MB.TOS	1664	makes it look like one meg again.
227	MAK512.TOS	1664	makes a one meg look like 512K

sig 7 [*] ST Art

Number	Filename	Bytes	Description
1	CLAUDIA.PQ3	6784	Claudia Cardinalle from Hollywood Hotline on CIS
2	SLIDENEO.PRG	1091	NEOchrome slide show. (C) 1985 Atari Corp.
3	HOOVER.PQ3	12032	Pananoia, Squeezed Hi-res
4	BOBEVANS.NQO	18084	The front of a Bob Evans restaurant
5	CLOGO4.NQO	8691	The logos of 4 obsolete computer companies.
6	DINER4.NQO	9801	Diner, complete with neon sign
7	FLOPPYD2.NQO	8560	The TOS system disk -- drawn, not digitized
8	FLOPPYD2.NQO	8560	The TOS system disk -- drawn, not digitized
9	MOTHER.NQO	14567	A rendering of an ST circuit board
10	NECCJOU.NQO	11461	A great way to attract attention to text
11	JOKEY.NQO	8243	home jockey, from Atari France
12	520ST.NQO	10374	self portrait of the ST system
13	WHOBOX5.NQO	7900	The Tardis from Dr. Who, squeezed
14	AFTRBURN.NQO	16000	ZZ Top "Afterburner", from ATARI Canada
15	AMIGABLA.NQO	16827	Where a certain computer gets its comeuppance
16	CORVETTE.NQO	10527	A Corvette Stingray
17	COUNTACH.NQO	14541	A fast way to go -- Valley Style
18	FERRARI.NQO	10793	The offical car of the Tramiel family
19	GHOSTBUS.NQO	6424	Who ya gonna call??
20	PORSCHE.NQO	15442	The lowly second car among the Valley set

21	RIO.NQO	11033	The cover of the Duran Duran album
22	ZZTOP.NQO	13176	Another ZZ Top album
23	DRAGON.NQO	15130	A real fire-breather -- terrific color animation
24	MOUNT.NQO	23119	Color-animated volcano
25	PARROT1.NQO	15996	A colorful parrot
26	ATARI.NQO	11367	The logo of the world' best computer company
27	GALACTIC.NQO	12990	From Marvel Comics, digitized with ComputerEyes
28	HARLEY.NQO	10843	A motorcycle, digitized and hand colored
29	HEMAN1.NQO	12966	Digitized from the cartoon by ComputerEyes
30	HEMAN2.NQO	12686	More cartoons from ComputerEyes
31	JOHNNY.NQO	11635	A digitized photo of a boy
32	OUIJA1.NQO	8598	Imagine this one with full mouse control...
33	SANTA.NQO	13512	Santa from ComputerEyes
34	TURNIP.NQO	16054	Cheech Wizard in a typical monent.
35	PIX.PQC	288000	Also get PICSX.PRG. Best with hard disk. LONG!!
36	PICSX.PRG	8315	Driver program for fast picture demo.
37	DEMOPICS.DAT	1884	Polarware demo program -- also get CCDEMO.PRG
38	CCDEMO.PRG	8221	Polarware driver. Nice use of "metafile" pictures
39	BEE.PQ1	19199	A bee, works with DEGAS and SHOPIC.PRG
40	DIRE.PQ1	11038	Scene from the Dire Straights song.
41	SGHOST.PQ1	15680	Space Ghost from Saturday morning. DEGAS format.
42	SUPMAN.PQ1	13729	It's a bird! It's a plane! It's for DEGAS.
43	TROUBLE.PQ1	12106	Looks like big trouble, too. DEGAS format.
44	COMET.PQ2	17160	Our favorite celestial visitor (no, not E.T.!)
45	FONTS.PQ2	15608	DEGAS type fonts sample.
46	SHOPIC.PRG	3898	Slide show for DEGAS format pics (PI1 and PI2)
47	STSQ.TTP	17152	This is a squeeze utility for Degas format pics.
48	STUSQ.TTP	15104	Degas pic unsqueeze utility
49	NINJA.PQ3	7424	My favorite motor vehicle / sudden
50	BROOKE.PQ3	12032	Digitized Brooke Shields / hi-res
51	CHRISTI.PQ3	15616	Digitized Christie Brinkley / hi-res
52	MORGAN.PQ3	16128	Digitized Morgan Fairchild / hi-res
53	PERSIAN.PQ3	19712	Hi-res cat
54	BEAGLE.PQ3	21504	Hi-res beagle
55	CCASTLES.NQO	13568	The first screen from Crystal Castles
56	CLOWN.NQO	13951	The funny guy
57	BTTODEGA.PRG	7206	8BIT CUSTOM FONT TO DEGAS FONT CONVERTER
58	CADOUTP.PQ3	19969	SQUEEZED OUTPUT FROM TOM HUDSONS CAD PROGRAM
59	BALL.PQ3	9216	DEGAS HIRES BALL,SQUEEZED, UNSQUEEZE W' STUSQ.PRG
60	SNAPSHOT.ACX	0	Screen snapshot in Degas mode, rename SNAPSHOT.ACC
61	VLSI.PQ3	22016	Hi res squeezed picture from jail
62	JAIL.PQ3	16384	Hi res squeezed picture from jail
63	NIGHT.PQ1	11904	Low res, squeezed picture of beach at night
64	WHOBOX5.NQO	7900	For Doctor Who fans
65	STARSHIP.PQ3	12544	PIC from Tom Hudson's 3D CAD program, squeezed
66	TRAMIEL.NQO	26700	Jack Tramiel. Digitalized picture from Hannover.
67	HARTMANN.NQO	26347	Sig Hartmann. Digitalized picture from Hannover.
68	GARFIELD.PQ2	5376	Translated from MacPaint - Garfield cartoon clip
69	FISH.PQ1	18688	Translated from Amiga Deluxe Paint
70	RANXPIC.PQ2	25718	DEGAS PIC
71	MODERN4.PQ3	21974	HIRES DEGAS PIC OF LARGE SCALE INTEGRATED CIRCUIT
72	APLATE.NQO	10300	NEO PIC
73	EQUIP2.NQO	11868	FANCY EQUIPMENT

74	HIGHTECH.NQO	9160	HIGHTECHNOLOGY IN ART
75	OUIJA1.NQO	8598	CREEPY BOARD
76	TROUBLE.NQO	12106	Big Trouble
77	TURNIP.NQO	16054	VEGETABLE?
78	XMAS.NQO	15783	THE HOLIDAY
79	BALL.PQ3	9216	HIRES 3D BALL
80	GERWALK.PQ3	10240	SCENE FROM JAPANESE ANIMATION
81	NUKETEST.PQ3	14464	SCENE FROM NEAR GROUND ZERO
82	WEB.PQ3	17536	ABSTRACT ART
83	ZGUNDAM.PQ3	5376	ANOTHER SCENE FROM AN ANIMATION
84	POETRULE.TXT	5888	Rules for the contest
85	COTTAGE.NQO	27264	squeezed neo pic of a nice cottage
86	ENTERPRI.NQO	7424	squeezed pic of the USS ENTERPRISE
87	GORILLA.NQO	25856	squeezed Neo pic of the large anthropoid
88	HORSES.NQO	20224	the equine variety, squeezed NEO pic.
89	JWOMAN.SQ2	22920	from Npaint program
90	SPACESHI.NQO	12672	spaceship w alien pilot, squeezed Neo pic
91	WALL.PQ1	18560	squeezed pic of someone's wall
92	HITCHIKR.PQ1	5632	a face familiar to hitchhiker fans
93	CONVERT.NQO	5632	Porsche convertible
94	ODIE.NQO	8832	squeezed NEO pic of THAT dog.
95	GIRL1.NQO	20096	squeezed NEO pic of a human female
96	GIRL2.PQO	11264	another similar squeezed NEO pic
97	PLANETS.NQO	7936	A squeezed pic of a water rich sphere.
98	PORCHE.NQO	7296	'nother Porsche, squeezed NEO format
99	BUGS.PQ1	14464	Bugs Bunny
100	SONY.NQO	12369	Ad for the TV
101	BLUEBANG.NQO	6488	basketball court
102	SKINDIP.NQO	10182	swimming fun
103	HERRON.PQ3	9216	NO.1 on the FBI Most Wanted List
104	MALVERT.PQ3	8320	No.2 on the FBI Most Wanted List
105	EAGLE.PQ3	6400	a patriotic bird
106	FORT.PQ3	22528	a strong point
107	DUKE.PQ3	8320	the Duke, from Hollywood Hotline on CIS
108	MARILYN.PQ3	7296	that famous blonde
109	BOGIE.PQ3	6784	That famous guy
110	BISSET.PQ3	5760	Jacqueline, nice, from HHL on CIS
111	CLAUDIA.PQ3	6784	Claudia Cardinale form HHotline on CIS
112	*** Purged ***		
113	TINYVIEW.DOC	6016	Doc for tinystuff series,squezrs, convertrs, viewr
114	TINYSTUF.PRG	7168	squeezes, unsqueezes and converts, Neo, Degas.
115	TINYVIEW.PRG	1536	views squeezed tiny files.
116	CCASTLES.NQO	13568	fancy castle from crystal castles
117	*** Purged ***		

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Number	Filename	Bytes	Description
1	CHESS.PRG	39282	A 3-D chess board demo from England

2	GEM1STW.HEX	9728	1ST_Word printer source file for Gemini printers
3	TOSHIBA.HEX	7936	1ST_WORD PRINTER SOURCE FILE FOR TOSHIBA 24 PIN
4	HI50.PRG	161	Converts VT52 to 50 line screen (mono only)
5	HI50.S	909	Source code for HI50.PRG, in assembly language
6	HI25.PRG	161	Re-sets VT52 to 25 lines (see HI50.PRG)
7	HI25.S	928	Assembler source code for HI25.PRG
8	DOODLE.PRG	20852	A public domain paint program. Also get DOODLE.RSC
9	DOODLE.RSC	3351	Resource file for DOODLE.PRG
10	HEX.PRG	6528	Draws hexagons to demonstrate >16 colors at once
11	BOINK.PRG	11493	The famous ST bouncing ball, with sound
12	CLOCKA.ACC	7552	Analog clock by Jim Tittsler of Atari. Desk acc.
13	DIGICLOK.ACC	5632	Another clock accessory, this one is digital.
14	PUZZLE.ACC	5376	A sliding puzzle desk accessory.
15	TITLE.BAS	896	Shows how to change the window name in ST BASIC.
16	SEIVE1.LOG	779	A prime number sieve in ST Logo.
17	SEIVE2.LOG	717	Another Logo prime number seive.
18	CALC.PRG	17536	A pushbutton calculator
19	XLISP.TTP	60800	UPDATED pub. domain LISP from Byte, see XLISP.DOC.
20	DESKTIPS.TXT	19456	John DeMar of QMI gives hints on using the ST.
21	GEMINDEX.TXT	12544	DRI's index to GEM calls in the developer docs.
22	STSOFT.UPL	14010	Latest list of ST software, current as of 1 Dec 85
23	ASM68K.TTP	35072	Public domain assembler. See ASM68K.DOC
24	ASM68K.DOC	3456	Documentation for ASM68K.TTP
25	MIDIDEMO.PRG	666	Play .SNG files. Get 4TH.IMG, 4TH.BLK, & a synth.
26	4TH.IMG	12888	File needed for MIDIDEMO.PRG
27	4TH.BLK	30720	File needed for MIDIDEMO.PRG
28	BANJO.SNG	2722	Song for use with MIDIDEMO.PRG
29	CLEM.SNG	5979	Oh my darlin' Clementine. Use with MIDIDEMO.PRG.
30	EVITA.SNG	11970	Broadway song for use with MIDIDEMO.PRG
31	MINUET.SNG	1635	Old fashioned music hi-tech. For MIDIDEMO.PRG
32	MOSCOW.SNG	2098	JT's favorite song, for MIDIDEMO.PRG
33	MUSETTE.SNG	1371	Another MIDIDEMO.PRG song.
34	SANJOSE.SNG	9450	Do you know the way? Use MIDIDEMO.PRG.
35	SANFRAN.SNG	12451	Open your Golden Gate, use with MIDIDEMO.PRG
36	STWRITER.PRG	32657	ST Writer word processor, (C) 1985 Atari Corp.
37	STWREF.DOC	45824	Reference manual for ST Writer. (C) 1985 Atari
38	STWTUT.DOC	44688	Tutorial for ST Writer. (C) 1985 Atari Corp.
39	README.DOC	1588	More instructions for ST Writer.
40	QUIKREF	4232	ST Writer quick reference guide.
41	TEMPLATE.STW	1269	Text file to create a keyboard ST Writer template.
42	STCONFIG.TOS	14585	Printer driver configuration program for ST Writer
43	XYZZX.TXT	836	Edit this file for your printer & use STCONFIG.TOS
44	XYZZXOKI.TXT	850	Config file for Okidate Microline 193
45	FORTH.TOS	67246	Public domain Forth 83 from San Leandro Comp. Club
46	KERNEL.TOS	25571	Forth kernal from SLCC
47	DVORAK.TOS	1408	SETS ST KEYBOARD TO DVORAK PATTERN
48	OLDKEY.TOS	256	SETS YOUR KEYBOARD BACK TO QWERTY
49	TAX85.DOC	7040	DOC FOR THE VIP '85 TAX TEMPLATE
50	VIPTAX.NAT	23168	TAX TEMPLATE FOR VIP/NO GUARANTEE OF ACCURACY
51	3DMOLECU.BAS	7040	ST BASIC 3D MOLECULE DISPLAY PROGRAM / COLOR ONLY
52	PATTERNS.DAT	384	DATA FOR 3D MOLECULE PROGRAM
53	NACL.DAT	640	DATA FILE FOR 3D MOLECULE
54	CRC6H6.DAT	3200	DATA FILE FOR 3D MOLECULE

55	C7H7O2N.DAT	640	DATA FILE FOR 3D MOLECULE
56	B5H9.DAT	768	DATA FILE FOR 3D MOLECULE
57	B10H14.DAT	768	DATA FILE FOR 3D MOLECULE
58	ZARATH.PRG	8320	THEME FROM 2001 COURTESY OF VIP
59	NECP3C.PRT	2048	NEC P3 COLOR PRINTER DRIVER FOR DEGAS PICS
60	NECP3BW.PRT	2048	NEC P3 B & W PRINTER DRIVER FOR DEGAS
61	OKI20C.PRT	2048	OKIDATA 20 COLOR PRINTER DRIVER FOR DEGAS
62	SG10.PRT	2048	SG10 PRINTER DRIVER FOR DEGAS
63	1STWSG10.DOC	1920	DOC FOR SG10 PRINTER SET UP
64	1STSG10.HEX	6144	SG10 SOURCE FILE FOR 1ST WORD CONFIG PROGRAM
65	PRINTDIR.PRG	12032	PRINTS DISK DIRECTORY FROM ST DISK
66	PRINTDIR.RSC	768	RESOURCE FILE FOR PRINTDIR.PRG
67	PRINTDIR.DOC	768	DOC FILE FOR PRINTDIR.PRG
68	MEMTEST.PRG	768	MEMTEST FOR THE ST
69	MEMTEST.DOC	768	MEMTEST DOCUMENTATION
70	CONVRT	13952	CONVERTS ATASCII TO ASCII, STRIPS CONT.CHAR.S
71	NOVERIFY	512	SETS NOVERIFY FOR DISK WRITES
72	RAMDSK1M	1280	RAMDISK PROGRAM FOR THOSE WITH 1MEG UPGRADES
73	97KRAM.ACX	1264	97K RAMDISK DESK ACC., NAME "DESK#.ACC"
74	BICALC.ACX	8064	DESK ACC., SEE BICALC.DOC
75	FREERAM.ACX	2560	DESK ACC., SHOWS FREE RAM
76	FINPAK.BAS	16384	FINANCIAL PACKAGE IN BASIC
77	GEMZZX.DAT	612	STWRITER .DAT FILE FOR GEMINE 10X
78	BICALC.DOC	1536	DOC FOR BICALC DESK ACCESSORY
79	DUMP.DOC	5632	MEMDUMP PROGRAM DOC
80	GEM1STW.HEX	9728	1ST WORD GEMINI 10X PRINTER CONFIG. SOURCE FILE
81	PROIBM.HEX	10112	PROWRITER IN IBM MODE 1STWORD PRINTER SOURCE FILE
82	ELIZA.TOS	8704	ELIZA THE ST PSYCHIATRIST
83	BTTODEGA.PRG	7334	8 BIT CUSTOM FONT TO DEGAS FONT CONVERTER
84	CONVRT2.PRG	14720	ATASCII TO ASCII IN 1ST WORD FORMAT
85	DUMP.TOS	1536	MEM DUMP PROGRAM
86	DVORAK.TOS	1408	SETS DVORAK KEYBOARD ON THE ST
87	OLDKEY.TOS	256	REVERTS TO THE STANDARD ST KEYBOARD
88	XLISP.DOC	54784	Documentation for XLISP.TTP.
89	MAZEMAKR.TOS	5888	MAKES RANDOM MAZES
90	LIFE.PRG	6016	Low res game of "Life" from ANALOG
91	PIXLATE.PRG	9472	Translate pictures between DEGAS and NEO format.
92	BIORYTHM.BAS	3712	BASIC PROGRAM TO DO BIORYTHM CHARTS
93	RAMACC.DOC	1536	DOC FOR THE RMD.ACC STUFF
94	RMD158K.ACX	1408	158K RAMDISK DESK ACC./NEEDS ROM FOR SPACE
95	RMD208K.ACX	1408	208K RAMDISK DESK ACC/NEEDS ROM FOR SPACE
96	RMD349K.ACX	1408	349K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE
97	RMD648K.ACX	1408	648K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE OR 1040ST
98	RMD709K.ACX	1408	709K RAMDISK DESK ACC/NEEDS 1MEG UPGRADE OR 1040ST
99	CAL.ACC	7168	CALENDAR DESK ACCESSORY
100	DOODLER.LOG	3712	Doodle prgram from Analog in Logo
101	TARGET2.PRG	16768	Two player shootout with mouse control.
102	PRNTCTRL.SET	512	Regent Word printer control codes
103	MOUSE.PRG	8064	Mouse mode demo program
104	SNAPSHOT.ACX	2816	Desk accessory saves screen in DEGAS format.
105	SWITCHBX.BAS	5248	Change the name of a window in BASIC
106	CALENDAR.ACX	7168	Calendar desk accessory, rename CALENDAR.ACC
107	RASTCALC.ACC	7990	rename CALCULAT.ACC/runs on color systems

108	MODTIME.PRG	1664	sets system clock from DAK or Prometheus modem
109	CRIBBAGE.BAS	21376	Cribbage, a little out of register in hires but OK
110	BG.BAS	11008	Backgammon in med-res color
111	ELLIPSE.BAS	1280	Demo of the PELLIPSE command, FAST!!
112	OTHELLO.BAS	16256	Runs in hires but out of register with board
113	HELPER2.PRG	15616	Configure and print to EPSON from desktop
114	CONTROL.ACC	15488	Desk control panel,no clock reset on res change
115	EMULATOR.ACC	6528	Updated VT52 emulator desk accessory.
116	CLEWSO2.BAS	7936	Clewso in Basic
117	LOGO17.PRG	98770	Updated LOGO language program
118	LOGO.RSC	4906	.RSC file for LOGO17
119	LOGO17.DOC	12032	Document file for LOGO17.PRG
120	FRACTREE.PRG	15104	Fractal tree demo
121	FRAC3D.PRG	10752	3D FRACTAL DEMO
122	CRABS.ACC	6272	Humorous desktop acc. Needs CRAB.RSC. It's for you
123	CRAB.RSC	640	RESOURCE FILE FOR CRABS.ACC
124	RTC12.TOS	14464	REAL TIME KEYBOARD CLOCK PROGRAM
125	RTC12.DOC	4992	DOC FOR RTC12.TOS
126	BLUE.ACC	1024	SETS SCREEN COLORS, SAVES RAM
127	CLI.MOD	33408	Command line interpreter
128	CLI.ACC	34304	Command Line Interpreter desk.acc
129	SONNET.TXT	1280	None.
130	RDCV2.TOS	19712	Multicopy disk copier/reasonable disk copier
131	RDCV2.DOC	14720	DOC for (R)easonable (D)isk (C)opier (V)ersion 2
132	JX80C.PRT	2176	DEGAS printer driver for JX-80
133	MICKY.PRG	4736	Everyone's favorite little rodent. Cute program.
134	TWOGAME.PRG	35584	2 games in low-res. MasterMind and Box-the-Dragon
135	BACKGAMM.BAS	11136	ST Basic Backgammon.
136	MEGAROID.RSC	2688	Resource file for Megaroids/ST asteroids game
137	MEGAROID.PRG	46848	ST Asteroids game, Demo of Megamax C
138	H&DLABEL.CMD	896	H&D BASE command file, prints labels from maillist
139	RUNH&D.CMD	1664	H&D BASE cmd. file, runs other programs from H&D
140	RD1040.ACC	6016	RD .acc for one megs, STTALK works with this/ 360K
141	SKYSCAPE.BAS	16256	Description of sky view on any day.
142	PIANO.PRG	15872	Keyboard piano demo
143	MOD10X.PRG	2176	Program to mod EZdraw to run with the Gemini 10x
144	POPCORN.PRG	15232	Another bouncing ball demo, different!
145	RTX.TOS	17920	Multitasking shell demo
146	SCRATCH.BAS	16640	Basic adventure, works only in color.
147	1STPRNTR.DOC	3200	1ST_WORD printer driver modification instructions
148	CELEST.DOC	7680	Documentation for CELEST.PRG
149	CELEST.PRG	30848	Simple space war game for up to 4 players.
150	SUPERBOX.TOS	5376	Psychedilic graphics demo, best in low res.
151	EM.TTP	30208	MICROEMACS, get EM.TQT, the squeezed tutorial file
152	EM.TQP	72576	Rename EM.TQT and unsqueeze, Emacs tutorial
153	ANTIC.DOC	14208	ANTIC REPORT ON West Coast Computer Faire
154	SETUP.IC	1492	PC Intercom Ataribase file, edit to UR pwords
155	GEMDEM.PRG	23296	DEMO OF GEM GRAPHIC ROUTINES
156	GEMDEM.RSC	1408	RESOURCE FILE FOR GEMDEM
157	SECTEDIT.PRG	16512	PD sector editor program
158	SECTEDIT.DOC	3712	doc for sectedit file
159	RAMDSK1M	1280	RAMDISK FOR ONE MEG UPGRADES
160	STSIEVE.PAS	13824	PERSONAL PASCAL SIEVE BENCHMARK

161	SPIRAL.PRG	18048	PATTERN MAKER FOR THE ST SCREEN
162	CHGFORM.PRG	26368	1ST WORD FILES TO STRAIGHT ASCII
163	TPRINT.TTP	11648	TITLE PRINTER
164	TPRINT.DOC	640	DOC FOR TPRINT.TTP
165	PRINT.PRG	8448	DESKTOP PRINTING PROGRAM
166	MRAMDISK.ACC	7424	RAMDISK SETTING DESK ACCESSORY
167	MCQUIZ.TOS	19840	MULTIPLE CHOICE QUIZ PROGRAM
168	PALLET.ACC	1152	SEE PALLET DOC. USE WITH GET PALLET PRG
169	PALLET.DOC]	1408	DOC FOR THE PALLET SERIES
170	GETPAL.PRG	6528	USE WITH PALLET.ACC
171	MOUNT.PRG	7040	MANDELBROT MOUNTAIN DEMO PROGRAM
172	SLIDE.DOC	3200	DOC FOR THE SNAPSHOT, SNAPSAVE, SLIDESET SERIES
173	SLIDESET.PRG	1280	SHOWS SCREENS CAUGHT WITH SNAPSHOT AND SNAPSAVE
174	SNAPSHOT.TOS	640	SEE SLIDE.DOC, TAKE PICTURE OF THE SCREEN
175	SNAPSAVE.TOS	768	SAVE THE SNAPSHOT IN DEGAS FORMAT, SEE SLIDE.DOC
176	FMTCOPY.UTL	17792	FORMATTING AND MULTIPLE COPY UTILILITY
177	DIRPRINT.ACC	2944	PRINTS THE DISK DIRECTORY
178	MICHTBBS.REV	640	REVIEW OF MICHTRON BBS
179	ZOOMRACK.REV	4992	REVIEW OF ZOOMRACKS DATABASE BY QUICKVIEW
180	BLACK.PRG	18048	blackjack game for color systems/med-res
181	EUROPE.DOC	13696	Antic reports on Hanover and London computer shows
182	DISKDIAG.TOS	19328	Disk seek tester from San Leandro U.G.
183	JOURNEY.BAS	18688	JOURNEY TO THE CENTER OF THE EARTH, BASIC
184	PROTCALL.DOC	4992	doc on a new BBS type service
185	SUNDOG.TXT	22175	Expert advice on playing SUNDOG!
186	3DDEMO.PRG	13952	This one should be shouted, GREAT!! demo of CAD
187	SURFACE.PRG	8192	DEMO PROGRAM OF 3D SURFACES
188	EDIT_SPR.DOC	4992	doc for sprite editor program
189	EDIT_SPR.PRG	35456	sprite editor program
190	ROMTVI.FIX	5888	suggested fix for tv interference from user
191	WWSTUG	2560	info on joining WORLD WIDE ST USER GROUP
192	STBATTLE.TOS	13696	Battle Ship for the ST. From Penguin Opus.
193	LIFE2.PRG	6784	A faster version of the LIFGE program
194	DLXPIANO.PRG	53504	Use the ST as a piano and save the music/need .RSC
195	DLXPIANO.RSC	10112	.RSC file for deluxe pian.prg
196	PUZZLE.PRG	12568	Mono only shareware. Needs next four files.
197	PUZMUSIC.X32	11264	File for mono only PUZZLE.PRG
198	PUZZLE.RAS	1178	File for mono only PUZZLE.PRG
199	PUZZLES.PQX	72994	Squeezed file for mono only PUZZLE.PRG
200	SCREEN.PQX	32195	Squeezed file for mono only PUZZLE.PRG
201	CHECKERS.PRG	34728	Play checkers against your ST.
202	FRACTAL.PRG	5888	Fractal program from Germany
203	SCRNSAVE.ACC	8448	Shuts off screen when computer is on and not used.
204	ASCII.DOC	20736	Doc and simpler tables of the ASCII code set
205	FDI.DOC	10880	floppy disk indexing program, documentation for
206	FDI.TOS	55808	floppy disk indexer, works well
207	P321.HEX	9984	1st Word printer source file for Toshiba321
208	PRINTPAS.PRG	8704	prints pascal source neatly
209	SUNDOGST.UFF	3962	sundog information file
210	XMOTERM.TOS	5632	'nother public domain ST term program
211	OSSFRMAT.PRG	17792	400K disk format,Personal Pascal
212	THATSWAY.SNG	14080	music data file
213	WITCHY.SNG	8960	music data file

214	EPSONLX.TOS	9344	change setting on Epson LX
215	UEMACS.TTP	30208	microemacs text editor
216	EM.TQP	72576	emacs tutorial, squeezed, unsqueezer in SIG 7
217	FLSPAT.DOC	8320	Documentation for patch for Flash term prg.
218	RAMDISK.DOC	3072	doc for ramdisk that survives system reset
219	VIDEX.DOC	8704	doc on vidtex on Compuserve
220	RAMDISK.PRG	768	ramdisk prg. that survives reset
221	RAMDSK1M.PRG	768	1meg machine rdisk that survives reset
222	VT100.PRG	16256	PD vt-100 prg., no doc.
223	RYTHMS.SNG	5504	another file for the Music Studio
224	STARWARS.SNG	2176	music studio file
225	FLSPAT.TOS	4224	Flash patch, allows dialling multiple numbers
226	MAK1MB.TOS	1664	makes it look like one meg again.
227	MAK512.TOS	1664	makes a one meg look like 512K

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Number	Filename	Bytes	Description
1	CLAUDIA.PQ3	6784	Claudia Cardinalle from Hollywood Hotline on CIS
2	SLIDENEO.PRG	1091	NEOchrome slide show. (C) 1985 Atari Corp.
3	HOOVER.PQ3	12032	Pananoia, Squeezed Hi-res
4	BOBEVANS.NQO	18084	The front of a Bob Evans restaurant
5	CLOGO4.NQO	8691	The logos of 4 obsolete computer companies.
6	DINER4.NQO	9801	Diner, complete with neon sign
7	FLOPPYD2.NQO	8560	The TOS system disk -- drawn, not digitized
8	FLOPPYD2.NQO	8560	The TOS system disk -- drawn, not digitized
9	MOTHER.NQO	14567	A rendering of an ST circuit board
10	NECCJOU.NQO	11461	A great way to attract attention to text
11	JOKEY.NQO	8243	home jockey, from Atari France
12	520ST.NQO	10374	self portrait of the ST system
13	WHOBOX5.NQO	7900	The Tardis from Dr. Who, squeezed
14	AFTRBURN.NQO	16000	ZZ Top "Afterburner", from ATARI Canada
15	AMIGABLA.NQO	16827	Where a certain computer gets its comeuppance
16	CORVETTE.NQO	10527	A Corvette Stingray
17	COUNTACH.NQO	14541	A fast way to go -- Valley Style
18	FERRARI.NQO	10793	The offical car of the Tramiel family
19	GHOSTBUS.NQO	6424	Who ya gonna call??
20	PORSCHE.NQO	15442	The lowly second car among the Valley set
21	RIO.NQO	11033	The cover of the Duran Duran album
22	ZZTOP.NQO	13176	Another ZZ Top album
23	DRAGON.NQO	15130	A real fire-breather -- terrific color animation
24	MOUNT.NQO	23119	Color-animated volcano
25	PARROT1.NQO	15996	A colorful parrot
26	ATARI.NQO	11367	The logo of the world' best computer company
27	GALACTIC.NQO	12990	From Marvel Comics, digitized with ComputerEyes
28	HARLEY.NQO	10843	A motorcycle, digitized and hand colored
29	HEMAN1.NQO	12966	Digitized from the cartoon by ComputerEyes
30	HEMAN2.NQO	12686	More cartoons from ComputerEyes
31	JOHNNY.NQO	11635	A digitized photo of a boy

32	OUIJA1.NQO	8598	Imagine this one with full mouse control...
33	SANTA.NQO	13512	Santa from ComputerEyes
34	TURNIP.NQO	16054	Cheech Wizard in a typical monent.
35	PIX.PQC	288000	Also get PICSX.PRG. Best with hard disk. LONG!!
36	PICSX.PRG	8315	Driver program for fast picture demo.
37	DEMOPICS.DAT	1884	Polarware demo program -- also get CCDEMO.PRG
38	CCDEMO.PRG	8221	Polarware driver. Nice use of "metafile" pictures
39	BEE.PQ1	19199	A bee, works with DEGAS and SHOPIC.PRG
40	DIRE.PQ1	11038	Scene from the Dire Straights song.
41	SGHOST.PQ1	15680	Space Ghost from Saturday morning. DEGAS format.
42	SUPMAN.PQ1	13729	It's a bird! It's a plane! It's for DEGAS.
43	TROUBLE.PQ1	12106	Looks like big trouble, too. DEGAS format.
44	COMET.PQ2	17160	Our favorite celestial visitor (no, not E.T.!)
45	FONTS.PQ2	15608	DEGAS type fonts sample.
46	SHOPIC.PRG	3898	Slide show for DEGAS format pics (PI1 and PI2)
47	STSQ.TTP	17152	This is a squeeze utility for Degas format pics.
48	STUSQ.TTP	15104	Degas pic unsqueeze utility
49	NINJA.PQ3	7424	My favorite motor vehicle / sudden
50	BROOKE.PQ3	12032	Digitized Brooke Shields / hi-res
51	CHRISTI.PQ3	15616	Digitized Christie Brinkley / hi-res
52	MORGAN.PQ3	16128	Digitized Morgan Fairchild / hi-res
53	PERSIAN.PQ3	19712	Hi-res cat
54	BEAGLE.PQ3	21504	Hi-res beagle
55	CCASTLES.NQO	13568	The first screen from Crystal Castles
56	CLOWN.NQO	13951	The funny guy
57	BTTODEGA.PRG	7206	8BIT CUSTOM FONT TO DEGAS FONT CONVERTER
58	CADOUTP.PQ3	19969	SQUEEZED OUTPUT FROM TOM HUDSONS CAD PROGRAM
59	BALL.PQ3	9216	DEGAS HIRES BALL,SQUEEZED, UNSQUEEZE W' STUSQ.PRG
60	SNAPSHOT.ACX	0	Screen snapshot in Degas mode, rename SNAPSHOT.ACC
61	VLSI.PQ3	22016	Hi res squeezed picture from jail
62	JAIL.PQ3	16384	Hi res squeezed picture from jail
63	NIGHT.PQ1	11904	Low res, squeezed picture of beach at night
64	WHOBOX5.NQO	7900	For Doctor Who fans
65	STARSHIP.PQ3	12544	PIC from Tom Hudson's 3D CAD program, squeezed
66	TRAMIEL.NQO	26700	Jack Tramiel. Digitalized picture from Hannover.
67	HARTMANN.NQO	26347	Sig Hartmann. Digitalized picture from Hannover.
68	GARFIELD.PQ2	5376	Translated from MacPaint - Garfield cartoon clip
69	FISH.PQ1	18688	Translated from Amiga Deluxe Paint
70	RANXPIC.PQ2	25718	DEGAS PIC
71	MODERN4.PQ3	21974	HIRES DEGAS PIC OF LARGE SCALE INTEGRATED CIRCUIT
72	APLATE.NQO	10300	NEO PIC
73	EQUIP2.NQO	11868	FANCY EQUIPMENT
74	HIGHTECH.NQO	9160	HIGHTECHNOLOGY IN ART
75	OUIJA1.NQO	8598	CREEPY BOARD
76	TROUBLE.NQO	12106	Big Trouble
77	TURNIP.NQO	16054	VEGETABLE?
78	XMAS.NQO	15783	THE HOLIDAY
79	BALL.PQ3	9216	HIRES 3D BALL
80	GERWALK.PQ3	10240	SCENE FROM JAPANESE ANIMATION
81	NUKETEST.PQ3	14464	SCENE FROM NEAR GROUND ZERO
82	WEB.PQ3	17536	ABSTRACT ART
83	ZGUNDAM.PQ3	5376	ANOTHER SCENE FROM AN ANIMATION
84	POETRULE.TXT	5888	Rules for the contest

```
   85  COTTAGE.NQO   27264 squeezed neo pic of a nice cottage
   86  ENTERPRI.NQO   7424 squeezed pic of the USS ENTERPRISE
   87  GORILLA.NQO   25856 squeezed Neo pic of the large anthropoid
   88  HORSES.NQO    20224 the equine variety, squeezed NEO pic.
   89  JWOMAN.SQ2    22920 from Npaint program
   90  SPACESHI.NQO  12672 spaceship w alien pilot, squeezed Neo pic
   91  WALL.PQ1      18560 squeezed pic of someone's wall
   92  HITCHIKR.PQ1   5632 a face familiar to hitchhiker fans
   93  CONVERT.NQO    5632 Porsche convertible
   94  ODIE.NQO       8832 squeezed NEO pic of THAT dog.
   95  GIRL1.NQO     20096 squeezed NEO pic of a human female
   96  GIRL2.PQO     11264 another similar squeezed NEO pic
   97  PLANETS.NQO    7936 A squeezed pic of a water rich sphere.
   98  PORCHE.NQO     7296 'nother Porsche, squeezed NEO format
   99  BUGS.PQ1      14464 Bugs Bunny
  100  SONY.NQO      12369 Ad for the TV
  101  BLUEBANG.NQO   6488 basketball court
  102  SKINDIP.NQO   10182 swimming fun
  103  HERRON.PQ3     9216 NO.1 on the FBI Most Wanted List
  104  MALVERT.PQ3    8320 No.2 on the FBI Most Wanted List
  105  EAGLE.PQ3      6400 a patriotic bird
  106  FORT.PQ3      22528 a strong point
  107  DUKE.PQ3       8320 the Duke, from Hollywood Hotline on CIS
  108  MARILYN.PQ3    7296 that famous blonde
  109  BOGIE.PQ3      6784 That famous guy
  110  BISSET.PQ3     5760 Jacqueline, nice, from HHL on CIS
  111  CLAUDIA.PQ3    6784 Claudia Cardinale form HHotline on CIS
  112  *** Purged ***
  113  TINYVIEW.DOC   6016 Doc for tinystuff series,squezrs, convertrs, viewr
  114  TINYSTUF.PRG   7168 squeezes, unsqueezes and converts, Neo, Degas.
  115  TINYVIEW.PRG   1536 views squeezed tiny files.
  116  CCASTLES.NQO  13568 fancy castle from crystal castles
  117  *** Purged ***
  118  PICSW6.DOC     8832 doc for PICSWITCH V.6
  119  PICSW6.PQG    25600 PIC converter,Mac,Amig,ST, squeezed


#include <disclaimer.h>
#include <my_opinion.h>
#include <trademarks.h>


From 8888057030800164558
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3eca91bc66f92853,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-21 08:18:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Print utility wanted
Message-ID: <13@uwmacc.UUCP>
```

Date: Sat, 21-Jun-86 11:18:13 EDT
Article-I.D.: uwmacc.13
Posted: Sat Jun 21 11:18:13 1986
Date-Received: Mon, 23-Jun-86 03:10:31 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 17

I have a request: does anyone know of a print utility for the Atari that
will allow the user to capture screen output and send it to the printer?
Or, alternatively, does anyone know of a "script" utility for capturing
screen output and storing it in a disk file?

May as well post all responses in case anyone else is interested....

--

                        --- Rob DeMillo
                            Madison Academic Computer Center
                            ...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
       who can you trust...?"
              -- Mildred Krebs

From 647916390033901249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,412e794d246235af,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-21 10:05:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!caip!princeton!allegra!ulysses!
mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: 1040STs in abundance
Message-ID: <54600096@iuvax.UUCP>
Date: Sat, 21-Jun-86 13:05:00 EDT
Article-I.D.: iuvax.54600096
Posted: Sat Jun 21 13:05:00 1986
Date-Received: Tue, 24-Jun-86 04:58:55 EDT
Lines: 3
Nf-ID: #N:iuvax:54600096:000:138
Nf-From: iuvax!franco   Jun 21 12:05:00 1986

In case you can't wait a long time for a 1040ST, Microcomputers, Inc. of
Indianapolis has 9 in stock. Call 317-291-8882 and ask for Pat.

From -6211955065417592079
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,46c8b725da0b4ea5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-21 14:54:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!topaz!ll-xn!mit-amt!mit-eddie!genrad!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: problems with programs
Message-ID: <1511@cwruecmp.UUCP>
Date: Sat, 21-Jun-86 17:54:41 EDT
Article-I.D.: cwruecmp.1511
Posted: Sat Jun 21 17:54:41 1986
Date-Received: Mon, 23-Jun-86 03:47:37 EDT
References: <860616-081851-1400@Xerox> <7@uwmacc.UUCP>
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 26

>
> I am trying to do some things with the BIOS and XBIOS using an assembler.
> Specifically, I am trying to monkey around with the screen resolution and
> physical/logical screen addressing.
>
> As far as I can tell, I am doing nothing wrong - yet the program results
> in a double bomb and hangs the system. I have GEMDOS in ROM --- could the
> above explanation be the culprit? (I'll try booting with GEMDOS in RAM
> and see if I get the same error.) If this is the culprit, it bites the
> big one...anyone know any way around it?
>
>
> --
>   --- Rob DeMillo
>   Madison Academic Computer Center
>   ...seismo!uwvax!uwmacc!demillo

    Sounds like you are not in Super Mode before trying the operations.
See Supexec (xbios(38)) or Super (gemdos(20)). Hope that helps.
--
                       Jwahar R. Bammi
                    Usenet: .....!decvax!cwruecmp!bammi
                     CSnet: bammi@case
                    Arpa: bammi%case@csnet-relay
                CompuServe: 71515,155

From -3921636567980364802
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5fa0aa5bceec22d9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-21 16:53:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!islenet!jons

From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: New Magazine from COMPUTE!
Message-ID: <2598@islenet.UUCP>
Date: Sat, 21-Jun-86 19:53:13 EDT
Article-I.D.: islenet.2598
Posted: Sat Jun 21 19:53:13 1986
Date-Received: Wed, 25-Jun-86 05:33:43 EDT
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 75

Announcing major news for Atari ST. users:
---------- ----- ---- --- ----- --- ------

COMPUTE!'s Atari ST disk and magazine - A bimonthly magazine devoted exclusively to Atari ST enthusiasts that includes a disk containing all of the programs found in each issue.

Atari has proven the pessimists wrong. The Atari 520ST and 1040ST have become the bestsellers among the new generation of personal computers. Both are breakthroughs in price and performance, and the community of ST owners is growing by thousands each month.

That's one reason why COMPUTE! Publications is announcing a new magazine specially designed for ST users. At the same time, we recognize that the power of the ST presents a unique challenge to magazines which publish program listings. That's why we're including a 3 1/2-inch disk that contains every program found in each issue -- ready to load and run. No more typing!

Here's what you'll get in every issue of COMPUTE!'s Atari ST Disk & Magazine:

o Top-quality programs. Utilities, Games, Educational programs for youngsters. Application programs for home and business. And since all the programs will be on disk, there are few limitations on length or languages. A typical disk might contain an elaborate adventure game written in BASIC, a programming utility written in machine language, a dazzling graphics demo in compiled Pascal, and a useful home or business application written in Forth or C.

o Neochrome of the Month. Take a look at what computer artists are doing with the Atari ST. Each issue's disk contains a NEOchrome picture file ready for you to load and admire. Are you an artist yourself? Send us a picture of your own, and we'll pay you if it's published.

o Regular columns. If you're a programmer -- or would like to be -- you'll love our columns on ST programming techniques and the C language. Or check out our column on the latest events and happenings throughout the ST community. Or send your questions

and helpful hints to our Reader's Feedback column.

o Reviews. Honest evaluations of the latest software and hardware for the Atari ST.

o News & Products. A comprehensive listing of the newest releases for your ST.

o And more: Interviews with ST newsmakers, reports on the latest industry trade shows, and overviews of significant new product introductions.

Starting with the October issue (available September 1), COMPUTE!'s Atari ST Disk & Magazine will be found on newsstands nationwide for only $12.95 per copy, including disk. Or it can be delivered directly to your mailbox six time a year for only $59.95 -- a savings of over 20 percent.

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Circulation Dept./8th Floor
825 7th Avenue
New York, NY 10019

Ph. (800)346-6767 NY: (212)887-8525

Saw this in COMPUTE! and thought that some of
you would be interested. Also, COMPUTE! is
handling a programming contest. First prize: $5,000.00
More info in July '86 COMPUTE!

Disclaimer: Not affiliated with COMPUTE! Publications
in any way.

From -2280308395892121854
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f97255c829c8bc7,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 122486,8f97255c829c8bc7,start
X-Google-Attributes: gid122486,public
X-Google-ArrivalTime: 1986-06-21 22:29:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!umcp-cs!eneevax!hsu
From: hsu@eneevax.UUCP (Dave Hsu)
Newsgroups: net.micro.atari16,net.news.group
Subject: net.micro.atari16 distribution
Message-ID: <757@eneevax.UUCP>
Date: Sun, 22-Jun-86 01:29:40 EDT
Article-I.D.: eneevax.757
Posted: Sun Jun 22 01:29:40 1986
Date-Received: Tue, 24-Jun-86 03:34:42 EDT

Reply-To: hsu@eneevax.UUCP (Dave Hsu)
Organization: Imperial Widget Research Center, Kingdom of Maryland
Lines: 15
Xref: linus net.micro.atari16:953 net.news.group:5269

For some reason, we have NEVER gotten any postings from atari at our
site, and this makes it rather difficult to follow neil harris'
postings. Obviously.

So where's it all going?

-dave
--
David Hsu (301) 454-1433 || -8798   "It was Dave, not me..honest!" -eneevax
Communication & Signal Processing Lab / Engineering Computer Facility
The University of Maryland   -~-   College Park, MD 20742
ARPA:hsu@eneevax.umd.edu UUCP:[seismo,allegra,rlgvax]!umcp-cs!eneevax!hsu

"Unlike me, many of you have accepted your situation and will die here like
 rotten cabbages..." -Number 6

From 7434033570041198860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7467c89d9446e2df
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-22 05:59:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help on font loader
Message-ID: <54600097@iuvax.UUCP>
Date: Sun, 22-Jun-86 08:59:00 EDT
Article-I.D.: iuvax.54600097
Posted: Sun Jun 22 08:59:00 1986
Date-Received: Wed, 25-Jun-86 04:38:43 EDT
References: <12420001@acf8.UUCP>
Lines: 7
Nf-ID: #R:acf8:-1242000100:iuvax:54600097:000:269
Nf-From: iuvax!franco   Jun 22 07:59:00 1986

I do not know which FONTLOADER you are talking about but the one done
by Patrick Bass (I think that is the name) only works with TOS in RAM.
You need to create a boot disk containing a boot sector and TOS.IMG then
boot your system from that disk.

franco@indiana.csnet

From -1023349866322850736

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2bfb1d10dc498769
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-22 10:35:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!unido!ab
From: ab@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: How to compile PC Hack
Message-ID: <96100012@unido.UUCP>
Date: Sun, 22-Jun-86 13:35:00 EDT
Article-I.D.: unido.96100012
Posted: Sun Jun 22 13:35:00 1986
Date-Received: Tue, 24-Jun-86 04:46:29 EDT
References: <128@druxu.UUCP>
Sender: notes@unido.UUCP
Lines: 41
Nf-ID: #R:druxu:-12800:unido:96100012:000:1694
Nf-From: unido!ab   Jun 22 18:35:00 1986

/***** unido:net.micro.at16 / druxu!rwb / 7:09 pm Jun 18, 1986*/
[...]
To link: after you have generated two disks containing .bin files, you
are ready to link. Create a file called hack.lnk containing the linker
directives. It should be modelled after c.lnk, but expand the body to
include all the .bin files you compiled above (instead of taking the
command line). Here the strategy is to copy the first disk of .bin
files (the one that is full) to the RAM disk and place the second disk
on the drive, writting the .ttp file to the drive; thus, each .bin file
on the second disk should be referenced in the .lnk file as b:name.bin.
Resize the RAM disk to 435K (this is the smallest I could make it and still
fit everything on it, leaving the rest of the RAM for the linker). Copy
to the RAM disk the following:
     * the linker (link.ttp)
     * the libraries (clib.bin and startup.lib)
     * the all the .bin files from the first disk
     * the hack.lnk file
Run the linker with the following command line (leave off link if
invoked from the desktop):
     link -with hack -nolist -prog b:hack.ttp
After 15 minutes (if all has gone well), you should have an executable
file on drive b.
[...]
/* ---------- */

I found out that if you arrange the program output to go to the ram disk
and keep all other files except the library on normal disk, you can link
hack within 6 minutes.

     Andreas Bormann
     University of Dortmund [UniDo]
     West Germany

Uucp: ab@unido.uucp
Path: {USA}!seismo!{mcvax}!unido!ab
     {Europe}!{cernvax,diku,enea,ircam,mcvax,prlb2,tuvie,ukc}!unido!ab
Bitnet: ab@unido.bitnet (== ab@ddoinf6.bitnet)
                \
F-111 bombers: -=>-->->*>   N 51 29' 05"   E 07 24' 42"
                /

From -6920941846627361239
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88f28d7f311425c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-22 15:58:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!topaz!dpz
From: dpz@topaz.RUTGERS.EDU (David P. Zimmerman)
Newsgroups: net.micro.atari16
Subject: Public domain software
Message-ID: <5201@topaz.RUTGERS.EDU>
Date: Sun, 22-Jun-86 18:58:15 EDT
Article-I.D.: topaz.5201
Posted: Sun Jun 22 18:58:15 1986
Date-Received: Tue, 24-Jun-86 04:21:41 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 20
Keywords: foo bar

(Flames to /dev/null)

Could someone give me pointers to free Atari ST software available via
FTP? I'm choosing between the 1040ST and Amiga, and what could clinch
it for the ST is availability and accessibility of free software
(cheapskate, me? of course!). The main thrust of my search is
towards word processors, terminal programs, Unix shell emulators,
languages, and of course sound/graphics programs that can take the ST
to the limit. Also, any possible multitasking utilities.

Thanx in advance for any replies.

                      David
--
Name: David P. Zimmerman   Nickname: "Davidann" (don't ask)
Cute quote: " (well, *I* think it's cute!)
Arpa: DZIMMERMAN@BLUE.RUTGERS.EDU
Uucp: ...{allegra, harvard, seismo, sri-iu, ut-sally}!topaz!dpz

From 6907969355935732223
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95169168c8cce787

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 06:08:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: Question on processor expansion
Message-ID: <477@elmgate.UUCP>
Date: Mon, 23-Jun-86 09:08:06 EDT
Article-I.D.: elmgate.477
Posted: Mon Jun 23 09:08:06 1986
Date-Received: Wed, 25-Jun-86 05:51:08 EDT
References: <8606201839.AA06129@pavepaws>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 28
Summary: No it is not possible/practical to upgrade the ST (as it sits) to a
010/020.

In article <8606201839.AA06129@pavepaws>, dillon@PAVEPAWS.BERKELEY.EDU (Matt
Dillon) writes:
>
>   Anybody know if it's possible to upgrade the ST's 68000 to a
> 68010 or 68020?
>
>   -Matt

As far as I've been able to determine the ST does no checking on boot for
the type of 68000 installed. Therefore the exception handling routines in
TOS will bomb (ie. lockup) miserably. Further (and I've mentioned this
before) some dimwit went and put the exception numbers in the upper byte of
the exception vectors!!!! Odviously this will give you an 'E' ticket into
the Twilight Zone on the 020!

Much of the system software in the ST is really JUNK. In Atari's defense
however, they never claimed upwards compatibility among future machine
archetectures (SP?).   Still I'd pay another $50-$75 to get a new version of
TOS in ROM (2.0 ?). No, this is not rumored. I just want Atari to know if
they ever WERE to decided to re-write some of TOS/GEMDOS themselves (and
get it right) instead of DRI's junk, *I'd* be willing to pay for it.

Neil? Others???? Comments???

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -2305099639995030610
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91dab69940435b0

X-Google-Attributes: gid140593,public
X-Google-Thread: 12c767,91dab69940435b0
X-Google-Attributes: gid12c767,public
X-Google-ArrivalTime: 1986-06-23 08:46:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!alberta!calgary!brinsmead
From: brinsmead@calgary.UUCP (Mark Brinsmead)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Re: Hack 1.0.3 for Atari ST
Message-ID: <206@vaxb.calgary.UUCP>
Date: Mon, 23-Jun-86 11:46:19 EDT
Article-I.D.: vaxb.206
Posted: Mon Jun 23 11:46:19 1986
Date-Received: Wed, 25-Jun-86 06:38:42 EDT
References: <161@unido.UUCP> <162@unido.UUCP>
Organization: U. of Calgary, Calgary, Ab.
Lines: 5
Xref: watmath net.games.hack:2047 net.micro.atari16:1110
Summary: Yet another interested party

   I am yet another 'netter' who is interested in rogue for the
atari ST (binaries are fine, but sources would be nice too).

                                M. Brinsmead, University of Calgary

From -1068979841570639485
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8807c3c39556d8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 08:53:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!ll-xn!mit-amt!mit-
eddie!genrad!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Laser Printers with ATARI 1040 ?
Message-ID: <422@imagen.UUCP>
Date: Mon, 23-Jun-86 11:53:38 EDT
Article-I.D.: imagen.422
Posted: Mon Jun 23 11:53:38 1986
Date-Received: Wed, 25-Jun-86 07:08:48 EDT
References: <383@yetti.UUCP>
Organization: The Houses of the Holy
Lines: 19

>
> Has anyone managed to hook up a 1040 ST with a laser printer in any
> way shape or form? Perhaps 1st Word printing in Epson mode through

if some kind netter (Neil ?) would send me the control codes for 1stWord
and/or their fav WP, i'd be glad to build you a driver for guess which

laser printer first, but there are others......
--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -2957952113581978826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,215881aed8c9fc87,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 12:31:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!styx!nike!
ucbcad!ucbvax!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: ROM Operating System
Message-ID: <634@marlin.UUCP>
Date: Mon, 23-Jun-86 15:31:12 EDT
Article-I.D.: marlin.634
Posted: Mon Jun 23 15:31:12 1986
Date-Received: Wed, 25-Jun-86 05:49:11 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 16

        A local Atari dealer reported that ROM upgrades for the original
520STs are in short supply. Dealers were shipped just enough ROMs to
update the machines they had sold. Unforunately, there seems to be a
missed communication between Atari and at least some of the dealers. I
bought the ROMs from a different dealer, leaving the poor guy at least
one short.
        Appearently, *extra* ROM sets will be available, I assume as reapir
parts, but at a much higher price. (Only as it should be, I guess)
        It now appears necessary for a redistribution of the available
resources. How about it Neil @ Atari? Will Atari poll its dealers for
an inventory of ROM sets, and request (or direct) redistribution?

Disclaimer: My views tend to reflect minority opinion. Sometimes a minority
of one. My views are not to be considered the views of my employer.

From 5171330135156049911
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a132bcea13e5511e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 14:27:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!nike!ucbcad!ucbvax!
disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Video out on 520 and 1040ST
Message-ID: <8606232127.AA21999@mitre-bedford.ARPA>
Date: Mon, 23-Jun-86 17:27:45 EDT
Article-I.D.: mitre-be.8606232127.AA21999
Posted: Mon Jun 23 17:27:45 1986
Date-Received: Wed, 25-Jun-86 05:48:24 EDT
References: <360@atari.UUcp>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 15

If you have a 520 with RF modulator output, you should be able to add a
composite output fairly easily, as the baseband input to the RF modulator is
precisely the composite signal. All you have to do is bring it out, possibly
with an amplifier stage if the level is not right. More likely just a switch
or a parallel tap off the input to the modulator will work fine.

I haven't seen the schematic, but you may also pick up some resolution on the
composite output by removing a "slowdown" capacitor put in to keep the TV
modulator bandwidth down. Or, you might be able to leave such a capacitor in
place and pick off your signal before the slowdown circuit has affected it.

Good luck.

-John Sangster
jhs@mitre-bedford.arpa

From -1712692527708129779
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e49d9f1b0aeb4c2d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 14:38:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: Re: Summer 1986 START magazine TOC
Message-ID: <1363@ihuxi.UUCP>
Date: Mon, 23-Jun-86 17:38:43 EDT
Article-I.D.: ihuxi.1363
Posted: Mon Jun 23 17:38:43 1986
Date-Received: Wed, 25-Jun-86 04:39:28 EDT

References: <1360@ihuxi.UUCP> <1131@trwrb.UUCP>
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 40

> O.k. Kit, how can we get a subscription to this magazine? It sounds
> great!

*****[Ignore header path]*****

I got several requests for ordering information for STart magazine.
I was going to send this information privately since I don't want
to be accused of commercializing the net but since I was asked to
provide this information publicly, I will do so.

STart magazine is published quarterly by Antic Publishing. It is
or should be shortly available at better book stores, magazine stands and
computer stores that carry Atari ST computers for $4 for the magazine or
$14.95 for the magazine and the disk of programs together. I'm
sure that combination will be hard to find an magazine stands/book stores.
You can only subscribe to STart in combination with ANTIC magazine. You get 4
issues of STart with the program disks and 12 issues of ANTIC for $59.95. You
can't get just STart and the program disks by subscription but since
you are basicly getting ANTIC free, it's a pretty good deal. Especially
when you consider ANTIC is still going to carry the ST Resource part
of the magazine. It contains a lot or reviews and new product announcements,
etc. If you want to write, their address is:

STart
Antic Publishing
524 Second St.
San Francisco, CA 94107

If you want to charge it to your credit card, you can call their
toll free number 800-443-0100. Hope this answers all questions about
subscribing. End of commercial...

Kit Kimes
AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

Disclaimer: I have no monetary or employment connection with
Antic Publishing.

From -1765392360800022063
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2280ec05e5f4bace,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-23 18:05:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!alberta!myrias!mj
From: mj@myrias.UUCP (Michal Jaegermann)
Newsgroups: net.micro.atari16
Subject: TOS bites again...
Message-ID: <254@myrias.UUCP>
Date: Mon, 23-Jun-86 21:05:14 EDT
Article-I.D.: myrias.254
Posted: Mon Jun 23 21:05:14 1986
Date-Received: Wed, 25-Jun-86 06:43:37 EDT
Organization: Myrias Research, Edmonton
Lines: 33

[munch, munch ...]

I was hit by a rather obscure bug in TOS, Below is an exact description
of what happened. Does anybody else happen to stumble upon the same
problem?

SYSTEM
    Atari 1040 ST. TOS in ROM (of course). One DS drive.
    Only operating system and basic accesories loaded. No RAM-drive
    at the moment.
ACCESORIES (which you need to reproduce events)
    A disk which sometimes in a past was initialized as two-sided.
    Currently re-initialized as a single sided and completely filled
    with files.
SITUATION
    At the Desktop, by a mistake I tried to copy one more file to
    the disk. Without RAM-drive I used "copy a: to b: and swap, swap,
    swap..." method.
RESULTS
    Operating system happily went throgh motions. No error reported
    during the whole operation. First indication that something went
    amiss was that a directory listing looked exactly as before the
    operation. As it turned out some parts of a file which I tried
    to copy - a program file - were deposited on the disk overwriting
    an end of one file and a begin of the next one. Apparently some
    pointers in FAT for the second file were changed making the last
    sector of the second file its begin - at least in some circumstances.
HOW TO AVOID
    I don't know. Be careful and tip-toe around.

Michal Jaegeramnn
Myrias Research Corporation
Edmonton, Alberta, CANADA

From 4111295387335920243
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e1f9694aad81c817,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 01:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
cmcl2!acf8!schwrtze
From: schwrtze@acf8.UUCP (E. Schwartz group)
Newsgroups: net.micro.atari16
Subject: Request for XMODEM
Message-ID: <12420002@acf8.UUCP>
Date: Tue, 24-Jun-86 04:02:00 EDT
Article-I.D.: acf8.12420002
Posted: Tue Jun 24 04:02:00 1986
Date-Received: Thu, 26-Jun-86 04:02:33 EDT
Organization: New York University
Lines: 13

I finally got onto the ATARI BBS system. However, I noticed that the
system does not have KERMIT as a transfer protocol. Could someone post
the source, or uuencoded program for the XMODEM protocol.

Wesley Kaplow

ARPA: wesley@nyu-alaya.arpa
AT&T: (212)982-3926
USNET: cmcl2!alaya!wesley

POST: 88 Bleecker Street
      New York, New York 10012-1514 APT: 6M

From 6057308733316683944
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,594b875c373da10a,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,594b875c373da10a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 05:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83 based; site houxl.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!houxl!oaa
From: oaa@houxl.UUCP (O.ALEXANDER)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: CES Report (Better late than ...)
Message-ID: <952@houxl.UUCP>
Date: Tue, 24-Jun-86 08:04:00 EDT
Article-I.D.: houxl.952
Posted: Tue Jun 24 08:04:00 1986
Date-Received: Wed, 25-Jun-86 07:39:41 EDT
Organization: AT&T Information Systems, Holmdel NJ
Lines: 262
Xref: watmath net.micro.atari8:319 net.micro.atari16:1113

Here is a copy of a C.E.S. (Consumer Electronics Show) report from the
show in early June that I got from a local BBS in N.J. I don't know if
it's the same as what Antic normally reports or if it originated from

Compu-serve, but I guess it's better than nothing.

It contains information relevant to 8-bit and 16-bit Atari computers, so no flames please for cross-posting.

Owen Alexander @ houxl!oaa

>>THE CHICAGO CES REPORT<<

PART I

Atari's exhibit space at the Chicago Consumer Electronics show is the largest seen since the Tramiels took over the company. Walls of monitors displaying Atari software, ranging from ST computers to 2600 game machines, surrounded some 35 third-party developers showing off both 8-bit and ST software.

CES breezed into the Windy City Sunday, opening to brisk crowds. While Chicago natives soaked up the first of the season's hot, humid sunshine, electronics mavens crowded inside the huge McCormick Show Halls off Lake Michigan and ogled the techno-wonders.

As an added bit of Atari nostalgia, a central room contained such coin-operated Atari arcade games, as Asteroids, Dig Dug and Jungle King. Two special display areas were reserved for MIDI and digitizing software. In the MIDI booth, Hybrid Arts showed its many sophisticated products for ST and 8-bit. Activision demonstrated The Music Studio, also available on both ST and 8-bit. The digitizing booth displayed Computereyes for the 8-bit and HippoVision for the ST.

BATTERIES INCLUDED GOES PUBLIC

Michael Reichman, president of the successful Canadian software firm Batteries Included, announced a merger with ITM Corp. This means Batteries Included stock may be publicly traded on the Canadian Stock exchange.

Reichman also said that Russ Wetmore, author of HomePak, has accepted a position with Apple Computers in Cupertino, CA. Whatever he is doing is evidently very hush-hush as Russ said only that he was working in "advanced research production" and would say no more. Reichman awarded Wetmore a plaque for outstanding achievement in world-wide sales for his HomePak software. Ian Chadwick accepted the award in Wetmore's absence.

THIRD-PARTY DEVELOPERS

Judging from this show, the Atari software business seems very active--certainly more so than in recent shows. Several companies with Atari booths had their own booths elsewhere on the floor.

Artworx showed its bridge programs for both 8-bit and ST, and

Hole-in-One Golf for the ST. They also have a new 8-bit program called Peggammon.

Omnitrend -- Universe II for the ST.

Migraph -- EasyDraw.

Zobian Controls -- The Rat, a mouse for 8-bit Atari computers.

First Star Software -- The company that made Spy Vs. Spy and Boulder Dash for the 8-bits is coming out with Comic Strip Maker, a graphics program for the ST.

Activision -- Paintworks, which is their new name for the N-Vision graphic art program created by Audio Light, Inc.

Michtron -- A whole slew of products for the ST, including the Time Bandits game and the SideKick-type CornerMan utility.

Classic Image -- Disk Library and a game called Diablo.

Epyx -- Winter Games and Temple of Aphshai Trilogy on the ST.

MicroProse -- ST version of Silent Service.

Sierra On-Line -- Several animated adventure games. The most recent is Black Cauldron.

Softworks -- BASIC compiler for the ST.

Avila Associates -- Make it Move, an ST graphics animation program, and a gambling tutorial currently called Casino Craps.

Softsync -- Personal Accountant, an 8-bit financial program.

Blue Moon Software -- A collection of GEM Desk Accessories including MacroDesk, MacroMath and MacroManager.

Academy Software -- Typing Tutor and Word Invaders for both 8 and 16-bit Ataris

Spinnaker -- Displaying an extensive line of 8 and 16-bit educational and adventure game products.

American Educational -- A series of educational software for 8-bit Ataris.

OSS -- 8-bit and 16-bit programmer's tools.

ICD -- 8-bit hardware and software.

XLent -- Displayed the entire line of products, including many printer/graphics packages available for both 8- and 16-bit machines.

Haba Arrays -- Get Rich, a financial planning package for 8-bit machines.

FTL -- The creators of Sundog for the ST, are also showing Micro Cookbook and Dungeon Master Adventure.

Britannica Learning -- A series of educational programs for the 8-bit Ataris.

Batteries Included -- A new version of PaperClip for the 8-bit with Spellpack. Thunder, a real-time spelling checker.

Electronic Arts had two Atari booths. One to show off their long line of 8-bit game products and the other to display Financial Cookbook for the ST. According to an EA spokesperson, such EA hits as Golden Oldies will be adapted to the ST, and they are not currently planing to adapt Marble Madness to the 16-bit Atari computer.

Covox -- Voice Master, Atari 8-bit voice digitizer and voice recognition software.

SSI -- Booths for both lines of Atari computers and displayed many of its very successful strategic games.

Quickview -- Software author Paul Heckel showed his Zoomracks ST database program.

NEW ST MAGAZINE GETS A START

Antic Publishing unveiled its new ST quarterly, START, a combination magazine and disk. Instead of type-in listings, all program listings are on the disk, which is bound into the magazine in a tear-proof envelope.

START is targeted at the experienced ST computer owner. The first issue features a MIDI Sequencer, which records and stores synthesizer song files on disk.

Tom Hudson has written a desk accessory which will store any DEGAS printer driver in RAM, then capture the [ALTERNATE]-[HELP] key combination for a successful screen dump.

Tim Oren reveals the secrets of GDOS and Metafiles. A thorough comparison of available ST Assemblers is contributed by Chris Chabris. And David Small explains why he distrusts computers in "Voodoo Computing."

By the way, I am writing this upstairs, right outside the Commodore booths, the only place in the hall where it's quiet enough to talk or concentrate!!

PART II

Atari's John Skruch, Manager of XE Software Products, showed us the XEP 80 -- the long-awaited 80-column adapter for the Atari 800, XL/XE computers. The adapter is "new-Atari" gray-colored and just slightly smaller than the old Atari 850 interface. As Skruch said temptingly, "It has the same 'footprint' as the 8-bit 3.5-inch drives." Reliable sources within the company report that the drives will have a capacity of 325K, formatted, and the Disk Operating System will be compatible with DOS 2.5. The XEP 80 has a standard Centronics parallel printer port in the back, an RCA monitor input, an I/O cord that plugs into either joystick port and an input for its external power supply (which is about the same size as most modem power supplies). The card was demonstrated on a standard green monochrome monitor and the letters looked as crisp and clean as an IBM PC screen display. Atari claims the adapter will also work with a color monitor, but not satisfactorily with a television set. Built-in software supports the entire Atari internal character set, including special graphics characters, plus the Atari international set and an expanded international set contained in the ROM of the XEP 80's controller chip. The card supports any call which works with the E: device and has such special effects as black on white or white on black, double-width or double-height characters, and blinking or solid cursor and characters. Skruch said there was a special "burst" mode which printed text to the screen "four times faster" than normal. Although cartridges such as BASIC XE, from OSS, work with the new adapter, most software will have to be specially adapted for it. Also, programs that use bit graphics will have to try something else, since the usual bit graphics screen fills only half the 80-column screen. The XEP-80 is expected to reach dealers in late fall with a price tag just under $80.

ATARI PRINTERS

Ever since Atari displayed the first ST a year ago, it has been showing printers. Only now are the dot-matrix graphics peripherals being shipped, at a price of $219.95. The XMM 804 for the ST and XMM 801 XE printer are essentially the same. The 801 is compatible with the Epson medium-resolution graphics mode and contains a built-in interface for the 8-bit machines. The 804 supports up to 1,280 dots per inch and uses a standard centronics cable to link it with the ST. Though both machines were designed to be as compatible as possible with Epson printers, they are also fully compatible with the earlier Atari 825 printer and are designed primarily as a new, improved printer for those who previously owned the 825.

ICD SUPPORTS THE 8-BITS

While many companies have jumped on the ST bandwagon, ICD has been quietly churning out important hardware items for the 8-bits, including a straight- connect modem cable for $14.95, a low-cost printer connection for $59.95, and The P:R: Connection, a replacement for the Atari 850 modem interface. The P:R: Connection ($89.95) is a small box with one printer port and two modem ports. It gets its power from the computer and works on any Atari 8-bit machine.

RATS, AN 8-BIT MOUSE

Matthew Zobian, of Zobian Software, showed us his baby "the Rat", a mouse for the 8-bit Ataris. Zobian feels the mouse is the "wave of the future" in computers and, because the Atari 8-bit is such an excellent graphics machine, it seems perfect for mice-- or rats. The Rat comes with its own software, including a graphics program and a cursor control routine. But Zobian realizes he must court other software developers to make a success of his interface. Accordingly, he told us that MTS is developing mouse-compatible Big Picture and Artist Unleashed -- both graphics packages. RAMbrandt, another paint program, and a business management package by Reeves Software are also being adapted to The Rat. The single-button Rat is an analog mouse which plugs into the joystick. Zobian claims that it is very easy to program. Without accompanying software, the Rat sells for $89.95.

ANIMATED GRAPHICS FOR ST

Avila Associates, a new company, displayed two new products for the ST at the Atari exhibit area: Make it Move, a graphics presentation utility featuring animation, and Casino Craps, a gambling tutorial. Both are expected in July. Make it Move lets you grab portions of your DEGAS or NEOchrome pictures and program them into an animated presentation. When we saw it, the program was in the alpha state. Essentially, you can perform functions similar to movie editing techniques, such as wipes, dissolves, fades, cuts and zooms. A single object, grabbed from a screen picture, may be programmed to move along a given path. The same object may also be animated while moving on that path. Rene De La Brandeis, designer of the program, grabbed a section of a NEOchrome picture and saved it in a special compressed format. He then pulled it up with the Zoom utility, set its beginning and ending coordinates and ran it. The object appeared from the beginning coordinates and smoothly grew to full size while following a curved path to the end coordinates. It looked good!

Casino Craps displays a very detailed, and accurate, craps board designed to teach the user to play craps at Harrah's casino in Las Vegas. De La Brandeis is currently trying to get Harrah's name on the product. He hopes they'll want to use it to encourage people to learn the game. These days, the only craps players are World War II vets, according to Harrah's. Harrah's, naturally wants to change this, and De La Brandeis hopes they'll use his game to this end. "It's a lot cheaper way to learn craps," he said.

From 5925467135658708137
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c99a8cbf9e60655
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 06:35:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!

gatech!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Are all kermits public domain?
Message-ID: <337@brueer.ee.brunel.ac.uk>
Date: Tue, 24-Jun-86 09:35:51 EDT
Article-I.D.: brueer.337
Posted: Tue Jun 24 09:35:51 1986
Date-Received: Sat, 28-Jun-86 07:30:14 EDT
References: <1984@dalcs.UUCP>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Distribution: net
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 34

In article <1984@dalcs.UUCP> silvert@dalcs.UUCP writes:
>There is some confusion here about whether the kermit in the developer's
>kit is in the public domain. The manual seems to say it is (right on
>the title page), but we would like to make sure before passing it on to
>anyone else.
>

I think I'm right in saying that Kermit is not public domain, but is
copyright Columbia University. Columbia's policy is that anyone using
or writing a Kermit should make it available to others on request for
no charge (except for postage/handling/media costs). This policy may
even extend to the sources. As I see it, you should be able to pass
the binary on to anyone, provided you don't sell it. Perhaps Neil@Atari
could clarify this ??

BTW, The Columbia CP/M Kermit distribution includes a 'Generic' version
that works on any CP/M machine that uses the I/O byte properly. I have
run it under the ST CP/M emulator with no problem at all... It's actually
a damn sight more friendly than the Dev Kit Kermit and it runs at about
the same speed :-) :-) I guess the limiting factor is disk access time.
Anyone wanna copy ?? I also picked up a PD 8080 assembler and hex loader
from the Kermit distribution. They also work fine under the Emulator...

Ralph Mitchell
--
=-=
Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
Uxbridge | JANET: ralph@uk.ac.brunel.ee
UB8 3PH |
UNITED KINGDOM | "Noli illegitemi carborundum"
=-=

From -4993665911828785759
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 122486,8f97255c829c8bc7
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,8f97255c829c8bc7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 08:19:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!alberta!ubc-vision!
molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16,net.news.group
Subject: Re: net.micro.atari16 distribution
Message-ID: <175@molihp.UUCP>
Date: Tue, 24-Jun-86 11:19:40 EDT
Article-I.D.: molihp.175
Posted: Tue Jun 24 11:19:40 1986
Date-Received: Fri, 27-Jun-86 06:46:36 EDT
References: <757@eneevax.UUCP>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 17
Approved: molihp 916 1730
Xref: watmath net.micro.atari16:1117 net.news.group:6053

In article <757@eneevax.UUCP> hsu@eneevax.UUCP (Dave Hsu) writes:
>For some reason, we have NEVER gotten any postings from atari at our
>site, and this makes it rather difficult to follow neil harris'
>postings. Obviously.
>
>So where's it all going?

  We get a lot of Atari postings, but there are other noticeable gaps
in our atari16 contents, like just about anything from Case Western
Reserve. This could be some east-west link problems, since most of
what I see seems to be from the west coast. BTW, did anybody in the
west get the ProGem articles 4-9? We still haven't seen them.

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
      #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From -6220796032108482400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f97255c829c8bc7
X-Google-Attributes: gid140593,public
X-Google-Thread: 122486,8f97255c829c8bc7
X-Google-Attributes: gid122486,public
X-Google-ArrivalTime: 1986-06-24 10:28:00 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!decvax!decwrl!
amdcad!cae780!gordon
From: gordon@cae780.UUCP
Newsgroups: net.micro.atari16,net.news.group
Subject: Re: net.micro.atari16 distribution
Message-ID: <2338@cae780.UUCP>
Date: Tue, 24-Jun-86 13:28:00 EDT
Article-I.D.: cae780.2338
Posted: Tue Jun 24 13:28:00 1986
Date-Received: Thu, 26-Jun-86 04:20:56 EDT
References: <757@eneevax.UUCP>
Reply-To: gordon@cae780.UUCP (Brian Gordon)
Organization: Tektronix Inc. (CAE Systems Division), Santa Clara, CA
Lines: 16
Xref: watmath net.micro.atari16:1116 net.news.group:6049

In article <757@eneevax.UUCP> hsu@eneevax.UUCP (Dave Hsu) writes:
>For some reason, we have NEVER gotten any postings from atari at our
>site, and this makes it rather difficult to follow neil harris'
>postings. Obviously.
>
>So where's it all going?
>

i don't know, but the same is true here too ...

FROM: Brian G. Gordon, CAE Systems Division of Tektronix, Inc.
UUCP: tektronix!cae780!gordon
     {ihnp4, decvax!decwrl}!amdcad!cae780!gordon
        {hplabs, resonex, qubix, leadsv}!cae780!gordon
USNAIL: 5302 Betsy Ross Drive/#58137, Santa Clara, CA 95052-8137
AT&T: (408)748-4817 [direct]   (408)727-1234 [switchboard]

From -6371896593374166146
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,258cb62bd5e09f2f,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,258cb62bd5e09f2f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 12:03:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site mhuxo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!mhuxv!mhuxo!gjphw
From: gjphw@mhuxo.UUCP (WYANT)
Newsgroups: net.micro,net.micro.atari16
Subject: Inquiry about Avatex 1200 modem
Message-ID: <1204@mhuxo.UUCP>
Date: Tue, 24-Jun-86 15:03:38 EDT
Article-I.D.: mhuxo.1204
Posted: Tue Jun 24 15:03:38 1986
Date-Received: Wed, 25-Jun-86 07:47:28 EDT

Distribution: na
Organization: AT&T Bell Laboratories, Murray Hill
Lines: 14
Xref: watmath net.micro:14911 net.micro.atari16:1114

It is now time for me to take the plunge and replace my 300 baud modem with a 1200 baud one. Does anyone have any experience with, or hearsay evidence about, the Avatex 1200 baud modem? It operates at either 300 or 1200 baud and retails through a mail-order house for $89, making the Avatex the least expensive 1200 baud modem I have seen so far. We own an Atari 520ST with upgrades of TOS in ROM and 1 Mb of memory.

Send email, and thanks for the comments.

Patrick Wyant
AT&T Bell Laboratories
Naperville, IL
*!ihnp4!{mhuxo,ihwld}!gjphw

From 1567136273304091246
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d8d6188429c57b8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 16:20:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!amdcad!cae780!leadsv!trimble
From: trimble@leadsv.UUCP
Newsgroups: net.micro.atari16
Subject: GEM Kermit - I only got part 3
Message-ID: <995@leadsv.UUCP>
Date: Tue, 24-Jun-86 19:20:24 EDT
Article-I.D.: leadsv.995
Posted: Tue Jun 24 19:20:24 1986
Date-Received: Sat, 28-Jun-86 03:15:09 EDT
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 7
Keywords: Kermit, GEM

Could parts 1, 2, 4, 5, and 6 of the (recent) posting of GEM Kermit
be reposted to the group (or net.sources). We did'nt appear to receive
these parts.

Thanks - sorry for the net.clutter

Gary Trimble (Lockheed Advanced Marine Systems)

From -8389649860951740877
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4413e1b412765e4,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-24 16:35:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!ut-sally!utah-cs!atwell
From: atwell@utah-cs.UUCP (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Re: GEM-Kermit (Part 3 of 6)
Message-ID: <3829@utah-cs.UUCP>
Date: Tue, 24-Jun-86 19:35:08 EDT
Article-I.D.: utah-cs.3829
Posted: Tue Jun 24 19:35:08 1986
Date-Received: Fri, 27-Jun-86 04:43:35 EDT
References: <600012@coma.UUCP>
Reply-To: atwell@utah-cs.UUCP (Bart L. Atwell)
Organization: University of Utah CS Dept
Lines: 11
Keywords: didn't get it all

I didn't read the news for a couple of days so apparently all parts
of Kermit except part 3 got erased from our system before I got them!

Could someone close who got the whole thing mail me a copy. Please send
me mail if you can send it and I'll pick the closest site to prevent
multiple copies.

Thanks,

Bart Atwell
atwell@utah-cs

From 1035646089397944812
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,764a1575ea28baf4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 03:07:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: special deal on 520ST - monochrome
Message-ID: <8606251007.AA07601@mitre-bedford.ARPA>
Date: Wed, 25-Jun-86 06:07:51 EDT
Article-I.D.: mitre-be.8606251007.AA07601
Posted: Wed Jun 25 06:07:51 1986
Date-Received: Sat, 28-Jun-86 03:04:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 14

I was talking to the folks at CompuClub in Framingham MA a couple of days ago
and learned that they are offering the 520ST with one disk drive and a

monochrome monitor for $499 for a limited time. I believe this is the same
price offered recently by 47th Street Computers. CompuClub said the price
resulted from a special sale price from Atari.

CompuClub can be reached at (617) 879-5232 or (800) MY-ATARI. The proprietor
is Tom Graziano. Hours are 11 AM to 7 PM weekdays.

They also do upgrades, and I believe they quoted me $145 additional to make
the 520 into a 1 Meg unit.

-John Sangster
jhs@mitre-bedford.arpa

From -4180872963895324949
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d8d6188429c57b8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 06:57:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site marlin.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!ittatc!dcdwest!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: Re: GEM Kermit - I only got part 3
Message-ID: <635@marlin.UUCP>
Date: Wed, 25-Jun-86 09:57:14 EDT
Article-I.D.: marlin.635
Posted: Wed Jun 25 09:57:14 1986
Date-Received: Sat, 28-Jun-86 02:16:55 EDT
References: <995@leadsv.UUCP>
Reply-To: dobbs@marlin.UUCP (Lynn B. dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 12

In article <995@leadsv.UUCP> trimble@leadsv.UUCP writes:
>Could parts 1, 2, 4, 5, and 6 of the (recent) posting of GEM Kermit
>be reposted to the group (or net.sources). We did'nt appear to receive
>these parts.
>
>Thanks - sorry for the net.clutter
>
>Gary Trimble (Lockheed Advanced Marine Systems)

Same at this site.
Thanks

From 6277046957849161068
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36abf9972cf00e3d,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 07:55:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!ut-sally!utah-cs!reading
From: reading@utah-cs.UUCP
Newsgroups: net.micro.atari16
Subject: ST as a terminal
Message-ID: <3832@utah-cs.UUCP>
Date: Wed, 25-Jun-86 10:55:48 EDT
Article-I.D.: utah-cs.3832
Posted: Wed Jun 25 10:55:48 1986
Date-Received: Sat, 28-Jun-86 04:04:24 EDT
Organization: University of Utah CS Dept
Lines: 15

Does anyone use their ST as a terminal. How about a good terminal emulator
which runs at 9.6K, 19.2K, or even better 38.4K baud. What about screen
size, I want some thing larger than 24x80 how about 66x132. Any chance of
the Atari ST running UW, the UN*X windowing system for the Macintrash
written by John Bruner.

I have been look at the ST since it first came out, waiting for more info
about the 32 bit box. If I could use the Atari for a terminal at work I
it would give me a excuse to get one now. A 520ST monochrome package is now
the about same price has a Wyse 60.

----
thanks,
Dan Reading

From 4558941217977397884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c0af5417544f4de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 08:14:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: XMODEM request
Message-ID: <8606251514.AA18917@trwrb.UUCP>
Date: Wed, 25-Jun-86 11:14:00 EDT
Article-I.D.: trwrb.8606251514.AA18917
Posted: Wed Jun 25 11:14:00 1986
Date-Received: Sat, 28-Jun-86 03:16:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1607

This program, which features XMODEM protocol and ASCII text capture,
was posted some time ago. Also, I have a modified version which features
function key support. Let me know if you would like that copy as well.
Original credit should go to:


```
              Jwahar R. Bammi
            Usenet:  .....!decvax!cwruecmp!bammi
             CSnet:  bammi@case
           Arpa:  bammi%case@csnet-relay
        CompuServe:  71515,155
```


Enjoy!

Richard E. Sansom
TRW Electronics & Defense Sectore
{...decvax,ucbvax,ihnp4}!trwrb!sansom


```
-- cut here -- cut here -- cut here -- cut here -- cut here -- cut here --
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    capture.c
#    main.c
#    util.c
#    xmodem.c
#    xmdm.h
#    xmdm.doc
# This archive created: Fri Jan 17 04:10:16 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'capture.c'" '(2141 characters)'
if test -f 'capture.c'
then
     echo shar: over-writing existing file "'capture.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'capture.c'
X/*
X * Ascii File Capture / Dump Module
X *
X *  ST users @ Case Western Reserve University
X * Dump is not implemented.
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define sendchar(X)   Cauxout(X) /* Send a character to serial port */
X
X    /* extern variables */
Xextern char bufr[];        /* file buffer */
Xextern unsigned int buf_index;  /* index to file buffer */
```

```
Xextern char capture;       /* Capture flag */
X
X    /* Global Variables */
Xstatic int fd;
X
X/*
X * s_capture() - Start Ascii File Capture
X *
X */
Xvoid s_capture()
X{
X    register char *f;
X    char *r_filename();
X
X    sendchar(CTRL('S'));
X
X    /* Get filename */
X    if((f = r_filename()) == (char *)NULL)
X    {
X         /* User Cancelled */
X         Cconws("Capture is Off\r\n");
X         capture = 0;
X         sendchar(CTRL('Q'));
X         return;
X    }
X
X    /* create/open the file */
X    if((fd = Fcreate(f,0)) < 0)
X    {
X         if((fd = Fopen(f,1)) < 0)
X         {
X              /* Did'nt make it */
X              Cconws("Could not open ");
X              Cconws(f);
X              Cconws("\r\nCapture is off\r\n");
X              capture = 0;
X              hit_key();
X              sendchar(CTRL('Q'));
X              return;
X         }
X    }
X
X
X    /* All set to capture */
X    capture = 1;
X    Cconws("Capture is ON\r\n");
X    buf_index = 0;
X    sendchar(CTRL('Q'));
X}
X
X/*
X * c_capture() -  close capture
X *
```

```
X */
Xvoid c_capture()
X{
X    sendchar(CTRL('S'));
X    if(buf_index > 0)
X    {
X         /* Flush stuff in file buffer */
X         if(Fwrite(fd,(long)buf_index,bufr) != buf_index)
X         {
X              Cconws("\r\nWarning - error writing capture file\r\n");
X              hit_key();
X         }
X    }
X
X    /* All done */
X    buf_index = 0;
X    capture = 0;
X    Cconws("\r\nCapture is OFF\r\n");
X    Fclose(fd);
X    sendchar(CTRL('Q'));
X}
X
X
X/*
X * a_capture - Add a char to capture buffer
X *
X */
Xvoid a_capture(c)
Xregister int c;
X{
X    bufr[buf_index++] = c;
X
X    if(buf_index == BUFSIZ)
X    {
X         /* Buffer full dump it to file */
X         sendchar(CTRL('S'));
X         if(Fwrite(fd,(long)buf_index,bufr) != buf_index)
X         {
X              /* Problem Writing file */
X              EscSeq(j);    /* save cursor position */
X              my_screen();  /* switch to my screen memory */
X              Cconws("\r\nWarning - error writing capture file\r\n");
X              Cconws("Capture Forced OFF\r\n");
X              Fclose(fd);
X              hit_key();
X              his_screen(); /* Back to his screen memory */
X              capture = 0;
X         }
X         buf_index = 0;
X         sendchar(CTRL('Q'));
X    }
X}
SHAR_EOF
```

```
if test 2141 -ne "`wc -c 'capture.c'`"
then
     echo shar: error transmitting "'capture.c'" '(should have been 2141
characters)'
fi
echo shar: extracting "'main.c'" '(7955 characters)'
if test -f 'main.c'
then
     echo shar: over-writing existing file "'main.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'main.c'
X/*
X * Main Module
X *
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define esc  27
X#define cr   0x0d
X
X    /* Global variable  definitions, extern everywhere else */
Xchar bufr[ BUFSIZ ];       /* File buffer */
Xchar filename[FILEMAX+3];  /* File name */
Xunsigned int buf_index = 0;     /* Index to file buffer */
Xchar capture = 0;      /* Ascii capture flag   */
Xlong *ms_ptr;              /* Pointer to my screen memory, aligned at
X                      a 256 bytes boundary */
Xlong m_screen[8*1024+32];  /* My screen memory
X                      32K bytes + 256 Bytes guard for alignement
X                      In the worst case when we align we have to
X                      go 255 bytes from &m_screen[0], hence the
X                      256 Byte guard is required */
X
X
X    /* Types */
X/* The structure returned by Iorec(), really ptr to this type */
Xtypedef struct {
X    char *ibuf;
X    int ibufsiz;
X    int ibufhd;
X    int ibuftl;
X    int ibuflow;
X    int ibufhi;
X} IOREC;
X
X/* The type word */
Xtypedef short word;
X
X
```

```
X    /* Globals belonging to this module only */
XIOREC save,  /* the original Iorec is saved here for the duration of this
X           process */
X    *p;  /* ptr returned by Iorec() */
X
Xchar iobuf[IBUFSIZ]; /* My large Rs232 receive buffer */
X
Xword    rs232 = 1,         /* Ports */
X       console = 2;
Xword    speed,               /* rs232 setup parameters */
X    flowctl = 1,
X    ucr = -1,
X    rsr = -1,
X    tsr = -1,
X    scr = -1;
X
X/*
X * SetIoBuf() - Save the systems Rs232 buffer and install my large
X * Rs232 buffer.
X *
X */
Xvoid SetIoBuf()
X{
X    /* Get pointer to Rs232 input record */
X    p = Iorec(0);
X
X    /* Save the info */
X    save.ibuf= p->ibuf;
X    save.ibufsiz  = p->ibufsiz;
X    save.ibufhd   = p->ibufhd;
X    save.ibuftl   = p->ibuftl;
X    save.ibuflow  = p->ibuflow;
X    save.ibufhi   = p->ibufhi;
X
X    /* Install my buffer in its place */
X    p->ibuf       = &iobuf[0];
X    p->ibufsiz    = IBUFSIZ;
X    p->ibuflow    = IBUFSIZ/4;
X    p->ibufhi= IBUFSIZ / 4 * 3;
X    p->ibufhd = p->ibuftl = 0;
X
X}
X
X/*
X * ResetIoBuf() - Reset the Rs232 buffer to the saved (system's) buffer
X *
X */
Xvoid ResetIoBuf()
X{
X    p->ibuf       = save.ibuf;
X    p->ibufsiz    = save.ibufsiz;
X    p->ibuflow    = save.ibuflow;
X    p->ibufhi= save.ibufhi;
```

```
X    p->ibufhd = save.ibufhd;
X    p->ibuftl = save.ibuftl;
X}
X
X/* the following code is stolen from Tsu Wang - with permission of course */
X
X/*
X * setRs232() - set rs232 port configuration
X */
Xvoid setRs232 ()
X{
X    char ch;
X    long conin;
X
X    Cconws("Baud rate: ");
X    EscSeq(p);
X    Cconws("0=19200 1=9600, 2=4800, 3=2400, 4=1200, 5=300\r\n");
X    EscSeq(q);
X    Cconout('\t');
X    EscSeq(p);
X    Cconws("What speed==>");
X    EscSeq(q);
X
X    conin = Bconin(console);    /* get speed */
X    if (conin == 0x610000)
X    {
X         /* He hit <UNDO> */
X         if(capture)
X         {
X              Cconws("Closing Capture File\r\n");
X              c_capture();
X         }
X         his_screen();
X         ResetIoBuf();
X         Pterm0();
X
X    }
X    ch = (char) (conin & 0x7f);
X    Cconout(' ');
X    switch (ch)
X    {
X        case '0':      /* 19200 */
X         speed = 0;
X         Cconws("19200");
X         break;
X
X        case '1':
X         speed = 1;    /* 9600 */
X         Cconws("9600");
X         break;
X
X        case '2':
X         speed = 2;    /* 4800 */
```

```
X         Cconws("4800");
X         break;
X
X        case '3':
X         speed = 4;    /* 2400 */
X         Cconws("2400");
X         break;
X
X        case '4':
X         speed = 7;    /* 1200 */
X         Cconws("1200");
X         break;
X
X        case '5':
X         speed = 9;    /* 300 */
X         Cconws("300");
X         break;
X
X        default:
X         speed = 7;    /* 1200 */
X         Cconws("1200");
X    }
X    Cconws(" Baud\r\n");
X
X    /* Set new Baud rate */
X    Rsconf(speed, flowctl, ucr, rsr, tsr, scr);
X
X    /* get rid of extraneous characters that get sent out */
X    Bconout(rs232,(word)'\b');
X
X}
X
X/*
X * help() - display help info and menu
X */
Xvoid help ()
X{
X    word c;
X    long conin;
X    char *r_filename();
X
X    EscSeq(j);         /* Save Cursor */
X    my_screen();       /* Switch to my screen memory */
X    EscSeq(v);         /* wrap at end of line */
X    EscSeq(E);         /* clear screen */
X
X    /* Put up menu */
X    Cconws("\r\n\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("Undo");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to exit.\r\n");
X
```

```
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("Help");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" for this message.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("C or c");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to toggle Capture.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("S or s");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to Send a file using Xmodem.\r\n");
X
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("R or r");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to Receive a file using Xmodem.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("Return");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to do nothing.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("B or b");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to set baud rate.     Default is ");
X    EscSeq(p);
X    Cconws("1200 Baud.\r\n\r\n");
X    EscSeq(q);
X
X    /* get response */
X    conin = Bconin(console);
X
X    if (conin == 0x610000)
X    {
X         /* He hit <UNDO> */
X         if(capture)
X         {
X              Cconws("Closing Capture File\r\n");
X              c_capture();
X         }
X         his_screen();
X         ResetIoBuf();
```

```
X         Pterm0();
X    }
X
X    switch((int)(conin & 0x7f))
X    {
X        case 'B':
X        case 'b':
X         /* Set baud rate */
X         setRs232();
X         break;
X
X        case 'C':
X        case 'c':
X         /* Toggle Capture */
X         if(capture)
X             c_capture();
X         else
X             s_capture();
X         break;
X
X        case 'S':
X        case 's':
X        {
X             /* Send a file using Xmodem */
X             register char *f;
X             if(capture)
X             {
X                  /* We are capturing */
X                  Cconws("Closing Capture File\r\n");
X                  c_capture();
X             }
X
X             if((f = r_filename()) == (char *)NULL)
X             {
X                  /* user cancelled transfer */
X                  canit();
X                  flushinput();
X                  break;
X             }
X
X             /* Set no flow Control */
X             Rsconf(-1,0,-1,-1,-1,-1);
X
X             /* Send file */
X             if(sendfile(f) == FALSE)
X              Cconws("\r\nTransfer not Completed\r\n");
X             else
X              Cconws("\r\nTransfer Complete\r\n");
X
X             /* Flow Control On */
X             Rsconf(-1,1,-1,-1,-1,-1);
X             Bconout(rs232,(word)'\b');
X        }
```

```
X         break;
X
X        case 'r':
X        case 'R':
X        {
X             /* receive using Xmodem */
X             register char *f;
X             if(capture)
X             {
X                  /* We are capturing */
X                  Cconws("Closing Capture File\r\n");
X                  c_capture();
X             }
X
X             if((f = r_filename()) == (char *)NULL)
X             {
X                  /* user cancelled transfer */
X                  canit();
X                  flushinput();
X                  break;
X             }
X
X
X             /* No flow control */
X             Rsconf(-1,0,-1,-1,-1,-1);
X
X             /* receive file */
X             if(readfile(f) == FALSE)
X              Cconws("\r\nTransfer not Completed\r\n");
X             else
X              Cconws("\r\nTransfer Complete\r\n");
X
X             /* flow control on */
X             Rsconf(-1,1,-1,-1,-1,-1);
X             Bconout(rs232,(word)'\b');
X        }
X         break;
X
X        default:
X         Cconws("No Change\r\n");
X    }
X
X    /* Wait for a key hit */
X    hit_key();
X    /* back to terminal screen */
X    his_screen();
X}
X
Xmain ()
X{
X    word c;        /* rs232 input */
X    long conin;
X    int  i;
```

```
X
X    ms_ptr = (long *) ((0xffffff00 & ((long)(&m_screen[0]))) + 0x00000100);
X    EscSeq(v);         /* wrap at end of line */
X    EscSeq(E);         /* clear screen */
X    SetIoBuf();
X
X    Rsconf((word) 7, flowctl, ucr, rsr, tsr, scr);  /* init set */
X    Bconout(rs232,(word)'\b');
X
X    help();
X
X    while (0 == 0)     /* infinite loop */
X    {
X         i = 0;
X         while (Bconstat(rs232) == 0xffff)
X         {
X              /* Char at Modem */
X              c = Bconin(rs232) & 0x7f;
X              Bconout(console, c);
X              if(capture)
X                  /* We are capturing */
X                  a_capture(c);
X
X              /* Check the console once in a while */
X              /* important at High speeds */
X              if ((++i) & 32)
X                  if (Bconstat(console) == 0xffff)
X                       {
X                       conin = Bconin(console);
X                       Bconout(rs232, (word) (conin & 0x7f));
X                       i = 0;
X                  }
X         }
X
X         if (Bconstat(console) == 0xffff)
X         {
X              /* Char at Console */
X              conin = Bconin(console);
X              if (conin == 0x610000)      /* Undo */
X              {
X                   if(capture)
X                   {
X                        Cconws("Closing Capture File\r\n");
X                        c_capture();
X                   }
X                   ResetIoBuf();
X                   Pterm0();
X              }
X
X              if (conin == 0x620000)      /* Help */
X                  help();
X              else
X                  Bconout(rs232, (word) (conin & 0x7f));
```

```
X         }
X    }
X}
SHAR_EOF
if test 7955 -ne "`wc -c 'main.c'`"
then
     echo shar: error transmitting "'main.c'" '(should have been 7955 characters)'
fi
echo shar: extracting "'util.c'" '(1633 characters)'
if test -f 'util.c'
then
     echo shar: over-writing existing file "'util.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'util.c'
X/*
X * Utilities Module
X *
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define Vsync()   xbios(37)/* Atari forgot this one in osbind.h */
X
X    /* External Variables */
Xextern char filename[];    /* Pointer to filename buffer
     */
Xextern long *ms_ptr;  /* pointer to my screen memory aligned to a 256
X                byte boundary */
X
X    /* Globals */
Xstatic char *hs_ptr;   /* pointer to his screen memory */
X
X/*
X * my_screen() - Start using my screen memory
X * for all output.
X *
X */
Xvoid my_screen()
X{
X    /* The cursor position has been saved prior to calling this routine */
X    /* save his screen memory pointer */
X    hs_ptr = Logbase();
X
X    /* switch to my display memory */
X    Setscreen(ms_ptr, ms_ptr, -1);
X}
X
X
Xvoid his_screen()
X{
```

```
X    /* switch to his Screen memory, wait for a Vblank, so
X     * that the Logical Loc == Physical Loc, then pop saved
X     * cursor */
X    Setscreen(hs_ptr, hs_ptr, -1);
X    Vsync();
X    Vsync(); /* starts happening at the last one */
X    EscSeq(k);
X}
X
X/*
X * r_filename() - Read a file name from the console
X * giving the user a chance to cancel by hitting <RETURN>
X *
X */
Xchar *r_filename()
X{
X    Cconws("Filename (<RETURN> to cancel): ");
X    filename[0] = FILEMAX;
X    Cconrs(filename);
X    Cconws("\r\n");
X    if(filename[1] == 0)
X    {
X         /* User Cancelled */
X         Cconws("Cancelled\r\n");
X         return((char *)NULL);
X    }
X    /* Terminate string that starts at filename[2] */
X    filename[filename[1]+2] = '\0';
X    return(&filename[2]);
X}
X
X
X/*
X * hit_key() - wait for the user to hit a key
X *
X */
Xvoid hit_key()
X{
X    Cconws("\r\n");
X    EscSeq(p);
X    Cconws("Hit Any Key To Continue .....");
X    EscSeq(q);
X    Cnecin();
X    Cconws("\r\n");
X}
SHAR_EOF
if test 1633 -ne "`wc -c 'util.c'`"
then
     echo shar: error transmitting "'util.c'" '(should have been 1633 characters)'
fi
echo shar: extracting "'xmodem.c'" '(14676 characters)'
if test -f 'xmodem.c'
then
```

```
     echo shar: over-writing existing file "'xmodem.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'xmodem.c'
X/*
X * Xmodem Send / Receive Module
X * adapted from generic Xmodem send/receive code
X * posted to SIG*ATARI on CompuServe
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include <setjmp.h>
X#include "xmdm.h"
X
X    /* Xmodem specific defines */
X#define DOTS      50   /* SECTOR COUNTING DOTS PER LINE */
X#define  SECSIZ        0x80 /* Size of a xmodem sector/block */
X#define  ERRORMAX  20   /* MAX ERRORS BEFORE ABORT very conservative */
X#define  RETRYMAX  15   /* MAXIMUM RETRYS BEFORE ABORT */
X#define  SOH       1    /* START OF SECTOR CHAR */
X#define  EOT       4    /* end of transmission char */
X#define  ACK       6    /* acknowledge sector transmission */
X#define  NAK       21   /* error in transmission detected */
X#define CAN       ('X'&037) /* Cancel transmission   */
X
X#define sendchar(X)    Cauxout(X) /* Send a character to serial port */
X#define Supexec(X) xbios(38,X)
X
X    /* External Variables */
Xextern char bufr[ ];  /* file buffer */
X
X    /* Global Variables */
Xstatic int mtimeout,            /* Time out period */
X       mdm_sp,     /* #packets sent */
X       mdm_rp,     /* #packets received */
X       mdm_bad_packets,      /* #bad packets      */
X       mdm_naked_packets;    /* #naked packets    */
X
Xlong mdm_bytes_xferred,   /* #packets sent/received       */
X     alrm_time = 0L,     /* Time of next timeout (200 Hz) */
X     pr_time   = 0L,     /* Present time    (200 Hz) */
X     *hz_200 = (long *)0x000004ba; /* Yes the Hitch Hikers Guide is wrong!! */
X
Xjmp_buf abort_env,           /* Long jump when transfers are aborted */
X        time_env;       /* Long jump on timeout          */
X
X#ifdef DEBUG
Xstatic int    debug = 1;
X#endif
X
X
X
```

```
X
X/*
X * rd_time() - read the value of the systems 200 Hz counter
X * must be called in Super Mode else you get
X * what you deserve - MUSHROOMS!!
X */
Xvoid rd_time()
X{
X    pr_time = *hz_200;
X}
X
X
X/*
X * read_modem() - read a character from the modem port
X * Check for user abort (^C) and timeout at the same time
X */
Xint read_modem()
X{
X    while(1)
X    {
X         if(Cconis())
X         {
X              /* Character Hit at the Keyboard - is it ^C */
X              if((Crawcin() & 0x7f) == CTRL('C'))
X                  /* It is a Control-C */
X                  longjmp(abort_env,-1);
X         }
X
X         if(Cauxis())
X             /* Character available at Modem Port */
X             return(Cauxin());
X
X         /* Check for time out if required */
X         if(alrm_time != 0)
X         {
X              /* Alarm Set */
X              Supexec(rd_time);
X              if(pr_time >= alrm_time)
X                  /* timeout */
X                  longjmp(time_env, -1);
X         }
X    }
X}
X
X/*
X * mdmini() - initialize variables for a Xmodem Transfer
X *
X */
Xvoid mdmini()
X{
X    mtimeout = 20;
X    mdm_bytes_xferred = 0L;
X    mdm_sp = 0;
```

```
X    mdm_rp = 0;
X    mdm_bad_packets = 0;
X    mdm_naked_packets = 0;
X}
X
X
X/*
X * readfile() - Xmodem Receive
X * We use extremely conservative timeout/retry parameters
X * to deal with lazy dogs like CompuServe. The program
X * could be enhanced to be adaptive by increasing the
X * timeout as and when timeouts occur, dynamically.
X */
Xint readfile(file)
Xchar *file;
X{
X    int firstchar,     /* First character of the packet
     */
X    sectnum,  /* The currently expected sector #        */
X    sectcurr, /* The received sector #             */
X    sectcomp, /* The 1's complements of sectcurr        */
X    fd,       /* File descriptor for opened file        */
X    errors,   /* The number of errors encountered in this transfer
     */
X    errorflag;    /* Just a flag                        */
X
X    unsigned int
X        checksum, /* Computed Checksum (of the received data)
     */
X        j,        /* Counter                       */
X        bufptr;   /* Buffer index                       */
X
X
X    /* Initialize myself */
X    mdmini ();
X
X    /* Create/Open file for write - overwrite if it exists */
X    if ((fd = Fcreate(file,0)) < 0) /* Will fail is file present */
X    {
X         /* Overwrite existing file */
X         if((fd = Fopen(file,1)) < 0)
X         {
X              /* CAN the transfer if we cannot open file */
X              Cconws("Cannot Open ");
X              Cconws(file);
X              Cconws("\r\n");
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X    }
X    else
X    {
```

```
X         /* We are ready now */
X         Cconws("Receiving ");
X         Cconws(file);
X         Cconws(" ( CTRL-C to Abort )\r\n");
X    }
X    sectnum = errors = bufptr = 0;
X
X    r_again:
X    flushinput();
X
X    /* Send NAK to let sender know that we are ready */
X    sendchar(NAK);
X
X    if (setjmp(time_env))
X    {
X         /* On a Timeout */
X         if(++errors < ERRORMAX)
X         {
X              Cconout('T');
X              goto r_again; /* Sorry about that !! */
X         }
X         Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    if (setjmp(abort_env))
X    {
X         /* User initiated Abort - (CTRL-C) */
X         Cconws("\r\nUser Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    firstchar = 0;
X    while (firstchar != EOT && errors != ERRORMAX)
X    {
X         errorflag = FALSE;
X         alarm (mtimeout);           /* set timeout trap */
X         do                     /* get sync char */
X         {
X              firstchar = read_modem();
X#ifdef DEBUG
X              if (debug)
X              {
X                   Cconws("Got char ");
X                   printi( firstchar);
```

```
X                  Cconws("\r\n");
X              }
X#endif
X         } while (firstchar != SOH && firstchar != EOT && firstchar != CAN);
X
X         if( firstchar == CAN)
X         {
X              /* Sender Cancelled */
X              Cconws("Transfer Cancelled By Sender\r\n");
X              Fclose(fd);
X              flushinput();
X              alarm(0);
X              return(FALSE);
X         }
X
X         if (firstchar == SOH)
X         {
X              /* Ok, got Start of a new packet, pick up the sector # and ~# */
X              sectcurr = read_modem();
X              sectcomp = read_modem();
X
X              if (((sectcurr - 1) % DOTS) == 0)
X              {
X                   /* Let us know about it - newline every DOTS dots */
X                   Cconws("\r\n.");
X#ifdef DEBUG
X                   if(debug)
X                       printi(sectcurr);
X#endif
X              }
X              else
X                  Cconout('.');
X
X#ifdef DEBUG
X              /*   if (debug)
X                   {
X                   Cconws("Sector ");
X                   printi( sectcurr);
X                   Cconout(' ');
X                   printi( sectcomp);
X                   Cconws("\r\n");
X                   }
X                   */
X#endif
X              if ((sectcurr + sectcomp) == 255)
X              {
X                   /* Valid sector # */
X                   if (sectcurr == (sectnum + 1 & 0xff))
X                   {
X                        /* And sector in expected sequence */
X                        checksum = 0;
X                        for (j = bufptr;j < (bufptr + SECSIZ);j++)
X                        {
```

```
X                         /* Pick up data */
X                         bufr[j] = read_modem();
X                         /* Computing checksum as we go along */
X                         checksum = (checksum + bufr[j]) & 0xff;
X                    }
X                    if (checksum == read_modem())
X                    {
X                         /* Computed Checksum matches received checksum */
X                         mdm_rp++;
X
X                         errors = 0;
X                         sectnum++;
X                         bufptr += SECSIZ;
X                         mdm_bytes_xferred += SECSIZ;
X                         if (bufptr == BUFSIZ)
X                         {
X                              /* Buffer Full - flush it out to file */
X                              bufptr = 0;
X                              if (Fwrite(fd,(long)BUFSIZ,bufr) < 0)
X                              {
X                                   Cconws("\r\nError writing file - Aborting
Transfer\r\n");
X                                   Fclose(fd);
X                                   alarm(0);
X                                   canit();
X                                   flushinput();
X                                   return(FALSE);
X                              };
X                         };
X                         flushinput ();
X                         /* Every thing ok - send the ACK */
X                         sendchar(ACK);
X                    }
X                    else
X                    {
X                         /* Received Checksum doe not match computed checksum
*/
X                         mdm_bad_packets++;
X
X                         errorflag = TRUE;
X#ifdef DEBUG
X                         if (debug)
X                         {
X                              Cconout('C');
X                         };
X#endif
X                    }
X               }
X               else
X               {
X                    /* Sector received is not the expected one */
X                    /* Could be a duplicate sector, or just a curropted sector
*/
```

```
X                       if (sectcurr == (sectnum & 0xff))
X                       {
X                            /* Duplicate sector - just ignore it and ACK */
X                            Cconout('D');
X                            flushinput();
X                            sendchar(ACK);
X                       }
X                       else
X                       {
X                            /* Garbage */
X#ifdef DEBUG
X                            if (debug)
X                            {
X                                 Cconws("synch error\r\n");
X                            }
X#endif
X
X                            mdm_bad_packets++;
X
X                            errorflag = TRUE;
X                       }
X                  }
X             }
X             else
X             {
X#ifdef DEBUG
X                  if (debug)
X                  {
X                       Cconws("sector number error\r\n");
X                  }
X#endif
X                  mdm_bad_packets++;
X
X                  errorflag = TRUE;
X             }
X        }
X        if (errorflag == TRUE)
X        {
X             /* NAK it if errorflag is set */
X             errors++;
X             flushinput();
X             sendchar(NAK);
X        }
X
X    };   /* end while  Not EOT and errors < ERRORMAX */
X
X
X    if ((firstchar == EOT) && (errors < ERRORMAX))
X    {
X         /* Last packet */
X         sendchar(ACK);
X         if(Fwrite(fd,(long)bufptr,bufr) != bufptr)
X         {
```

```
X             Cconws("\r\nError writing file\r\n");
X             Fclose(fd);
X             alarm(0);
X             return(FALSE);
X         }
X         Fclose(fd);
X         alarm(0);
X         return(TRUE);
X    }
X    alarm(0);
X    return(FALSE);
X}
X
X/*
X * sendfile() - Xmodem Send
X * See comments for readfile() concerning timeouts/retries.
X *
X */
Xint sendfile(file)
Xchar *file;
X{
X    int sectnum,  /* Current sector number */
X    sectors, /* #of sectors sent      */
X    attempts,/* #of attempts to send  */
X    fd;      /* File descriptor  */
X
X    unsigned int
X        checksum, /* Computed checksum    */
X    j,       /* all purpose counter  */
X    bufptr;       /* Ptr to file buffer   */
X
X    char
X        c;        /* General Character var */
X
X    /* init. myself */
X    mdmini ();
X
X    /* Open file for read */
X    if ((fd = Fopen(file, 0)) < 0)
X    {
X         /* CAN tranfer if we can't open */
X         Cconws("cannot open ");
X         Cconws(file);
X         Cconws("\r\n");
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X    else
X    {
X         Cconws("Sending ");
X         Cconws(file);
X         Cconws(" ( CTRL-C to Abort )\r\n");
```

```
X    }
X
X    /* All set to go */
X    attempts = 0;
X    sectnum = 1;
X    j = 0;
X
X
X    if (setjmp(abort_env))
X    {
X         /* On user initiated abort (CTRL-C) */
X         Cconws("\r\nUser Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    attempts = 0;
X
X    do {
X        s_again:
X
X         if (setjmp(time_env))
X         {
X              /* On Time Out */
X              if(attempts < (2*ERRORMAX))
X              {
X                   Cconout('T');
X                   flushinput();
X                   goto s_again; /* Sorry about that !! */
X              }
X              Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X              Fclose(fd);
X              alarm(0);
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X
X         /* Wait for First char from receiver */
X         alarm(mtimeout);
X         c = read_modem();
X
X#ifdef DEBUG
X         if (debug)
X         {
X              Cconws("Ate char ");
X              printi( c);
X              Cconws("\r\n");
X         }
X#endif
```

```
X         /* Eat everything but a NAK or CAN */
X    } while ((c != NAK) && (c != CAN) && (j++ < (ERRORMAX*2)));
X
X    if( c == CAN)
X    {
X         /* receiver cancelled */
X         Cconws("Transfer Cancelled By Receiver\r\n");
X         Fclose(fd);
X         flushinput();
X         alarm(0);
X         return(FALSE);
X    }
X
X    if (j >= (ERRORMAX*2))
X    {
X         /* Too many errors */
X         Cconws("\r\nReceiver not sending NAKs - Aborting\r\n");
X         canit();
X         flushinput();
X         alarm(0);
X         return(FALSE);
X    }
X
X#ifdef DEBUG
X    if (debug)
X        Cconws ("Got ACK\r\n");
X#endif
X
X    flushinput (); /* Get rid of any junk on the line */
X    alarm(mtimeout);
X
X    while ((sectors = Fread(fd,(long)BUFSIZ,bufr))
X           && (attempts != RETRYMAX))
X    {
X         if (sectors < 0)
X         {
X              /* Unable to read the file */
X              Cconws("\r\nError reading file - Aborting Transfer\r\n");
X              Fclose(fd);
X              alarm(0);
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X
X         bufptr = 0;
X         do
X         {
X              attempts = 0;
X              do
X              {
X                  s_ag2:
X                   alarm(mtimeout);
```

```
X                   if (setjmp(time_env))
X                   {
X                        /* on time out */
X                        if(attempts < (2*ERRORMAX))
X                        {
X                             Cconout('T');
X                             flushinput();
X                             goto s_ag2;   /* Sorry about that !! */
X                        }
X                        Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X                        Fclose(fd);
X                        alarm(0);
X                        canit();
X                        flushinput();
X                        return(FALSE);
X                   }
X
X                   if (((sectnum) % DOTS) == 0)
X                   {
X                        Cconws("\r\n");
X#ifdef DEBUG
X                        if(debug)
X                            printi(sectnum);
X#endif
X                        Cconout('.');
X                   }
X                   else
X                       Cconout('.');
X
X                   /* Send a packet */
X                   sendchar(SOH);
X                   sendchar(sectnum);
X                   sendchar(~sectnum);
X                   checksum = 0;
X                   write_modem(&bufr[bufptr],SECSIZ);
X                   for (j = bufptr; j < (bufptr+SECSIZ); j++)
X                       checksum += bufr[j];
X                   sendchar(checksum);
X                   flushinput();
X                   mdm_sp++;
X
X                   attempts++;
X                   /* Did it get sent over ? */
X                   c = read_modem();
X
X                   if (c != ACK)
X                       /* Oh no */
X                       mdm_naked_packets++;
X#ifdef DEBUG
X                   if (debug)
X                   {
X                        Cconws ("Response char is ");
X                        printi( c);
```

```
X                       Cconws("\r\n");
X                  }
X#endif
X                  if( c == CAN )
X                  {
X                       /* Receiver cancelled - so i'll abort */
X                       Cconws("Transfer Cancelled By Receiver\r\n");
X                       Fclose(fd);
X                       flushinput();
X                       alarm(0);
X                       return(FALSE);
X                  }
X
X             } while ((c != ACK) && (attempts != RETRYMAX));
X             /* Packet got sent and I received an Ack, or
X                too many attempts */
X             bufptr += SECSIZ;
X             mdm_bytes_xferred += SECSIZ;
X             sectnum++;
X        } while ((bufptr < sectors) && (attempts != RETRYMAX));
X   };
X
X   Fclose(fd);
X   if (attempts == RETRYMAX)
X   {
X        /* Too many attempts */
X        Cconws("\r\nNo acknowledgment of sector, aborting\r\n");
X        alarm(0);
X        canit();
X        flushinput();
X        return(FALSE);
X   }
X   else
X   {
X        /* All sectors that needed to be sent are done,
X           Now send the EOT to complete transfer,
X           The EOT may or may not get ACK'ed, warn
X           the user if it does'nt */
X        attempts = 0;
X        do
X        {
X            s_ag3:
X             alarm(mtimeout);
X             if (setjmp(time_env))
X             {
X                  if(attempts < (2*ERRORMAX))
X                  {
X                       Cconout('T');
X                       flushinput();
X                       goto s_ag3;   /* Sorry about that !! */
X                  }
X             }
X
```

```
X             sendchar(EOT);
X             attempts++;
X         } while ((read_modem() != ACK) && (attempts != RETRYMAX));
X         if (attempts == RETRYMAX)
X             Cconws("\r\nNo acknowledgment of end of file - Hopefully the file
made it\r\n");
X    };
X    alarm(0);
X    return(TRUE);
X}
X
X/*
X * alarm() - set the alarm time
X */
Xvoid alarm(n)
Xunsigned int n;
X{
X    if(n != 0)
X    {
X         Supexec(rd_time);
X         /* We really need n * 200 but n * 256 if close enough */
X         alrm_time = pr_time + ( n << 8 );
X    }
X    else
X        alrm_time = 0L;
X}
X
X/*
X * canit() - Cancel the transfer
X */
X
Xcanit()
X{
X    register int i;
X
X    /* Send 5 CAN's */
X    for(i = 0; i < 5; i++)
X        sendchar(CAN);
X
X    /* Get rid of 4 of them, some receivers expect at least 2
X       CANs to confirm that the first CAN was not a corrupted
X       ACK, but eat only one (Ymodem for instance). */
X
X    for(i = 0; i < 4; i++)
X        sendchar('\b');
X}
X
X/*
X * write_modem() - send buffer to the modem port
X *
X*/
Xvoid write_modem(buf,len)
Xregister char *buf;
```

```
Xregister int len;
X{
X    register int i;
X    for(i = 0; i < len; i++)
X        Cauxout(*buf++);
X}
X
X
X/*
X * flushinput() - flush any characters in the modem port
X * a future enhancement may be flush any characters that are in there
X * and any that come in over the next 1 second -- Ymodem does that
X *
X */
Xvoid flushinput()
X{
X    while(Cauxis())
X        Cauxin();
X}
X
X#ifdef DEBUG
X/*
X * Print an integer (16 bits) to the console
X *
X */
Xvoid printi(val)
Xregister int val;
X{
X        register int j;
X        register int div_idx;
X        register int first;
X
X        static int divisors[] = { 10000, 1000, 100, 10, 1 };
X
X
X    /* Special Cases */
X        if (val == 0)
X    {
X         Cconout('0');
X    }
X        else if (val == -32768)
X    {
X                Cconws("-32768");
X
X    }
X
X    /* Get digit for each power of 10 and print them, skip leading 0's */
X        first = div_idx  = 0;
X
X        if (val < 0)
X    {
X                Cconout('-');
X                val = -val;
```

```
X    }
X
X        while( div_idx < 5 )
X    {
X                if(((j = val / divisors[div_idx]) != 0) || first != 0)
X        {
X                        Cconout(j + '0');
X                        first = 1;
X        }
X                val %= divisors[div_idx++];
X    }
X
X}
X#endif
SHAR_EOF
if test 14676 -ne "`wc -c 'xmodem.c'`"
then
     echo shar: error transmitting "'xmodem.c'" '(should have been 14676
characters)'
fi
echo shar: extracting "'xmdm.h'" '(494 characters)'
if test -f 'xmdm.h'
then
     echo shar: over-writing existing file "'xmdm.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'xmdm.h'
X    /* Common defines */
X#define NULL      (0L)
X#define void           int  /* Alcyon forgot about voids */
X#define  FALSE         0
X#define TRUE           1
X
X#define EscSeq(x) Cconout('\033'); Cconout('x') /* Send Esc. Seq. to
X                                  console */
X#define CTRL(X)        (X & 037) /* CTRL-anything */
X#define IBUFSIZ        16*1024   /* Size of my Rs232 receive buffer */
X#define  BUFSIZ        0x4000    /* Size of file buffer
      */
X                  /* MUST BE a multiple of SECSIZE (128)  */
X#define FILEMAX   32   /* Max length of file name (must be <=127 ) */
SHAR_EOF
if test 494 -ne "`wc -c 'xmdm.h'`"
then
     echo shar: error transmitting "'xmdm.h'" '(should have been 494 characters)'
fi
echo shar: extracting "'xmdm.doc'" '(4175 characters)'
if test -f 'xmdm.doc'
then
     echo shar: over-writing existing file "'xmdm.doc'"
fi
sed 's/^X//' << \SHAR_EOF > 'xmdm.doc'
XThis the first version of xmdm:
X
```

X   Features:
X   - Keeps up with high speed serial lines
X   (tested upto 19.2K Baud lines)
X
X   - Does'nt send ANY Xon/Xoff's in the terminal
X   emulation mode to the host. This is important
X   to us as we are all Emacs fans.
X
X   - Supports all baud rates.
X
X   - Ascii file capture.
X
X   - Xmodem Send/Receive.
X
X   - Uses large Rs232 receive buffer.
X
X   - Uses large file buffers. Will not beat your disk
X   drive to death like STTALK.
X
X   - Uses 2 screens. All local functions (prompts etc) are done
X   on a on one screen, and all host communication
X   appears and the other screen.
X
X   - Uses very conservative timeouts/retries figures.
X   Good for dealing with dogs like CompuServe.
X   If you have a very responsive host, then it does'nt
X   matter anyways.
X
X   - PD, share it with your friends. Only thing we ask for is
X   your comments, bug reports (& fixes). Of course we
X   are not in anyway responsible for any brain damage
X   it may cause.
X
X   Known Bugs:
X   - Send spurious characters when it changes Rs232
X   parameters (Baud rate, Flow Control). Normally this
X   does not cause a problem, just hit a return when you
X   get back to your host.
X
X   - When switching screens, it always homes the cursor.
X   (We would appreciate if anyone could tell us how to
X   fix this. What we are doing in the Code (routines
X   his_screen & my_screen) is pushing the cursor,
X   changing screens, doing local functions, changing
X   back to the old screen, and doing a pop cursor. The
X   HH guide says that the vt52 emulator is only reset
X   when you change rez.) This does cause inconvenience.
X
X   - Has not been extensively debugged!
X
X   - Sketchy documentation.
X
X   So why are we posting it?

```
X    To get your feedback on the general scheme of things (interface
Xetc.) and suggestions to fix the above bugs.
X
X    Coming Up:
X         - Kermit transfers, and remote server support.
X
X         - Key Macros and binding of keys to functions.
X
X         - Dialing Directory.
X
X         - dir, space, remove, rename, cd, change drive
X           functions.
X
X         - Code needs cleaning up.
X
X    Not coming up:
X         - Ascii file transmit. We do not see a need for this.
X
XTo compile and link:
X    Compile each .c to get  .o's
X
X    link68 [u] xmdm.68k=[gems|gemstart], <all the .o's>,osbind.o,gemlib
X    relmod xmdm
X
XIf you use gemstart, then the stack+heap size must be appropriately
Xmodified. I use 16K.
X
X    get rid of xmdm.68k
X    rename xmdm.prg to xmdm.tos to use from the desktop.
X
XUSAGE:
X    Double click on xmdm.tos and follow the first prompt that
Xcomes up. Hit the <help> key at any time to get back at this menu.
X
XCapturing files:
X    Hit the <help> key, then choose the function 'c' for capture
Xtoggle. Give it a file name when it asks for one.
X    All host data will be captured from now onwards.
X    To end capture, hit <help> and choose the function 'c' again.
XThis will terminate the capture and close the file. Capture is also
Xterminate automatically when you choose any of the Xmodem functions,
Xon file errors, or when you exit the program.
X
XXmodem send:
X    Prepare your host to receive a file using xmodem. Hit the
X<help> key. Choose the 's' function, for xmodem send, and give it a
Xfile name. If you want to terminate at this point, hit return instead
Xof entering a file name. After the transfer has begun, you may
Xterminate the transfer at any time by hitting CTRL-C.
X
XXmodem receive:
X    Prepare your host to send a file using xmodem. Hit the
X<help> key. Choose the 'r' function, for xmodem receive, and give it a
```

```
Xfile name. If you want to terminate at this point, hit return instead
Xof entering a file name. After the transfer has begun, you may
Xterminate the transfer at any time by hitting CTRL-C.
X
XExiting xmdm:
X    The program may be exited at any time by hitting the <undo>
Xkey, except in the middle of Xmodem transfers.
X
XChanging baud rates:
X    Hit <help> then choose the 'b' function and make a selection.
X
X    Currently only the baud rate can be changed by the user. The
Xother Rs232 port parameters cannot be changed.
X
XPlease send you comments / bug reports and fixes to:
X
X             Jwahar R. Bammi
X               Usenet:  .....!decvax!cwruecmp!bammi
X                CSnet:  bammi@case
X              Arpa:  bammi%case@csnet-relay
X           CompuServe:  71515,155
SHAR_EOF
if test 4175 -ne "`wc -c 'xmdm.doc'`"
then
     echo shar: error transmitting "'xmdm.doc'" '(should have been 4175
characters)'
fi
#    End of shell archive
exit 0


From -7728207418169690013
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c0af5417544f4de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 08:17:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: XMODEM request
Message-ID: <8606251517.AA19070@trwrb.UUCP>
Date: Wed, 25-Jun-86 11:17:32 EDT
Article-I.D.: trwrb.8606251517.AA19070
Posted: Wed Jun 25 11:17:32 1986
Date-Received: Sat, 28-Jun-86 03:09:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1607

This program, which features XMODEM protocol and ASCII text capture,
was posted some time ago.  Also, I have a modified version which features
```

function key support. Let me know if you would like that copy as well.
Original credit should go to:

              Jwahar R. Bammi
            Usenet: .....!decvax!cwruecmp!bammi
             CSnet: bammi@case
           Arpa: bammi%case@csnet-relay
        CompuServe: 71515,155

Enjoy!

Richard E. Sansom
TRW Electronics & Defense Sectore
{...decvax,ucbvax,ihnp4}!trwrb!sansom


```
-- cut here -- cut here -- cut here -- cut here -- cut here -- cut here --
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    capture.c
#    main.c
#    util.c
#    xmodem.c
#    xmdm.h
#    xmdm.doc
# This archive created: Fri Jan 17 04:10:16 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'capture.c'" '(2141 characters)'
if test -f 'capture.c'
then
     echo shar: over-writing existing file "'capture.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'capture.c'
X/*
X * Ascii File Capture / Dump Module
X *
X *  ST users @ Case Western Reserve University
X * Dump is not implemented.
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define sendchar(X)   Cauxout(X) /* Send a character to serial port */
X
X    /* extern variables */
Xextern char bufr[];        /* file buffer */
Xextern unsigned int buf_index;  /* index to file buffer */
Xextern char capture;       /* Capture flag */
X
```

```
X    /* Global Variables */
Xstatic int fd;
X
X/*
X * s_capture() - Start Ascii File Capture
X *
X */
Xvoid s_capture()
X{
X    register char *f;
X    char *r_filename();
X
X    sendchar(CTRL('S'));
X
X    /* Get filename */
X    if((f = r_filename()) == (char *)NULL)
X    {
X         /* User Cancelled */
X         Cconws("Capture is Off\r\n");
X         capture = 0;
X         sendchar(CTRL('Q'));
X         return;
X    }
X
X    /* create/open the file */
X    if((fd = Fcreate(f,0)) < 0)
X    {
X         if((fd = Fopen(f,1)) < 0)
X         {
X              /* Did'nt make it */
X              Cconws("Could not open ");
X              Cconws(f);
X              Cconws("\r\nCapture is off\r\n");
X              capture = 0;
X              hit_key();
X              sendchar(CTRL('Q'));
X              return;
X         }
X    }
X
X
X    /* All set to capture */
X    capture = 1;
X    Cconws("Capture is ON\r\n");
X    buf_index = 0;
X    sendchar(CTRL('Q'));
X}
X
X/*
X * c_capture() -  close capture
X *
X */
Xvoid c_capture()
```

```
X{
X    sendchar(CTRL('S'));
X    if(buf_index > 0)
X    {
X         /* Flush stuff in file buffer */
X         if(Fwrite(fd,(long)buf_index,bufr) != buf_index)
X         {
X              Cconws("\r\nWarning - error writing capture file\r\n");
X              hit_key();
X         }
X    }
X
X    /* All done */
X    buf_index = 0;
X    capture = 0;
X    Cconws("\r\nCapture is OFF\r\n");
X    Fclose(fd);
X    sendchar(CTRL('Q'));
X}
X
X
X/*
X * a_capture - Add a char to capture buffer
X *
X */
Xvoid a_capture(c)
Xregister int c;
X{
X    bufr[buf_index++] = c;
X
X    if(buf_index == BUFSIZ)
X    {
X         /* Buffer full dump it to file */
X         sendchar(CTRL('S'));
X         if(Fwrite(fd,(long)buf_index,bufr) != buf_index)
X         {
X              /* Problem Writing file */
X              EscSeq(j);    /* save cursor position */
X              my_screen();  /* switch to my screen memory */
X              Cconws("\r\nWarning - error writing capture file\r\n");
X              Cconws("Capture Forced OFF\r\n");
X              Fclose(fd);
X              hit_key();
X              his_screen(); /* Back to his screen memory */
X              capture = 0;
X         }
X         buf_index = 0;
X         sendchar(CTRL('Q'));
X    }
X}
SHAR_EOF
if test 2141 -ne "`wc -c 'capture.c'`"
then
```

```
     echo shar: error transmitting "'capture.c'" '(should have been 2141
characters)'
fi
echo shar: extracting "'main.c'" '(7955 characters)'
if test -f 'main.c'
then
     echo shar: over-writing existing file "'main.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'main.c'
X/*
X * Main Module
X *
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define esc  27
X#define cr   0x0d
X
X    /* Global variable  definitions, extern everywhere else */
Xchar bufr[ BUFSIZ ];       /* File buffer */
Xchar filename[FILEMAX+3];  /* File name */
Xunsigned int buf_index = 0;     /* Index to file buffer */
Xchar capture = 0;      /* Ascii capture flag   */
Xlong *ms_ptr;              /* Pointer to my screen memory, aligned at
X                     a 256 bytes boundary */
Xlong m_screen[8*1024+32];  /* My screen memory
X                     32K bytes + 256 Bytes guard for alignement
X                     In the worst case when we align we have to
X                     go 255 bytes from &m_screen[0], hence the
X                     256 Byte guard is required */
X
X
X    /* Types */
X/* The structure returned by Iorec(), really ptr to this type */
Xtypedef struct {
X    char *ibuf;
X    int ibufsiz;
X    int ibufhd;
X    int ibuftl;
X    int ibuflow;
X    int ibufhi;
X} IOREC;
X
X/* The type word */
Xtypedef short word;
X
X
X    /* Globals belonging to this module only */
XIOREC save,  /* the original Iorec is saved here for the duration of this
```

```
X           process */
X    *p;  /* ptr returned by Iorec() */
X
Xchar iobuf[IBUFSIZ]; /* My large Rs232 receive buffer */
X
Xword    rs232 = 1,         /* Ports */
X        console = 2;
Xword    speed,               /* rs232 setup parameters */
X    flowctl = 1,
X    ucr = -1,
X    rsr = -1,
X    tsr = -1,
X    scr = -1;
X
X/*
X * SetIoBuf() - Save the systems Rs232 buffer and install my large
X * Rs232 buffer.
X *
X */
Xvoid SetIoBuf()
X{
X    /* Get pointer to Rs232 input record */
X    p = Iorec(0);
X
X    /* Save the info */
X    save.ibuf= p->ibuf;
X    save.ibufsiz  = p->ibufsiz;
X    save.ibufhd   = p->ibufhd;
X    save.ibuftl   = p->ibuftl;
X    save.ibuflow  = p->ibuflow;
X    save.ibufhi   = p->ibufhi;
X
X    /* Install my buffer in its place */
X    p->ibuf       = &iobuf[0];
X    p->ibufsiz    = IBUFSIZ;
X    p->ibuflow    = IBUFSIZ/4;
X    p->ibufhi= IBUFSIZ / 4 * 3;
X    p->ibufhd = p->ibuftl = 0;
X
X}
X
X/*
X * ResetIoBuf() - Reset the Rs232 buffer to the saved (system's) buffer
X *
X */
Xvoid ResetIoBuf()
X{
X    p->ibuf       = save.ibuf;
X    p->ibufsiz    = save.ibufsiz;
X    p->ibuflow    = save.ibuflow;
X    p->ibufhi= save.ibufhi;
X    p->ibufhd= save.ibufhd;
X    p->ibuftl= save.ibuftl;
```

```
X}
X
X/* the following code is stolen from Tsu Wang - with permission of course */
X
X/*
X * setRs232() - set rs232 port configuration
X */
Xvoid setRs232 ()
X{
X    char ch;
X    long conin;
X
X    Cconws("Baud rate: ");
X    EscSeq(p);
X    Cconws("0=19200 1=9600, 2=4800, 3=2400, 4=1200, 5=300\r\n");
X    EscSeq(q);
X    Cconout('\t');
X    EscSeq(p);
X    Cconws("What speed==>");
X    EscSeq(q);
X
X    conin = Bconin(console);    /* get speed */
X    if (conin == 0x610000)
X    {
X         /* He hit <UNDO> */
X         if(capture)
X         {
X              Cconws("Closing Capture File\r\n");
X              c_capture();
X         }
X         his_screen();
X         ResetIoBuf();
X         Pterm0();
X
X    }
X    ch = (char) (conin & 0x7f);
X    Cconout(' ');
X    switch (ch)
X    {
X        case '0':      /* 19200 */
X         speed = 0;
X         Cconws("19200");
X         break;
X
X        case '1':
X         speed = 1;    /* 9600 */
X         Cconws("9600");
X         break;
X
X        case '2':
X         speed = 2;    /* 4800 */
X         Cconws("4800");
X         break;
```

```
X
X       case '3':
X        speed = 4;    /* 2400 */
X        Cconws("2400");
X        break;
X
X       case '4':
X        speed = 7;    /* 1200 */
X        Cconws("1200");
X        break;
X
X       case '5':
X        speed = 9;    /* 300 */
X        Cconws("300");
X        break;
X
X       default:
X        speed = 7;    /* 1200 */
X        Cconws("1200");
X   }
X   Cconws(" Baud\r\n");
X
X   /* Set new Baud rate */
X   Rsconf(speed, flowctl, ucr, rsr, tsr, scr);
X
X   /* get rid of extraneous characters that get sent out */
X   Bconout(rs232,(word)'\b');
X
X}
X
X/*
X * help() - display help info and menu
X */
Xvoid help ()
X{
X   word c;
X   long conin;
X   char *r_filename();
X
X   EscSeq(j);         /* Save Cursor */
X   my_screen();       /* Switch to my screen memory */
X   EscSeq(v);         /* wrap at end of line */
X   EscSeq(E);         /* clear screen */
X
X   /* Put up menu */
X   Cconws("\r\n\t");
X   EscSeq(p);         /* reverse video */
X   Cconws("Undo");
X   EscSeq(q);         /* quit reverse video */
X   Cconws(" to exit.\r\n");
X
X   Cconws("\t");
X   EscSeq(p);         /* reverse video */
```

```
X    Cconws("Help");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" for this message.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("C or c");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to toggle Capture.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("S or s");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to Send a file using Xmodem.\r\n");
X
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("R or r");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to Receive a file using Xmodem.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("Return");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to do nothing.\r\n");
X
X    Cconws("\t");
X    EscSeq(p);         /* reverse video */
X    Cconws("B or b");
X    EscSeq(q);         /* quit reverse video */
X    Cconws(" to set baud rate.     Default is ");
X    EscSeq(p);
X    Cconws("1200 Baud.\r\n\r\n");
X    EscSeq(q);
X
X    /* get response */
X    conin = Bconin(console);
X
X    if (conin == 0x610000)
X    {
X         /* He hit <UNDO> */
X         if(capture)
X         {
X              Cconws("Closing Capture File\r\n");
X              c_capture();
X         }
X         his_screen();
X         ResetIoBuf();
X         Pterm0();
X    }
```

```
X
X    switch((int)(conin & 0x7f))
X    {
X        case 'B':
X        case 'b':
X         /* Set baud rate */
X         setRs232();
X         break;
X
X        case 'C':
X        case 'c':
X         /* Toggle Capture */
X         if(capture)
X             c_capture();
X         else
X             s_capture();
X         break;
X
X        case 'S':
X        case 's':
X        {
X             /* Send a file using Xmodem */
X             register char *f;
X             if(capture)
X             {
X                  /* We are capturing */
X                  Cconws("Closing Capture File\r\n");
X                  c_capture();
X             }
X
X             if((f = r_filename()) == (char *)NULL)
X             {
X                  /* user cancelled transfer */
X                  canit();
X                  flushinput();
X                  break;
X             }
X
X             /* Set no flow Control */
X             Rsconf(-1,0,-1,-1,-1,-1);
X
X             /* Send file */
X             if(sendfile(f) == FALSE)
X              Cconws("\r\nTransfer not Completed\r\n");
X             else
X              Cconws("\r\nTransfer Complete\r\n");
X
X             /* Flow Control On */
X             Rsconf(-1,1,-1,-1,-1,-1);
X             Bconout(rs232,(word)'\b');
X        }
X         break;
X
```

```
X        case 'r':
X        case 'R':
X        {
X             /* receive using Xmodem */
X             register char *f;
X             if(capture)
X             {
X                  /* We are capturing */
X                  Cconws("Closing Capture File\r\n");
X                  c_capture();
X             }
X
X             if((f = r_filename()) == (char *)NULL)
X             {
X                  /* user cancelled transfer */
X                  canit();
X                  flushinput();
X                  break;
X             }
X
X
X             /* No flow control */
X             Rsconf(-1,0,-1,-1,-1,-1);
X
X             /* receive file */
X             if(readfile(f) == FALSE)
X              Cconws("\r\nTransfer not Completed\r\n");
X             else
X              Cconws("\r\nTransfer Complete\r\n");
X
X             /* flow control on */
X             Rsconf(-1,1,-1,-1,-1,-1);
X             Bconout(rs232,(word)'\b');
X        }
X         break;
X
X        default:
X         Cconws("No Change\r\n");
X    }
X
X    /* Wait for a key hit */
X    hit_key();
X    /* back to terminal screen */
X    his_screen();
X}
X
Xmain ()
X{
X    word c;        /* rs232 input */
X    long conin;
X    int  i;
X
X    ms_ptr = (long *) ((0xffffff00 & ((long)(&m_screen[0]))) + 0x00000100);
```

```
X    EscSeq(v);         /* wrap at end of line */
X    EscSeq(E);         /* clear screen */
X    SetIoBuf();
X
X    Rsconf((word) 7, flowctl, ucr, rsr, tsr, scr);  /* init set */
X    Bconout(rs232,(word)'\b');
X
X    help();
X
X    while (0 == 0)     /* infinite loop */
X    {
X         i = 0;
X         while (Bconstat(rs232) == 0xffff)
X         {
X              /* Char at Modem */
X              c = Bconin(rs232) & 0x7f;
X              Bconout(console, c);
X              if(capture)
X                  /* We are capturing */
X                  a_capture(c);
X
X              /* Check the console once in a while */
X              /* important at High speeds */
X              if ((++i) & 32)
X                  if (Bconstat(console) == 0xffff)
X                       {
X                       conin = Bconin(console);
X                       Bconout(rs232, (word) (conin & 0x7f));
X                       i = 0;
X                  }
X         }
X
X         if (Bconstat(console) == 0xffff)
X         {
X              /* Char at Console */
X              conin = Bconin(console);
X              if (conin == 0x610000)      /* Undo */
X              {
X                   if(capture)
X                   {
X                        Cconws("Closing Capture File\r\n");
X                        c_capture();
X                   }
X                   ResetIoBuf();
X                   Pterm0();
X              }
X
X              if (conin == 0x620000)      /* Help */
X                  help();
X              else
X                  Bconout(rs232, (word) (conin & 0x7f));
X         }
X    }
```

```
X}
SHAR_EOF
if test 7955 -ne "`wc -c 'main.c'`"
then
     echo shar: error transmitting "'main.c'" '(should have been 7955 characters)'
fi
echo shar: extracting "'util.c'" '(1633 characters)'
if test -f 'util.c'
then
     echo shar: over-writing existing file "'util.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'util.c'
X/*
X * Utilities Module
X *
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include "xmdm.h"
X
X#define Vsync()   xbios(37)/* Atari forgot this one in osbind.h */
X
X    /* External Variables */
Xextern char filename[];    /* Pointer to filename buffer
     */
Xextern long *ms_ptr;  /* pointer to my screen memory aligned to a 256
X                byte boundary */
X
X    /* Globals */
Xstatic char *hs_ptr;   /* pointer to his screen memory */
X
X/*
X * my_screen() - Start using my screen memory
X * for all output.
X *
X */
Xvoid my_screen()
X{
X    /* The cursor position has been saved prior to calling this routine */
X    /* save his screen memory pointer */
X    hs_ptr = Logbase();
X
X    /* switch to my display memory */
X    Setscreen(ms_ptr, ms_ptr, -1);
X}
X
X
Xvoid his_screen()
X{
X    /* switch to his Screen memory, wait for a Vblank, so
X     * that the Logical Loc == Physical Loc, then pop saved
```

```
X     * cursor */
X    Setscreen(hs_ptr, hs_ptr, -1);
X    Vsync();
X    Vsync(); /* starts happening at the last one */
X    EscSeq(k);
X}
X
X/*
X * r_filename() - Read a file name from the console
X * giving the user a chance to cancel by hitting <RETURN>
X *
X */
Xchar *r_filename()
X{
X    Cconws("Filename (<RETURN> to cancel): ");
X    filename[0] = FILEMAX;
X    Cconrs(filename);
X    Cconws("\r\n");
X    if(filename[1] == 0)
X    {
X         /* User Cancelled */
X         Cconws("Cancelled\r\n");
X         return((char *)NULL);
X    }
X    /* Terminate string that starts at filename[2] */
X    filename[filename[1]+2] = '\0';
X    return(&filename[2]);
X}
X
X
X/*
X * hit_key() - wait for the user to hit a key
X *
X */
Xvoid hit_key()
X{
X    Cconws("\r\n");
X    EscSeq(p);
X    Cconws("Hit Any Key To Continue .....");
X    EscSeq(q);
X    Cnecin();
X    Cconws("\r\n");
X}
SHAR_EOF
if test 1633 -ne "`wc -c 'util.c'`"
then
     echo shar: error transmitting "'util.c'" '(should have been 1633 characters)'
fi
echo shar: extracting "'xmodem.c'" '(14676 characters)'
if test -f 'xmodem.c'
then
     echo shar: over-writing existing file "'xmodem.c'"
fi
```

```
sed 's/^X//' << \SHAR_EOF > 'xmodem.c'
X/*
X * Xmodem Send / Receive Module
X * adapted from generic Xmodem send/receive code
X * posted to SIG*ATARI on CompuServe
X *
X *  ST users @ Case Western Reserve University
X */
X
X#include <osbind.h>
X#include <setjmp.h>
X#include "xmdm.h"
X
X    /* Xmodem specific defines */
X#define DOTS      50   /* SECTOR COUNTING DOTS PER LINE */
X#define  SECSIZ        0x80 /* Size of a xmodem sector/block */
X#define  ERRORMAX  20   /* MAX ERRORS BEFORE ABORT very conservative */
X#define  RETRYMAX  15   /* MAXIMUM RETRYS BEFORE ABORT */
X#define  SOH       1    /* START OF SECTOR CHAR */
X#define  EOT       4    /* end of transmission char */
X#define  ACK       6    /* acknowledge sector transmission */
X#define  NAK       21   /* error in transmission detected */
X#define CAN       ('X'&037) /* Cancel transmission   */
X
X#define sendchar(X)    Cauxout(X) /* Send a character to serial port */
X#define Supexec(X) xbios(38,X)
X
X    /* External Variables */
Xextern char bufr[ ];  /* file buffer */
X
X    /* Global Variables */
Xstatic int mtimeout,            /* Time out period */
X       mdm_sp,     /* #packets sent */
X       mdm_rp,     /* #packets received */
X       mdm_bad_packets,      /* #bad packets      */
X       mdm_naked_packets;    /* #naked packets    */
X
Xlong mdm_bytes_xferred,   /* #packets sent/received       */
X     alrm_time = 0L,     /* Time of next timeout (200 Hz) */
X     pr_time   = 0L,     /* Present time    (200 Hz) */
X     *hz_200 = (long *)0x000004ba; /* Yes the Hitch Hikers Guide is wrong!! */
X
Xjmp_buf abort_env,           /* Long jump when transfers are aborted */
X        time_env;       /* Long jump on timeout          */
X
X#ifdef DEBUG
Xstatic int    debug = 1;
X#endif
X
X
X
X
X/*
```

```
X * rd_time() - read the value of the systems 200 Hz counter
X * must be called in Super Mode else you get
X * what you deserve - MUSHROOMS!!
X */
Xvoid rd_time()
X{
X    pr_time = *hz_200;
X}
X
X
X/*
X * read_modem() - read a character from the modem port
X * Check for user abort (^C) and timeout at the same time
X */
Xint read_modem()
X{
X    while(1)
X    {
X         if(Cconis())
X         {
X              /* Character Hit at the Keyboard - is it ^C */
X              if((Crawcin() & 0x7f) == CTRL('C'))
X                  /* It is a Control-C */
X                  longjmp(abort_env,-1);
X         }
X
X         if(Cauxis())
X             /* Character available at Modem Port */
X             return(Cauxin());
X
X         /* Check for time out if required */
X         if(alrm_time != 0)
X         {
X              /* Alarm Set */
X              Supexec(rd_time);
X              if(pr_time >= alrm_time)
X                  /* timeout */
X                  longjmp(time_env, -1);
X         }
X    }
X}
X
X/*
X * mdmini() - initialize variables for a Xmodem Transfer
X *
X */
Xvoid mdmini()
X{
X    mtimeout = 20;
X    mdm_bytes_xferred = 0L;
X    mdm_sp = 0;
X    mdm_rp = 0;
X    mdm_bad_packets = 0;
```

```
X    mdm_naked_packets = 0;
X}
X
X
X/*
X * readfile() - Xmodem Receive
X * We use extremely conservative timeout/retry parameters
X * to deal with lazy dogs like CompuServe. The program
X * could be enhanced to be adaptive by increasing the
X * timeout as and when timeouts occur, dynamically.
X */
Xint readfile(file)
Xchar *file;
X{
X    int firstchar,     /* First character of the packet
     */
X    sectnum,  /* The currently expected sector #        */
X    sectcurr, /* The received sector #             */
X    sectcomp, /* The 1's complements of sectcurr        */
X    fd,       /* File descriptor for opened file        */
X    errors,   /* The number of errors encountered in this transfer
     */
X    errorflag;    /* Just a flag                        */
X
X    unsigned int
X        checksum, /* Computed Checksum (of the received data)
     */
X        j,        /* Counter                       */
X        bufptr;   /* Buffer index                       */
X
X
X    /* Initialize myself */
X    mdmini ();
X
X    /* Create/Open file for write - overwrite if it exists */
X    if ((fd = Fcreate(file,0)) < 0) /* Will fail is file present */
X    {
X         /* Overwrite existing file */
X         if((fd = Fopen(file,1)) < 0)
X         {
X              /* CAN the transfer if we cannot open file */
X              Cconws("Cannot Open ");
X              Cconws(file);
X              Cconws("\r\n");
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X    }
X    else
X    {
X         /* We are ready now */
X         Cconws("Receiving ");
```

```
X         Cconws(file);
X         Cconws(" ( CTRL-C to Abort )\r\n");
X    }
X    sectnum = errors = bufptr = 0;
X
X    r_again:
X    flushinput();
X
X    /* Send NAK to let sender know that we are ready */
X    sendchar(NAK);
X
X    if (setjmp(time_env))
X    {
X         /* On a Timeout */
X         if(++errors < ERRORMAX)
X         {
X              Cconout('T');
X              goto r_again; /* Sorry about that !! */
X         }
X         Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    if (setjmp(abort_env))
X    {
X         /* User initiated Abort - (CTRL-C) */
X         Cconws("\r\nUser Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    firstchar = 0;
X    while (firstchar != EOT && errors != ERRORMAX)
X    {
X         errorflag = FALSE;
X         alarm (mtimeout);           /* set timeout trap */
X         do                     /* get sync char */
X         {
X              firstchar = read_modem();
X#ifdef DEBUG
X              if (debug)
X              {
X                   Cconws("Got char ");
X                   printi( firstchar);
X                   Cconws("\r\n");
X              }
```

```
X#endif
X        } while (firstchar != SOH && firstchar != EOT && firstchar != CAN);
X
X        if( firstchar == CAN)
X        {
X             /* Sender Cancelled */
X             Cconws("Transfer Cancelled By Sender\r\n");
X             Fclose(fd);
X             flushinput();
X             alarm(0);
X             return(FALSE);
X        }
X
X        if (firstchar == SOH)
X        {
X             /* Ok, got Start of a new packet, pick up the sector # and ~# */
X             sectcurr = read_modem();
X             sectcomp = read_modem();
X
X             if (((sectcurr - 1) % DOTS) == 0)
X             {
X                  /* Let us know about it - newline every DOTS dots */
X                  Cconws("\r\n.");
X#ifdef DEBUG
X                  if(debug)
X                      printi(sectcurr);
X#endif
X             }
X             else
X                 Cconout('.');
X
X#ifdef DEBUG
X             /*   if (debug)
X                  {
X                  Cconws("Sector ");
X                  printi( sectcurr);
X                  Cconout(' ');
X                  printi( sectcomp);
X                  Cconws("\r\n");
X                  }
X                  */
X#endif
X             if ((sectcurr + sectcomp) == 255)
X             {
X                  /* Valid sector # */
X                  if (sectcurr == (sectnum + 1 & 0xff))
X                  {
X                       /* And sector in expected sequence */
X                       checksum = 0;
X                       for (j = bufptr;j < (bufptr + SECSIZ);j++)
X                       {
X                            /* Pick up data */
X                            bufr[j] = read_modem();
```

```
X                         /* Computing checksum as we go along */
X                         checksum = (checksum + bufr[j]) & 0xff;
X                    }
X                    if (checksum == read_modem())
X                    {
X                         /* Computed Checksum matches received checksum */
X                         mdm_rp++;
X
X                         errors = 0;
X                         sectnum++;
X                         bufptr += SECSIZ;
X                         mdm_bytes_xferred += SECSIZ;
X                         if (bufptr == BUFSIZ)
X                         {
X                              /* Buffer Full - flush it out to file */
X                              bufptr = 0;
X                              if (Fwrite(fd,(long)BUFSIZ,bufr) < 0)
X                              {
X                                   Cconws("\r\nError writing file - Aborting
Transfer\r\n");
X                                   Fclose(fd);
X                                   alarm(0);
X                                   canit();
X                                   flushinput();
X                                   return(FALSE);
X                              };
X                         };
X                         flushinput ();
X                         /* Every thing ok - send the ACK */
X                         sendchar(ACK);
X                    }
X                    else
X                    {
X                         /* Received Checksum doe not match computed checksum
*/
X                         mdm_bad_packets++;
X
X                         errorflag = TRUE;
X#ifdef DEBUG
X                         if (debug)
X                         {
X                              Cconout('C');
X                         };
X#endif
X                    }
X               }
X               else
X               {
X                    /* Sector received is not the expected one */
X                    /* Could be a duplicate sector, or just a curropted sector
*/
X                    if (sectcurr == (sectnum & 0xff))
X                    {
```

```
X                            /* Duplicate sector - just ignore it and ACK */
X                            Cconout('D');
X                            flushinput();
X                            sendchar(ACK);
X                       }
X                       else
X                       {
X                            /* Garbage */
X#ifdef DEBUG
X                            if (debug)
X                            {
X                                 Cconws("synch error\r\n");
X                            }
X#endif
X
X                            mdm_bad_packets++;
X
X                            errorflag = TRUE;
X                       }
X                  }
X             }
X             else
X             {
X#ifdef DEBUG
X                  if (debug)
X                  {
X                       Cconws("sector number error\r\n");
X                  }
X#endif
X                  mdm_bad_packets++;
X
X                  errorflag = TRUE;
X             }
X        }
X        if (errorflag == TRUE)
X        {
X             /* NAK it if errorflag is set */
X             errors++;
X             flushinput();
X             sendchar(NAK);
X        }
X
X    };   /* end while  Not EOT and errors < ERRORMAX */
X
X
X    if ((firstchar == EOT) && (errors < ERRORMAX))
X    {
X         /* Last packet */
X         sendchar(ACK);
X         if(Fwrite(fd,(long)bufptr,bufr) != bufptr)
X         {
X              Cconws("\r\nError writing file\r\n");
X              Fclose(fd);
```

```
X             alarm(0);
X             return(FALSE);
X         }
X         Fclose(fd);
X         alarm(0);
X         return(TRUE);
X    }
X    alarm(0);
X    return(FALSE);
X}
X
X/*
X * sendfile() - Xmodem Send
X * See comments for readfile() concerning timeouts/retries.
X *
X */
Xint sendfile(file)
Xchar *file;
X{
X    int sectnum,  /* Current sector number */
X    sectors,  /* #of sectors sent      */
X    attempts, /* #of attempts to send  */
X    fd;       /* File descriptor  */
X
X    unsigned int
X        checksum, /* Computed checksum    */
X    j,        /* all purpose counter  */
X    bufptr;       /* Ptr to file buffer   */
X
X    char
X        c;        /* General Character var */
X
X    /* init. myself */
X    mdmini ();
X
X    /* Open file for read */
X    if ((fd = Fopen(file, 0)) < 0)
X    {
X         /* CAN tranfer if we can't open */
X         Cconws("cannot open ");
X         Cconws(file);
X         Cconws("\r\n");
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X    else
X    {
X         Cconws("Sending ");
X         Cconws(file);
X         Cconws(" ( CTRL-C to Abort )\r\n");
X    }
X
```

```
X    /* All set to go */
X    attempts = 0;
X    sectnum = 1;
X    j = 0;
X
X
X    if (setjmp(abort_env))
X    {
X         /* On user initiated abort (CTRL-C) */
X         Cconws("\r\nUser Aborted Transfer\r\n");
X         Fclose(fd);
X         alarm(0);
X         canit();
X         flushinput();
X         return(FALSE);
X    }
X
X    attempts = 0;
X
X    do {
X        s_again:
X
X         if (setjmp(time_env))
X         {
X              /* On Time Out */
X              if(attempts < (2*ERRORMAX))
X              {
X                   Cconout('T');
X                   flushinput();
X                   goto s_again; /* Sorry about that !! */
X              }
X              Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X              Fclose(fd);
X              alarm(0);
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X
X         /* Wait for First char from receiver */
X         alarm(mtimeout);
X         c = read_modem();
X
X#ifdef DEBUG
X         if (debug)
X         {
X              Cconws("Ate char ");
X              printi( c);
X              Cconws("\r\n");
X         }
X#endif
X         /* Eat everything but a NAK or CAN */
X    } while ((c != NAK) && (c != CAN) && (j++ < (ERRORMAX*2)));
```

```
X
X    if( c == CAN)
X    {
X         /* receiver cancelled */
X         Cconws("Transfer Cancelled By Receiver\r\n");
X         Fclose(fd);
X         flushinput();
X         alarm(0);
X         return(FALSE);
X    }
X
X    if (j >= (ERRORMAX*2))
X    {
X         /* Too many errors */
X         Cconws("\r\nReceiver not sending NAKs - Aborting\r\n");
X         canit();
X         flushinput();
X         alarm(0);
X         return(FALSE);
X    }
X
X#ifdef DEBUG
X    if (debug)
X        Cconws ("Got ACK\r\n");
X#endif
X
X    flushinput (); /* Get rid of any junk on the line */
X    alarm(mtimeout);
X
X    while ((sectors = Fread(fd,(long)BUFSIZ,bufr))
X           && (attempts != RETRYMAX))
X    {
X         if (sectors < 0)
X         {
X              /* Unable to read the file */
X              Cconws("\r\nError reading file - Aborting Transfer\r\n");
X              Fclose(fd);
X              alarm(0);
X              canit();
X              flushinput();
X              return(FALSE);
X         }
X
X         bufptr = 0;
X         do
X         {
X              attempts = 0;
X              do
X              {
X                  s_ag2:
X                   alarm(mtimeout);
X                   if (setjmp(time_env))
X                   {
```

```
X                       /* on time out */
X                       if(attempts < (2*ERRORMAX))
X                       {
X                            Cconout('T');
X                            flushinput();
X                            goto s_ag2;   /* Sorry about that !! */
X                       }
X                       Cconws("\r\nToo many time outs Aborted Transfer\r\n");
X                       Fclose(fd);
X                       alarm(0);
X                       canit();
X                       flushinput();
X                       return(FALSE);
X                  }
X
X                  if (((sectnum) % DOTS) == 0)
X                  {
X                       Cconws("\r\n");
X#ifdef DEBUG
X                       if(debug)
X                           printi(sectnum);
X#endif
X                       Cconout('.');
X                  }
X                  else
X                      Cconout('.');
X
X                  /* Send a packet */
X                  sendchar(SOH);
X                  sendchar(sectnum);
X                  sendchar(~sectnum);
X                  checksum = 0;
X                  write_modem(&bufr[bufptr],SECSIZ);
X                  for (j = bufptr; j < (bufptr+SECSIZ); j++)
X                      checksum += bufr[j];
X                  sendchar(checksum);
X                  flushinput();
X                  mdm_sp++;
X
X                  attempts++;
X                  /* Did it get sent over ? */
X                  c = read_modem();
X
X                  if (c != ACK)
X                      /* Oh no */
X                      mdm_naked_packets++;
X#ifdef DEBUG
X                  if (debug)
X                  {
X                       Cconws ("Response char is ");
X                       printi( c);
X                       Cconws("\r\n");
X                  }
```

```
X#endif
X                    if( c == CAN )
X                    {
X                         /* Receiver cancelled - so i'll abort */
X                         Cconws("Transfer Cancelled By Receiver\r\n");
X                         Fclose(fd);
X                         flushinput();
X                         alarm(0);
X                         return(FALSE);
X                    }
X
X               } while ((c != ACK) && (attempts != RETRYMAX));
X               /* Packet got sent and I received an Ack, or
X                  too many attempts */
X               bufptr += SECSIZ;
X               mdm_bytes_xferred += SECSIZ;
X               sectnum++;
X          } while ((bufptr < sectors) && (attempts != RETRYMAX));
X     };
X
X     Fclose(fd);
X     if (attempts == RETRYMAX)
X     {
X          /* Too many attempts */
X          Cconws("\r\nNo acknowledgment of sector, aborting\r\n");
X          alarm(0);
X          canit();
X          flushinput();
X          return(FALSE);
X     }
X     else
X     {
X          /* All sectors that needed to be sent are done,
X             Now send the EOT to complete transfer,
X             The EOT may or may not get ACK'ed, warn
X             the user if it does'nt */
X          attempts = 0;
X          do
X          {
X              s_ag3:
X               alarm(mtimeout);
X               if (setjmp(time_env))
X               {
X                    if(attempts < (2*ERRORMAX))
X                    {
X                         Cconout('T');
X                         flushinput();
X                         goto s_ag3;   /* Sorry about that !! */
X                    }
X               }
X
X               sendchar(EOT);
X               attempts++;
```

```
X        } while ((read_modem() != ACK) && (attempts != RETRYMAX));
X        if (attempts == RETRYMAX)
X            Cconws("\r\nNo acknowledgment of end of file - Hopefully the file
made it\r\n");
X    };
X    alarm(0);
X    return(TRUE);
X}
X
X/*
X * alarm() - set the alarm time
X */
Xvoid alarm(n)
Xunsigned int n;
X{
X    if(n != 0)
X    {
X         Supexec(rd_time);
X         /* We really need n * 200 but n * 256 if close enough */
X         alrm_time = pr_time + ( n << 8 );
X    }
X    else
X        alrm_time = 0L;
X}
X
X/*
X * canit() - Cancel the transfer
X */
X
Xcanit()
X{
X    register int i;
X
X    /* Send 5 CAN's */
X    for(i = 0; i < 5; i++)
X        sendchar(CAN);
X
X    /* Get rid of 4 of them, some receivers expect at least 2
X       CANs to confirm that the first CAN was not a corrupted
X       ACK, but eat only one (Ymodem for instance). */
X
X    for(i = 0; i < 4; i++)
X        sendchar('\b');
X}
X
X/*
X * write_modem() - send buffer to the modem port
X *
X*/
Xvoid write_modem(buf,len)
Xregister char *buf;
Xregister int len;
X{
```

```
X    register int i;
X    for(i = 0; i < len; i++)
X        Cauxout(*buf++);
X}
X
X
X/*
X * flushinput() - flush any characters in the modem port
X * a future enhancement may be flush any characters that are in there
X * and any that come in over the next 1 second -- Ymodem does that
X *
X */
Xvoid flushinput()
X{
X    while(Cauxis())
X        Cauxin();
X}
X
X#ifdef DEBUG
X/*
X * Print an integer (16 bits) to the console
X *
X */
Xvoid printi(val)
Xregister int val;
X{
X        register int j;
X        register int div_idx;
X        register int first;
X
X        static int divisors[] = { 10000, 1000, 100, 10, 1 };
X
X
X    /* Special Cases */
X        if (val == 0)
X    {
X         Cconout('0');
X    }
X        else if (val == -32768)
X    {
X                Cconws("-32768");
X
X    }
X
X    /* Get digit for each power of 10 and print them, skip leading 0's */
X        first = div_idx  = 0;
X
X        if (val < 0)
X    {
X                Cconout('-');
X                val = -val;
X    }
X
```

```
X        while( div_idx < 5 )
X    {
X                if(((j = val / divisors[div_idx]) != 0) || first != 0)
X        {
X                        Cconout(j + '0');
X                        first = 1;
X        }
X                val %= divisors[div_idx++];
X    }
X
X}
X#endif
SHAR_EOF
if test 14676 -ne "`wc -c 'xmodem.c'`"
then
     echo shar: error transmitting "'xmodem.c'" '(should have been 14676
characters)'
fi
echo shar: extracting "'xmdm.h'" '(494 characters)'
if test -f 'xmdm.h'
then
     echo shar: over-writing existing file "'xmdm.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'xmdm.h'
X    /* Common defines */
X#define NULL      (0L)
X#define void           int  /* Alcyon forgot about voids */
X#define  FALSE         0
X#define TRUE           1
X
X#define EscSeq(x) Cconout('\033'); Cconout('x') /* Send Esc. Seq. to
X                                   console */
X#define CTRL(X)        (X & 037) /* CTRL-anything */
X#define IBUFSIZ        16*1024  /* Size of my Rs232 receive buffer */
X#define  BUFSIZ        0x4000   /* Size of file buffer
      */
X                  /* MUST BE a multiple of SECSIZE (128)  */
X#define FILEMAX   32   /* Max length of file name (must be <=127 ) */
SHAR_EOF
if test 494 -ne "`wc -c 'xmdm.h'`"
then
     echo shar: error transmitting "'xmdm.h'" '(should have been 494 characters)'
fi
echo shar: extracting "'xmdm.doc'" '(4175 characters)'
if test -f 'xmdm.doc'
then
     echo shar: over-writing existing file "'xmdm.doc'"
fi
sed 's/^X//' << \SHAR_EOF > 'xmdm.doc'
XThis the first version of xmdm:
X
X    Features:
X         - Keeps up with high speed serial lines
```

```
X             (tested upto 19.2K Baud lines)
X
X        - Does'nt send ANY Xon/Xoff's in the terminal
X          emulation mode to the host. This is important
X          to us as we are all Emacs fans.
X
X        - Supports all baud rates.
X
X        - Ascii file capture.
X
X        - Xmodem Send/Receive.
X
X        - Uses large Rs232 receive buffer.
X
X        - Uses large file buffers. Will not beat your disk
X          drive to death like STTALK.
X
X        - Uses 2 screens. All local functions (prompts etc) are done
X          on a on one screen, and all host communication
X          appears and the other screen.
X
X        - Uses very conservative timeouts/retries figures.
X          Good for dealing with dogs like CompuServe.
X          If you have a very responsive host, then it does'nt
X          matter anyways.
X
X        - PD, share it with your friends. Only thing we ask for is
X          your comments, bug reports (& fixes). Of course we
X          are not in anyway responsible for any brain damage
X          it may cause.
X
X    Known Bugs:
X         - Send spurious characters when it changes Rs232
X        parameters (Baud rate, Flow Control). Normally this
X        does not cause a problem, just hit a return when you
X        get back to your host.
X
X        - When switching screens, it always homes the cursor.
X        (We would appreciate if anyone could tell us how to
X         fix this. What we are doing in the Code (routines
X         his_screen & my_screen) is pushing the cursor,
X         changing screens, doing local functions, changing
X         back to the old screen, and doing a pop cursor. The
X         HH guide says that the vt52 emulator is only reset
X         when you change rez.) This does cause inconvenience.
X
X        - Has not been extensively debugged!
X
X        - Sketchy documentation.
X
X    So why are we posting it?
X    To get your feedback on the general scheme of things (interface
Xetc.) and suggestions to fix the above bugs.
```

```
X
X    Coming Up:
X         - Kermit transfers, and remote server support.
X
X         - Key Macros and binding of keys to functions.
X
X         - Dialing Directory.
X
X         - dir, space, remove, rename, cd, change drive
X           functions.
X
X         - Code needs cleaning up.
X
X    Not coming up:
X         - Ascii file transmit. We do not see a need for this.
X
XTo compile and link:
X    Compile each .c to get  .o's
X
X    link68 [u] xmdm.68k=[gems|gemstart], <all the .o's>,osbind.o,gemlib
X    relmod xmdm
X
XIf you use gemstart, then the stack+heap size must be appropriately
Xmodified. I use 16K.
X
X    get rid of xmdm.68k
X    rename xmdm.prg to xmdm.tos to use from the desktop.
X
XUSAGE:
X    Double click on xmdm.tos and follow the first prompt that
Xcomes up. Hit the <help> key at any time to get back at this menu.
X
XCapturing files:
X    Hit the <help> key, then choose the function 'c' for capture
Xtoggle. Give it a file name when it asks for one.
X    All host data will be captured from now onwards.
X    To end capture, hit <help> and choose the function 'c' again.
XThis will terminate the capture and close the file. Capture is also
Xterminate automatically when you choose any of the Xmodem functions,
Xon file errors, or when you exit the program.
X
XXmodem send:
X    Prepare your host to receive a file using xmodem. Hit the
X<help> key. Choose the 's' function, for xmodem send, and give it a
Xfile name. If you want to terminate at this point, hit return instead
Xof entering a file name. After the transfer has begun, you may
Xterminate the transfer at any time by hitting CTRL-C.
X
XXmodem receive:
X    Prepare your host to send a file using xmodem. Hit the
X<help> key. Choose the 'r' function, for xmodem receive, and give it a
Xfile name. If you want to terminate at this point, hit return instead
Xof entering a file name. After the transfer has begun, you may
```

```
Xterminate the transfer at any time by hitting CTRL-C.
X
XExiting xmdm:
X    The program may be exited at any time by hitting the <undo>
Xkey, except in the middle of Xmodem transfers.
X
XChanging baud rates:
X    Hit <help> then choose the 'b' function and make a selection.
X
X    Currently only the baud rate can be changed by the user. The
Xother Rs232 port parameters cannot be changed.
X
XPlease send you comments / bug reports and fixes to:
X
X             Jwahar R. Bammi
X               Usenet:  .....!decvax!cwruecmp!bammi
X                CSnet:  bammi@case
X              Arpa:  bammi%case@csnet-relay
X           CompuServe:  71515,155
SHAR_EOF
if test 4175 -ne "`wc -c 'xmdm.doc'`"
then
     echo shar: error transmitting "'xmdm.doc'" '(should have been 4175
characters)'
fi
#    End of shell archive
exit 0


From 4745176456944888572
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,125a914e2a485c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 09:26:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP
Newsgroups: net.micro.atari16
Subject: Re: I *need* memory!
Message-ID: <126@cci632.UUCP>
Date: Wed, 25-Jun-86 12:26:15 EDT
Article-I.D.: cci632.126
Posted: Wed Jun 25 12:26:15 1986
Date-Received: Sat, 28-Jun-86 07:32:07 EDT
References: <8606131855.AA04757@ucbvax.Berkeley.EDU>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 51
Summary: Second hand info.

In article <8606131855.AA04757@ucbvax.Berkeley.EDU> Mike_Wilson@CARLETON.BITNET
(Mike Wilson) writes:
```

>Hi,
>   I'm currently working on a project to port a new version of Smalltalk
>(examplar-based, multiple inheritance, multiple PROCESSOR, for those who
>are interested) to multiple 68000's on the VME bus. Currently we are
>doing our development on Apple Mac "XL"s, but we are investigating the
>use of other machines (because the Lisas are reaching the end of their
>useful lifespan, and support is lousy!).
>
>   The ATARI 1040 (or 520 for that matter) seems like a reasonable choice,
>except for the question of memory. You see, the Smalltalk image alone (ie.
>without *any* code to execute it) is well over 900K long, so unless we can
>expand memory to at least 2Meg, we can't use them.

According to Abacus literature, the ST series is capable of supporting
4 megabytes, using 1 megabit chips. Caveat here, these must be 1meg by X
not 256x4 or some similar arrangement. There are 20 address lines plus
two RAS and two CAS lines. The MMU doesn't know how to handle 4 banks
of 256x16, but it does appearantly know how to handle 1megx16.

There is no question that, using 1meg by X chips, you can get at least
2 meg stuffed in there. You could simplify things by getting SIP hybrids.

>   So... My question is: What is the current (read: "Right Now!") limit on
>the amount of expansion memory which is supported by the ATARI?

If you are willing to rebuild the ram banks completely (modest price, some
labor), you can safely get 2 meg for sure. Getting 4 meg depends on
current requirements of the rams, access times, and general loading/timing
requirements of the 1 meg chips.

>   By the way, an offshoot of this project would probably be a working
>Smalltalk for all ATARIs (Once it works, we could always prune it down to
>fit).

Looking forward to it.

ATARI: Have you started putting the holes for the SIP rams onto the
board yet? I realize that actually putting SIPs into the holes would
be too expensive, but it would make atari ram expansion < $70/megX16, and
MUCH easier.

I assume you've calculated the trade-offs between SIP hybrids and
"building your own" RAM banks, just out of curiosity, how much of
a difference was there (effect on retail price)? The cheapest ram
boards I've seen were $100/megabyte, most of the hybrids seem to be
priced around $50/megabyte.

Right now, the main weakness of the ST is the difficulty of adding
RAM. The DMA port could be used for "Paging", but there is no support
for such paging.

From 683647658621851398

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8a425f90fa871f2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 10:23:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!ll-xn!nike!
lll-crg!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: MicroRTX, multi-tasking for ST, anybody tried it yet?
Message-ID: <127@cci632.UUCP>
Date: Wed, 25-Jun-86 13:23:18 EDT
Article-I.D.: cci632.127
Posted: Wed Jun 25 13:23:18 1986
Date-Received: Sun, 29-Jun-86 05:06:37 EDT
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Distribution: net
Organization: CCI, Rochester Development, Rochester, NY
Lines: 7
Summary: Looks promising, any reviews?, info?

In the June "Nanobytes" section of Byte, there was a little
blurb on a product called MicroRTX now available for the
Atari. Appearently, it is a superset operating system that
can be put on top of GEM, meaning that current ST software
can be run in a multi-tasking environment.

Has anybody tried this? Has anybody seen any reviews?

From -3569217285781483989
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85292bd39dfea179,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-25 16:11:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!lll-crg!lll-lcc!dual!ptsfa!varian!vaxwaller!rogert
From: rogert@vaxwaller.UUCP
Newsgroups: net.micro.atari16
Subject: 12 bit A/D for 520 ST
Message-ID: <480@vaxwaller.UUCP>
Date: Wed, 25-Jun-86 19:11:54 EDT
Article-I.D.: vaxwalle.480
Posted: Wed Jun 25 19:11:54 1986
Date-Received: Sat, 28-Jun-86 07:40:09 EDT
Distribution: net
Organization: Varian, Walnut Creek, CA
Lines: 5

I could really use a 12 bit A/D and D/A for my 520 ST. Is there any
interest in a product like this? Is there anything available, or soon
to be available? A good data acquisition add on could turn the ST's

into a great instrument controller and lab tool. The ST's are well
suited to data reduction, number crunching, and displaying results.

From -4869766448658877656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,da2c475f152bb2f2,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,da2c475f152bb2f2,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,da2c475f152bb2f2,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-06-25 21:30:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!seismo!gatech!akgua!whuxlm!whuxl!houxm!
ihnp4!inuxc!pur-ee!pucc-j!purdue!sjc
From: sjc@purdue.UUCP (Steve J Chapin)
Newsgroups: net.micro.68k,net.micro.atari16,net.micro.mac
Subject: Ethernet for 68k machines
Message-ID: <615@mordred.purdue.UUCP>
Date: Thu, 26-Jun-86 00:30:27 EDT
Article-I.D.: mordred.615
Posted: Thu Jun 26 00:30:27 1986
Date-Received: Sat, 28-Jun-86 04:55:34 EDT
Organization: Department of Computer Science, Purdue University
Lines: 32
Keywords: Ethernet connection, 68k, Atari ST, Mac
Xref: watmath net.micro.68k:1706 net.micro.atari16:1133 net.micro.mac:6713

I'm interested in information about Ethernet boards for 68k based
computers. The possibilities under consideration include a
68k based single-board computer with a VME (or some other 'standard')
bus, an Ethernet connection for an Atari 520ST, or a connection for
a Mac.

So, netters, I'd like to know if any of you have a) hooked up your
ST to ethernet; b) hooked up your Mac to ethernet (as an aside, does
the Mac+ have any kind of a standard bus?); c) hookup up a single-board
68k computer to ethernet.

If either b) or c) have a standard bus, we have a source for the
ethernet boards. So, I'm interested in cheap (< $1k) 68k boards.
Since Atari ST's are about $800, if there are boards available
that would be nice too.

Please send email to one of the addresses below...I'll summarize
to the net if there seems to be much interest.

Thanks in advance,

sc

--

```
------------------------------------------------------------------------------
Steve Chapin                      |      Chapin's Law of Motion:
ARPA:  sjc@purdue.edu             |      You can get anywhere in 10 minutes
UUCP:  ...!purdue!sjc             |      if you drive fast enough.
------------------------------------------------------------------------------
```

```
From -7434186294544179057
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,36abf9972cf00e3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 06:06:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!GE-CRD.ARPA!montnaro%chenengo.tcpip
From: montnaro%chenengo.tcpip@GE-CRD.ARPA
Newsgroups: net.micro.atari16
Subject: ST as a terminal
Message-ID: <8606261211.AA02410@ucbvax.Berkeley.EDU>
Date: Thu, 26-Jun-86 09:06:00 EDT
Article-I.D.: ucbvax.8606261211.AA02410
Posted: Thu Jun 26 09:06:00 1986
Date-Received: Sat, 28-Jun-86 05:47:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 28

Received: by chenengo.steinmetz (1.1/1.1x Steinmetz)
     id AA02518; Thu, 26 Jun 86 08:00:09 EDT
Date: Thu, 26 Jun 86 08:00:09 EDT
From: Skip Montanaro <montnaro%chenengo.tcpip@csbvax>
Posted-Date: Thu, 26 Jun 86 08:00:09 EDT
Message-Id: <8606261200.AA02518@chenengo.steinmetz>
To: info-atari16@su-score.arpa
Subject: ST as a terminal

   In <3832@utah-cs.UUCP>, Dan Reading writes:

>   ... Any chance of
>   the Atari ST running UW, the UN*X windowing system for the Macintrash
>   written by John Bruner.

Let's can the crap about which computer is better. If the Macintosh hadn't
preceded the Atari, there probably wouldn't be any UW available to port...

==========
Skip Montanaro
ARPA: montanaro@ge-crd.arpa
US Mail: General Electric Company
      Corporate Research and Development
```

      P.O. Box 8
      Bldg KW, Room C210
      Schenectady, NY 12304
Phone: 518-387-7312
==========

From 8201346706992897323
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 08:15:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <8606261515.AA19606@mitre-bedford.ARPA>
Date: Thu, 26-Jun-86 11:15:48 EDT
Article-I.D.: mitre-be.8606261515.AA19606
Posted: Thu Jun 26 11:15:48 1986
Date-Received: Sat, 28-Jun-86 05:48:47 EDT
References: <1204@mhuxo.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 39

I have been using an Avatex 1200 baud modem for about 3 months now, and it has worked flawlessly. I have not used the autoanswer feature. I have used the autodial capability and it works as advertised. The switches on the back came in handy to force the modem on-line with one terminal emulator program which apparently did not assert Data Terminal Ready. These switches allow you to choose whether to force these lines ON or let the program do it.

The unit not only works well, it looks very professional too. It is a heck of a lot of modem for the price. Incidentally, the guy I bought mine from charges $80 if you pick it up and I believe he has quoted several people $85 if he has to bother to ship it. For further information, call Rick Pommet, Nelson Data Communications, (617) 667-4357 or 738-6000. The first number is his home phone, and you will have better luck reaching him if you call there after about 7 or 7:30 PM. The 738-6000 number is at work and he is hard to reach there so you will be likely to waste a call if you try it. Rick is an Atari freak of long standing, having had several of the 8-bit machines for years, so he is not out to make a lot of profit on fellow Atari fans.

Another source is Paul Swanson, who uses the name Nite Lite Systems. (He is well known in the Atari 8-bit world for his BBS software under this name so he continues to use the name.) Paul makes his living as an Atari dealer, so tends to charge higher prices than the mail order places. However, I believe his price is still under $100, so if he has them and the others are out of stock, it may still beat waiting for a modem. Besides (see below), he is in a position to provide technical help that you won't get from other dealers.

It just might pay to have him as a friend. Paul can be reached at (617) 663-4463 or via his BBS (running on an 8-bit Atari) at 663-4221.

NOTE: Paul also does 520 upgrades to 1Mbyte and is a 520 dealer for both sales and repair. Also, he is about the highest-grade source of technical information (hardware and software) on Atari products I have found. Keep his name and phone numbers on file -- you will see why if you ever need to call on him for help.

If anyone prefers to order by mail, I could attempt to get mailing addresses from Rick and/or Paul.

-John Sangster
jhs@mitre-bedford.arpa

From 5471100521427461095
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95169168c8cce787
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 09:35:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ut-sally!seismo!gatech!akgua!akguc!mtune!mtuxo!houxm!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Question on processor expansion
Message-ID: <176@molihp.UUCP>
Date: Thu, 26-Jun-86 12:35:11 EDT
Article-I.D.: molihp.176
Posted: Thu Jun 26 12:35:11 1986
Date-Received: Mon, 30-Jun-86 04:44:54 EDT
References: <8606201839.AA06129@pavepaws> <477@elmgate.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 22

In article <477@elmgate.UUCP> jdg@elmgate.UUCP writes:
> ... Still I'd pay another $50-$75 to get a new version of
>TOS in ROM (2.0 ?). No, this is not rumored. I just want Atari to know if
>they ever WERE to decided to re-write some of TOS/GEMDOS themselves (and
>get it right) instead of DRI's junk, *I'd* be willing to pay for it.
>

  I, too, would pay more money to get rid of a few problems. It was not great to get the TOS in ROM and try my favorite bug-hunting procedures only to find most of the bugs still there. It was great to liberate that memory, and it was well worth the cost to get the quick reboot time, but there are still bugs there. Hell, I/O redirection doesn't even work sometimes now. And I agree it would be great to get the ability to drop a 68010 in there. (I'll wait awhile for the '020 : I heard yesterday that it is priced at $530 CDN for the 12.5 Mhz part.)

  BTW, anybody got a definitive list of bugs in TOS?

```
#   UUCP : ...!ubc_vision!molihp!robt     Robert Thurlow
          #
#   My thoughts are my own, and are void where prohibited by law.
     #
#   "There was something fishy about the butler.  I think he was a
     #
#    Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #
```

```
From 7120445870258556641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,258cb62bd5e09f2f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 13:18:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!sdcsvax!noscvax!
marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <636@marlin.UUCP>
Date: Thu, 26-Jun-86 16:18:14 EDT
Article-I.D.: marlin.636
Posted: Thu Jun 26 16:18:14 1986
Date-Received: Sat, 28-Jun-86 01:21:22 EDT
References: <1204@mhuxo.UUCP> <8606261515.AA19606@mitre-bedford.ARPA>
Reply-To: dobbs@marlin.UUCP (Lynn B. dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 17

In article <8606261515.AA19606@mitre-bedford.ARPA> jhs@disunix.UUCP writes:
>I have been using an Avatex 1200 baud modem for about 3 months now, and it has
>worked flawlessly.  I have not used the autoanswer feature.  I have used the

I, too, have the Avatex 1200.  It is a remarkable value that does exactly
what it is advertised to do.  BUT, I do have one minor complaint.  It does
not have a built in audio monitor.  The Hayes modem I use at work has this
function and once used to it...

It does allow a phone to be connected to it, so through carefull handling,
I can monitor the beginning of the call without *hanging up on myself :-)*

A couple of times I have called a worng number by accident.  If I hadn't
been monitoring, I would have had an irrate housewife complaining about
crank calls.

Disclaimer:  I speak only for myself
```

```
From 3075042937154706334
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,4b2564d437407243,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,4b2564d437407243,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 13:50:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!david
From: david@looking.UUCP (David Rowley)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: ST Development Systems
Message-ID: <590@looking.UUCP>
Date: Thu, 26-Jun-86 16:50:42 EDT
Article-I.D.: looking.590
Posted: Thu Jun 26 16:50:42 1986
Date-Received: Sat, 28-Jun-86 00:33:05 EDT
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 42
Xref: watmath net.micro.atari16:1118 net.micro.68k:1703

[munch, munch]

We are looking into doing some development on the ST and are faced with
a problem, finding a development environment that suits our needs.
We are thinking of porting a very large application from the PC to the
ST and need to find a dev. system that can hack it.

We prefer a cross-development system, running under UNIX, but I fear
such a beast does not exist.

Our needs are: more than 32k static initialized data (we have lots of
tables), a good pre-processor (handles #if defined(X) || defined(Y), etc)
unsigned as an attribute, rather than as a type of int (we need unsigned
chars), a reasonable debugging environment (compatible with SID, or
better).

Above all this, we need a reliable compiler/linker. We do NOT want to
spend our time debugging the tools.

We have looked at Alcyon (which is what we are using until something better
comes along), but alas it is buggy. SID provides a reasonable debugging
environment. The compiler and linker are slow, and the resource
construction set bombs routinely. We have ordered the new release
of Alcyon, and hope that the compiler bugs will be fixed.

We have also looked at Megamax, but it does not support a debugger of any
kind, and debugging with printf's on a project like this does not appeal
to us... It also does not support more than 32k static initialized data
(we could get around that if we had to)

Ideally we would like the whole system to run under UNIX (Xenix on an AT,

actually), producing a .prg there and then downloading the binary to the ST. Has anyone hacked SUMac to work with the ST ?

Am I hoping too much ? Does anything come close to this ?

Any suggestions would be appreciated,

Regards,
David Rowley
Looking Glass Software
utzoo!watmath!looking!david

From -7740193156867297642
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d0b4badbf0febf09,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 13:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!OFFICE-1.ARPA!SMB.MDC
From: SMB.MDC@OFFICE-1.ARPA
Newsgroups: net.micro.atari16
Subject: Music St*dio song file format query
Message-ID: <MDC-SMB-9G1XJ@OFFICE-1>
Date: Thu, 26-Jun-86 16:51:00 EDT
Article-I.D.: OFFICE-1.MDC-SMB-9G1XJ
Posted: Thu Jun 26 16:51:00 1986
Date-Received: Sat, 28-Jun-86 01:15:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Can anyone shed some light on the format of the Music St*dio song file format. I would like to extract the MIDI data and timing information and convert this information to a form suitable for loading into a stand-alone MIDI sequencer for live performance without a computer. Any help will be appreciated. Thanks in advance.

Steve Bate, bate@office-1.arpa

From -1750850637802448264
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95e428c6832720a5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 16:57:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!mordor!styx!lll-crg!seismo!mcvax!unido!coma!axel
From: axel@coma.UUCP
Newsgroups: net.micro.atari16
Subject: Bug in GEM-Kermit 1.1

Message-ID: <600018@coma.UUCP>
Date: Thu, 26-Jun-86 19:57:00 EDT
Article-I.D.: coma.600018
Posted: Thu Jun 26 19:57:00 1986
Date-Received: Sun, 29-Jun-86 04:51:21 EDT
Sender: notes@unido.UUCP
Lines: 11
Nf-ID: #N:coma:600018:000:344
Nf-From: coma!axel   Jun 27 00:57:00 1986

As I was told by the author, there is a bug in GEM-Kermit 1.1.
REAL binary transfer (definitely non ASCII) does not work. Transfer
of ASCII-Files in binary-mode does work.

This bug is fixed with GEM-Kermit 1.2.
I'll post an uuencoded GEM-Kermit 1.2 to net.micro.at16, soon.
Sources on request.

              Axel Mahler, TU-Berlin
              (unido!coma!axel)

From 1984706823120144439
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9c6cea2796e74c4d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 17:45:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!axiom!adelie!ll-xn!topaz!dpz
From: dpz@topaz.RUTGERS.EDU (David P. Zimmerman)
Newsgroups: net.micro.atari16
Subject: GEM-Kermit #2 truncated
Message-ID: <5236@topaz.RUTGERS.EDU>
Date: Thu, 26-Jun-86 20:45:48 EDT
Article-I.D.: topaz.5236
Posted: Thu Jun 26 20:45:48 1986
Date-Received: Fri, 27-Jun-86 21:39:18 EDT
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 12
Keywords: foo bar

It seems that our copy of the GEM-Kermit #2 uuencoded executable was
truncated somewhere. Could someone mail me a good copy?

    Thanx,

              Davidann
--
Name: David P. Zimmerman   Nickname: "Davidann" (don't ask)
Cute quote: " (well, *I* think it's cute!)
Arpa: DZIMMERMAN@BLUE.RUTGERS.EDU
Uucp: ...{allegra, harvard, seismo, sri-iu, ut-sally}!topaz!dpz

From -4959444041511542140
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95169168c8cce787
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 19:20:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ut-sally!seismo!gatech!akgua!akguc!mtune!mtuxo!
houxm!ihnp4!alberta!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Re: Question on processor expansion
Message-ID: <297@ubc-cs.UUCP>
Date: Thu, 26-Jun-86 22:20:16 EDT
Article-I.D.: ubc-cs.297
Posted: Thu Jun 26 22:20:16 1986
Date-Received: Mon, 30-Jun-86 04:45:34 EDT
References: <8606201839.AA06129@pavepaws> <477@elmgate.UUCP> <176@molihp.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 16

I fail to see the attraction of the 68010. It's not substantially faster,
and the few extra instructions it offers are unlikely to do a great deal
in speeding up programs. The major virtue of the 68010 is that it supports
demand paging, which is useful in virtual memory systems. The existing
ST MMU renders this advantage dubious.

The 68020 adds a fair number of instructions (notably 32-bit multiply and
divide), and is in general a winner. On the other hand, there is little
point in trying to add a 68020 to the ST directly, so I'm eagerly awaiting
the TT box. Neil Harris, are you listening????

I'm dubious about a $530 CDN price for the 68020, though: the July issue of
BYTE has an article on the Definicon 68020 co-processor board for the IBM
PC. Including 1MB of memory, a 68020, and a 68881 (FPU), the price they list
is US$995. That would cause me to guess that (in reasonable quantities) you
can get a 68020 for ~ $150 US.

From -8460079540374630760
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9e2c79adc5741d4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-26 23:58:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!decvax!cwruecmp!
bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGem Parts 13-14 (1 of 2)
Message-ID: <1512@cwruecmp.UUCP>

Date: Fri, 27-Jun-86 02:58:02 EDT
Article-I.D.: cwruecmp.1512
Posted: Fri Jun 27 02:58:02 1986
Date-Received: Sat, 28-Jun-86 08:49:02 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 971

Here are the next two installments of Tim Orens Professional Gem
Seminar. I am including toc.prf and macros.prf again.

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind13.prf
#    apndx10.prf
# This archive created: Fri Jun 27 02:51:51 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'wind13.prf'" '(18936 characters)'
if test -f 'wind13.prf'
then
     echo shar: over-writing existing file "'wind13.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind13.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part XIII
X.!
X.!*************************************************************************
X.!
X.PART XIII A New Form Manager
X.PP
XThis  is  the 13th installment of ST PRO GEM,  and the  first
Xdevoted to explaining a large piece of code.  This article is also
Xthe  second  in a series of three concerning  GEM  user  interface
```

Xtechniques. The code is an alternate form (dialog) manager for XGEM. It is stored as GMCL13.C in DL3 of PCS-58. You should go Xand download it now, or you will have no hope of following this Xdiscussion.
X.PP
XWhat is unique about this version of the form manager? XFirst, it implements all of the functions of the standard GEM Xform_do routine, as well as adding a "hot spots" feature which Xcauses selectable objects to become mouse-sensitive, just like Xthe entries in menu dropdowns. The second (and obvious) Xdifference is that this form manager is provided in source code Xform. This gives you the freedom to examine it and change it to Xsuit your own needs.
X.PP
XI have several purposes in presenting this code. It is Xintended as an example of GEM program structure, and an Xapplication of some of the techniques presented in earlier Xcolumns. It is also relevant to the continuing thread discussing Xthe necessity of feedback when constructing a user interface.
X.PP
XAlso, this issue represents the beginning of a fundamental Xchange in direction for ST PRO GEM. Since this column began last XAugust, Atari ST developers have increased not only in number, but Xin sophistication. A number of books, as well as back issues of XST PRO GEM, are now available to explain the basics of the ST and XGEM. Quick answers to common questions are available here on XCompuserve's PCS-57 from Atari itself, or from helpful members of Xthe developer community.
X.PP
XTo reflect these changes, future columns will discuss more Xadvanced topics in greater depth, with an accent on code which can Xbe adapted by developers. The program presented in this issue Xwill be a basis for a number of these discussions. There will be Xfewer "encyclopediac" treatments of AES and VDI function calls. XFinally, to give me the time required to create this code or clean Xup tools from my "bag of tricks", ST PRO GEM will probably convert Xto a monthly format around the start of summer.
X.SH ON WITH THE SHOW
XTaking your listing in hand, you will Xquickly notice two things. First, this program uses the infamous Xportability macros, so that it may be used with Intel versions of XGEM. Second, the routines are arranged "bottom up", with the main Xat the end, and subroutines going toward the beginning. (This is Xa carry-over from my days with ALGOL and PASCAL.) You should now Xturn to the form_do entry point near the end of the code.
X.PP
XOne change has been made in the standard calling sequence for Xm_do. The starting edit field is now a pointer to a value, Xrather than the value itself. The new form_do overwrites the Xinitial value with the number of the object being edited when the Xdialog terminated. Using this information, your program can Xrestore the situation when the dialog is next called. As before, Xif there is NO editable field, the initial value should be zero.

X.PP
XThere are several local variables which maintain vital state
Xinformation during the dialog interaction. Edit_obj is the number
Xof the editable object currently receiving keystrokes. Next_obj
Xis set when the mouse is clicked over an object. If the object
Xhappens to be editable, next_obj becomes the new edit_obj.
X.PP
XThree variables are associated with the "hot-spot" feature.
XIf hot_mode is set to M1_ENTER, then the mouse is outside the area
Xof the dialog. If it equals M1_EXIT, then the mouse is currently
Xin the dialog. If it is in the dialog, hot_obj indicates whether
Xthere is an active "hot" object. If its value is NIL (-1), then
Xthere is no active object. Otherwise, it is equal to the number
Xof the object which is currently "hot", that is, inverted on the
Xscreen. Finally, hot_rect is the current wait rectangle. If the
Xmouse is outside of the window, then the wait rectangle equals the
Xdialog's ROOT. If there is a current hot object, then hot_rect
Xequals that object's screen rectangle. If the mouse is in the
Xdialog, but not within a hot object, then the wait rectangle
Xdefines the area within which no further collision checks are
Xnecessary. This is arrived at through an algorithm explained
Xbelow.
X.PP
XForm_do's initialization code sets up the hot-spot variables
Xto trigger if the mouse is within the dialog. It also sets
Xstarting values for edit_obj and next_obj which will cause the
Xedit startup code to be activated.
X.PP
XThe main portion of form_do is a loop, exhibiting the type of
Xevent driven structure discussed in the last column. Before
Xentering the evnt_multi wait, the status of next_obj and edit_obj
Xare checked to see if a new object should be initialized for
Xediting. If so, objc_edit is called with the EDINIT function
Xcode. NOTE: the objc_edit calling sequence used in this program
Xdiffers from the one given in the AES manual, which is incorrect!
XYou should check the bindings you are using to be sure they will
Xwork with this code, and modify as necessary.
X.PP
XThe evnt_multi is set up to wait for a mouse click (single or
Xdouble), for a keyboard input, or for the mouse to make a
X"significant" movement, as discussed above. Notice that since
Xform_do is used as a subroutine, it does not handle messages which
Xare normally processed by the main loop of your application.
XNotice that this creates a mode, and that this routine as written
Xhandles modal dialogs. You could, however, use this code as the
Xbasis for a non-modal dialog handler by drawing the dialog within
Xa window, and combining the main loop of form_do with the main
Xloop of your application. (This possibility may be examined in
Xfuture columns. In the meantime, it is left as an exercise for
Xthe reader.)
X.PP
XThe event bit vector is returned to the variable "which".
XSince events are not mutually exclusive, each possible event type

Xmust be examined in turn before returning to the evnt_multi call.
XThe form manager's event handling routines are form_hot, for mouse
Xrectangle event, form_keybd, for character input, and form_button,
Xfor mouse clicks. Form_keybd and form_button are allowed to
Xterminate the dialog by returning a value of false to the loop
Xcontrol variable "cont". If termination is imminent, or the user
Xhas clicked on a new editable object, objc_edit is called with
XEDEND to remove the cursor from the old object. The normal flow
Xof control then returns to edit setup and evnt_multi.
X.PP
XA few cleanup actions are performed upon termination. If the
Xterminating object (stored in next_obj) is not the same as the
Xhot_obj, then a race condition has occured and the hot object must
Xbe cleared with objc_toggle before exiting. After this test, the
Xfinal edit_obj value is passed back via the parameter, and the
Xterminating object is returned as the function value.
X.SH RELAXEN UND WATCHEN DAS BLINKENLICHTE
XForm_hot is
Xresponsible for maintaining on-screen hot-spots, and correctly
Xupdating the internal hot-spot variables. It is about halfway
Xthrough the listing.
X.PP
Xhe first action in form_hot is to determine if the mouse has
Xjust exited an object which is "hot. In this case, objc_toggle is
Xcalled to unhighlight the object and reset the SELECTED flag.
X.PP
XThe current mouse position is passed to form_hot by form_do.
XIt is checked against the root rectangle of the dialog to see if
Xthe mouse is inside the dialog. If not, the program must wait for
Xit to re-enter, so form_hot sets the rectangle and waiting mode
Xaccordingly, and returns NIL as the new hot_obj.
X.PP
XWhen the mouse is within the dialog, a regular objc_find call
Xdetermines the object at which it is pointing. For an object to
Xbe mouse-sensitive, it must be SELECTABLE and not DISABLED. If
Xthe found object meets these tests, the mouse will "hover" over
Xthe object, waiting to leave its screen rectangle. Since the
Xobject might already be SELECTED (and hence drawn reversed), this
Xis checked before objc_toggle is called to do the highlighting and
Xselection of the object, which becomes the hot_obj. (If the
Xobject was already SELECTED, the hot_obj becomes NIL.)
X.PP
XThe toughest condition is when the mouse is within the
Xdialog, but not over a mouse-sensitive object. The regular GEM
Xevent structure will not work, because it can only wait on two
Xrectangles, and there may be many more selectable objects in a
Xdialog tree. I have found a way around this limitation using a
Xcombination of the map_tree utility (introduced in ST PRO GEM #5)
Xwith the principle of visual hierarchy in object trees.
X.PP
XIn summary, the algorithm attempts to find the largest
Xbounding rectangle around the current mouse position, within which
Xthere are no mouse-sensitive objects. It starts with a rectangle

Xequal to the dialog root, and successively "breaks" it with the
Xrectangle of each mouse-sensitive object. The next few paragraphs
Xexamine this method in detail.
X.PP
XSince C lacks the dynamic scoping of LISP, from which
Xmap_tree was derived, it is necessary to set up some globals to be
Xused during the rectangle break process. Br_rect is the GRECT of
Xthe current bounding rectangle. Br_mx and br_my hold the current
Xmouse position. Br_togl is a switch which determines whether the
Xnext break will be attempted horizontally or vertically. After
Xinitializing these variables, form_hot uses map_tree to invoke the
Xbreak_obj routine for every object in the dialog.
X.PP
XBreak_obj first intersects the rectangle of the object with
Xthe current bounding rectangle. If they are disjoint, then
Xneither the object nor any of its offspring can possible affect
Xthe operation, so FALSE is returned, causing map_tree to ignore
Xthe subtree.
X.PP
XThe object is next checked to see if it is mouse-sensitive.
XAs before, it must be SELECTABLE and not DISABLED, and it must not
Xbe hidden (this was checked automatically by objc_find before).
XIf these conditions are met, then the object intrudes into the
Xcurrent bounding rectangle. To maintain the desired condition,
Xpart of the rectangle must be removed or "broken away".
X.PP
XIn many cases, the break operation can be done either
Xhorizontally or vertically. Since we have no prior information as
Xto which way the mouse will move next, break_obj uses the br_togl
Xflag to alternate which direction it will try first. This should
Xyield the most nearly square rectangle.
X.PP
XThe break_x and break_y routines are very similar. In each
Xcase, the segment occupied by the breaking object is compared to
Xthe point occupied by the mouse. If the point is within the
Xsegment, there is no possible break in this dimension, and FALSE
Xis returned. If the point lies outside the segment, then the
Xrectangle may be successfully broken by reducing this dimension.
XThis is done, and TRUE is returned to report success.
X.PP
XThe break_y routine also employs a look-ahead test to prevent
Xa possible infinite loop. It is conceivable, though not likely,
Xthat someone might nest a non-SELECTABLE object completely within
Xanother SELECTABLE object(s). If the mouse point is within such
Xan object, the algorithm will not be able to select a break
Xdimension. In the current version, the mouse rectangle is simply
Xforced to a single pixel for this case. (Note that is is NOT
Xsufficent to simply wait on the non-selectable object's rectangle,
Xsince other SELECTABLE objects may overlap it and follow it in
Xtree order.)
X.PP
XSince map_tree examines all possible objects, br_rect will be
Xthe correct bounding rectangle at completion. Note that you can

Xreadily adapt this technique to other uses, such as hot-spotting Xwhile dragging objects. It is much less demanding of CPU Xresources than other methods, such as repetitive objc_finds.
X.SH WHAT A CHARACTER!
XThe form_keybd routine acts as a filter on
Xcharacter input. When it recognizes a control character, it Xprocesses it and zeroes the keyboard word. Other chararacters are Xpassed on to objc_edit to be inserted in edit_obj. If there is no Xediting object, the character goes to the bit bucket.
X.PP
XThe form_keybd given implements the standard GEM
Xfunctionality with two minor additions. First, a carriage return Xin a dialog with no DEFAULT exit object is taken as a tab. This Xallows <CR> to be used "naturally" in dialogs with several lines Xof text input. Second, tabs and backtabs "wrap around" from top Xto bottom of the dialog, and are done by "walking the tree", Xrather than relying on the LASTOB flag to signal the end of the Xdialog. This allows the new form manager to handle dialog trees Xwhich are not contiguous in memory.
X.PP
XThe code sets up several global variables for use by mapped
Xfunctions. Fn_obj is the output from both find_tab and find_def. XFn_dir is an input to find_tab. Fn_last, fn_prev, and fn_last are Xused while searching for tab characters.
X.PP
XA carriage return results in a search of the entire tree,
Xusing map_tree and find_def, for an object with its DEFAULT flag Xset. Its SELECTED flag is set and it is inverted on the screen to Xindicate the action taken. Form_keybd returns a FALSE to force Xtermination of the main form_do loop. If no DEFAULT is found, Xcontrol passes to the tab code.
X.PP
XThe tabbing procedure is somewhat complicated because the
Xsame code is used for forward and backward tabbing. The old value Xof edit_obj (the object being tabbed FROM) is placed into fn_last. XFn_dir is set to one for a forward tab, and zero for a backward Xtab.
X.PP
XThe general strategy is to scan the entire tree for EDITABLE
Xobjects, always saving the last one found in fn_prev. When Xtabbing forward fn_last is checked against fn_prev. A match Xindicates that the current object is the one desired. When Xtabbing backward the current object is checked against fn_last. XIf they match, fn_prev is the desired object. This procedure Xrequires two passes when the tab "wraps around" the tree, that is, Xwhen the desired object as at the opposite end of the traverse Xfrom the old editing object.
X.PP
XThe result of the tab operation is written back into
Xform_do's next_obj parameter, and becomes the new editing object Xat the beginning of the next loop.
X.SH BUTTON DOWN
XThe form_button procedure is lengthy because it

Xmust recognize and handle mouse clicks on several types of Xobjects: EDITABLE, SELECTABLE, and TOUCHEXIT. The first section Xof code rejects other objects, which cannot accept a click.
X.PP
XThe next piece of form_button makes a special check for a Xdouble click on a TOUCHEXIT object. This will cause the high bit Xof the returned object number to be set. (By the way, this also Xoccurs in the standard form_do.) This flag allows user dialog Xcode to perform special processing on the object.
X.PP
XThe largest piece of form_button handles the various cases in Xwhich the SELECTABLE flag may be set. Setting the RBUTTON (radio Xbutton) flag causes all of the object's siblings in the tree to be Xdeselected at the time the object is clicked. The do_radio Xroutine uses the get_parent utility to find the ancestor, and then Xperforms the deselect/select operation.
X.PP
XIf the SELECTABLE object is not TOUCHEXIT, then graf_watchbox Xis used to make sure that the mouse button comes back up while it Xis within the object. Otherwise, the click is cancelled. Care is Xnecessary here, since the hot-spot code may have already set the XSELECTED flag for the object. (We cannot be sure of this, for a Xrace condition may have occurred!)
X.PP
XIf the SELECTABLE object is TOUCHEXIT, then the application Xhas requested that form_do exit without waiting for the button to Xgo back up. In both this and regular form_do, TOUCHEXIT objects Xare used when you want to provide immediate response (animation) Xwithin the context of a dialog.
X.PP
XThe final parts of form_button do cleanup. If the clicked Xobject was already hot-spotted, hot_obj must be reset to NIL, Xotherwise form_do will carefully unselect the object which has Xjust been selected!
X.PP
XIf the EXIT or TOUCHEXIT flags are in force, form_button Xreturns FALSE to force the completion of form_do. For EDITABLE Xobjects, next_obj is left intact to replace edit_obj during the Xnext loop. Otherwise, next_obj has done its job and is zeroed, Xand form_button returns TRUE for continuation.
X.PP
XThis concludes the tour of the alternate form_do. The best Xcure for any confusion in this explanation is to compile the code Xinto an application and watch how it runs with different Xresources, or attack it with a debugger.
X.SH OPERATORS ARE STANDING BY
XI encourage you to modify this Xcode to meet your particular needs and incorporate it into your Xapplication. I would like to request than anyone who comes up Xwith significant improvements (or bug fixes) send them to me so Xthey can be made generally available. You can do this via the XANTIC ONLINE Feedback, or by sending E-mail to 76703,202.
X.PP

```
XSpeaking  of  Feedback,  I  would also like comments  on  the
Xproposed change of direction for the column,  and more suggestions
Xfor  future  topics.   The  next  installment will  be  a  further
Xdiscussion  of  interface design.   Topics now queued  for  future
Xarticles  include the file selector and DOS error handling,  a new
Xobject  editor,  and customized drag box and rubber box  routines.
XDiscussions  on  VDI workstations and printer output are  on  hold
Xpending  release of the GDOS by Atari.   If there are items  which
Xyou want to appear here, you must let me know!
X.!
X.!
X.!*************************************************************************
X.!*                                                *
X.!*               End Part XIII                        *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 18936 -ne "`wc -c 'wind13.prf'`"
then
     echo shar: error transmitting "'wind13.prf'" '(should have been 18936
characters)'
fi
echo shar: extracting "'apndx10.prf'" '(14690 characters)'
if test -f 'apndx10.prf'
then
     echo shar: over-writing existing file "'apndx10.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx10.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 10
X.!
X.!*************************************************************************
X.!
X.!
X.AP X Sample Code for Part XIII
X#include "portab.h"                 /* portable coding conv
     */
X#include "machine.h"                /* machine depndnt conv
```

```
     */
X#include "obdefs.h"                 /* object definitions
     */
X#include "gembind.h"                /* gem binding structs
     */
X#include "taddr.h"
X
X#define  M1_ENTER  0x0000
X#define  M1_EXIT       0x0001
X
X#define BS   0x0008
X#define  TAB  0x0009
X#define  CR   0x000D
X#define ESC  0x001B
X#define  BTAB 0x0f00
X#define  UP   0x4800
X#define  DOWN 0x5000
X#define  DEL  0x5300
X                       /* Global variables used by */
X                       /* 'mapped' functions      */
XMLOCAL   GRECT    br_rect;      /* Current break rectangle  */
XMLOCAL   WORD br_mx, br_my, br_togl; /* Break mouse posn & flag  */
XMLOCAL   WORD fn_obj;            /* Found tabable object    */
XMLOCAL   WORD fn_last;      /* Object tabbing from     */
XMLOCAL   WORD fn_prev;      /* Last EDITABLE obj seen   */
XMLOCAL   WORD fn_dir;            /* 1 = TAB, 0 = BACKTAB    */
X
X/************** Utility routines for new forms manager ***************/
X
X    VOID
Xobjc_toggle(tree, obj)          /* Reverse the SELECT state */
X    LONG tree;              /* of an object, and redraw */
X    WORD obj;          /* it immediately.     */
X    {
X    WORD state, newstate;
X    GRECT    root, ob_rect;
X
X    objc_xywh(tree, ROOT, &root);
X    state = LWGET(OB_STATE(obj));
X    newstate = state ^ SELECTED;
X    objc_change(tree, obj, 0, root.g_x, root.g_y,
X         root.g_w, root.g_h, newstate, 1);
X    }
X
X.bp
XVOID                       /* If the object is not already */
Xobjc_sel(tree, obj)             /* SELECTED, make it so.
     */
X    LONG tree;
X    WORD obj;
X    {
X    if ( !(LWGET(OB_STATE(obj)) & SELECTED) )
X         objc_toggle(tree, obj);
```

```
X    }
X
X    VOID               /* If the object is SELECTED,    */
Xobjc_dsel(tree, obj)           /* deselect it.
     */
X    LONG tree;
X    WORD obj;
X    {
X    if (LWGET(OB_STATE(obj)) & SELECTED)
X         objc_toggle(tree, obj);
X    }
X
X    VOID               /* Return the object's GRECT     */
Xobjc_xywh(tree, obj, p)             /* through 'p'
         */
X    LONG tree;
X    WORD obj;
X    GRECT    *p;
X    {
X    objc_offset(tree, obj, &p->g_x, &p->g_y);
X    p->g_w = LWGET(OB_WIDTH(obj));
X    p->g_h = LWGET(OB_HEIGHT(obj));
X    }
X.bp
X    VOID               /* Non-cursive traverse of an    */
Xmap_tree(tree, this, last, routine) /* object tree.  This routine
     */
X    LONG     tree;         /* is described in PRO GEM #5.
     */
X    WORD     this, last;
X    WORD     (*routine)();
X    {
X    WORD     tmp1;
X
X    tmp1 = this;       /* Initialize to impossible value: */
X                  /* TAIL won't point to self!        */
X                  /* Look until final node, or off   */
X                  /* the end of tree        */
X    while (this != last && this != NIL)
X                  /* Did we 'pop' into this node      */
X                  /* for the second time?        */
X         if (LWGET(OB_TAIL(this)) != tmp1)
X              {
X              tmp1 = this;  /* This is a new node       */
X              this = NIL;
X                        /* Apply operation, testing  */
X                        /* for rejection of sub-tree */
X              if ((*routine)(tree, tmp1))
X                   this = LWGET(OB_HEAD(tmp1));
X                        /* Subtree path not taken,   */
X                        /* so traverse right        */
X              if (this == NIL)
X                   this = LWGET(OB_NEXT(tmp1));
```

```
X             }
X         else          /* Revisiting parent:       */
X                       /* No operation, move right  */
X             {
X             tmp1 = this;
X             this = LWGET(OB_NEXT(tmp1));
X             }
X    }
X.bp
X    WORD               /* Find the parent object of     */
Xget_parent(tree, obj)          /* by traversing right until
     */
X    LONG     tree;         /* we find nodes whose NEXT */
X    WORD     obj;     /* and TAIL links point to  */
X    {                /* each other.              */
X    WORD     pobj;
X
X    if (obj == NIL)
X         return (NIL);
X    pobj = LWGET(OB_NEXT(obj));
X    if (pobj != NIL)
X    {
X      while( LWGET(OB_TAIL(pobj)) != obj )
X      {
X        obj = pobj;
X        pobj = LWGET(OB_NEXT(obj));
X      }
X    }
X    return(pobj);
X    }
X
X    WORD
Xinside(x, y, pt)      /* determine if x,y is in rectangle
     */
X    WORD     x, y;
X    GRECT         *pt;
X    {
X    if ( (x >= pt->g_x) && (y >= pt->g_y) &&
X        (x < pt->g_x + pt->g_w) && (y < pt->g_y + pt->g_h) )
X         return(TRUE);
X    else
X         return(FALSE);
X    }
X
X    WORD
Xrc_intersect(p1, p2)       /* compute intersection of two GRECTs
     */
X    GRECT         *p1, *p2;
X    {
X    WORD     tx, ty, tw, th;
X
X    tw = min(p2->g_x + p2->g_w, p1->g_x + p1->g_w);
X    th = min(p2->g_y + p2->g_h, p1->g_y + p1->g_h);
```

```
X    tx = max(p2->g_x, p1->g_x);
X    ty = max(p2->g_y, p1->g_y);
X    p2->g_x = tx;
X    p2->g_y = ty;
X    p2->g_w = tw - tx;
X    p2->g_h = th - ty;
X    return( (tw > tx) && (th > ty) );
X    }
X.bp
X    VOID
Xrc_copy(psbox, pdbox)      /* copy source to destination rectangle
     */
X    GRECT    *psbox;
X    GRECT    *pdbox;
X    {
X    pdbox->g_x = psbox->g_x;
X    pdbox->g_y = psbox->g_y;
X    pdbox->g_w = psbox->g_w;
X    pdbox->g_h = psbox->g_h;
X    }
X
X/************* "Hot-spot" manager and subroutines  ***************/
X
X    WORD
Xbreak_x(pxy)
X    WORD *pxy;
X    {                   /* Breaking object is right of   */
X    if (br_mx < pxy[0])         /* mouse.  Reduce width of
     */
X         {              /* bounding rectangle.      */
X         br_rect.g_w = pxy[0] - br_rect.g_x;
X         return (TRUE);
X         }
X    if (br_mx > pxy[2])         /* Object to left.  Reduce width*/
X         {              /* and move rect. to right  */
X         br_rect.g_w += br_rect.g_x - pxy[2] - 1;
X         br_rect.g_x = pxy[2] + 1;
X         return (TRUE);
X         }
X    return (FALSE);             /* Mouse within object segment.
     */
X    }                   /* Break attempt fails.     */
X.bp
X    WORD
Xbreak_y(pxy)
X    WORD *pxy;
X    {
X    if (br_my < pxy[1])         /* Object below mouse.  Reduce
     */
X         {              /* height of bounding rect. */
X         br_rect.g_h = pxy[1] - br_rect.g_y;
X         return (TRUE);
X         }
```

```
X    if (br_my > pxy[3])         /* Object above mouse.  Reduce
     */
X         {             /* height and shift downward.    */
X         br_rect.g_h += br_rect.g_y - pxy[3] - 1;
X         br_rect.g_y = pxy[3] + 1;
X         return (TRUE);
X         }
X    /* Emergency escape test! Protection vs. turkeys who nest */
X    /* non-selectable objects inside of selectables.          */
X    if (br_mx >= pxy[0] && br_mx <= pxy[1])
X         {                  /* Will X break fail?    */
X         br_rect.g_x = br_mx;        /* If so, punt!
       */
X         br_rect.g_y = br_my;
X         br_rect.g_w = br_rect.g_h = 1;
X         return (TRUE);
X         }
X    return (FALSE);
X    }
X.bp
X    WORD
Xbreak_obj(tree, obj)           /* Called once per object to
     */
X    LONG tree;              /* check if the bounding rect.
     */
X    WORD obj;          /* needs to be modified.    */
X    {
X    GRECT    s;
X    WORD flags, broken, pxy[4];
X
X    objc_xywh(tree, obj, &s);
X    grect_to_array(&s, pxy);
X    if (!rc_intersect(&br_rect, &s))
X         return (FALSE);        /* Trivial rejection case
     */
X
X    flags = LWGET(OB_FLAGS(obj));    /* Is this object a potential
     */
X    if (flags & HIDETREE)       /* hot-spot?
     */
X         return (FALSE);
X    if ( !(flags & SELECTABLE) )
X         return (TRUE);
X    if (LWGET(OB_STATE(obj)) & DISABLED)
X         return (TRUE);
X
X    for (broken = FALSE; !broken; ) /* This could take two passes
     */
X         {             /* if the first break fails.     */
X         if (br_togl)
X              broken = break_x(pxy);
X         else
X              broken = break_y(pxy);
```

```
X         br_togl = !br_togl;
X         }
X    return (TRUE);
X    }
X.bp
X    WORD               /* Manages mouse rectangle events */
Xform_hot(tree, hot_obj, mx, my, rect, mode)
X    LONG tree;
X    WORD hot_obj, mx, my, *mode;
X    GRECT    *rect;
X    {
X    GRECT    root;
X    WORD state;
X
X    objc_xywh(tree, ROOT, &root);    /* If there is already a hot-spot */
X    if (hot_obj != NIL)         /* turn it off.
       */
X         objc_toggle(tree, hot_obj);
X
X    if (!(inside(mx, my, &root)) )   /* Mouse has moved outside of
       */
X         {              /* the dialog.  Wait for return.  */
X         *mode = M1_ENTER;
X         rc_copy(&root, rect);
X         return (NIL);
X         }
X                        /* What object is mouse over?      */
X                        /* (Hit is guaranteed.)           */
X    hot_obj = objc_find(tree, ROOT, MAX_DEPTH, mx, my);
X                        /* Is this object a hot-spot?      */
X    state = LWGET(OB_STATE(hot_obj));
X    if (LWGET(OB_FLAGS(hot_obj)) & SELECTABLE)
X    if ( !(state & DISABLED) )
X         {              /* Yes!  Set up wait state.   */
X         *mode = M1_EXIT;
X         objc_xywh(tree, hot_obj, rect);
X         if (state & SELECTED)  /* But only toggle if it's not
       */
X              return (NIL); /* already SELECTED!          */
X         else
X              {
X              objc_toggle(tree, hot_obj);
X              return (hot_obj);
X              }
X         }
X
X    rc_copy(&root, &br_rect);   /* No hot object, so compute
     */
X    br_mx = mx;             /* mouse bounding rectangle.
     */
X    br_my = my;
X    br_togl = 0;
X    map_tree(tree, ROOT, NIL, break_obj);
```

```
X    rc_copy(&br_rect, rect);    /* Then return to wait state.
     */
X    *mode = M1_EXIT;
X    return (NIL);
X    }
X.bp
X/************* Keyboard manager and subroutines ***************/
X
X    WORD
Xfind_def(tree, obj)        /* Check if the object is DEFAULT
     */
X    LONG tree;
X    WORD obj;
X    {             /* Is sub-tree hidden?          */
X    if (HIDETREE & LWGET(OB_FLAGS(obj)))
X         return (FALSE);
X                  /* Must be DEFAULT and not DISABLED  */
X    if (DEFAULT & LWGET(OB_FLAGS(obj)))
X    if ( !(DISABLED & LWGET(OB_STATE(obj))) )
X         fn_obj = obj; /* Record object number          */
X    return (TRUE);
X    }
X
X    WORD
Xfind_tab(tree, obj)        /* Look for target of TAB operation.
     */
X    LONG tree;
X    WORD obj;
X    {             /* Check for hiddens subtree.        */
X    if (HIDETREE & LWGET(OB_FLAGS(obj)))
X         return (FALSE);
X                  /* If not EDITABLE, who cares?       */
X    if ( !(EDITABLE & LWGET(OB_FLAGS(obj))) )
X         return (TRUE);
X                  /* Check for forward tab match       */
X    if (fn_dir && fn_prev == fn_last)
X         fn_obj = obj;
X                  /* Check for backward tab match      */
X    if (!fn_dir && obj == fn_last)
X         fn_obj = fn_prev;
X    fn_prev = obj;          /* Record object for next call.
          */
X    return (TRUE);
X    }
X
X    WORD
Xform_keybd(tree, edit_obj, next_obj, kr, out_obj, okr)
X    LONG tree;
X    WORD edit_obj, next_obj, kr, *out_obj, *okr;
X    {
X    if (LLOBT(kr))          /* If lower byte valid, mask out
     */
X         kr &= 0xff;   /* extended code byte.          */
```

```
X    fn_dir = 0;        /* Default tab direction if backward.
     */
X    switch (kr) {
X         case CR: /* Zap character.           */
X              *okr = 0;
X                   /* Look for a DEFAULT object.        */
X              fn_obj = NIL;
X              map_tree(tree, ROOT, NIL, find_def);
X                   /* If found, SELECT and force exit.  */
X              if (fn_obj != NIL)
X                   {
X                   objc_sel(tree, fn_obj);
X                   *out_obj = fn_obj;
X                   return (FALSE);
X                   }         /* Falls through to    */
X         case TAB:           /* tab if no default   */
X         case DOWN:
X              fn_dir = 1;        /* Set fwd direction   */
X         case BTAB:
X         case UP:
X              *okr = 0;     /* Zap character   */
X              fn_last = edit_obj;
X              fn_prev = fn_obj = NIL; /* Look for TAB object
     */
X              map_tree(tree, ROOT, NIL, find_tab);
X              if (fn_obj == NIL) /* try to wrap around  */
X                   map_tree(tree, ROOT, NIL, find_tab);
X              if (fn_obj != NIL)
X                   *out_obj = fn_obj;
X              break;
X         default:            /* Pass other chars    */
X              return (TRUE);
X         }
X    return (TRUE);
X    }
X.bp
X/************* Mouse button manager and subroutines ***************/
X
X    WORD
Xdo_radio(tree, obj)
X    LONG tree;
X    WORD obj;
X    {
X    GRECT    root;
X    WORD pobj, sobj, state;
X
X    objc_xywh(tree, ROOT, &root);
X    pobj = get_parent(tree, obj);         /* Get the object's parent */
X
X    for (sobj = LWGET(OB_HEAD(pobj)); sobj != pobj;
X         sobj = LWGET(OB_NEXT(sobj)) )
X         {                   /* Deselect all but...     */
X         if (sobj != obj)
```

```
X             objc_dsel(tree, sobj);
X        }
X    objc_sel(tree, obj);             /* the one being SELECTED  */
X    }
X
X    WORD                    /* Mouse button handler    */
Xform_button(tree, obj, clicks, next_obj, hot_obj)
X    LONG tree;
X    WORD obj, clicks, *next_obj, *hot_obj;
X    {
X    WORD flags, state, hibit, texit, sble, dsbld, edit;
X    WORD in_out, in_state;
X
X    flags = LWGET(OB_FLAGS(obj));        /* Get flags and states   */
X    state = LWGET(OB_STATE(obj));
X    texit = flags & TOUCHEXIT;
X    sble = flags & SELECTABLE;
X    dsbld = state & DISABLED;
X    edit = flags & EDITABLE;
X
X    if (!texit && (!sble || dsbld) && !edit) /* This is not an
     */
X        {                    /* interesting object */
X        *next_obj = 0;
X        return (TRUE);
X        }
X
X    if (texit && clicks == 2)        /* Preset special flag
     */
X        hibit = 0x8000;
X    else
X        hibit = 0x0;
X
X    if (sble && !dsbld)              /* Hot stuff!      */
X        {
X        if (flags & RBUTTON)         /* Process radio buttons*/
X             do_radio(tree, obj);    /* immediately!
     */
X        else if (!texit)
X             {
X             in_state = (obj == *hot_obj)?    /* Already toggled ? */
X                  state: state ^ SELECTED;
X             if (!graf_watchbox(tree, obj, in_state,
X                  in_state ^ SELECTED))
X                  {              /* He gave up...  */
X                  *next_obj = 0;
X                  *hot_obj = NIL;
X                  return (TRUE);
X                  }
X             }
X        else /* if (texit) */
X             if (obj != *hot_obj)    /* Force SELECTED  */
X                  objc_toggle(tree, obj);
```

```
X        }
X
X    if (obj == *hot_obj)        /* We're gonna do it! So don't
     */
X        *hot_obj = NIL;         /* turn it off later.
     */
X
X    if (texit || (flags & EXIT) )    /* Exit conditions.
         */
X        {
X        *next_obj = obj | hibit;
X        return (FALSE);         /* Time to leave!      */
X        }
X    else if (!edit)             /* Clear object unless tabbing
     */
X        *next_obj = 0;
X
X    return (TRUE);
X    }
X.bp
X/************** New forms manager: Entry point and main loop *************/
X
X    WORD
Xform_do(tree, start_fld)
X    REG LONG tree;
X    WORD     *start_fld;
X    {
X    REG WORD edit_obj;
X    WORD     next_obj, hot_obj, hot_mode;
X    WORD     which, cont;
X    WORD     idx;
X    WORD     mx, my, mb, ks, kr, br;
X    GRECT         hot_rect;
X    WORD     (*valid)();
X                             /* Init. editing   */
X    next_obj = *start_fld;
X    edit_obj = 0;
X                             /* Initial hotspot cndx */
X    hot_obj = NIL; hot_mode = M1_ENTER;
X    objc_xywh(tree, ROOT, &hot_rect);
X                             /* Main event loop */
X    cont = TRUE;
X    while (cont)
X      {
X                             /* position cursor on  */
X                             /*   the selected  */
X                             /*   editting field    */
X      if (edit_obj != next_obj)
X      if (next_obj != 0)
X        {
X        edit_obj = next_obj;
X        next_obj = 0;
X        objc_edit(tree, edit_obj, 0, &idx, EDINIT);
```

```
X        }
X                           /* wait for button or   */
X                           /* key or rectangle     */
X      which = evnt_multi(MU_KEYBD | MU_BUTTON | MU_M1,
X             0x02, 0x01, 0x01,
X             hot_mode, hot_rect.g_x, hot_rect.g_y,
X                  hot_rect.g_w, hot_rect.g_h,
X             0, 0, 0, 0, 0,
X             0x0L,
X             0, 0,
X             &mx, &my, &mb, &ks, &kr, &br);
X
X      if (which & MU_M1)             /* handle rect. event
     */
X         hot_obj = form_hot(tree, hot_obj, mx, my, &hot_rect, &hot_mode);
X                           /* handle keyboard event*/
X      if (which & MU_KEYBD)
X         {                 /* Control char filter */
X         cont = form_keybd(tree, edit_obj, next_obj, kr, &next_obj, &kr);
X         if (kr && edit_obj)          /* Add others to object
     */
X              objc_edit(tree, edit_obj, kr, &idx, EDCHAR);
X         }
X                           /* handle button event */
X      if (which & MU_BUTTON)
X         {                 /* Which object hit?   */
X         next_obj = objc_find(tree, ROOT, MAX_DEPTH, mx, my);
X         if (next_obj == NIL)
X                   next_obj = 0;
X         else              /* Process a click */
X              cont = form_button(tree, next_obj, br,
X                   &next_obj, &hot_obj);
X         }
X                           /* handle end of field */
X                           /*   clean up      */
X      if (!cont || (next_obj != edit_obj && next_obj != 0))
X      if (edit_obj != 0)
X         objc_edit(tree, edit_obj, 0, &idx, EDEND);
X      }
X                           /* If defaulted, may   */
X                           /* need to clear hotspot*/
X    if (hot_obj != (next_obj & 0x7fff))
X    if (hot_obj != NIL)
X         objc_toggle(tree, hot_obj);
X                           /* return exit object  */
X                           /*   hi bit may be set */
X                           /*   if exit obj. was  */
X                           /*   double-clicked    */
X    *start_fld = edit_obj;
X    return(next_obj);
X    }
X.!
X.!*****************************************************************************
```

```
X.!
X.!           End Appendix 10
X.!
X.!*************************************************************************
SHAR_EOF
if test 14690 -ne "`wc -c 'apndx10.prf'`"
then
     echo shar: error transmitting "'apndx10.prf'" '(should have been 14690
characters)'
fi
#    End of shell archive
exit 0
--
```


```
                       Jwahar R. Bammi
                    Usenet:  .....!decvax!cwruecmp!bammi
                     CSnet:  bammi@case
                   Arpa:  bammi%case@csnet-relay
                CompuServe:  71515,155
```



```
From -2888824291855360627
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a9ce0c4cfb533e4c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 00:00:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!decvax!cwruecmp!
bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGem parts 13-14 (2 of 2)
Message-ID: <1513@cwruecmp.UUCP>
Date: Fri, 27-Jun-86 03:00:03 EDT
Article-I.D.: cwruecmp.1513
Posted: Fri Jun 27 03:00:03 1986
Date-Received: Sat, 28-Jun-86 09:00:31 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 647
```


```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind14.prf
#    tut.prf
#    macros.prf
# This archive created: Fri Jun 27 02:53:58 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'wind14.prf'" '(22068 characters)'
if test -f 'wind14.prf'
then
```

```
     echo shar: over-writing existing file "'wind14.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind14.prf'
X.!************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!************************************************************************
X.!
X.!
X.!************************************************************************
X.!
X.!           Begin Part XIV
X.!
X.!************************************************************************
X.!
X.PART XIV USER INTERFACES - Part 2
X.PP
XThis  issue of ST PRO GEM (#14) continues the  discussion  of
Xuser  interface  design which began in episode eight.   It  begins
Xwhere  we left off,  with a further treatment of the mode problem,
Xand  proceeds  into  topics such as visual  grammar  and  layered
Xinterfaces.
X.PP
X     Note  that  there  is  no  download  for  this  column.   The
Xdownloads  will return with the next issue,  a discussion of using
Xthe  GEM DOS file system within a GEM application.   Specifically,
Xit  will include sample code for using the file selector,  the GEM
Xform_error  alerts,  and some utilities for manipulating file  and
Xpath names.  There will also be a feedback section.  The following
Xtwo columns will be devoted to "graphics potpourri",  a collection
Xof  small  but useful GEM utilities such as  popup  menus,  string
Xediting, and source code for drag and rubber box operations.
X.SH MODES AGAIN
XIf a program is modeless, it acts predictably,
Xwhich turns out to be very important.   On the other hand,  a good
Xdefinition  for  "modes"  is hard to find.   In  column  eight,  I
Xsuggested  that  a  mode exists when you cannot  use  all  of  the
Xcapabilities  of the program without performing some  intermediate
Xstep.   If  this  is  less  than clear,  here  are  two  alternate
Xdefinitions offering different views of the problem.
X.SH THE "TWO USER TEST"
XConsider  the  following  thought
```

Xexperiment: Imagine that your ST (and GEM) had two mice, two Xcursors, and two users. Could they both effectively use the Xprogram at the same time? If so, the application is modeless. If Xthere are points where one user can be "locked out" by the actions Xof the other, then a mode exists at that point. Let's consider Xsome examples of this test.
X.PP
XIn any program which uses the GEM menu system, one user could Xstop the other by touching a menu hotspot and dropping a menu. XThis constitutes an inherent mode in the GEM architecture.
X.PP
XOn the GEM Desktop, two users could open windows and view Xfiles without interference. However, as soon as one person tries Xto delete a file (assuming the verify option is on), the other is Xbrought to a halt as a dialog appears. Thus, we have found a Xmodal dialog.
X.PP
XIn many "Paint-type" programs, such as MacPaint, PC Paint, Xand GEM Paint, two artists could co-exist quite well, utilizing Xthe on-screen palette and tool selection. Of course, these Xprograms also contain modal dialogs for such operations as file Xand brush shape selection. In contrast, consider the paint Xprogram DEGAS for the ST. Here, two artists could only work Xtogether as long as neither wanted to change tool or color. Then Xthe display would have to be flipped to the selection screen, Xstopping the other user. This is a mode in the DEGAS interface.
X.PP
X(By the way, this test is not just academic. The grand-daddy Xof all mouse based systems, NLS, demonstrated by Doug Englebart in X1968, had two mice and two users, one of whom was physically Xremote. Cooperative techniques such as this are still largely Xunexplored and unexploited.)
X.SH ONE LINER
XHere's a terse definition by Jef Raskin: A Xprogram is modeless if a given action has one and only one result.
XAgain, let's run a few examples.
X.PP
XThe menu dropdowns are clearly modal by this definition. XBefore the menu was activated, window control points could be Xactivated with a click. However, when the dropdown is visible, a Xclick action is interpreted as a menu selection or a dismissal of Xthe dropdown. Similarly, dialogs are modal because the action of Xmoving the mouse into the menu bar no longer causes the dropdown Xto appear.
X.PP
XI am typing this using the First Word editor program. It has Xa nice desktop level box full of characters where I can click to Xget symbols which the ST keyboard won't produce. However, if I Xinvoke the find or replace string dialog, the click-in-the-box Xaction doesn't work anymore. This is a mode in the First Word Xinterface.
X.PP
XFinally, consider an "old style" menu program, the kind where

Xyou type in the number of the desired action from a list. Since Xthe number "2" might mean "Insert the record" in one menu, and X"Purge the file" in another, such a program is clearly modal by XRaskin's definition.
X.PP
XThese three definitions say almost the same thing, but from Xdifferent viewpoints. Depending on the situation, one or the Xother may be more intuitive for you. The goal of this type of Xanalysis is to root out unnecessary modes, and to make sure that Xthose which remain only appear when requested by the user, offer Xsome visual cue such as a rubber line or standard dialog box, and Xare used consistently throughout the application.
X.SH PREDICTABILITY FOREVER AND EVER AND EVER
XAs Raskin's
Xdefinition makes clear, when the modes go away, the interface Xbecomes predictable. Predictability leads to the formation of Xhabits of use. Habits reduce "think time" and become Xprogressively faster due to the Power Law of Practice discussed in Xcolumn eight. This is exactly what we want!
X.PP
XThere is another benefit of predictability. A habit learned Xin one part of a program with a consistent interface can be Xtransferred and used elsewhere in the application. If several Xprograms share the same style of interface, the same habits can be Xused across a complete set of products. Learning time for the new Xfunctions becomes shorter, and the user is more likely to use the Xnew feature.
X.SH IS A BOGEYMAN!
XMost casual users are scared silly of
Xcomputers and programs. (If you have any doubt, eavesdrop on a Xsecretary with a new word processor, or the doctor's receptionist Xcoping with an insurance data entry program.) In most cases, they Xhave a right to be frightened. Even experienced programmers, Xprone to toss the manuals and hack away, know that moderate Xparanoia is the best way to deal with an unknown program. How Xmust this feel to someone whose ability to perform (or lose) their Xjob depends on an unpredictable (aha!) black box.
X.PP
XSo here's another way in which predictability works. But to Xproduce a truly fearless user, we need other qualities as well. XOne is robustness, meaning that the program will not crash given Xnormal or even bizarre actions by the user. Another is feedback, Xwhich shuts off invalid options, reinforces correct actions, and Xgives reassurance that an operation is proceeding normally. XFinally, we need forgiveness, in the form of inverse operations or XUndo options, when the inevitable mistake is made.
X.PP
XThe ultimate goal is make the program discoverable. This Xmeans the user should be able to safely "wing it" after a short Xsession with the application and its interface. This practice Xought to be considered the norm anyway, since the manual is always Xacross the office or missing when an esoteric and half-forgotten Xfeature is needed. If it is possible to muddle through such a

Xsituation by trial and error, without causing damage, the Ximmediate problem will be solved, and the user will gain Xconfidence.
X.SH GOOD GRAMMAR OR...
XSo exactly what are these habits that are Xsupposed to be so helpful? One of the most useful patterns is a Xconsistent command grammar for the program. This may sound Xstrange, since we have supposedly abandoned command line Xinterfaces in the graphics world, but in fact, the same type of Xrules apply. For instance, in the world of A> we might issue the Xcommand:
X.br
X.sp
X.ce
Xcopy a:foobar.txt b:
X.PP
XBy analogy to Englist grammar, this command contains a verb, X"copy", a file as subject: "a:foobar.txt", and a location as Xan object: "b:". The equivalent GEM Desktop operation is:
X.BO
X- Move mouse to foobar.txt icon in a: window
X.EO
X.BO
X- Press mouse button
X.EO
X.BO
X- Move mouse to b: icon
X.EO
X.BO
X- Release mouse button
X.EO
X.PP
XThe operation can be described as a select-drag-drop sequence, Xwith the select designating the subject file, the drag denoting Xthe operation (copy), and the location of the drop showing the Xobject. A grammar still exists, but its "terminal symbols" are Xcomposed of mouse actions interpreted in the context of the Xcurrent screen display, rather than typed characters.
X.PP
XOne useful way to analyze simple grammars, including those Xused as command languages, is to separate them into prefix, Xpostfix, and infix forms. In a prefix grammer, the operation to Xbe performed precedes its operands, that is, its subject(s) and Xobject(s). The DOS copy command given above is an example of a Xprefix command. LISP is an example of a language which uses Xprefix specification for its commands.
X.PP
XPostfix grammars specify the action after all of the operands Xhave been given. This command pattern is familiar to many as the Xway in which Hewlett-Packard calculators work. FORTH is an Xexample of a language which uses a postfix grammar.
X.PP
XInfix notation places the verb, or operator, between its

Xsubject and object. Conventional algebraic notation is infix, as Xare most computer languages such as C or PASCAL. The example GEM Xcommand given above is also infix, since the selection of a Xsubject file preceded the action, which was followed by the Xdesignation of an object.
X.PP
XThe "standard" GEM command grammar, as used in the products Xproduced by Digital Research, is in fact infix. This is not to Xsay that GEM enforces such a convention, or that it is rigorously Xfollowed. However, when there is no pressing reason for a change, Xadoption of an infix command grammar will make your application Xfeel most like others which users may have seen.
X.PP
XThe general problem of specifying a graphic command language Xcan be difficult, but much of the problem has already been handled Xon the ST. Part of the solution is by constraint: the input and Xoutput hardware of the ST are predefined, so most developers will Xnot need to worry about choosing a pointing device or screen Xresolution. The other part of the standard solution is the GEM Xconvention for mouse usage. I am going to review these rules, and Xthen describe of the situations in which they have been bent, and Xfinally some alternate approaches which may prove useful to some Xdevelopers.
X.SH SPECIFYING A SUBJECT
XThere are really two sets of methods Xfor designating what is to be affected by an operation. One set Xis used when distinct objects are to be affected. Examples are Xfile and disk icons in the Desktop and trees in the RCS. Another Xset of designation methods is used when continuous material, such Xas text or bit images, is being handled.
X.PP
XWhen dealing with objects, a single mouse click (down and up) Xover the object selects it. The application should show that the Xselection has occurred by changing the appearance of the object. XThe most common methods are inverting the object, or drawing X"handles" around it.
X.PP
XMany operations allow "plural", or multiple object, Xselections. The GEM convention is that a click on an object while Xthe shift key is held down extends the selection by adding that Xobject. If the shift-clicked object was already selected, it is Xdeleted from the selection list.
X.PP
XAnother way to select multiple objects is to use a "rubber Xbox" to enclose them. This operation begins with drag on a part Xof the view where no object is present. The application then Xanimates a rubber box on the screen as long as the mouse button is Xheld down. When the button is released, all objects within the Xcurrent extent of the box are selected. A shift-drag combination Xcould be used to add the objects to an existing selection list.
X.PP
XSelecting part of a text or bit plane display is also done Xwith a rubber box. Since there are no "objects" in the view, any

Xmouse drag is interpreted as the beginning of a selection Xoperation. In the simplest case, a bit plane, the rectangle Xwithin the box when the button is released is the selected extent.
X.PP
XWhen the underlying data has structure, such as words and Xlines of text, the display should reflect this fact during the Xselection operation. Typically, text selection is indicated by Xinversion of the characters rather than a rubber box. The Xselection extends along the starting line so long as the mouse Xstays within the line. If the mouse move off the starting text Xline, the implied selection is all characters between the starting Xcharacter and the character currently under the mouse, which is Xnot necessarily a rectangular area.
X.PP
XAn extended "plural" selection may be supported in text Xediting. The use of the shift key is also conventional in this Xapplication.
X.SH ACTION
XWith the subject designated, the user can now choose Xan operation. In many cases, this will be picked from the menu, Xin which case the entire command is complete. Some menu Xselections will lead to dialogs, in which the interaction methods Xare regulated by the GEM form manager. When the command is Xcompleted, it is often helpful if the application leaves the Xobjects (or areas) selected and ready for another operation. A Xsingle click away from any object is interpreted as cancelling the Xselections.
X.PP
XMany operations are indicated by gestures on the screen. XUsually, this is some variant of a drag operation. The Xinterpretation of the gesture may depend on the type and location Xof the selected subject, which part of it is under the mouse, and Xin what location the drag terminates.
X.PP
X"Handles" are small boxes or dot displayed around an object Xwhen it is selected. A drag beginning with the mouse on a handle Xis usually interpreted as a resizing operation, if this is Xappropriate. The pointing finger mouse form is displayed to Xindicate the operation in progress, and a rubber version of the Xobject is animated on the screen to show the user the result if Xthe button were released. In some cases, where an underlying X"snap" grid exists, the animated object may change size in Xdiscrete steps.
X.PP
XDragging a non-handle area of a selected object is usually Xinterpreted as the beginning of a move function. In most Xapplications, a move of a single object may be started without Xpre-selection. Simply beginning the drag on the object is taken Xto imply selection. The spread hand, or "grabber", mouse form is Xtypically displayed during a drag operation.
X.PP
XDragging may denote copying or movement, or more complex Xfunctions such as instantiation or generalization. The operation

Ximplied by movement on the screen will differ among applications, Xand often within the same application, depending on target Xlocation. This target is the recipient of the command's action, Xor its object, in an English grammar sense.
X.PP
XFor example, a drag from window to window in the Desktop Xdenotes a copy. On the other hand, dragging the same icon to the Xtrashcan deletes it completely. Dragging an object from the RCS Xpartbox to the editing view creates a new copy of that prototype Xobject. Dragging the same object within the edit view simply Xchanges its placement.
X.PP
XThere are some mouse actions which are conventional X"abbreviations". A double click on an object is interpreted as Xboth a selection and an action. Usually, the double click action Xis the same as the Open entry in the "File" menu.
X.PP
XWhen the usual interpretation of a drag is movement, then Xshift-drag may be used as an enhanced varient implying copying. XFor instance, shift-dragging an object within the RCS editing Xwindow makes a copy of the object and places it in the final Xlocation.
X.PP
XTo return to the beginning of this discussion, the reason for Xadopting these conventional usages is to build an interface that Xpromotes habits. Particularly, a standard grammar for giving Xcommands helps answer the question "What comes next?". It breaks Xthe user's actions into logical phrases, or chunks, which may be Xthought of a whole, rather than one action at a time.
X.SH DIFFERENT FOLKS, DIFFERENT STROKES
X.PP
XThere are always Xexceptions to a rule, or so it seems. In this case, consistency Xof the interface grammar is sometimes traded off against Xconsistency of metaphor, preservation of screen space, and "fast Xpath" methods for experts.
X.PP
XOne example is the use of "tools" in Paint and Draw programs. XIn such programs, an initial click is made on a tool icon, Xdenoting the operation to be applied to all following selections. XThis is an prefix style of grammar, and stands in contrast to the Xusual method of selecting subject object(s) first. Because of Xthis contrast, it is sometimes called "moding the cursor". (Try Xapplying the tests above to be sure it really is a mode.)
X.PP
XIn these cases, there are two reasons for accepting the Xnonstandard method. The first is consistency of metaphor. The X"user model" portrayed in the programs is an artist's work table, Xwith tools, palette, and so on. The cursor moding action is Xequivalent to picking up a working tool. The second reason is Xspeed. In a Paint program, the "canvas" is often modified, and Xspeed in creating or changing the bits is important. In more Xobject oriented applications such as Desktop or RCS, the objects

Xare more persistent. Speed is then more essential when adding or Xchanging properties of the objects.
X.PP
XWhen command styles are mixed in this fashion, you must Xdesign very carefully to avoid conflicts or apparent side-effects Xin the command language. For example, in GEM Draw picking an Xaction from the Edit menu cancels the current cursor mode without Xwarning. Confusion from such side-effects may cancel out the Xbenefits of the mixed grammar.
X.PP
XThe subject of command speed deserves further attention. XWhile the novice approaching a program needs full feedback, a Xperson who uses it day in and day out will learn the program, and Xwant faster ways to get the job done, even if they are more Xarcane. The gives rise to a "layered" style of interface.
X.PP
XA layered interface is designed so that the visual grammar is Xobvious, as we have discussed. However, there are one or more Xsets of "accelerators" built into the program, which may be harder Xto find but faster to use. One example is condensed mouse actions Xsuch as the double-click. For instance, attempting to select a Xblock of text which extends beyond a window is impossible using Xthe basic metaphor. The novice will simply do the operation in Xpieces. A layered interface might put a less obvious Mark Begin Xand Mark End option in the menus. Another way is to take a drag Xwhich extends outside the window as a request to begin scrolling Xin that direction, while extending the current selection.
X.PP
XOne of the most common and useful accelerator methods is Xfunction keys. Using this approach, single key equivalents to Xactions are listed in the menu. Striking this key when an object Xis selected will cause the action to occur. Note that this is Xmost useful if some keyboard driven method of object selection, Xsuch as tabbing, is also available. Otherwise, the time switching Xfrom the mouse, used to select the object, to the keyboard for Xcommand input, may well cancel any advantage.
X.PP
XFinally, radical departures from the GEM metaphor may be Xuseful when attempting to replicate the look of another system, or Xtrying to meet severe constraints, such as display space. One Xexample would be discarding the standard GEM menus in favor of X"popup" menus which appear next to the current mouse position in Xresponse to a click on the second button. This method has the Xadvantage of preserving the menu space at the top of the screen, Xand is potentially faster because the menu appears right next to Xthe current mouse position. The drawbacks are lack of a visual Xcue for naive users trying to find the commands, and the need for Xcustom coding to build the popups.
X.SH MORE TO COME
XWe have reached the end of the second sermon Xon user interface. In a future column, I will look at "higher Xlevel" topics relating to the design of the application's user Xmetaphor. These include issues of object orientation, direct

```
Xmanipulation,  and  the  construction  of  microworlds.  In  the
Xmeantime,  several  of  the  more practical columns  will  present
Ximplementions  of  techniques such as accelarator keys  and  popup
Xmenus which I have discussed this time.
X.PP
XTHANKS AND APOLOGIES to the following people whose public and
Xpublished  remarks  have  formed  part  of  the  basis  of  this
Xdiscussion:  Jef Raskin, Bill Buxton, Adele Goldberg, James Foley,
Xand Ben Schneidermann.  As always, any errors are my own.
X.!
X.!
X.!*****************************************************************************
X.!*                                                *
X.!*               End Part XIV                         *
X.!*                                                *
X.!*****************************************************************************
SHAR_EOF
if test 22068 -ne "`wc -c 'wind14.prf'`"
then
     echo shar: error transmitting "'wind14.prf'" '(should have been 22068
characters)'
fi
echo shar: extracting "'tut.prf'" '(1236 characters)'
if test -f 'tut.prf'
then
     echo shar: over-writing existing file "'tut.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'tut.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Tutorial
X.!
X.!*****************************************************************************
X.!
X.!
X.so macros.prf
X.so wind1.prf
X.so wind2.prf
X.so wind3.prf
```

```
X.so wind4.prf
X.so wind5.prf
X.so wind6.prf
X.so wind7.prf
X.so wind8.prf
X.so wind10.prf
X.so wind11.prf
X.so wind12.prf
X.so wind13.prf
X.so wind14.prf
X.!
X.! Add any further Parts Above
X.!
X.cl 0 APPENDICES
X.so apndx1.prf
X.so apndx2.prf
X.so apndx3.prf
X.so apndx4.prf
X.so apndx5.prf
X.so apndx6.prf
X.so apndx7.prf
X.so apndx8.prf
X.so apndx9.prf
X.so apndx10.prf
X.!
X.! Add any further Appendicies Above
X.!
X.so toc.prf
X.!
X.!
X.!*****************************************************************************
X.!
X.!           End Tutorial
X.!
X.!*****************************************************************************
SHAR_EOF
if test 1236 -ne "`wc -c 'tut.prf'`"
then
     echo shar: error transmitting "'tut.prf'" '(should have been 1236
characters)'
fi
echo shar: extracting "'macros.prf'" '(1170 characters)'
if test -f 'macros.prf'
then
     echo shar: over-writing existing file "'macros.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'macros.prf'
X.!*****************************************************************************
X.!
X.!                Macros
X.!
X.!*****************************************************************************
X.!
```

```
X.! Begin New Part
X.!
X.define PART
X.he /Professional GEM//#/
X.bp
X.bold on
X.ce 1
XPART - $1
X.br
X.sp 1
X.ce 1
X$2 $3 $4 $5 $6 $7 $8 $9
X.bold off
X.cl 0 PART - $1.  $2 $3 $4 $5 $6 $7 $8 $9
X.he /Professional GEM/Part $1/#/
X.sp 1
X.en
X.!
X.! Section Heading
X.!
X.define SH
X.cl 1 $1 $2 $3 $4 $5 $6 $7 $8 $9
X.ne 5
X.sp 2
X.bold 1
X$1 $2 $3 $4 $5 $6 $7 $8 $9
X.br
X.sp 1
X.ti +5
X.en
X.!
X.! Figure Begin
X.!
X.define FB
X.ne 3
X.br
X.cl 2 $1
X.sp 1
X.ce on
X.en
X.!
X.! Figure End
X.!
X.define FE
X.br
X.ce off
X.sp 1
X.en
X.!
X.! Paragraph
X.!
X.define PP
X.ne 3
```

```
X.sp 1
X.ti +5
X.en
X.!
X.! Begin Option
X.!
X.define BO
X.sp 1
X.in +4
X.en
X.!
X.! End Option
X.define EO
X.in -4
X.en
X.!
X.!
X.define AP
X.fi
X.he /Professional GEM/Appendix $1/#/
X.bp
X.cl 1 Appendix - $1 $2 $3 $4 $5 $6
X.ce on
X.bold on
XAppendix - $1
X.br
X$2 $3 $4 $5 $6
X.bold off
X.ce off
X.sp 3
X.nf
X.en
X.!
X.!
X.!*****************************************************************************
X.!
X.!                End Macros
X.!
X.!*****************************************************************************
SHAR_EOF
if test 1170 -ne "`wc -c 'macros.prf'`"
then
     echo shar: error transmitting "'macros.prf'" '(should have been 1170
characters)'
fi
#   End of shell archive
exit 0
--
```


Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 3726318596598651846
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9c269dcaeea708a2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 02:57:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: A bug in show and print?
Message-ID: <8606271931.AA28358@ucbvax.Berkeley.EDU>
Date: Fri, 27-Jun-86 05:57:15 EDT
Article-I.D.: ucbvax.8606271931.AA28358
Posted: Fri Jun 27 05:57:15 1986
Date-Received: Sat, 28-Jun-86 09:07:51 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

Date: 27 June 1986, 09:32:04 GMT
From: Simon Poole K538915 at CZHRZU1A
To: info-atari16 at su-score.arpa

Last night, i left the printer connected to our 1040 here in Zuerich printing
the ProGEM files, what a suprise this morning when I found about 400 to 500
copies of pages 114 and 115 covering more or less everything in our office ,
I used the PRINT option built into the desktop. I can remeber the same thing
happening at home with my 520 using the SHOW options, questions:

- is this a "undocumented feature" (=bug)
- or is it the FAT getting mixed up
- has anybody had the same experience
- if it is a known bug, why wasn't it
  fixed before TOS in ROM's was made available
  here (--> the ROM's arrived here last week ($50 grrrr...))

Both computers have the german TOS version in ROM.

Simon

From -2760123720310404887
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a80df90066249084

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 04:10:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!MIT-MULTICS.ARPA!
USER=6CJG%UB-MTS%UMich-MTS.MAILNET
From: USER=6CJG%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <195572@UB-MTS>
Date: Fri, 27-Jun-86 07:10:18 EDT
Article-I.D.: UB-MTS.195572
Posted: Fri Jun 27 07:10:18 1986
Date-Received: Sat, 28-Jun-86 07:26:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

To all netlanders, (escpecially those interested in trading
files with others on the net.)

Going through the Club II Det userlog recently, we found a large
number of European callers on the Club Network BBS in Detroit.
(Club II) Since it appears international callers seem to have
success calling the II, and the II (so far) can afford the
luxury of giving it's callers 40 minutes online (as opposed to
20 on the Atari lines) we submit a request that netters drop
a copy of source and executable code online the II for a
"European window." To back it up, we will expand the system
as usage demands up to 6 lines and 100 meg storage to handle
the load.

      The Club II is available at
     US area code (313) 334-8877

Other Club net nodes transfer all ST files to the II, so
it's probably the best place to start. Hope this helps as
the binary posting are not always workable (for me for example!")
but with kermit, Xmodem, Xmodem CRC and a few other we -should-
have whatever you're fond of as a transfer option. Good luck.

              Terry Conklin
             Club Lans - coordinator

"nuke 'em till they glow and shoot 'em in the dark!"

From 5983901437587901001
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4413e1b412765e4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 04:37:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!lll-crg!seismo!rochester!kodak!elmgate!

jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: GEM-Kermit (Part 3 of 6)
Message-ID: <480@elmgate.UUCP>
Date: Fri, 27-Jun-86 07:37:58 EDT
Article-I.D.: elmgate.480
Posted: Fri Jun 27 07:37:58 1986
Date-Received: Sat, 28-Jun-86 08:03:38 EDT
References: <600012@coma.UUCP> <3829@utah-cs.UUCP>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 28
Keywords: didn't get it all
Summary: I don't think GEM-kermit made it to MANY sites PERIOD Perhaps
mod.sources....

In article <3829@utah-cs.UUCP>, atwell@utah-cs.UUCP (Bart L. Atwell) writes:
> I didn't read the news for a couple of days so apparently all parts
> of Kermit except part 3 got erased from our system before I got them!
>
> Could someone close who got the whole thing mail me a copy. Please send
> me mail if you can send it and I'll pick the closest site to prevent
> multiple copies.
>
> Thanks,
>
> Bart Atwell
> atwell@utah-cs

In the this area (W. NY) the only part of GEM-kermit that made it was part
3. I did not miss the other parts, they simply never came. Could I
suggest to the author to resubmit the articles to mod.sources? The
moderator can make sure that all the nicities (SP?) of 'netocol' are
observed giving most folks a decent chance of receiving the 6 parts
intacted.

To the author: If you agree, I believe the address to mail the postings to
is:

{..your nearest backbone}!caip!pyrnj!mirror!sources
--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -6864720320415518413
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9c6cea2796e74c4d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 06:29:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!ut-sally!seismo!brl-adm!nlm-mcs!nlm-vax!randy

From: randy@nlm-vax.ARPA (Rand Huntzinger)
Newsgroups: net.micro.atari16
Subject: Re: GEM-Kermit #2 truncated
Message-ID: <373@nlm-vax.ARPA>
Date: Fri, 27-Jun-86 09:29:37 EDT
Article-I.D.: nlm-vax.373
Posted: Fri Jun 27 09:29:37 1986
Date-Received: Sun, 29-Jun-86 05:52:45 EDT
References: <5236@topaz.RUTGERS.EDU>
Reply-To: randy@nlm-vax.UUCP (Rand Huntzinger)
Organization: NLM/LHNCBC, Bethesda, Md.
Lines: 16
Keywords: foo bar

In article <5236@topaz.RUTGERS.EDU> dpz@topaz.RUTGERS.EDU (David P. Zimmerman) writes:
>
>It seems that our copy of the GEM-Kermit #2 uuencoded executable was
>truncated somewhere. Could someone mail me a good copy?

When I uudecoded this on Unix I got an error message stating that there was no 'end' in the file. As it turned out the end was there but the file had a CR/LF at the end of each line instead of just LF. This was what was causing the error. If anyone else had a similar problem, try:

```
tr -d '\015' | uudecode
```

I don't know if this is the problem here, but someone besides myself may have run into it.

Randy Huntzinger

From 107370784531842746
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c99a8cbf9e60655
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 07:04:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!lll-crg!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Public Use Copyrights (Re: Are all kermits public domain?
Message-ID: <138@cci632.UUCP>
Date: Fri, 27-Jun-86 10:04:52 EDT
Article-I.D.: cci632.138
Posted: Fri Jun 27 10:04:52 1986
Date-Received: Sat, 28-Jun-86 09:20:52 EDT
References: <1984@dalcs.UUCP> <8606192233.AA27671@trwrb.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI, Rochester Development, Rochester, NY
Lines: 51

Summary: Public use != public domain.

There are a number of systems, and I believe kermit is one
of them, which are protected under "public use" copyrights.

The main problem here is that when something is put in public
domain, the author gives up all rights, including the right
to control "derivative works", which may not be public domain
OR public use.

GNU and the Free Software Foundation is an example of "public
use" copyrighted material. In this case, you MUST be provided
with the source, you CAN'T make proprietary changes, and you
must include source to any enhancements you make. Ironicly,
FSF does sell GNU products, but doesn't try to charge for
"percieved value", or try to enforce restrictive liscence
agreements. What they are charging for is the basic costs
of distribution, with a small margin of profit. Per user,
a GNU release is about $5/copy. Releases come out frequently,
and there is no "hand holding", but the products released
so far are very high quality. You ARE allowed to give
copies to others, in fact, it's encouraged, but you MUST
include the source.

Some software is along the lines of Kermit. You can give it
away, pass it around, and "throw it in" with other software
packages (like the developers kit), but you can't SELL kermit
by itself.

Many people put copyright notices on their software and then
permit free distribution. It is important to read the terms
of the copyright and abide by them. If you want to improve
and sell something which has a copyright notice attached,
you should contact the author for terms before even starting.
Even if you just want to improve it, contact the author.

It is a good idea to include a copyright notice on anything
you submit anywhere, not because you are greedy, but because
you cannot prevent someone else from using your code for a
commercial product. It is a good idea to include basic
terms, followed by "all other rights reserved".

Ironicly, copying something out of a magazine or a book that
is copyrighted does not make that source "public domain", in
fact, the material may be covered under several different
copyrights (the magazine, the original author, the publisher).
On the other hand, the royalties are often so low, that they
are even practical for commercial use.

See net.legal, read the copyright act of 1978, and "the rights
of authors and artists" to see what the current story on
copyrights is.

From 6175728638063943072
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,904d32fe5cf7c3d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 07:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: Avatex, and modems in general
Message-ID: <8606271453.AA25424@ncsc.ARPA>
Date: Fri, 27-Jun-86 10:53:00 EDT
Article-I.D.: ncsc.8606271453.AA25424
Posted: Fri Jun 27 10:53:00 1986
Date-Received: Sat, 28-Jun-86 07:26:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

John Sangster (jhs@mitre-bedford) has been filling me in on the Avatex 1200 baud modem he uses for his 800XL. Does anyone have any experience with the Avatex on the 520ST??? Specifically, will it work with the VT52 emulator from the desktop? How about any pointers to similarly priced (<$100) modems?

Your comments are appreciated.

Jim Moore
NCSC
Panama City FL

From 3331173925544030703
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c04bccefacff0588,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 08:14:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: Avatex and the ST
Message-ID: <8606271514.AA25672@ncsc.ARPA>
Date: Fri, 27-Jun-86 11:14:40 EDT
Article-I.D.: ncsc.8606271514.AA25672
Posted: Fri Jun 27 11:14:40 1986
Date-Received: Sat, 28-Jun-86 07:26:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I just spoke to Mr. Rick Pommet of Nelson Data Communications about the use of the Avatex 1200 baud modem on the 520ST. He said that he and friends have the Avatex running on their own ST's with no problems; an RS-232-C cable is needed to connect the two. He quotes $85+shipping. How can you beat it?

Mr. Pommet is sending me further information. If there is interest I'll post. Thanks to jhs@mitre-bedford for pointing the way.

Jim Moore
NCSC
Panama City FL

From -7759969857216788802
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95169168c8cce787
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 08:19:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!lll-lcc!qantel!hplabs!tektronix!uw-beaver!
ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Question on processor expansion
Message-ID: <177@molihp.UUCP>
Date: Fri, 27-Jun-86 11:19:55 EDT
Article-I.D.: molihp.177
Posted: Fri Jun 27 11:19:55 1986
Date-Received: Mon, 30-Jun-86 04:02:31 EDT
References: <8606201839.AA06129@pavepaws> <477@elmgate.UUCP> <176@molihp.UUCP>
<297@ubc-cs.UUCP>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 20

In article <297@ubc-cs.UUCP> manis@ubc-cs.UUCP (Vince Manis) writes:
>I fail to see the attraction of the 68010.

Just a little nicer, and several friends have them from those Motorola kits. Some things would be a squeak faster, though I doubt I'd *desolder* the 68000 in my 520ST to use it.

>I'm dubious about a $530 CDN price for the 68020, though: the July issue of
>BYTE has an article on the Definicon 68020 co-processor board for the IBM
>PC. Including 1MB of memory, a 68020, and a 68881 (FPU), the price they list
>is US$995. That would cause me to guess that (in reasonable quantities) you
>can get a 68020 for ~ $150 US.

$530 CDN it is - single quantity from L. A. Varah, as of 86/06/25. Shouldn't stay that way for long though, I agree.

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
#
My thoughts are my own, and are void where prohibited by law.
#
"There was something fishy about the butler. I think he was a
#
Pisces, probably working for scale." -Nick Danger, 3rd Eye
#

From 645111107172870088
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 122486,8f97255c829c8bc7
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,8f97255c829c8bc7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 10:27:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16,net.news.group
Subject: Re: net.micro.atari16 distribution
Message-ID: <341@brueer.ee.brunel.ac.uk>
Date: Fri, 27-Jun-86 13:27:50 EDT
Article-I.D.: brueer.341
Posted: Fri Jun 27 13:27:50 1986
Date-Received: Sun, 29-Jun-86 04:49:17 EDT
References: <757@eneevax.UUCP> <2338@cae780.UUCP>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 28
Xref: watmath net.micro.atari16:1151 net.news.group:6075

In article <2338@cae780.UUCP> gordon@cae780.UUCP (Brian Gordon) writes:
>In article <757@eneevax.UUCP> hsu@eneevax.UUCP (Dave Hsu) writes:
>>For some reason, we have NEVER gotten any postings from atari at our
>>site, and this makes it rather difficult to follow neil harris'
>>postings. Obviously.
>>
>
>i don't know, but the same is true here too ...
>

I quite often see postings from Neil and others @Atari. The postings seem
to come in in bursts, as if Neil catches up once a week...

Our news feed is via UKC via MCVAX via SEISMO (I guess), so we know that
part is functioning OK. Maybe we can track the black hole by a process
of elimination (sort of 'binary chop' :-).

Ralph Mitchell

--

=-=-=-

X-Google-ArrivalTime: 1986-06-27 14:37:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!axiom!humming!harvard!rclex!walt
From: walt@rclex.UUCP (Walter L. Weber)
Newsgroups: net.micro,net.micro.atari16
Subject: Re: Inquiry about Avatex 1200 modem
Message-ID: <804@rclex.UUCP>
Date: Fri, 27-Jun-86 17:37:06 EDT
Article-I.D.: rclex.804
Posted: Fri Jun 27 17:37:06 1986
Date-Received: Sun, 29-Jun-86 00:50:54 EDT
References: <1204@mhuxo.UUCP>
Distribution: na
Organization: Ridge Computers (Eastern Region), Lexington, MA
Lines: 24
Xref: linus net.micro:13538 net.micro.atari16:976
Summary: favorable experience

In article <1204@mhuxo.UUCP>, gjphw@mhuxo.UUCP (WYANT) writes:
>
> Does anyone have any experience with, or hearsay evidence
> about, the Avatex 1200 baud modem?

I purchased one out of a group of 10 people. None of them has reported
any difficulty; I used mine to replace our hayes for DIAL-IN on our Unix
system for 2 weeks while the Hayes was out for warranty repair, and am
using the Avatex 1200 now for dial-out from my 520ST.

I recommend it highly for dial-in operation in an unattended mode, or for
dial-out when it is right along side of your 520. Do not expect to find
the full Hayes set -- it does not support any register settings, escape to
command level using "+++", etc, which is why it will work fine for dial out
if the modem is within finger's reach for disconnecting from a line, etc.

Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers   PHONE: (617) 861-6000
Lexington, Mass.   COMPUSERVE: 76515,2423
--
Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers   PHONE: (617) 861-6000
Lexington, Mass.   COMPUSERVE: 76515,2423

From -2800283364926912457
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,904d32fe5cf7c3d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 14:41:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!sdcsvax!noscvax!
marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)

Newsgroups: net.micro.atari16
Subject: Re: Avatex, and modems in general
Message-ID: <637@marlin.UUCP>
Date: Fri, 27-Jun-86 17:41:29 EDT
Article-I.D.: marlin.637
Posted: Fri Jun 27 17:41:29 1986
Date-Received: Sat, 28-Jun-86 09:28:29 EDT
References: <8606271453.AA25424@ncsc.ARPA>
Reply-To: dobbs@marlin.UUCP (Lynn B. dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 16

In article <8606271453.AA25424@ncsc.ARPA> moore@NCSC.ARPA writes:
>
>John Sangster (jhs@mitre-bedford) has been filling me in on the Avatex 1200
>baud modem he uses for his 800XL. Does anyone have any experience with the
>Avatex on the 520ST??? Specifically, will it work with the VT52 emulator
>from the desktop? How about any pointers to similarly priced (<$100) modems?
>
>Your comments are appreciated.
>
>
>Jim Moore
>NCSC
>Panama City FL

Yep. Works just fine.

From 6798660854284366969
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c7b4af8ffda87e7c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 20:11:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Network problems
Message-ID: <12218304513.12.G.ABRAMS@SU-SCORE.ARPA>
Date: Fri, 27-Jun-86 23:11:15 EDT
Article-I.D.: SU-SCORE.12218304513.12.G.ABRAMS
Posted: Fri Jun 27 23:11:15 1986
Date-Received: Sun, 29-Jun-86 05:31:11 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

We have been deluged with error messages from CSNET-RELAY and rejections
in trying to send messages to BITNET via WISCVM.

From this end it appears that both gateways are having problems.

At this point I have two recommendations:

1. Defer sending mail to info-atari* until we figure out what is
happening.

2. Anyone who knows what is happening, please communicate it to us
at this address.

Thanks,
Your over-worked moderator,
Marshall Abrams

From -3263477450946826183
X-Google-Language: GERMAN,ASCII-7-bit
X-Google-Thread: 140593,4197c0ced7610599,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-27 20:30:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!think!nike!ucbcad!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: NOTE from I6191008
Message-ID: <8606280330.AA01834@ucbvax.Berkeley.EDU>
Date: Fri, 27-Jun-86 23:30:53 EDT
Article-I.D.: ucbvax.8606280330.AA01834
Posted: Fri Jun 27 23:30:53 1986
Date-Received: Sun, 29-Jun-86 05:31:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Date: 27 June 1986, 14:22:40 MEZ
From: Johann Zuschlag   (?) 0531/391-3235   I6191008 at DBSTU1
      Institut fuer Raumflugtechnik
To: INFO-ATA at SU-SCORE

From 4397121910175419006
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,125a914e2a485c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-28 09:32:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: I *need* memory!
Message-ID: <1160@watdragon.UUCP>
Date: Sat, 28-Jun-86 12:32:40 EDT

Article-I.D.: watdrago.1160
Posted: Sat Jun 28 12:32:40 1986
Date-Received: Sun, 29-Jun-86 07:03:30 EDT
References: <8606131855.AA04757@ucbvax.Berkeley.EDU> <126@cci632.UUCP>
Reply-To: jsgray@watdragon.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 63
Summary:

In article <126@cci632.UUCP> rb@ccird1.UUCP (Rex Ballard) writes:
>In article <8606131855.AA04757@ucbvax.Berkeley.EDU> Mike_Wilson@CARLETON.BITNET
(Mike Wilson) writes:
>>Hi,
>>   I'm currently working on a project to port a new version of Smalltalk
>>(examplar-based, multiple inheritance, multiple PROCESSOR, for those who...

What is examplar-based? Good luck! And port it from where?

>>... so unless we can
>>expand memory to at least 2Meg, we can't use them.

"Jan, how come ``Object hash'' never returns a number larger than 255?"
"Well, it's a long story...you see, back in 1986 my ST only had 1 Mbyte
of RAM..."

>According to Abacus literature, the ST series is capable of supporting
>4 megabytes, using 1 megabit chips. Caveat here, these must be 1meg by X
>not 256x4 or some similar arrangement. There are 20 address lines plus
>two RAS and two CAS lines. The MMU doesn't know how to handle 4 banks
>of 256x16, but it does appearantly know how to handle 1megx16.

A 1 Mbyte DRAM uses 10 address lines, multiplexing the 10 row and 10
column addresses at different times. The multiplexing and other chip timing
is controlled by 1 RAS (row address strobe) and 1 CAS (column address strobe)
line. A 1 Mbyte DRAM requires 18 pins (cf. 16 pins for 256K DRAMs).

The Atari ST MMU has 2 sets of { RAS, CAS-low-byte CAS-high-byte }, so it
can directly support 2 banks of RAM, each of which is 16 bits wide.

>There is no question that, using 1meg by X chips, you can get at least
>2 meg stuffed in there. You could simplify things by getting SIP hybrids.

Since 1 Mbyte DRAMs require 18 pins, you will have to bend up between two and
four pins on each DRAM and route the wires yourself. Minor PCB surgery
(cutting a few traces) will also be required.

SIPS would be *more* work!

Current 1 Mbyte DRAM price: $75US each from Microprocessors Unlimited.
Therefore 2 Mbytes costs $1200, 4 MBytes cost $2400. You'd be wise to
wait a few months, it'll probably be $30 each by 4Q86/1Q87.

>If you are willing to rebuild the ram banks completely (modest price, some

>labor), you can safely get 2 meg for sure. Getting 4 meg depends on
>current requirements of the rams, access times, and general loading/timing
>requirements of the 1 meg chips.

In general, 1 Mbyte DRAMS are faster (100 ns access times), and have roughly
the same current requirements of 256K DRAMs. Should be no problem expanding
to 4 Mbytes (except for piggy backing hassles).

>ATARI: Have you started putting the holes for the SIP rams onto the
>board yet? I realize that actually putting SIPs into the holes would
>be too expensive, but it would make atari ram expansion < $70/megX16, and
>MUCH easier.

Atari will make >200000 ST systems this year. They won't add $1 of cost
(in terms of PCB space) to each one to make a few hundred hobbyists happy.

"You just watch yourself. We're wanted men. I have the death sentence
on 12 systems!"

Jan Gray   jsgray@watdragon   University of Waterloo   519-885-1211 x3870

From -9220693794452891171
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee6a696a76affdd7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-28 11:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!mcvax!unido!coma!axel
From: axel@coma.UUCP
Newsgroups: net.micro.atari16
Subject: GEM-Kermit - just patience !
Message-ID: <600022@coma.UUCP>
Date: Sat, 28-Jun-86 14:26:00 EDT
Article-I.D.: coma.600022
Posted: Sat Jun 28 14:26:00 1986
Date-Received: Tue, 1-Jul-86 02:10:20 EDT
Sender: notes@unido.UUCP
Lines: 25
Nf-ID: #N:coma:600022:000:931
Nf-From: coma!axel   Jun 28 19:26:00 1986

>Could parts 1, 2, 4, 5, and 6 of the (recent) posting of GEM Kermit
>be reposted to the group (or net.sources). We did'nt appear to receive
>these parts.
>
>Gary Trimble (Lockheed Advanced Marine Systems)
>/* ---------- */
>Same at this site.
>Thanks
>/* ---------- */
Apparently Part 3 of 6 was the first, that made it over the atlantic.
Please wait some days for the other parts to arrive, before asking

for repostings. Some people, who reported the receipt of part 3 only,
have finally received the missing ones.

BTW: there is a two-part distribution of uuencoded GEM-Kermit 1.2
in this newsgroup. The respective source (only minor changes compared
to v1.1) will soon be available from kermserv@cunyvm.bitnet. It's
also possible to get there from ARPA, but I don't know how.

Hopefully you've already got everything when you read this.

Axel Mahler, Tech.Univ. Berlin
UUCP: unido!coma!axel
BITNET: axelm@db0tui6.bitnet

From 3772498751315313013
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0266395ca8f144b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-28 20:14:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!sdcsvax!ncr-sd!ncrcae!usceast!
tech
From: tech@usceast.UUCP (System Technician)
Newsgroups: net.micro.atari16
Subject: Re: ? What text editing programs are available for STs?
Message-ID: <2263@usceast.UUCP>
Date: Sat, 28-Jun-86 23:14:07 EDT
Article-I.D.: usceast.2263
Posted: Sat Jun 28 23:14:07 1986
Date-Received: Mon, 30-Jun-86 04:42:55 EDT
References: <8606271903.AA27894@ucbvax.Berkeley.EDU>
Reply-To: tech@usceast.UUCP (System Technician)
Organization: Csci Dept, U of S. Carolina, Columbia
Lines: 33

>I don't own an Atari, but a friend of mine has asked me about whether he
>should buy an Atari-ST or some other computer for his work.   He is a writer
>and needs to be able to produce large documents easily. He is not, and does
>not intend to become a programmer. My question is how much editing and
>formatting software is already available? He would like an EMACS like
>editor and a SCRIBE like formatter. The editor should support multiple
>windows and buffers. It should use ASCII text, and not insert any funny
>characters for its own purposes. I use Micro-Emacs on a micro, and we have
>EMACS on our VAX. He would like something similar on whatever computer he
>finally buys. How about ST users, is there a strong enough software base
>yet for him to be satisfied?
>
>RDROYA01@ULKYVX.BITNET

Over here at usceast (the east coast campus of USC) we have recently made the port of both emacs-3.6 and the public domain text formatter proff to the ST-520.

    Those of you that might like binary's should drop mail at this address and if there is enough intrest I will post them. By the way, I have been using the Micro C-Shell for some time now and those of you with an extra dollar or two should give it a try ---- Just a satisfied customer.

Micro Emacs is great -- we are porting it to the world or what little left there is.

                    Good Luck
                    W.R.Wood

Can you say "Opinion?"

From 820331000589107612
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,4b2564d437407243
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,4b2564d437407243
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-28 20:23:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!sdcsvax!ncr-sd!ncrcae!usceast!
tech
From: tech@usceast.UUCP (System Technician)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: Re: ST Development Systems
Message-ID: <2264@usceast.UUCP>
Date: Sat, 28-Jun-86 23:23:16 EDT
Article-I.D.: usceast.2264
Posted: Sat Jun 28 23:23:16 1986
Date-Received: Mon, 30-Jun-86 04:43:59 EDT
References: <590@looking.UUCP>
Reply-To: tech@usceast.UUCP (System Technician)
Distribution: net
Organization: Csci Dept, U of S. Carolina, Columbia
Lines: 40
Xref: watmath net.micro.atari16:1160 net.micro.68k:1710

>[munch, munch]
>
>We prefer a cross-development system, running under UNIX, but I fear
>such a beast does not exist.

>Our needs are: more than 32k static initialized data (we have lots of
>tables), a good pre-processor (handles #if defined(X) || defined(Y), etc)
>unsigned as an attribute, rather than as a type of int (we need unsigned
>chars), a reasonable debugging environment (compatible with SID, or

>better).
>
>Above all this, we need a reliable compiler/linker. We do NOT want to
>spend our time debugging the tools.
>
>
>
>Ideally we would like the whole system to run under UNIX (Xenix on an AT,
>actually), producing a .prg there and then downloading the binary to the
>ST. Has anyone hacked SUMac to work with the ST ?
>
>
>Any suggestions would be appreciated,
>
>Regards,
>David Rowley
>Looking Glass Software
>utzoo!watmath!looking!david

Hello,
     If you can get your hands on a 68k Unix box the compiler just needs to be told to save the relocation information and you have to filter that to look like a Gem program.
     The only problem with this solution is that you get to write your own system calls which I think is worth the price. If you would like to see an example filter, one that converts a Unisoft ld format to a Gem format.
     By the way getting the character oriented stuff is actually pretty easy.
                         Good Luck.
                         W.R.Wood

From -7094151604509364422
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,49a514d15e5120c7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-29 22:35:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!lll-crg!styx!mordor!sri-spam!parcvax!rocksvax!
rocksanne!sunybcs!ugblee
From: ugblee@sunybcs.UUCP (Bong Lee)
Newsgroups: net.micro.atari16
Subject: Review Please...
Message-ID: <228@sunybcs.UUCP>
Date: Mon, 30-Jun-86 01:35:18 EDT
Article-I.D.: sunybcs.228
Posted: Mon Jun 30 01:35:18 1986
Date-Received: Tue, 1-Jul-86 03:11:36 EDT
Reply-To: ugblee@gort.UUCP (Bong Lee)
Distribution: na
Organization: SUNY/Buffalo Computer Science
Lines: 18

Hi, all. I don't own an Atari 520 ST but I am considering to get one
for myself. But, before I make any decisions, I would like to ask
you, fellow 520ST owners, to give me an in depth review of ST. What
I am particularly interested in is its software availability, the
basic system - for $499 one that is on NYT - , and its worthness.

I mean if I want to do some programming in C , is it possible without
any software? What are the software that follows with basic system.
Is it fast? Compare to Amiga or Mcintosh, which one do you like?

I heard that the TOS is icon driven; is that true?

Please post. And any help will be appreiated.

Thanks in advance.

Daniel Lee.

From -7875382855738021954
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7d743ca47b6b2f3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-30 03:08:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!HIS-PHOENIX-MULTICS.ARPA!Smee
From: Smee@HIS-PHOENIX-MULTICS.ARPA ("Paul E. Smee")
Newsgroups: net.micro.atari16
Subject: atari16 mailing list, and sources
Message-ID: <860630100801.077812@HIS-PHOENIX-MULTICS.ARPA>
Date: Mon, 30-Jun-86 06:08:00 EDT
Article-I.D.: HIS-PHOE.860630100801.077812
Posted: Mon Jun 30 06:08:00 1986
Date-Received: Tue, 1-Jul-86 02:23:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

I've just stumbled across an 'excerpts from' thingie on this system, and
it looks interesting. Do you know offhand if the info-atari mailing
list includes any of the UK universities, from whom I might be able to
pick it up more locally? Or, alternatively, is there any chance of
being added to the mailing list? I'm not sure of the topologies
involved, but UCL-CS knows us as AUCC. UCL-CS have a number of
gateways, most of which I'm not conversant with, though I believe that
ARPA and UUCP are amongst them -- possibly BITNET as well. In ARPA
address terms, I'm:

   Smee at AUCC via UCL-CS   -- in whatever syntax your mailer users.

Further to this, can you provide any info about who keeps track of the
'net sources' I keep hearing about? Or at least, the Atari flavored

ones? (Mines an ST520...)

  Thanks,
    Paul Smee, Senior Systems Programmer
    Avon Universities Computer Centre
    University of Bristol
    Bristol, England

From -6059693463278333473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76fa8413bee484d6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-30 11:10:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!DDATHD21.BITNET!XBR1YD22
From: XBR1YD22@DDATHD21.BITNET (Ralf Bayer {Herz-Baerchi})
Newsgroups: net.micro.atari16
Subject: GEM Kermit
Message-ID: <8606301809.AA08695@ucbvax.Berkeley.EDU>
Date: Mon, 30-Jun-86 14:10:58 EDT
Article-I.D.: ucbvax.8606301809.AA08695
Posted: Mon Jun 30 14:10:58 1986
Date-Received: Tue, 1-Jul-86 03:17:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

To the one who posted that program ... what about submitting it
to the Kermit distribution at Columbia University?

Cheers,
Ralf (The Carebear) Bayer
Technical University of Darmstadt, West Germany
Computing Center

From -391146692582483307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-30 12:12:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!MITRE.ARPA!gpowell
From: gpowell@MITRE.ARPA (Gordon Powell)
Newsgroups: net.micro.atari16
Subject: add me to mailing list
Message-ID: <8606301912.AA01253@mitre.ARPA>
Date: Mon, 30-Jun-86 15:12:18 EDT
Article-I.D.: mitre.8606301912.AA01253
Posted: Mon Jun 30 15:12:18 1986
Date-Received: Tue, 1-Jul-86 03:57:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The MITRE Corp., Washington, D.C.
Lines: 1

Please add me to the Atari mailing list for the ST. gpowell@mitre

From -3650299036107832318
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b771b274de3982b7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-30 15:25:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!DDATHD21.BITNET!
XBR1YD22
From: XBR1YD22@DDATHD21.BITNET (Ralf Bayer {Herz-Baerchi})
Newsgroups: net.micro.atari16
Subject: Intersect Ramdisk problems
Message-ID: <8606302201.AA12874@ucbvax.Berkeley.EDU>
Date: Mon, 30-Jun-86 18:25:43 EDT
Article-I.D.: ucbvax.8606302201.AA12874
Posted: Mon Jun 30 18:25:43 1986
Date-Received: Tue, 1-Jul-86 04:06:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 35

Hi folks,

        I'm experiencing difficulties with the Intersect Ramdisk.

A) System booting when writing to write protected floppy.
   Here's the scenario:

     I have a 1040 STF with 1 meg Ram and german TOS in Roms. The Ramdisk
   is loaded as accesoire. A write-protected floppy is in the disk drive.

     When I try to write to that disk, a alarm box pops up. When I remove
   the write protection and click "continue", the machine boots. When
   I simply click "abort", same outcome.

B) Ramdisk not releasing all the RAM when removed

     When I remove the Ramdisk, sometimes not all the RAM is freed again,
   so I have to reboot.

Any suggestions/help/hints to the above problems are greatly welcomed.
Also, pointers to the source of the Ramdisk program are appreciated.

Thanks
Ralf Bayer (The Care-Baer)
Computing Center @ the Technical University of Darmstadt, West Germany

Arpanet: xbr1yd22%ddathd21.BITNET@wiscvm.wisc.EDU (personal mail)
             #d22%ddathd21.BITNET@wiscvm.wisc.EDU (mailing lists)
BITNET: xbr1yd22 @ ddathd21   (no NETDATA format, need RFC-header)
             #d22 @ ddathd21   (NETDATA format, beware of the
                                  Number sign, it's part of the USERID)

                  > REAL programmers use FORTRAN <

From 5749778572968566541
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-30 18:25:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!rochester!ritcv!cci632!rb
From: rb@cci632.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: SCSI available yet?
Message-ID: <157@cci632.UUCP>
Date: Mon, 30-Jun-86 21:25:49 EDT
Article-I.D.: cci632.157
Posted: Mon Jun 30 21:25:49 1986
Date-Received: Wed, 2-Jul-86 04:23:36 EDT
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Distribution: net
Organization: CCI, Rochester Development, Rochester, NY
Lines: 28
Summary: Freedom of Choice!

Has anybody noticed or heard of an SCSI interface to the
DMA port of the ST, and if it is available yet?

Atari has been doing a great job of blowing competition out
of the water, but I am still a little concerned about getting
"locked in" to another "Atari Only" selection of peripherals.

A number of drives and peripherals seem to be coming out with
PC, PC-AT, and SCSI interfaces (maybe they'll get smart and
just offer a PC-XX -> SCSI interface and save even more money)

I realize that Atari has a real nice hard disk of it's own,
but there are certain things (like removable high density storage)
that I seriously doubt Atari will even WANT to compete in.

It looks like the ST is becoming a defacto standard but I worry
about the "Commodore comprimises". Remember those S-L-O-W
drives for the 64? Was this Jack's Idea?

With multi-tasking available now, it makes sense to keep the options
for things like WORMS, tapes, CD-Roms, and Networking as open as
possible.

Besides, the ST is looking more and more like a "real computer"
to the rest of the industry (It's about time!!). They might
want to support it, but not if they have to do a "custom interface".

P.S. It doesn't HAVE to be made by Atari, but it would be nice.

From -1909410268142064867
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9845366fd5f2e33d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 10:53:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!sri-spam!nike!ucbcad!ucbvax!BLEKUL11.BITNET!FGCBA10
From: FGCBA10@BLEKUL11.BITNET
Newsgroups: net.micro.atari16
Subject: Disk organization on ST
Message-ID: <8607011752.AA01749@ucbvax.Berkeley.EDU>
Date: Tue, 1-Jul-86 13:53:41 EDT
Article-I.D.: ucbvax.8607011752.AA01749
Posted: Tue Jul 1 13:53:41 1986
Date-Received: Wed, 2-Jul-86 05:55:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Date: Tuesday, 1-Jul-86 9:07 MET
From: Luc Dekens <FGCBA10@BLEKUL11.BITNET>
Subject: diskorganization on ST
To: INFO-ATARI16@SU-SCORE.ARPA

    Hi, is there anybody out there how could give me some info
concerning the disk-structure. I know where to find the bootblock
and how it is organized, but I'm in the dark what concerns directory-
organization, allocation tables and so on.

       Luc Dekens   FGCBA10@BLEKUL11.BITNET
       Chemistry Department
       University of LEUVEN
       Belgium

From -6132487680282353953
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34737f6f34f0c359,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 13:03:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!hplabs!felix!preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: MicroEmacs for the ST - query

Message-ID: <1307@felix.UUCP>
Date: Tue, 1-Jul-86 16:03:10 EDT
Article-I.D.: felix.1307
Posted: Tue Jul 1 16:03:10 1986
Date-Received: Thu, 3-Jul-86 00:51:54 EDT
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 19

I'm looking for a version of MicroEmacs for the ST.

We have the sources for MicroEmacs 3.6 here, but there doesn't appear
to be an Atari ST version. If someone out there has ported 3.6 to the
ST I'd like to know what changes you made.

There was a three part posting recently of (a) MicroEmacs (which one I
don't know), but the posting containing the object file was truncated
when it arrived here.

I have also heard of another version of MicroEmacs (v30?). Has this been
ported to the ST?

If you can help with any of the above, send me mail (rather than entire
sources, or binaries) and I'll use the closest offers.

=======================================
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston

From 7219392353787889121
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4568d780697b2026,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 15:26:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!XEROX.COM!BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: 520st composit output
Message-ID: <860701-162634-4288@Xerox>
Date: Tue, 1-Jul-86 18:26:03 EDT
Article-I.D.: Xerox.860701-162634-4288
Posted: Tue Jul 1 18:26:03 1986
Date-Received: Wed, 2-Jul-86 06:26:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: BillHolland.ES@Xerox.COM
Organization: The ARPA Internet
Lines: 8

I connected a MONOCROME (non atari) to my ST composite output and the
resolution is worst that the low or medium resolution going through the
rf on my color TV .I tried all kinds of colors using the control

panel,but the display looks terrible. I know that the display is ok
because I connected it to a mono source and it looks great. Any
Solutions anyone??

Bill

From -8873626471011759112
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4d51a029c3a92226,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 16:12:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Gateways seem to be OK now
Message-ID: <12219309695.41.G.ABRAMS@SU-SCORE.ARPA>
Date: Tue, 1-Jul-86 19:12:53 EDT
Article-I.D.: SU-SCORE.12219309695.41.G.ABRAMS
Posted: Tue Jul 1 19:12:53 1986
Date-Received: Wed, 2-Jul-86 06:25:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Mail has arrived from BITNET and the error messages seem to havestopped.

Feel free to resume communication.

From 3397099242680358512
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa1e08407da0992,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 19:41:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-
THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: ST Help needed!!!
Message-ID: <12219347673.27.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Tue, 1-Jul-86 22:41:30 EDT
Article-I.D.: DEEP-THO.12219347673.27.UC.BRI
Posted: Tue Jul 1 22:41:30 1986
Date-Received: Thu, 3-Jul-86 00:59:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 38

I have a couple of questions that people maybe able to help me out with...

1) Does anyone have the code to pipe an AES message (specifically a redraw message) to an application. I believe this was mentioned in Tim Oren's Professional GEM column (on CompuServe?) but I don't have it. The code should be pretty short.
2) Has anyone had any trouble using menu_ienable and menu_icheck? I probably forgot to initialize something, and would be open to any suggestions so I can track down the problem. The menu bar is on the screen, and I get menu messages fine, but my menu_ienable calls often cause no results, and sometimes crash with 2 bombs. I created the menu with the RCS. Is there something I don't know?
3) The GEM documentation describes two ways to select a height for a font vst_point and vst_height (or something like that). I want a way to switch between the small and normal system fonts in any resolution, and be compatible with future changes. I can find the cell size of the standard font character when I get graf_handle (or somewhere in the beginning). Anyway...how can I set the size to be this character box. If I use vst_height, I have to specify the distance from the top to the BASELINE, but I only know the cell height. And I can't use vst_point (though this appears to be character cell mode) since this is in printer points apparently. ALL I WANT TO DO IS SWITCH FROM SMALL TO LARGE CHARACTERS!! Am I misunderstanding or what???? Help.
4) What happens if I do a wind_set with WF_WORKXYWH. Will the window be set? I normally use wind_set with WF_CURRXYWN to set the border. Just curious.
5) More coming later ... probably. Thanks for any help.

--- Bri

uc.bri@deep-thought.mit.edu
...!eddie!bri

From 1025635615622461284
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7a0a1c9329a73de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 21:04:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: rsc info
Message-ID: <8607020432.AA12058@ucbvax.Berkeley.EDU>
Date: Wed, 2-Jul-86 00:04:15 EDT
Article-I.D.: ucbvax.8607020432.AA12058
Posted: Wed Jul 2 00:04:15 1986

Date-Received: Thu, 3-Jul-86 01:11:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 30

Question:
How can one get the address of te_ptext, te_ptmplt, etc. of a loaded resource?
Using the rsrc_gaddr call seems to be paradoxical.
It seems that to find the address, one must supply the index number in the
resource file. Problems arise when one discovers that one cannot assign
an index value to anything but a tree or an object in the RCS.

I have tried using (char *)(LLGET(LLGET(OB_SPEC(OBJ)))) to get:
1) the pointer to the ob_spec (OB_SPEC(OBJ))
2) the tedinfo pointed to by ob_spec LLGET(OB_SPEC(OBJ))
3) the te_ptext pointer pointed by tedinfo LLGET(LLGET(OB_SPEC(OBJ)))
4) the string pointed to by te_ptext (char *)(LLGET(LLGET(OB_SPEC(OBJ)))

It would seem to be a waste of memory to have to allocate an array for each
string I wish to copy to. Why not use the space in the resource file?
Also, if I choose to point my tedinfo with LLSET(OB_SPEC(OBJ)), this would
require that I allocate many tedinfo structures, which is a BIGGER waste.

What I desire is to take the persons input from a dialog editable field, and
copy it to another editable field. All I have to do is find out the address
of the te_ptext and I have it made. The rsrc_gaddr call seems cryptic in
trying to get anything but a tree or object.

If you can help, thanks.   I know some hang-abouter from Megamax is out there,
so if you can help.... PLEASE DO.

Thanx,
Michael Vederman

p.s. If I used the C code of the resource, I would have no problem, but...

From -8013047994985486300
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7a0a1c9329a73de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-01 21:48:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: rsc info
Message-ID: <8607020505.AA12462@ucbvax.Berkeley.EDU>
Date: Wed, 2-Jul-86 00:48:28 EDT
Article-I.D.: ucbvax.8607020505.AA12462
Posted: Wed Jul 2 00:48:28 1986
Date-Received: Thu, 3-Jul-86 01:15:10 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.ARPA
Organization: The ARPA Internet
Lines: 10

AHA...
Going over the file stcreate.c seems to have shed some light... the te_ptext, ob_spec, and associated fields are all relative indexes from the beginning of the resource file. It would seem that adding the index to the address of the resource might get the right spot. I have yet to try...
That would explain why the LLGET would not work...
Still, any help would be appreciated.

Thanx,
Mike

From -5163610170271123698
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,906d0a1748af6634,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 07:17:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!XEROX.COM!WSeaver.ElSegundo
From: WSeaver.ElSegundo@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Remove name from All Atari DLs
Message-ID: <860702-071836-4672@Xerox>
Date: Wed, 2-Jul-86 10:17:58 EDT
Article-I.D.: Xerox.860702-071836-4672
Posted: Wed Jul 2 10:17:58 1986
Date-Received: Thu, 3-Jul-86 06:49:00 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: WSeaver.ElSegundo@Xerox.COM
Organization: The ARPA Internet
Lines: 3

Please remove me from all of the Atari Dls.

Thank you

From -7015647643445554083
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46b3b5ae4a38e673,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 07:52:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!nike!ucbcad!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: More ST Help Needed!!

Message-ID: <12219480725.18.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Wed, 2-Jul-86 10:52:23 EDT
Article-I.D.: DEEP-THO.12219480725.18.UC.BRI
Posted: Wed Jul 2 10:52:23 1986
Date-Received: Thu, 3-Jul-86 06:55:56 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

6) Does anyone know a way that I can get a character from the system font
into memory so I can blit it, look at the bits, etc.? The only
way I can think of is to print it to the screen and then do
a raster copy on it. But I don't want the user to see the character,
and would rather not do hacks like changing the color registers
so the character doesn't show up. Is there a way to access the
font data legally? Is there some inquire function or something?

--- Bri

uc.bri@deep-thought.mit.edu
...!eddie!bri

From -642191941198450656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d8d6188429c57b8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 08:30:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!decvax!decwrl!pyramid!hplabs!
tektronix!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP
Newsgroups: net.micro.atari16
Subject: Re: GEM Kermit - I only got part 3
Message-ID: <178@molihp.UUCP>
Date: Wed, 2-Jul-86 11:30:31 EDT
Article-I.D.: molihp.178
Posted: Wed Jul 2 11:30:31 1986
Date-Received: Mon, 7-Jul-86 00:33:02 EDT
References: <995@leadsv.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 17

In article <995@leadsv.UUCP> trimble@leadsv.UUCP writes:
>Could parts 1, 2, 4, 5, and 6 of the (recent) posting of GEM Kermit
>be reposted to the group (or net.sources). We did'nt appear to receive
>these parts.
>

>Thanks - sorry for the net.clutter
>
>Gary Trimble (Lockheed Advanced Marine Systems)

  We have all the parts EXCEPT part 3 of Kermit! Has anybody figured out
the pathologically weird distribution of this newsgroup yet? And could we
get part 3?

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
     #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From 5587761005871601768
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8a425f90fa871f2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 09:40:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: MicroRTX, multi-tasking for ST, anybody tried it yet?
Message-ID: <427@imagen.UUCP>
Date: Wed, 2-Jul-86 12:40:41 EDT
Article-I.D.: imagen.427
Posted: Wed Jul 2 12:40:41 1986
Date-Received: Fri, 4-Jul-86 03:15:55 EDT
References: <127@cci632.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 29

> In the June "Nanobytes" section of Byte, there was a little
> blurb on a product called MicroRTX now available for the
> Atari. Appearently, it is a superset operating system that
> can be put on top of GEM, meaning that current ST software
> can be run in a multi-tasking environment.
>
> Has anybody tried this? Has anybody seen any reviews?

~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

i have tried MicroRTX and it does work as advertised, i have a demo
of the system which i posted many eons ago and will send you if you
wish. for me the Micro-cshell is the better offering, giving much of
the power and flexibility of UNIX (tm). There is a rumor that they
~~~~~~~~~~~~~~~~~~~~~~

have a device that fits on the bus connector and gives a full SCSI
interface, does anyone know more about this ?????

--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 8998232756246526276
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,4b2564d437407243
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,4b2564d437407243
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 10:04:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.micro.68k
Subject: Re: ST Development Systems
Message-ID: <428@imagen.UUCP>
Date: Wed, 2-Jul-86 13:04:18 EDT
Article-I.D.: imagen.428
Posted: Wed Jul 2 13:04:18 1986
Date-Received: Fri, 4-Jul-86 03:16:44 EDT
References: <590@looking.UUCP> <2264@usceast.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 32
Xref: watmath net.micro.atari16:1185 net.micro.68k:1717

>
> >[munch, munch]
> >
> >We prefer a cross-development system, running under UNIX, but I fear
> >such a beast does not exist.
>
> >Our needs are: more than 32k static initialized data (we have lots of
> >tables), a good pre-processor (handles #if defined(X) || defined(Y), etc)
> >unsigned as an attribute, rather than as a type of int (we need unsigned
> >chars), a reasonable debugging environment (compatible with SID, or
> >better).
> >

> >Above all this, we need a reliable compiler/linker. We do NOT want to
> >spend our time debugging the tools.
> >
~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

i started work on a cross development system for unix (tm) based on
the SUmacC system from Stanford. The work is going very slowly but
if you would like to help.......
--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 7479580632591025671
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9ff80676c8510896,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 10:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!gatech!akgua!akguc!mtune!mtuxo!houxm!
hropus!riccb!ihopa!ihnp4!drutx!druky!med
From: med@druky.UUCP (DrapalME)
Newsgroups: net.micro.atari16
Subject: The 68ohm Resistor Debate - Round 2
Message-ID: <167@druky.UUCP>
Date: Wed, 2-Jul-86 13:48:00 EDT
Article-I.D.: druky.167
Posted: Wed Jul 2 13:48:00 1986
Date-Received: Sat, 5-Jul-86 05:51:46 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 20

     I recently discovered a small piece of trivia regarding the 68ohm
resistor debate and the 1 meg upgrade of the 520ST. Recently, I
purchased a 520ST for a relative, and decided to do the upgrade to it
as well (I have an older 520ST and have already upgraded it). Imagine
my surprise when I opened up the new 520ST and discovered that the kind
folks at Atari had "hacked" in the 68ohm resistors into the existing
memory! And when I say "hacked", I mean that they cut traces and soldered
the resistors directly to the ram chips.

     Now, I really don't know what this all means, except that Atari may
have concluded that the resistors are useful. I *don't* think that it means
~~~~~~~~~~~~~~~~~

that those of you that have un-modified 520's should open them up and put them in, but I do think that this indicates that if you are considering doing the upgrade, you should spend the extra $.59 and buy 6-68 ohm resistors.

Myron Drapal
AT&T Information Systems
Denver, Co.
(..!ihnp4!druky!med)

From 6060780696153948685
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12c767,9cb7ea01dc97ac03,start
X-Google-Attributes: gid12c767,public
X-Google-Thread: 140593,9cb7ea01dc97ac03,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 11:04:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!mcvax!unido!ab
From: ab@unido.UUCP (Andreas Bormann)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Hack 1.0.3 for Atari ST
Message-ID: <164@unido.UUCP>
Date: Wed, 2-Jul-86 14:04:28 EDT
Article-I.D.: unido.164
Posted: Wed Jul 2 14:04:28 1986
Date-Received: Fri, 4-Jul-86 07:26:58 EDT
Organization: University of Dortmund
Lines: 15
Xref: watmath net.games.hack:2108 net.micro.atari16:1186

I have posted the binary of Hack for Atari ST to net.sources.games.

It is Hack 1.0.3 with the updates from Mike Stephenson which he posted recently to the net. I hope that there are not too many bugs in it...

For bug reports write to:

Andreas Bormann
University of Dortmund [UniDo]
West Germany

Uucp: ab@unido.uucp
Path: {USA}!seismo!{mcvax}!unido!ab
{Europe}!{cernvax,diku,enea,ircam,mcvax,prlb2,tuvie,ukc}!unido!ab
Bitnet: ab@unido.bitnet (== ab@ddoinf6.bitnet)

From 7232828434141685170
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b7a0a1c9329a73de
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 11:41:15 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!ucdavis!ucrmath!hope!wardlaw
From: wardlaw@hope.UUCP (Johnie Wardlaw)
Newsgroups: net.micro.atari16
Subject: Re: rsc info
Message-ID: <536@hope.UUCP>
Date: Wed, 2-Jul-86 14:41:15 EDT
Article-I.D.: hope.536
Posted: Wed Jul 2 14:41:15 1986
Date-Received: Fri, 4-Jul-86 03:12:21 EDT
References: <8607020432.AA12058@ucbvax.Berkeley.EDU>
Organization: University of California, Riverside
Lines: 48

> Question:
> How can one get the address of te_ptext, te_ptmplt, etc. of a loaded resource?
> Using the rsrc_gaddr call seems to be paradoxical.
> It seems that to find the address, one must supply the index number in the
> resource file. Problems arise when one discovers that one cannot assign
> an index value to anything but a tree or an object in the RCS.

Here is how I would copy from one text field to another using MegaMax C
(which I use every day, by the way!):

```
     DIALOG   *d1,*d2;
     int  dx,dy,dw,dh,dret;

     rsrc_gaddr(0,D1_INDEX,&d1);
     form_center(d1,&dx,&dy,&dw,&dh);
     form_dial(FMD_BEGIN,dx,dy,dw,dh,dx,dy,dw,dh);
     objc_draw(d1,0,MAX1_INDEX,dx,dy,dw,dy);
     dret = form_do(d1,D1TEXT_INDEX);
     form_dial(FMD_FINISH,dx,dy,dw,dh,dx,dy,dw,dh);
     rsrc_gaddr(0,D2_INDEX,&d1);
     strcpy(((TEDINFO *) d2[D2TEXT_INDEX].ob_spec)->te_ptext,
            ((TEDINFO *) d1[D1TEXT_INDEX].ob_spec)->te_ptext);
     form_center(d2,&dx,&dy,&dw,&dh);
     form_dial(FMD_BEGIN,dx,dy,dw,dh,dx,dy,dw,dh);
     objc_draw(d2,0,MAX2_INDEX,dx,dy,dw,dy);
     dret = form_do(d2,D2TEXT_INDEX);
     form_dial(FMD_FINISH,dx,dy,dw,dh,dx,dy,dw,dh);
```

You can get fancy and do the "growbox" stuff, but this is all that I do.
I haven't actually tried this code, so it may have a bug or two...I typed
it in from the top of my head (I was working on dialog stuff last night so
it was still floating around in there!) The only problem that I forsee is
that the second dialog (destination string of copy) should be initialized
in the MMRCP program to be spaces to allocate the memory needed for the
"strcpy". Let me know how it goes...I would be interested in any tips on
how to get the EDIT stuff working...I can only make it work correctly when
I initialize PTEXT in MMRCP with a default string or spaces. Maybe I have
to allocate more memory for it and change the te_ptxtlen (???) value?
Good luck! -- Johnie

/**\
** Johnie Wardlaw,   Undergraduate: Computer Science **
** University of California, Riverside   **
** {ucbvax!ucdavis, ihnp4!ucla-cs} ucrmath!hope!wardlaw **
**   **
** "If that was foreplay, I'm a dead man!"   **
**   -- Cocoon (alien sex scene)   **
**/

From 2830318062663568945
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4568d780697b2026
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 13:17:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!topaz!ll-xn!nike!ucbcad!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520st composit output
Message-ID: <8607022017.AA02840@mitre-bedford.ARPA>
Date: Wed, 2-Jul-86 16:17:48 EDT
Article-I.D.: mitre-be.8607022017.AA02840
Posted: Wed Jul 2 16:17:48 1986
Date-Received: Thu, 3-Jul-86 07:31:04 EDT
References: <860701-162634-4288@Xerox>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 28

Composite signals are made by black magic to fit into a nominal 6 MHz TV channel -- in fact I believe the video portion has to fit into 4.5 MHz. To do this it is necessary to low-pass filter the luminance signal to leave room for the chroma signal, and also to bandpass filter the chroma (or lowpass filter it in baseband form before putting it on the color subcarrier). Anyway, these lowpass operations amount to smearing of detail in the picture or intentionally limiting resolution. Apparently the chroma suffers the worst, which is why in color TV pictures the red areas sometimes appear to be painted on sloppily so they spill outside the area that was supposed to be red.

If you could get the baseband luminance signal out of the Atari before it has been filtered, you might get the resolution you desire. I have no data on the circuit, but maybe somebody out there knows if this signal is available to be brought out. I speculate that it may be available somewhere over on the monochrome monitor output. If it is still active somewhere even when you have plugged into the other jack, you may be able to get access to it.

Too bad they didn't provide an option of 60-Hz standard monochrome output as well as composite.

The other trick that comes to mind is to run your monochrome monitor off the

GREEN output of the RGB output. That is supposed to give a reasonable
monochrome picture for most normal scenes.

Good luck.

-John Sangster / jhs@mitre-bedford.arpa

From -374583739973088274
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 13:43:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!rochester!stuart
From: stuart@rochester.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <19226@rochester.ARPA>
Date: Wed, 2-Jul-86 16:43:52 EDT
Article-I.D.: rocheste.19226
Posted: Wed Jul 2 16:43:52 1986
Date-Received: Fri, 4-Jul-86 01:31:35 EDT
Sender: stuart@rochester.ARPA
Organization: U of Rochester, CS Dept., Rochester, NY
Lines: 21

From: Stuart Friedberg <stuart>

Back in January, Lee Mondoza reviewed "Atari ST Internals" by Gerits,
Englisch and Bruckman, published by Abacus Software. What I would
like to know from those who have the book and/or a recent developer's
kit is:

1) Is this book still a good addition to the developer's kit?
2) Does TOS in ROM change none/some/most/all of the magic addresses?
3) Does a 1040ST change none/some/most/all of the magic? (The book
   was written about the 520ST)
4) How close is the 20 June 85 BIOS listing in the book to the current
   BIOS? Very close, useful, useless?

For that matter,

5) What is the current state of the developer's kit? What's changed in
   it from the original kits? Has the documentation improved?
6) What other (non-Atari) internals documents are currently recommended?

Stu Friedberg {seismo, allegra}!rochester!stuart stuart@rochester

From -8887277671352798530
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c04bccefacff0588

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 18:35:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!sbcs!helm!dave
From: dave@helm.UUCP (David Goldblatt)
Newsgroups: net.micro.atari16
Subject: Re: Avatex and the ST
Message-ID: <528@helm.UUCP>
Date: Wed, 2-Jul-86 21:35:36 EDT
Article-I.D.: helm.528
Posted: Wed Jul 2 21:35:36 1986
Date-Received: Fri, 4-Jul-86 01:07:25 EDT
References: <8606271514.AA25672@ncsc.ARPA>
Reply-To: dave@helm.UUCP (David Goldblatt)
Organization: helm, Farmingdale, Long Island, NY
Lines: 16
Keywords: *CHEAP* Hayes 1200 compatible !

  I've tinkered with an Avatex 1200 at the store I work at, and the only difference I've found is that the auto-answer command is different. A friend of mine has been running one on an Apple (gasp! Heresy!) as the base of a bulletin board.. A board written for the Hayes 1200. The modem is mute, however; no onboard speaker, although there is a jack for another phone. Overall: Highly recommended. Price ranging from $90-$110, depending if mail order or not.

-dg-

...!ihnp4!chinet!helm!dave
...!philabs!sbcs!helm!dave

{the opinions expressed herein are mine, and mine alone. If you want to use them, drop a note; we can discuss my royalty policy.}

From 517944252696423042
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-02 20:03:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!nike!ucbcad!ucbvax!sdcsvax!sdcc6!sdcc12!wa60
From: wa60@sdcc12.UUCP (paul van de graaf{})
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <616@sdcc12.UUCP>
Date: Wed, 2-Jul-86 23:03:40 EDT
Article-I.D.: sdcc12.616
Posted: Wed Jul 2 23:03:40 1986
Date-Received: Fri, 4-Jul-86 01:34:17 EDT
References: <157@cci632.UUCP>
Reply-To: wa60@sdcc12.UUCP (Paul van de Graaf)

Distribution: net
Organization: U.C. San Diego, Academic Computer Center
Lines: 27

In article <157@cci632.UUCP> rb@ccird1.UUCP (Rex Ballard) writes:
>Has anybody noticed or heard of an SCSI interface to the
>DMA port of the ST, and if it is available yet?
>

A guy I met at a computer store yesterday had a home-built drive consisting of an Atari --> SCSI board, an off-the-shelf SCSI controller, and a 70 meg drive. He got the Atari --> SCSI board and disk driver from Supra for $200.00. I suppose it's the same board that Supra uses in their hard disk for the ST.

He put it together in a weekend, and he said the biggest problem he had was mounting the thing in a box. He also said something to the effect that the Atari --> SCSI board doesn't adhere to the SCSI standard completely, but Supra gives you a list of controllers that work with it. This might just be a driver problem and not the fault of the hardware.

Another drawback is that as it stands you can't boot off the hard disk. You must do a short boot from the floppy drive, and then the hard drive takes over. I'm not sure if GEMDOS has any provisions to auto-configure off the DMA port. I doubt it. The upshod is that you can't call your hard disk "drive A:". Yet another reason to buy the $50.00 upgrade to the developer's kit to get the fixed linker.

I did in fact see the thing work, so if you have some surplus disks or controllers lying about, you might give Supra a call.

Paul van de Graaf sdcsvax!sdcc12!wa60 U. C. San Diego

From -4952699403403944871
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1479fb,384a7b4eaeb3dd8,start
X-Google-Attributes: gid1479fb,public
X-Google-Thread: 129c11,384a7b4eaeb3dd8,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,384a7b4eaeb3dd8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-03 13:48:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!gatech!akgua!akguc!mtune!mtuxo!houxm!mhuxt!
mhuxv!mhuxo!gjphw
From: gjphw@mhuxo.UUCP (WYANT)
Newsgroups: net.micro,net.micro.atari16,net.micro.ti
Subject: Optimum transmission speed over telephone lines
Message-ID: <1207@mhuxo.UUCP>
Date: Thu, 3-Jul-86 16:48:41 EDT
Article-I.D.: mhuxo.1207
Posted: Thu Jul 3 16:48:41 1986
Date-Received: Sat, 5-Jul-86 09:03:46 EDT

Organization: AT&T Bell Laboratories, Murray Hill
Lines: 17
Xref: watmath net.micro:14996 net.micro.atari16:1194 net.micro.ti:207

While considering the purchase of a 1200 baud modem, I began wondering if there is some optimum data rate for modem operations over the U.S. telephone lines. I have seen a few advertisements for 2400 baud modems, and read mention of 9600 bps modems becoming available. Where does the retransmission rate due to lost bits negate the higher data transmission rate? What might serve to be the most efficient data rate using ordinary (unconditioned) telephone lines? Would the long distance digital telephone trunks be a more serious limiting factor than local or short haul analog lines?

Any suggestions?

Patrick Wyant
AT&T Bell Laboratories
Naperville, IL
*!ihnp4!{mhuxo,ihwld}!gjphw

From -5544857783358759129
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7216f7e8cd33a99f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-03 15:19:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!panda!genrad!decvax!decwrl!pyramid!hplabs!felix!scgvaxd!wlbr!wlbreng1!pete
From: pete@wlbreng1.UUCP
Newsgroups: net.micro.atari16
Subject: Re: add me to mailing list
Message-ID: <128@wlbreng1.UUCP>
Date: Thu, 3-Jul-86 18:19:02 EDT
Article-I.D.: wlbreng1.128
Posted: Thu Jul 3 18:19:02 1986
Date-Received: Sat, 5-Jul-86 07:15:52 EDT
References: <8606301912.AA01253@mitre.ARPA>
Reply-To: pete@wlbreng1.UUCP (0000-Pete_Lyall)
Organization: Eaton Inc. IMSD, Westlake Village, CA
Lines: 6

In article <8606301912.AA01253@mitre.ARPA> gpowell@MITRE.ARPA (Gordon Powell) writes:
>Please add me to the Atari mailing list for the ST. gpowell@mitre

Would you please add me as well?? Thanks!

.....!ihnp4!wlbr!wlbreng1!pete

From 8009553417886017364
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edc7bde1fbcd941,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-03 15:49:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!nbires!hao!hplabs!ucbvax!WISCVM.WISC.EDU!
BillHolland.ES%Xerox.COM%cernvax.BITNET
From: BillHolland.ES%Xerox.COM%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: hard disk controllers
Message-ID: <8607040018.AA08491@ucbvax.Berkeley.EDU>
Date: Thu, 3-Jul-86 18:49:23 EDT
Article-I.D.: ucbvax.8607040018.AA08491
Posted: Thu Jul 3 18:49:23 1986
Date-Received: Sat, 5-Jul-86 05:01:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

cc:
Reply-To: BillHolland.ES@Xerox.COM
Message-ID: <860703-165016-2021@Xerox>

Does anyone have any experience using the Shugart 1610-4 0r 1610-1 hard
disk controllers they are available for $99 dollars each?? I wonder if
the software thats already in use can be used with them??. The
controllers are sasi to st506/412

Bill

From -702856376755727872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edc7bde1fbcd941
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-03 15:49:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!nbires!hao!hplabs!ucbvax!XEROX.COM!
BillHolland.ES
From: BillHolland.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: hard disk controllers
Message-ID: <860703-165016-2021@Xerox>
Date: Thu, 3-Jul-86 18:49:23 EDT
Article-I.D.: Xerox.860703-165016-2021
Posted: Thu Jul 3 18:49:23 1986
Date-Received: Sat, 5-Jul-86 05:02:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: BillHolland.ES@Xerox.COM
Organization: The ARPA Internet
Lines: 6

Does anyone have any experience using the Shugart 1610-4 0r 1610-1 hard
disk controllers they are available for $99 dollars each?? I wonder if
the software thats already in use can be used with them??. The
controllers are sasi to st506/412

Bill

From -19715697678095041
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-03 17:33:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!nbires!hao!hplabs!ucbvax!WISCVM.WISC.EDU!
BillHolland.ES%Xerox.COM%cernvax.BITNET
From: BillHolland.ES%Xerox.COM%cernvax.BITNET@WISCVM.WISC.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8607040032.AA08718@ucbvax.Berkeley.EDU>
Date: Thu, 3-Jul-86 20:33:08 EDT
Article-I.D.: ucbvax.8607040032.AA08718
Posted: Thu Jul 3 20:33:08 1986
Date-Received: Sat, 5-Jul-86 05:02:42 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 22

X-Bitnet-Sender: BillHolland.ES@Xerox.COM
Received: from SU-SCORE.ARPA by wiscvm.arpa on 07/03/86 at 19:04:14 CDT
Received: from Xerox.COM by SU-SCORE.ARPA with TCP; Thu 3 Jul 86
  16:59:04-PDT
Received: from CheninBlanc.ms by ArpaGateway.ms ; 03 JUL 86 16:50:16 PDT
Date: 3 Jul 86 15:49:23 PDT (Thursday)
Subject: hard disk controllers
To: XeroxAtari16Users^.X@Xerox.COM ,
    info-atari16@SU-SCORE.ARPA

cc:
Reply-To: BillHolland.ES@Xerox.COM
Message-ID: <860703-165016-2021@Xerox>

Does anyone have any experience using the Shugart 1610-4 0r 1610-1 hard
disk controllers they are available for $99 dollars each?? I wonder if
the software thats already in use can be used with them??. The
controllers are sasi to st506/412

Bill

From 8959886478816612432
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,310b4b1b847e3dad
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-04 00:38:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!caip!seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <96100014@unido.UUCP>
Date: Fri, 4-Jul-86 03:38:00 EDT
Article-I.D.: unido.96100014
Posted: Fri Jul 4 03:38:00 1986
Date-Received: Sat, 5-Jul-86 08:51:46 EDT
References: <19226@rocheste.UUCP>
Sender: notes@unido.UUCP
Lines: 8
Nf-ID: #R:rocheste:-1922600:unido:96100014:000:323
Nf-From: unido!uh   Jul 4 08:38:00 1986

If you want to buy ST Intern, you should wait.
In Germany, where this book was produced (by Data Becker, a subsidary of a
West-German firm, which imports usullay American cars), the second edition
of this book is just published. In this second version the bios listing
covers the ROM-TOS version of the Atari OS.

uh@unido

From 7154650585896526467
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9845366fd5f2e33d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-04 14:28:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Disk organization on ST
Message-ID: <431@imagen.UUCP>
Date: Fri, 4-Jul-86 17:28:49 EDT
Article-I.D.: imagen.431
Posted: Fri Jul 4 17:28:49 1986
Date-Received: Sun, 6-Jul-86 00:58:39 EDT
References: <8607011752.AA01749@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 282

> Date: Tuesday, 1-Jul-86 9:07 MET
> From: Luc Dekens <FGCBA10@BLEKUL11.BITNET>
> Subject: diskorganization on ST

> To: INFO-ATARI16@SU-SCORE.ARPA
>
>   Hi, is there anybody out there how could give me some info
> concerning the disk-structure. I know where to find the bootblock
> and how it is organized, but I'm in the dark what concerns directory-
> organization, allocation tables and so on.
>
>   Luc Dekens   FGCBA10@BLEKUL11.BITNET
>   Chemistry Department
>   University of LEUVEN
>   Belgium

~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~

ask and thou shalt receive...

ST Disk Directory

For those of you that have gone from the 8-bit ATARI computers to the 16-bit ATARI ST's, there have been many surprises for you in the past months. Among them is probably " What do I do with all of this extra memory.", or maybe " The graphics on this system sure are something." and one of my favorites, " That disk holds a lot of data."

All of these statements are true for obvious reasons. For the longest time there was only 48K of ram available in the ATARI Systems, so jumping to 512K is a fantastic leap. The same holds true for the graphics capability of the new ATARI, by going to a monitor and improving the resolution, another big leap has been made. But, one of the most important improvements to me has been the disk storage. After using an ATARI 810 disk drive for several years, going to 360K per disk is great.

Now, since I have that off my chest, I would like to go a little deeper and try to explain some of the differences in the way the ST disks (single sided) are handled.

The ST disk is divided into 80 tracks (0 thru 79), 9 sectors per track (1 thru 9), and is written in QUAD density (512 bytes per sector). When a disk is formatted, a Boot sector (track 0, sector 1), the File Allocation Tables (it starts at track 0, sector 2) and the Directory (it starts at track 1, sector 3) are established using all 18 sectors in the first two tracks. The remaining sectors (tracks 2 thru 79, sectors 1 thru 9) are initialized in pairs or by cluster (two sectors = one cluster). As a cluster is initialized the File Allocation Table (F.A.T.) is updated to indicate the status of the cluster; this continues until all 351 data clusters have been completed. If a cluster cannot be formatted or initialized, the corresponding entry in F.A.T. is marked not-available and will remain that way until the disk is re-formatted or thrown-away. If a cluster is marked as bad, the F.A.T. entry will contain a number between $FF0 and $FF7. That range of numbers simply means the cluster is un-usable and will never used to
~~~~~~~~~~~~~~~~~

store data.

The ST disk uses track 2, sector 1 thru track 79, sector 9 to store any files you write to the disk. All filenames are listed on the disk directory in the order they are entered. The directory is seven (7) sectors long and has room for 112 entries, with each entry being 32 bytes in length. Each entry contain the Filename and Extension, the file Attributes, the Time the last change was made to the file, the Date the last change was made to the file, the number of the first cluster in the file, and the length (in bytes) of the file. In addition, there are 10 bytes that have been reserved for future use (see fig.1).

fig.1 ST Directory Fields

1) Filename	8 bytes	bytes 0 thru 7
2) Filename Ext.	3 bytes	bytes 8 thru 10
3) Attributes	1 byte	byte 11
4) RESERVED	10 bytes	bytes 12 thru 21
5) Time of Last Change	2 bytes	bytes 22 and 23
6) Date of Last Change	2 bytes	bytes 24 and 25
7) First Cluster Number	2 bytes	bytes 26 and 27
8) File Size (in bytes)	4 bytes	bytes 28 thru 31

The Filename and Extension are the first two fields in each entry of the directory. They take up the first 11 bytes of an entry and follow the same format as the ATARI 800 or the IBM PC, with one small exception. If the first character of an entry is $E5, the file has been deleted and is no longer available for your use. If no changes have been made to the disk since the file was deleted, it may be possible to recover it by using one of the many sector editors available.

The Attributes field is one byte long and contains a number that indicates any special or unique characteristics about this entry. There are only five bits of the entry used on the floppies at this time, and they are listed in Fig. 2.

fig.2 Attributes

Bit 0 = Read Only (not set if the file is Read-Write)
Bit 1 = Hidden
Bit 2 = System
Bit 3 = Volume Label (Name assigned to the disk)
Bit 4 = Sub-Directory (Folder Name)
Bit 5 = Archive (This will be used on the Hard Disks)
Bit 6 & 7 are not used at this time

The next field is marked RESERVED and is 10 bytes long. This field will be filled with 00's on all disk entries and no plans for its use are known at this time.

The Time of Last Change field is 2 bytes long and is updated each

time you write to a file. This field contains the HOURS, MINUTES, and SECONDS(/2) of the last change to the file. This field is in the low-byte, high-byte format and uses all 16 bits. Starting with the highest bit, it uses 5 bits for the Hour, 6 bits for the Minutes and the last 5 bits for the Seconds. (The value in the seconds portion of the field must be multiplied by 2 to get the correct seconds count.)

The Date of Last Change field is handled almost the same as the previous field. This field is changed along with the Time of Last Change, and is also in the low-byte, high-byte format. Starting with the highest bit, use 7 bits for the Year, 4 bits for the Month, and the last 5 bits for the Day. Don't be to surprised when the year equals a 5 (as most files will) because the year stored has 1980 subtracted from it.

The First Cluster field contains the number of the first cluster used for the file. The cluster information is stored in high-byte, low-byte order and should never go above $15F (351), since there are only 351 clusters.

The File Size field is a value equal to the number of bytes used in the file. This number divided by 1024 (1k) will tell you how many clusters are being used for the file (cluster * 2 = sectors).

The File Allocation Table (F.A.T.) starts on track 0, sector 2, and may be the most important table on the disk. F.A.T. is used to keep track of the sector linkage for all data sectors. It is also used for files listed in Folders (sub-directories, see Attributes). The F.A.T. is five sectors long and is valuable enough to be have a duplicate table on the same disk. The location of the second F.A.T. is currently track 0, sector 7, but that is subject to change at any time.

The best way to think of the F.A.T. is like a puzzle. Each entry of the F.A.T. is 12 bits long (not bytes, bits), and the values range from $000 to $FFF (see fig.3). Byte 0 of F.A.T. tells what density the disk is formatted in ($F7 is normal for byte $00), and bytes 1 and 2 will $FF as they are not used. The rest of the table is used as follows. (I'll be using the F.A.T. from the disk I have been working on for my examples. see fig.3) Before I begin I should point out that 12 bits per entry means that 2 entries equal 3 hex characters (bytes). We will start with bytes 03, 04, and 05 for our first 2 entries (see fig.3). Byte 03 will be bits 0 thru 7 of the first 12 bit entry, and bits 0 to 3 of byte 04 will be bits 8 thru 11 of the first entry. As you can see in the first example, the number is $FFF. In F.A.T., if an entry contains $FF8 thru $FFF it means the cluster is the last cluster of the file (EOF). Also, if an entry contains $FF0 thru $FF7 it means the cluster is not usable for some reason. Now, if you will return to byte 04, you will remember that we have only used 4 bits (0 to 3). Bits 4 thru 7 of byte 04 will become bits 0 thru 3 of the second entry and byte 05 will be used as bits 4 thru 11. This entry indicates that cluster 4 will be the next

cluster for this file and it continues in that manner for the rest of the table.

Now you know what cluster to look at but maybe you want to know which track and sector that is. The quickest way I've come with is one of the following formulas,

a) To convert from Cluster to Track and Sector;

```
( ( ( cluster #  +  9) * 2 ) - 1 ) / 9  = track
( ( ( cluster #  + 9 ) * 2 ) - ( track # * 9 )  = sector
```

b) To convert from Track and Sector to Cluster;

```
( ( ( track #  * 9) + sector # ) - 17 ) / 2  = cluster #
```

A brief explanation.

Data sectors start at Track 2, Sector 1. That means 18 sectors (or 9 clusters) have to be accounted for in the formula. Also there are 2 sectors per cluster so you must multiply by 2 at some point. Here is all there is to it, what cluster is Track 22, Sector 3 ??
I'll put the numbers into the formula.

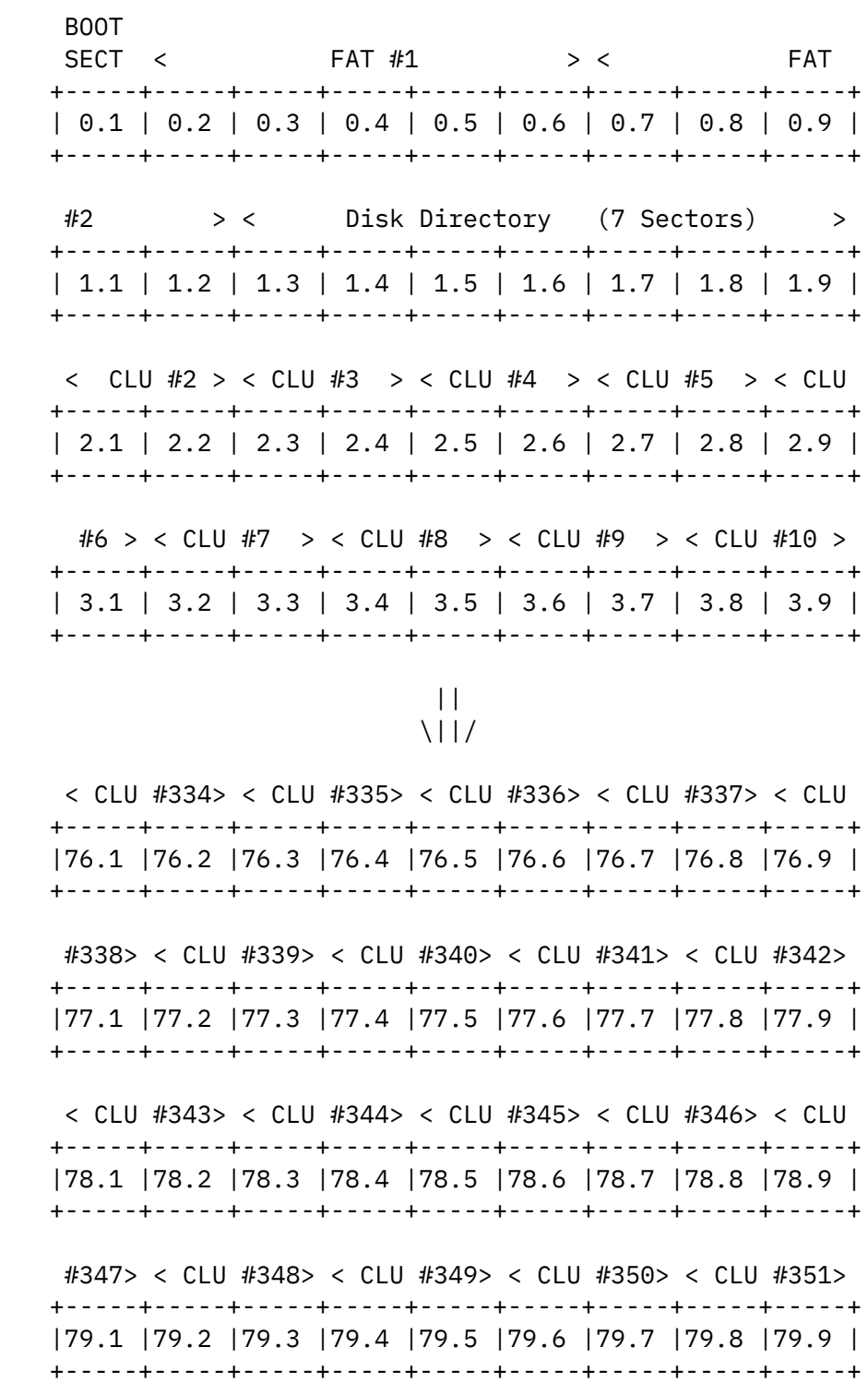
```
( ( ( 22 * 9) + 3 ) - 17) / 2  = cluster #
      ( ( 198 + 3) - 17 ) / 2  = cluster #
                 ( 201 - 17 )  = cluster #
                      184 / 2  = cluster #
                           92  = cluster #
```

If there had been a remainder, it would have been the second sector in the cluster. Thats all there is to it, but just so you can practice a little, I included a chart with some of the Clusters marked with the Track and Sector (see fig.4).

fig.3 (in hex) -- F.A.T. --

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	F7	FF	FF	FF	4F	00	05	60	00	07	80	00	09	A0	00	0B
10	C0	00	0D	E0	00	0D	00	01	11	F0	FF	13	40	01	15	60
20	01	17	F0	FF	19	A0	01	1B	C0	01	1D	E0	01	1F	00	02
30	21	20	02	23	40	02	25	60	02	27	80	02	29	A0	02	2B

fig.4 Track & Sectors = CLUSTERS



--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 294532616643918430
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ef8f74b2b2e5481d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-04 14:32:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SCSI available yet?
Message-ID: <432@imagen.UUCP>
Date: Fri, 4-Jul-86 17:32:25 EDT
Article-I.D.: imagen.432
Posted: Fri Jul 4 17:32:25 1986
Date-Received: Sun, 6-Jul-86 00:58:57 EDT
References: <157@cci632.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 22

> Has anybody noticed or heard of an SCSI interface to the
> DMA port of the ST, and if it is available yet?
>

~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~

i have heard of one company out here that is supposed to have such
a device, to keep thing non-commercial etc. send me email if you
want to know the details etc.

--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
~~~~~~~~~~~~~~~~~~

Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -6064347331733060351
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,723ccb9e8072ace,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-04 20:21:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbatt!cbosgd!gatech!lll-lcc!eckert
From: eckert@lll-lcc.UUcp (Philip D. Eckert)
Newsgroups: net.micro.atari16
Subject: Binary Downloads
Message-ID: <356@lll-lcc.UUcp>
Date: Fri, 4-Jul-86 23:21:49 EDT
Article-I.D.: lll-lcc.356
Posted: Fri Jul 4 23:21:49 1986
Date-Received: Sun, 6-Jul-86 00:56:55 EDT
Reply-To: eckert@lll-lcc.UUCP (Philip D. Eckert)
Organization: Lawrence Livermore Labs, Lab Comp Ctr
Lines: 5

HELP.... I am trying to Download binary files from the VAX to my ST and am having no luck whatsoever. I set the terminal emulator (PC/Intercomm) to Kermit Image and am using KERMIT with the -is option to send the file, but alas I have been without success. Am I going to have to wait until I get a copy of UUDECODE for the ST, or is there a secret I am unaware of? Thank you for any help you can give me.

From -816435632369107527
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cdadfea41f9237a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-07-05 07:11:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: strange behaviour of news software
Message-ID: <1857@utecfa.UUCP>
Date: Sat, 5-Jul-86 10:11:57 EDT
Article-I.D.: utecfa.1857
Posted: Sat Jul 5 10:11:57 1986
Date-Received: Sat, 5-Jul-86 11:41:47 EDT
Organization: Engineering Computing Facility, University of Toronto
Lines: 18

I found a truncated message about someone porting a version
of Smalltalk to a Mac XL at the bottom of gemkermit part2.

I also found gemkermit part 4 truncated and appended to the
bottom of gemkermit part 5.

There is something strange going on, call the Inspector :-)

anees

--

Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

From 7435049967569222427
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa1b0082d74e9151,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 09:00:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 (USS@Tek, v1.1) based on 4.3bsd-beta 6/6/85;
site tekred.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!tekgen!tekred!
richa
From: richa@tekred.UUCP (Rich Amber)
Newsgroups: net.micro.atari16
Subject: DEGAS and CAD 3D
Message-ID: <574@tekred.UUCP>
Date: Wed, 4-Jun-86 12:00:37 EDT
Article-I.D.: tekred.574
Posted: Wed Jun 4 12:00:37 1986
Date-Received: Sat, 7-Jun-86 09:01:26 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 19
Keywords: printing

I have just acquired the DEGAS art program (for 520ST) and the
CAD 3D program. If anyone else has these, perhaps you can help
me understand why I can't seem to print the art from CAD 3D.

I can successfully load and use CAD 3D. The printout function
only prints X,Y,Z coordinates. I've read the manual and find
the merest allusion to loading the SUPERVIEW picture file into
DEGAS to actually print the picture. There does not apear to be
a statement of hard fact as to how printing should be accomplished.

If I enter DEGAS and try to load any *.3D pic file, I get an error
message that says something like "file cannot be loaded because the
resolution is not compatible with current setting." Come on, give
me a break! I have a monochrome monitor and I used the file in the
CAD 3D program, but can't use it in DEGAS and I changed nothing.
So what's the problem?

Rich Amber
Redmond, Oregon (503) 923-4411

From 672962871245741189
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ffc6f05aa42ca07a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 10:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!pyramid!hplabs!felix!
preston
From: preston@felix.UUCP (Preston L. Bannister)
Newsgroups: net.micro.atari16
Subject: Re: micro emacs 3 of 3
Message-ID: <1223@felix.UUCP>
Date: Wed, 4-Jun-86 13:17:00 EDT
Article-I.D.: felix.1223
Posted: Wed Jun 4 13:17:00 1986
Date-Received: Thu, 5-Jun-86 20:31:07 EDT
References: <151@paisley.ac.uk>
Reply-To: preston@felix.UUCP (Preston L. Bannister)
Organization: FileNet Corp., Costa Mesa, CA
Lines: 8

The uuencoded emacs.tos file was truncated when it got here.

If you got it OK, send me mail, and I'll get it from whomever is closest.

==========
Preston L. Bannister
USENET: ucbvax!trwrb!felix!preston

From -7450834419164907307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8d06c7ab9889c343
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 13:32:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Questions for Atari
Message-ID: <331@atari.UUcp>

Date: Wed, 4-Jun-86 16:32:56 EDT
Article-I.D.: atari.331
Posted: Wed Jun 4 16:32:56 1986
Date-Received: Fri, 6-Jun-86 05:06:09 EDT
References: <2243@uwmacc.UUCP>
Organization: Atari Corp/Mktg
Lines: 19

In article <2243@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:
>
> We purchased our ST back in January. My understanding was that
> when I sent in the warrenty card, I would receive ST BASIC in the
> mail along with a manual. Well, gosh, here it is June, and I haven't
> heard word one from Atari.

Please send a letter to Atari Customer Relations, 1196 Borregas Ave.,
Sunnyvale CA 94086, Attn: ST BASIC. Your card may have fallen through the
cracks. Just tell us you need your ST BASIC disk and manual.

>   What was the story behind the policy decision to make people who
> already have Atari ST's purchase seperately the GEMDOS in ROM chips?

When you bought your machine, it had TOS on disk, and we let everyone know
that the ROM chip version would cost extra. It cost more for us to
manufacture ST's back then, too.

--->Neil

From -5714476862263607382
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,a707c91eb5c4a036,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,a707c91eb5c4a036,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15517a,a707c91eb5c4a036,start
X-Google-Attributes: gid15517a,public
X-Google-ArrivalTime: 1986-06-05 06:40:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!husc6!
harvard!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.pc,net.micro.atari16,net.micro.amiga
Subject: Tektronix 4027 emulator wanted
Message-ID: <326@cernvax.UUCP>
Date: Thu, 5-Jun-86 09:40:06 EDT
Article-I.D.: cernvax.326
Posted: Thu Jun 5 09:40:06 1986
Date-Received: Sat, 7-Jun-86 13:47:54 EDT
Reply-To: jmg@cernvax.UUCP (Mike Gerard, DD Division, CERN.)
Organization: CERN, Geneva/Switzerland
Lines: 6
Xref: watmath net.micro.pc:8555 net.micro.atari16:993 net.micro.amiga:3470

We would like to replace some ageing 4027 colour displays with personal computers (not necessarily IBM PCs or clones) running an emulation program. Thus, I would like to know if anyone has got such products, and how compatible they are.
All replies welcome; summary to the net if it turns out to be a hot subject.

From -8135879701257890144
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5e86261932f5c94b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-05 14:20:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: ST Writer Instruction Request
Message-ID: <860605-144700-1113@Xerox>
Date: Thu, 5-Jun-86 17:20:58 EDT
Article-I.D.: Xerox.860605-144700-1113
Posted: Thu Jun 5 17:20:58 1986
Date-Received: Sat, 7-Jun-86 08:28:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Does anyone have the instructions for ST Writer? If so, are you willing to send me an electronic copy?

Thanks,
John

From 5888419345291412338
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80af1c0886f0c5cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-05 20:06:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!rochester!bullwinkle!batcomputer!mqh
From: mqh@batcomputer.TN.CORNELL.EDU (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: Problem with redirection
Message-ID: <392@batcomputer.TN.CORNELL.EDU>
Date: Thu, 5-Jun-86 23:06:08 EDT

Article-I.D.: batcompu.392
Posted: Thu Jun 5 23:06:08 1986
Date-Received: Sun, 8-Jun-86 03:45:54 EDT
Organization: Theory Center, Cornell U., Ithaca NY
Lines: 21
Keywords: redirection, empty, file

[]

I'm having a wierd problem. I wrote a little "Hello, world!" program in C, and compiled using the developers kit. From the "command.prg" supplied with the developers kit, I can issue "hello" and get the expected output, but when I try to redirect the output with "hello >outfile", it creates an empty file. I tried sticking in some flushes & stuff, but nothing seems to work. I could swear I had this work once, but it may have been before I got my ROMS. I can redirect output from "dir" commands & such (although dir needs an arguement when trying to redirect) just fine.

Details:
     520ST with 1 Meg upgrade & ROMS.
     Problem occurs with or without ramdisk (512K lmd's)
     linked with:
       link68 [u,tem[m:],s] hello.68k=gemstart,hello.o,gemlib,osbind,libf

Any assistance would be greatly appreciated.
--
--
Mike Hojnowski (Hojo)   {ihnp4,rochester,decvax}!cornell!batcomputer!mqh

From 6651074047909689575
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3dfb5fbeec97fdf8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-06 05:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: STarter Kit mailings delayed
Message-ID: <54600091@iuvax.UUCP>
Date: Fri, 6-Jun-86 08:10:00 EDT
Article-I.D.: iuvax.54600091
Posted: Fri Jun 6 08:10:00 1986
Date-Received: Sun, 8-Jun-86 05:35:58 EDT
Lines: 6
Nf-ID: #N:iuvax:54600091:000:331
Nf-From: iuvax!franco   Jun 6 07:10:00 1986

There will be a delay of a few days in copying STarter Kits. A new ST owner in town blew the 1Meg upgrade on the desk that normally holds my 520. Right now the entire room is full of junk waiting for spare DRAMS to arrive and it

is not worthwhile to reconnect just to copy some disks especially since the
DRAMS are expected soon.

From -5028383885292278186
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e821c713a4a12a7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-06 10:43:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site
batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: keypad probem ,need vt100 for ST
Message-ID: <396@batcomputer.TN.CORNELL.EDU>
Date: Fri, 6-Jun-86 13:43:13 EDT
Article-I.D.: batcompu.396
Posted: Fri Jun 6 13:43:13 1986
Date-Received: Sun, 8-Jun-86 05:54:59 EDT
References: <8605162146.AA21671@ucbvax.Berkeley.EDU>
<343@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 114

[]

```
* This is the assembly source for the program that installs
*   keyboard conversion tables.
* The table is read from a binary file 384 bytes long.

   .xdef _main

_main:
   bra SK

* Space for keyboard tables
   even
US ds.b 128
SH ds.b 128
CL ds.b 128

TT dc.b 27,"E"
   dc.b 13,10,"+--------------------------+"
   dc.b 13,10,"|  SET-KEYBOARD PROGRAM    |"
   dc.b 13,10,"|                          |"
   dc.b 13,10,"|  by Moshe Braner, 8605   |"
   dc.b 13,10,"+--------------------------+"
   dc.b 13,10
   dc.b 13,10,"Name of .ktb file: (RETURN for sys) _"
```

```
   dc.b 8, 0
   even

* get file name from user

SK move.l A0,-(SP)          * save registers
   move.l D0,-(SP)
   pea TT(PC)               * push addr of title
   move.w #9,-(SP)          * code of PRINT LINE
   trap #1                  * call GEMDOS
   addq.l #6,SP
   lea FL(PC),A0
   move.b #40,(A0)          * max no. of chars to input...
   pea FL(PC)               * into filename buffer...
   move.w #10,-(SP)         * using READLINE() function...
   trap #1                  * of GEMDOS
   addq.l #6,SP
   tst.b D0                 * any input?
   bne S1                   *  - then do it,

* exit program

S0 move.w #24,-(SP)         * else...
   trap #14                 * restore system kbd table...
   addq.l #2,SP
   move.l (SP)+,D0          * restore registers...
   move.l (SP)+,A0
   clr.w -(SP)              * and return to GEMDOS
   trap #1

* read data file

S1 lea FN(PC),A0            * use input length to put a
   clr.b #0(A0,D0)          *   0 at end of filename
   clr.w -(SP)              * open file for read only
   pea FN(PC)               *   using given filename
   move.w #$3D,-(SP)
   trap #1                  * OPEN()
   addq.l #8,SP
   tst.w D0
   bmi S0                   * exit upon error
   lea FH(PC),A0
   move.w D0,(A0)           * save file handle
   pea US(PC)               * read into table area
   move.l #$180,-(SP)       * a complete keyboard table
   move.w D0,-(SP)          * from this file
   move.w #$3F,-(SP)
   trap #1                  * READ()
   adda.l #12,SP
   lea FE(PC),A0
   move.w D0,(A0)           * save error code
   lea FH(PC),A0
   move.w (A0),-(SP)        * push file handle
```

```
   move.w #$3E,-(SP)
   trap #1                  * CLOSE()
   addq.l #4,SP
   tst.w D0                 * exit upon error in...
   bmi S0                   *   closing or...
   move.w FE(PC),D0         *     reading
   tst.w D0
   bmi S0

* install new table pointers

   pea CL(PC)               * new keyboard tables
   pea SH(PC)
   pea US(PC)
   move.w #16,-(SP)         * code of keytbl()
   trap #14
   adda.l #14,SP

* exit but leave table resident

   move.l (SP)+,D0          * restore registers...
   move.l (SP)+,A0
   move.w #0,-(SP)          * no-error code
   move.l #$400,-(SP)       * save this much stuff
   move.w #$31,-(SP)        * code for KEEP PROCESS
   trap #1                  * return to GEMDOS

* File handle, error_code, name_len & name buffers

   even
FH ds.w 1
FE ds.w 1
FL ds.b 2
FN ds.b 40

* - Moshe Braner, Cornell, 607-255-3498
```


```
From -5983042214478146387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e821c713a4a12a7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-06 10:43:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site
batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: keypad probem ,need vt100 for ST
Message-ID: <397@batcomputer.TN.CORNELL.EDU>
Date: Fri, 6-Jun-86 13:43:42 EDT
```

Article-I.D.: batcompu.397
Posted: Fri Jun 6 13:43:42 1986
Date-Received: Sun, 8-Jun-86 05:55:22 EDT
References: <8605162146.AA21671@ucbvax.Berkeley.EDU>
<343@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 123

[]

```
* This is a table of the standard keyboard translation table
* that is in the 1040ST ROM, + comments, in a form that can be
* read by the HTB (hex to binary) program. Modify to suit...

* 1040ST system keyboard table
* ============================

* unshifted:

00
1B 31 32 33 34 35 36 37 38 39 30 2D 3D  * Esc 1 2 3 ... =
08  * Backspace
09 71 77 65 72 74 79 75 69 6F 70 5B 5D  * Tab q w e ... ]
0D  * Return
00 61 73 64 66 67 68 6A 6B 6C 3B 27     * Ctrl a s d ... '
60  * `
00  * Left Shift
5C  * \
7A 78 63 76 62 6E 6D 2C 2E 2F           * z x c ... /
00  * Right Shift
00
00  * Alternate
20  * Space
00  * Caps Lock
00 00 00 00 00 00 00 00 00 00           * F1 F2 ... F10
00 00
00  * Clr Home
00  * Up Arrow
00
2D  * Pad -
00  * Left arrow
00
00  * Right arrow
2B  * Pad +
00
00  * Down arrow
00
00  * Insert
7F  * Delete
00 00 00 00 00 00 00 00 00 00 00 00 00
00  * Undo
00  * Help
```

```
* Pad: (  )  /  *  7  8  9  4  5  6  1  2  3  0  .  Enter
      28 29 2F 2A 37 38 39 34 35 36 31 32 33 30 2E 0D
00 00 00 00 00 00 00 00 00 00 00 00

* shifted:

00
1B 21 40 23 24 25 5E 26 2A 28 29 5F 2B
08
09 51 57 45 52 54 59 55 49 4F 50 7B 7D
0D
00 41 53 44 46 47 48 4A 4B 4C 3A 22
7E
00
7C
5A 58 43 56 42 4E 4D 3C 3E 3F
00
00
00
20
00
00 00 00 00 00 00 00 00 00 00          * F1 ... F10
00 00
37  * Clr Home
38  * Up arrow (!)
00
2D
34
00
36
2B
00
32
00
30  * Insert
7F  * Delete
00 00 00 00 00 00 00 00 00 00 00 00 00
00  * Undo
00  * Help
28 29 2F 2A 37 38 39 34 35 36 31 32 33 30 2E 0D  * Pad
00 00 00 00 00 00 00 00 00 00 00 00 00

* caps locked:

00
1B 31 32 33 34 35 36 37 38 39 30 2D 3D
08
09 51 57 45 52 54 59 55 49 4F 50 5B 5D
0D
00 41 53 44 46 47 48 4A 4B 4C 3B 27
60
00
5C
```

```
5A 58 43 56 42 4E 4D 2C 2E 2F
00
00
00
20
00
00 00 00 00 00 00 00 00 00           * F1 ... F10
00 00
00
00
00
2D
00
00
00
2B
00
00
00
00
7F
00 00 00 00 00 00 00 00 00 00 00 00
00
00
28 29 2F 2A 37 38 39 34 35 36 31 32 33 30 2E 0D  * Pad
00 00 00 00 00 00 00 00 00 00 00 00 00


From -7083964591381806157
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e821c713a4a12a7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-06 10:44:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site
batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: keypad probem ,need vt100 for ST
Message-ID: <398@batcomputer.TN.CORNELL.EDU>
Date: Fri, 6-Jun-86 13:44:03 EDT
Article-I.D.: batcompu.398
Posted: Fri Jun  6 13:44:03 1986
Date-Received: Sun, 8-Jun-86 05:55:50 EDT
References: <8605162146.AA21671@ucbvax.Berkeley.EDU>
<343@batcomputer.TN.CORNELL.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 64

[]
```

```
/* Program to create a binary file from a hex file.
   by Moshe braner, 860606.

   Will read data with any amount of parsing characters between
    the hex codes (including none).
   Rest of a line after a '*' is regarded as a comment.
   Can be used to create keyboard translation tables, etc.
*/

#include <stdio.h>

#define  ishex(c)  ((c>='0'&&c<='9')||(c>='A'&&c<='F')||(c>='a'&&c<='f'))

/* the following macro assumes ishex(c) and ASCII: */
#define  hexval(c) ((c<'A')?(c-'0'):((c<'a')?(c-'A'+0xA):(c-'a'+0xA)))

main() {
     register int c, b, n;
     FILE *infp, *outfp;
     char infname[80], outfname[80];

     printf("\n\nHex To Binary conversion program.  MB 8606.\n\n");
     printf("Enter name of source file: ",stdout);
     gets(infname);
     if ((infp=fopen(infname,"r")) == NULL) {
          printf("cannot open source file!\n");
          exit(0);
     }
     printf("Enter name of output file: ");
     gets(outfname);
     /* open file with "bw" to avoid translation of '\n's
        to \r\n by Megamax library
     */
     if ((outfp=fopen(outfname,"bw")) == NULL) {
          printf("cannot open output file!\n");
          exit(0);
     }
     n = 0;
     while ((c=getc(infp)) != EOF) {
          /* rest of line after '*' is a comment: */
          if (c == '*') {
               while ((c=getc(infp)) != '\n' && c != EOF);
               continue;
          }
          /* read one or two characters for one output byte: */
          if (ishex(c)) {
               b = hexval(c);
               if ((c=getc(infp)) == EOF)
                    break;
               if (ishex(c))
                    b = 16*b + hexval(c);
               if (putc(b,outfp) != b) {
```

```
                    printf("error writing file!\n");
                    exit(0);
               }
               n++;
          }
     }
     printf("\nWrote %d bytes.\n", n);
}

/* - Moshe Braner, Cornell, 607-255-3498 */
```

From 2314875995976817017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c329708302133159,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-06 18:54:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!sunybcs!mesches
From: mesches@sunybcs.UUCP (Scott Mesches)
Newsgroups: net.micro.atari16
Subject: Re: Screen Dimmer Binary
Message-ID: <57@sunybcs.UUCP>
Date: Fri, 6-Jun-86 21:54:26 EDT
Article-I.D.: sunybcs.57
Posted: Fri Jun 6 21:54:26 1986
Date-Received: Sun, 8-Jun-86 04:54:40 EDT
References: <54600090@iuvax.UUCP>
Organization: SUNY/Buffalo Computer Science
Lines: 18
Summary: doesn't work for me???

I recently downloaded uudecoded and downloaded this, then I can't boot
from that disk. I uudecoded it on our vax, could that be the problem
or have others had problems with this too.
  This isn't the first time this has happened to me which is why I'm
curious as to whether it's my fault.

                    Thanks
                     Scott

     Scott Mesches

ARPA: mesches.buffalo@rand-relay
CSnet: mesches@buffalo
uucp: {decvax!watmath}
        {pur-ee!rocks34!rocksvax}
        {{allegra, seismo}!rochester!rocksvax} !sunybcs!mesches
Bitnet: MESCHES@SUNYBCS

From -7212705833459954816

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,10ef9751ae57b339,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-07 12:56:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: STarter Kit mailings resumed
Message-ID: <54600094@iuvax.UUCP>
Date: Sat, 7-Jun-86 15:56:00 EDT
Article-I.D.: iuvax.54600094
Posted: Sat Jun 7 15:56:00 1986
Date-Received: Mon, 9-Jun-86 06:40:04 EDT
Lines: 69
Nf-ID: #N:iuvax:54600094:000:3910
Nf-From: iuvax!franco   Jun 7 14:56:00 1986

STarter Kits are being mailed again. The botched 1MEG upgrade has been fixed. During repair of the ST we hit upon a few things that may be useful to other people attempting the upgrade. I will describe these things below.

This was the most thoroughly botched upgrade I have ever seen or heard about. After the first attempt there were 2 bridges, one burned out DRAM on the lower memory bank, two traces accidentally cut, two new DRAM pins not soldered to old DRAM pins and several cold solder joints. But we found all the problems in two evenings and now the ST is solid as a rock.

The moral: even a thoroughly botched upgrade attempt may be repaired with a little patience, some PD software and a few simple tools - even if you don't know terribly much about how the ST works.

The Tips: (caution - these worked for us but I do not know for sure whether they will work for you)

Note - initially all we got was the "starting pattern" on the screen. The disk drive did not spin.

1. We located the bridges using a 10X magnifying glass with the PC board held up to the light (non component side facing the light while we looked at the component side). The bridges were very easy to spot this way - you will see why if you try it. Using the same technique we spotted and repaired the cut traces.

Note - after repairing the traces and eliminating the bridges we found that the system attempted to boot (disk drive spinning the disk) but bombed with four bombs.

2. We located the faulty DRAM using a VTVM that also measures resistance. We measured resistance between each pin of one of the DRAMS to ground. We found that pin 9 measured 0 ohms while all other pins (except those supplying power) measured about 1000 - 1500 ohms. We noticed that pin 9

of all DRAMs are connected (address line, I think). Careful inspection of the traces connecting these pins suggested that the problem must be a faulty DRAM (no bridges were visible). We isolated the problem chip by cutting the trace connecting pin 9 of the 8th DRAM with pin 9 of the 9th DRAM. By measuring resistance we found the problem chip must be one of the highest 8 DRAMs. Cutting another trace and measuring resistance allowed us to conclude that the problem chip was among the highest 4. After cutting two more traces we knew exactly where the bad chip was.

Note - after replacing the bad chip (and the piggybacked one (soldering the two chips together before putting them onto the board)) and repairing cut traces the system booted but did not recognize the new DRAMs.

3. We found the faulty connections using a public domain memory editor as follows. After booting, we changed the phystop variable (address $42E) from $80000 to $100000 and the contents of the memcntlr variable (address $424) from 4 to 5. This made the ST think it had 1MEG of memory. Next we hit the reset button. The machine rebooted (thinking it had 1MEG of memory) and put the screen bitmap into the upper memory bank (new DRAMs). Now we had a nice pattern of dots, resulting from the flaky connections, on the screen. To find the flaky connections we brushed a toothpick against each DRAM pin until the dot pattern changed. The pattern changed two times (indicating two flaky connections).

Note - after resoldering these connections the ST booted and recognized 1 MEG of memory (and was steady as a rock).

Comment - it may seem to you that we added alot of wires (to repair traces) to repair the ST. Actually the number of wires that we added was small compared to the number of wires that Atari added at the factory! Some of the Atari supplied wires connected to 68 ohm RAS resistors that are recommended for the upgrade (thank you for helping with the upgrade, Atari!)

From 8263209384389617085
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb6645eee6be2199,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 06:05:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!princeton!allegra!ulysses!burl!clyde!
cbosgd!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: July 1986 ANTIC TOC
Message-ID: <1357@ihuxi.UUCP>
Date: Mon, 9-Jun-86 09:05:39 EDT
Article-I.D.: ihuxi.1357
Posted: Mon Jun 9 09:05:39 1986
Date-Received: Thu, 12-Jun-86 01:14:58 EDT
Distribution: net

Organization: AT&T Bell Laboratories
Lines: 5

*****[Ignore header path]*****

I have posted the latest table of contents for ANTIC magazine to
net.micro.atari. Several articles are of interest to ST owners.

From 4872535830416476044
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa1b0082d74e9151
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 07:03:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.micro.atari16
Subject: Re: DEGAS and CAD 3D
Message-ID: <5124@topaz.RUTGERS.EDU>
Date: Mon, 9-Jun-86 10:03:39 EDT
Article-I.D.: topaz.5124
Posted: Mon Jun 9 10:03:39 1986
Date-Received: Wed, 11-Jun-86 00:21:38 EDT
References: <574@tekred.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 9
Keywords: printing

One of the things that is checked when you try to load a file into
degas is the extension. Just try renaming it to the correct extension
and it might load. Also, look at the technical notes at the back of
the manual, they explain the format used by store files. It maybe
that, your file is stored in a different order like pallette settings
after the graphics data or something.

Sarge

From -1300314419538663883
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa1b0082d74e9151
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 09:04:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Re: DEGAS and CAD 3D
Message-ID: <470@elmgate.UUCP>
Date: Mon, 9-Jun-86 12:04:53 EDT

Article-I.D.: elmgate.470
Posted: Mon Jun 9 12:04:53 1986
Date-Received: Thu, 12-Jun-86 00:14:57 EDT
References: <574@tekred.UUCP>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 26
Keywords: printing
Summary: Reply to problem with CAD 3D file and DEGAS.

In article <574@tekred.UUCP>, richa@tekred.UUCP (Rich Amber) writes:
> If I enter DEGAS and try to load any *.3D pic file, I get an error
> message that says something like "file cannot be loaded because the
> resolution is not compatible with current setting." Come on, give
> me a break! I have a monochrome monitor and I used the file in the
> CAD 3D program, but can't use it in DEGAS and I changed nothing.
> So what's the problem?
>   Rich Amber
>   Redmond, Oregon (503) 923-4411
>
Not owning either program I can only make this suggestion.
DEGAS saves it's file with the resolution tacked on to the filename
extension. For example xxxxxxxx.PI3 for monochrome (PI2 and PI1 for medium
and low rez).

Try renaming the CAD 3D file from xxxxxxxx.3D to xxxxxxxxx.PI {1 | 2 | 3}

For monochrome foo.3d becomes foo.pi3.

Hope this helps

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -8962125563033334935
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,527e17467fe4e14c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 09:22:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: ST Writer printer configuration files
Message-ID: <471@elmgate.UUCP>
Date: Mon, 9-Jun-86 12:22:25 EDT
Article-I.D.: elmgate.471
Posted: Mon Jun 9 12:22:25 1986
Date-Received: Thu, 12-Jun-86 00:15:16 EDT
Organization: Eastman Kodak Co., Rochester, NY

Lines: 12
Keywords: STWriter printers data wordprocessor

Do any of you in net land have a document describing the contents of the
printer configuration file needed by ST writer? Better yet has anyone
hacked up a program that edits this file (xyz.dat I believe)?
I'm gonna be getting a new printer and I'll need to modify/create
another file.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From 8264662401490407478
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7eec02c290054285,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 10:13:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdaisy.UUCP
Path: utzoo!decvax!bellcore!ulysses!burl!clyde!watmath!watnot!watdaisy!gsschaffer
From: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Newsgroups: net.micro.atari16
Subject: C compiler (32 bit 'int')
Message-ID: <7769@watdaisy.UUCP>
Date: Mon, 9-Jun-86 13:13:19 EDT
Article-I.D.: watdaisy.7769
Posted: Mon Jun 9 13:13:19 1986
Date-Received: Mon, 9-Jun-86 23:16:51 EDT
Reply-To: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Distribution: na
Organization: Computer Science Dept., University of Waterloo
Lines: 12

< >
   I would like to know if anyone has heard of a C compiler for the ST which
uses 32-bit 'int's. I would like to port a program from VAX to a 1040 ST
(code assumes integers are >= 32 bits long).
For a compiler with 16-bit integers, I could use "#define int long", but
I would still have to be very careful in 'printf' formats, and casting
of function values.

   Please send e-mail. I will post a summary if I get a/some positive
response. Thanks.

UUCP: {ihnp4|allegra|utzoo|utcsri}!watmath!watdaisy!gsschaffer

From 4689730543157845670

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129fb9,ec3966c4f0251285,start
X-Google-Attributes: gid129fb9,public
X-Google-Thread: 140593,ec3966c4f0251285,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 15:05:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.lang.mod2,net.micro.atari16
Subject: Help with DaTime (date + time stamp, TDI ST version)
Message-ID: <1978@dalcs.UUCP>
Date: Mon, 9-Jun-86 18:05:21 EDT
Article-I.D.: dalcs.1978
Posted: Mon Jun 9 18:05:21 1986
Date-Received: Mon, 9-Jun-86 23:41:43 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 5

TDI Modula-2 for the Atari ST (possibly also for the Amiga) has a
function called DaTime in GEMDOS for getting and setting the time stamp
on a file. I would like to use it for several utilities (for example, a
version of touch(1) on Unix systems), but I cannot get it to work.
Detailed information or a sample of working code would be appreciated.

From -4088502200857484719
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522c51aaa6eb672e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 15:54:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Undocumented feature in GEM
Message-ID: <420@batcomputer.TN.CORNELL.EDU>
Date: Mon, 9-Jun-86 18:54:10 EDT
Article-I.D.: batcompu.420
Posted: Mon Jun 9 18:54:10 1986
Date-Received: Fri, 13-Jun-86 01:56:01 EDT
References: <1839@utecfa.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 130

[]
More than you though you needed to know about:

Atari 1040ST keyboard codes
==========================

As returned by Bconin(), in hexadecimal.
Left two digits are physical-key code, returned in upper word.
Right two are the ASCII code, returned in lower word.

(e.g. the <Esc> key returns the long word 0001001B.)

key	alone	ctrl	shift	alt	ct-sh	ct-al	sh-al	note
F1	3B00	3B00	5400	3B00	5400	3B00	5400	
F2	3C00	3C00	5500	3C00	5500	3C00	5500	
F3	3D00	3D00	5600	3D00	5600	3D00	5600	
F4	3E00	3E00	5700	3E00	5700	3E00	5700	
F5	3F00	3F00	5800	3F00	5800	3F00	5800	
F6	4000	4000	5900	4000	5900	4000	5900	
F7	4100	4100	5A00	4100	5A00	4100	5A00	
F8	4200	4200	5B00	4200	5B00	4200	5B00	
F9	4300	4300	5C00	4300	5C00	4300	5C00	
F10	4400	4400	5D00	4400	5D00	4400	5D00	
ESC	011B	011B	011B	011B	011B	011B	011B	
1	0231	0211	0221	7800	0201	0211	7800	
2	0332	0300	0340	7900	0300	0300	7900	
3	0433	0413	0423	7A00	0403	0413	7A00	
4	0534	0514	0524	7B00	0504	0514	7B00	
5	0635	0615	0625	7C00	0605	0615	7C00	
6	0736	071E	075E	7D00	071E	071E	7D00	
7	0837	0817	0826	7E00	0806	0817	7E00	
8	0938	0918	092A	7F00	090A	0918	7F00	
9	0A39	0A19	0A28	8000	0A08	0A19	8000	
0	0B30	0B10	0B29	8100	0B09	0B10	8100	
-	0C2D	0C1F	0C5F	8200	0C1F	0C1F	8200	
=	0D3D	0D1D	0D2B	8300	0D0B	0D1D	8300	
`	2960	2900	297E	2960	291E	2900	297E	
BS	0E08	0E08	0E08	0E08	0E08	0E08	0E08	
HLP	6200	6200	6200		6200			h
UND	6100	6100	6100	6100	6100	6100	6100	
(	6328	6308	6328	6328	6308	6308	6328	
)	6429	6409	6429	6429	6409	6409	6429	
/	652F	650F	652F	652F	650F	650F	652F	
*	662A	660A	662A	662A	660A	660A	662A	
TAB	0F09	0F09	0F09	0F09	0F09	0F09	0F09	
Q	1071	1011	1051	1000	1011	1011	1000	
W	1177	1117	1157	1100	1117	1117	1100	
E	1265	1205	1245	1200	1205	1205	1200	
R	1372	1312	1352	1300	1312	1300	1300	
T	1474	1414	1454	1400	1414	1414	1400	
Y	1579	1519	1559	1500	1519	1519	1500	
U	1675	1615	1655	1600	1615	1615	1600	
I	1769	1709	1749	1700	1709	1709	1700	
O	186F	180F	184F	1800	180F	180F	1800	
P	1970	1910	1950	1900	1910	1910	1900	

key	alone	ctrl	shift	alt	ct-sh	ct-al	sh-al	note
[	1A5B	1A1B	1A7B	1A5B	1A1B	1A1B	1A7B	
]	1B5D	1B1D	1B7D	1B5D	1B1D	1B1D	1B7D	
RET	1C0D	1C0A	1C0D	1C0D	1C0A	1C0A	1C0D	
DEL	537F	531F	537F	537F	531F	531F	537F	
INS	5200	5200	5230		5210			m
UP	4800	4800	4838		4818			m
CLR	4700	7700	4737		7737			m
7	6737	6717	6737	6737	6717	6717	6737	k
8	6838	6818	6838	6838	6818	6818	6838	k
9	6939	6919	6939	6939	6919	6919	6939	k
-	4A2D	4A1F	4A2D	4A2D	4A1F	4A1F	4A2D	k
A	1E61	1E01	1E41	1E00	1E01	1E01	1E00	
S	1F73	1F13	1F53	1F00	1F13	1F13	1F00	
D	2064	2004	2044	2000	2004	2004	2000	
F	2166	2106	2146	2100	2106	2106	2100	
G	2267	2207	2247	2200	2207	2207	2200	
H	2368	2308	2348	2300	2308	2308	2300	
J	246A	240A	244A	2400	240A	240A	2400	
K	256B	250B	254B	2500	250B	250B	2500	
L	266C	260C	264C	2600	260C	260C	2600	
;	273B	271B	273A	273B	271A	271B	273A	
'	2827	2807	2822	2827	2802	2807	2822	
RET	1C0D	1C0A	1C0D	1C0D	1C0A	1C0A	1C0D	
\	2B5C	2B1C	2B7C	2B5C	2B1C	2B1C	2B7C	
<--	4B00	7300	4B34		7300			m
DN	5000	5000	5032		5000			m
-->	4D00	7400	4D36		7400			m
4	6A34	6A14	6A34	6A34	6A14	6A14	6A34	k
5	6B35	6B15	6B35	6B35	6B15	6B15	6B35	k
6	6C36	6C1E	6C36	6C36	6C1E	6C1E	6C36	k
+	4E2B	4E0B	4E2B	4E2B	4E0B	4E0B	4E2B	k
Z	2C7A	2C1A	2C5A	2C00	2C1A	2C1A	2C00	
X	2D78	2D18	2D58	2D00	2D18	2D18	2D00	
C	2E63	2E03	2E43	2E00	2E03	2E03	2E00	
V	2F76	2F16	2F56	2F00	2F16	2F16	2F00	
B	3062	3002	3042	3000	3002	3002	3000	
N	316E	310E	314E	3100	310E	310E	3100	
M	326D	320D	324D	3200	320D	320D	3200	
,	332C	330C	333C	332C	331C	330C	333C	

```
.    342E  340E  343E  342E  341E  340E  343E
/    352F  350F  353F  352F  351F  350F  353F
1    6D31  6D11  6D31  6D31  6D11  6D11  6D31     k
2    6E32  6E00  6E32  6E32  6E00  6E00  6E32     k
3    6F33  6F13  6F33  6F33  6F13  6F13  6F33     k
ENT  720D  720A  720D  720D  720A  720A  720D     k
SPC  3920  3900  3920  3920  3900  3900  3920
0    7030  7010  7030  7030  7010  7010  7030     k
.    712E  710E  712E  712E  710E  710E  712E     k
ENT  720D  720A  720D  720D  720A  720A  720D     k

notes:

     h - Alt Help prints screen
     k - on numeric keypad
     m - mouse control from keyboard


- Moshe Braner, Cornell, 607-255-3498


From -6958302598472274288
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87c97eacd449f9a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 19:03:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!styx!mordor!sri-spam!parcvax!
hplabs!tektronix!reed!dinadan!percival!russ
From: russ@percival.UUCP (Russ Schwartz)
Newsgroups: net.micro.atari16
Subject: Minor programming challenge...
Message-ID: <187@percival.UUCP>
Date: Mon, 9-Jun-86 22:03:28 EDT
Article-I.D.: percival.187
Posted: Mon Jun  9 22:03:28 1986
Date-Received: Fri, 13-Jun-86 03:13:19 EDT
Distribution: net
Organization: The Nerds of the Round Table, Portland, OR.
Lines: 27

["Old heros never die; they reappear in sequels" - M. Morecock]

I have got too many requests where I work for a way to turnkey programs that
use GEM (like BASIC, 1st-Word, etc.).  We first tried putting it into an
AUTO folder, but GEM doesn't get initialized before the the program gets
loaded so things look really bad!  Next we tried writing a desk accessory
that loads and runs the prespecified program, but nothing on the pull-down
menus of the program (BASIC) worked.  And exiting the program got a little
messy, it wouldn't finish initializing the system.

Here's what I'd like to see:
A desk accessory that from the desktop, you can select the program that you
```

want to run (save the filename in a data file). Then on bootup on that disk, it will come up in the correct resolution (and colors, mayby) and autorun the preselected file. And upon exiting the program, finish initializing normally.

This program would help a lot of people. A child could put a disk in the drive and turn the power on and presto! Neochrome is on the screen!
(By the way, Neil, any clues as to what the completed version of NEO will contain and when it will be out? I've heard it may contain animation capabilities... will it be free to ST owners or cost what price?)

I hope someone out there can accomplish this challenge.

Russell Schwartz
russ@percival
omsi@reed

From 1863584132576436051
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,89f471dc661c644f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-09 19:19:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!styx!mordor!sri-spam!parcvax!
hplabs!tektronix!reed!dinadan!percival!russ
From: russ@percival.UUCP (Russ Schwartz)
Newsgroups: net.micro.atari16
Subject: 5 1/4" drive for the ST...
Message-ID: <188@percival.UUCP>
Date: Mon, 9-Jun-86 22:19:19 EDT
Article-I.D.: percival.188
Posted: Mon Jun 9 22:19:19 1986
Date-Received: Fri, 13-Jun-86 03:13:59 EDT
Distribution: net
Organization: The Nerds of the Round Table, Portland, OR.
Lines: 23

["Life is full of little suprises." - Pandora]

I.B. Computers in Portland, Oregon, has just released 5 1/4" disk drives for the ST. The double sided 40 track half height drives complete with power supply and ST beige case will sell around $250. They have tried using it with MS-DOS 2.0, 2.1, 3.0, and 3.1 formatted disks off IBMs (and clones) with no problems of file transferring. Atari even has picked up one for review from what I've heard. I've used one to port a 200+ file Dbase II application over to the ST with no problems.

If you are interested in contacting them you can get a hold of them at:

I.B. Computers
1519 S.W. Marlow Ave.
Portland, OR 97225
(503) 297-9427 (voice)

(503) 292-1321 (BBS 300/1200 baud, 24hrs)

P.S. No, I don't get a commision from this!

Russell Schwartz
russ@percival
omsi@reed

From 6433760798701880326
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,837f87b0532fd3ed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 03:06:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP (Andrew Smith)
Newsgroups: net.micro.atari16
Subject: I/O redirection and reading EOF
Message-ID: <691@neon.kcl-cs.UUCP>
Date: Tue, 10-Jun-86 06:06:15 EDT
Article-I.D.: neon.691
Posted: Tue Jun 10 06:06:15 1986
Date-Received: Sat, 14-Jun-86 06:47:14 EDT
Reply-To: andrew@kcl-cs.UUCP ()
Organization: Department of Computing, Kings College, University of London.
Lines: 38

Hi,

I have just written a 'shell' for the ATARI ST and implemented I/O redirection from the command level. I have a real problem when redirecting stdin as the called program has no way of detecting EOF if the input is from a redirected file. When trying the following:

```
cat < file
```

'cat' just keeps trying to read past the end of file (cat is just a while not EOF getc loop).

I have implemented redirection as:

```
handle = Fopen(filename,R_ONLY);
Fforce(KEYBOARD,handle);
```

Is this OK ? (there is a small problem when the file is closed - I get a never ending bleep from the speeker - it appears as if stdin is not being set back to the console correctly).

The problem appears to be because the GEMDOS call 'READ' ($3F) has no notion of EOF (the manual states that to detect EOF you must compare the size of the file with the number of characters read), so if you open the file with fopen

all is OK as it is taken care of by the library stdio functions.

The only way around this (as far as I can see) is to write my own detect_eof function which would return the standard FEOF if we have a 'real' file, but if we have stdin from the console look for say ^D, else check for EOF on the redirected file. The only problem with this is how do I check a file descriptor to see if it is realy stdin or a redirected stdin ?

Can anybody help me ? I would be pleased of any help.

Thanks in advance,

Andrew Smith (..!mcvax!ukc!kcl-cs!andrew).

From 6336155041118635
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a35f636163d3f811,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 05:38:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: ST520+ with built in RF-modulator
Message-ID: <24@nvpna1.UUCP>
Date: Tue, 10-Jun-86 08:38:16 EDT
Article-I.D.: nvpna1.24
Posted: Tue Jun 10 08:38:16 1986
Date-Received: Thu, 12-Jun-86 01:07:19 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Distribution: net.micro.atari16
Organization: Philips Research Laboratories Eindhoven
Lines: 11

Recently I saw an British advertisement offering original ST-models with built in RF modulator, the so-called 520ST-M and 520ST-M+. Seems to me the ideal configuration: use you monochrome monitor for 'serious' work and use your color television set occasionally to test your own color applications and to run commercially available color applications. Unfortunately, STs are not (yet?) being sold here, in the Netherlands, with built in RF modulator.

Can we expect all future ST models to be equiped with built in RF modulators or is it Atari's policy to sell these only in selected regions?

Frans Dorrestein, The Netherlands.

From -1974827302909768191
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa1b0082d74e9151
X-Google-Attributes: gid140593,public
X-Google-Thread: 159752,e6fc5f4fa9bfa30c,start

X-Google-Attributes: gid159752,public
X-Google-Thread: 142096,e6fc5f4fa9bfa30c,start
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-06-10 07:39:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16,net.micro.amiga,net.sources
Subject: Re: MicroEmacs source
Message-ID: <1865@gitpyr.UUCP>
Date: Tue, 10-Jun-86 10:39:31 EDT
Article-I.D.: gitpyr.1865
Posted: Tue Jun 10 10:39:31 1986
Date-Received: Sat, 14-Jun-86 00:45:35 EDT
References: <574@tekred.UUCP> <5124@topaz.RUTGERS.EDU>
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology
Lines: 8
Keywords: micro emacs source
Xref: watmath net.micro.atari16:1009 net.micro.amiga:3520 net.sources:5050

I waited too long to pull the MicroEmacs source off the net (our mailer only
keeps an archive for a few weeks...) Is there a kind soul out there who can
mail me the files? I'll be eternally greatful.

Thanks,

Steve Tynor
tynor@gitpyr

From 1547351242792888656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,527e17467fe4e14c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 08:50:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: ST Writer printer configuration files
Message-ID: <1495@cwruecmp.UUCP>
Date: Tue, 10-Jun-86 11:50:53 EDT
Article-I.D.: cwruecmp.1495
Posted: Tue Jun 10 11:50:53 1986
Date-Received: Sat, 14-Jun-86 03:55:27 EDT
References: <471@elmgate.UUCP>
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 19

>
> Do any of you in net land have a document describing the contents of the
> printer configuration file needed by ST writer? Better yet has anyone

> hacked up a program that edits this file (xyz.dat I believe)?
> I'm gonna be getting a new printer and I'll need to modify/create
> another file.

xyzzx.dat is generated from xyzzx.txt using the configuration program
stwconf.prg. xyzzx.txt is a normal stwriter format file, it contains
enough comments to easily modify it for another printer. xyzzx.txt and
stwconf.prg are floating around on virtually every BBS. Hope this
helps.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 645072616703018965
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f709e94213e080dd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 09:00:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Prof/Progem series
Message-ID: <1496@cwruecmp.UUCP>
Date: Tue, 10-Jun-86 12:00:18 EDT
Article-I.D.: cwruecmp.1496
Posted: Tue Jun 10 12:00:18 1986
Date-Received: Sat, 14-Jun-86 03:55:56 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 15

I have received a number of requests for reposting parts of
ProGEM/Proff. I tried to reply to some, but am unable to get thru to
BITNET sites and some of the canadian sites (maybe i am doing
something wrong). I would like to request that you include a return
path to your site from either one of the Usenet backbone sites, or
your Arpa/Csnet address. That way it will make my job much easier, and
i will get fewer 'unable to deliver' messages bouncing back.
Thanks,

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 3102870700399058753
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30368fd5c054cff0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 09:39:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Mini-review of Megamax C
Message-ID: <1497@cwruecmp.UUCP>
Date: Tue, 10-Jun-86 12:39:31 EDT
Article-I.D.: cwruecmp.1497
Posted: Tue Jun 10 12:39:31 1986
Date-Received: Sat, 14-Jun-86 03:56:28 EDT
References: <564@ssc-bee.UUCP> <526@druhi.UUCP>
Distribution: net
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 37

I have been reading the Megamax Mini reviews with interest. I agree
100% with the comments about its speed etc. I was just a little
surprised that no one mentioned some of its flaws and better known
bugs.

Flaws:
- I am shocked that no one mentioned the fixed sized 32K text/data/bss
segment code model. Ok you can get around the text segement by using
the overlay (non standard C), but how about data (you cannot malloc
and statically initialize it, so you end up writing a malloc followed
by an init routine). Doing a malloc for each data structure larger can
32k in the bss segement can get painful too, especially when porting
large programs. Anyone who has written a program more than a couple
of line long knows what a headache fixed sized segments can give you.

-Shorts are 1 byte long. One of the entusiasts here just got burned on
that one.

-No forward pointer reference of typedef'ed structures (because of its
one pass nature, and short sightedness of the parser implementor).
This broke a couple of my programs.

Well known errors that come to mind:
- Comparison of floats.
- Sizeof struct arrays bombs compiler.
- I have not been able to try the release version to verify if the
preprocessor errors have been fixed.

I continue to stick to Alcyon with a hard/ram disk. It is very
livable.

--
Jwahar R. Bammi

Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -9181336210860201725
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,73f3817070e883a8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 11:26:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!jwt
From: jwt@atari.UUcp
Newsgroups: net.micro.atari16
Subject: 1st Word Non-Insert Mode Patch
Message-ID: <339@atari.UUcp>
Date: Tue, 10-Jun-86 14:26:09 EDT
Article-I.D.: atari.339
Posted: Tue Jun 10 14:26:09 1986
Date-Received: Sat, 14-Jun-86 05:57:42 EDT
Lines: 18
Keywords: 1st_Word ST GST

I noticed this message from GST on BIX regarding 1ST_WORD and pass
it along for you to try at your own risk for whatever it may be
worth:

> ==========
> atari.st/main #271, from hchalkley, 359 chars, Mon Jun 2 15:29:24 1986
>
> ----------
> TITLE: 1ST WORD BUG
> There is a rather nasty bug in 1st Word that a few people have encountered:
> if you use the TAB key in non-insert mode, it sometimes locks up. We're
> very sorry about this, so here is a patch which should fix it. This patch is
> for version 1.06 only. The byte at address B7F4 is currently 67. Change it
> to 6F.
>
>   Howard Chalkley (GST)

From -9023079914165873756
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9667d695199f9f14,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 11:26:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!think!nike!cad!ucbvax!MICRO.UDEL.EDU!
augenbra
From: augenbra@MICRO.UDEL.EDU

Newsgroups: net.micro.atari16
Subject: disk drive problem
Message-ID: <8606101825.AA06479@ucbvax.Berkeley.EDU>
Date: Tue, 10-Jun-86 14:26:41 EDT
Article-I.D.: ucbvax.8606101825.AA06479
Posted: Tue Jun 10 14:26:41 1986
Date-Received: Fri, 13-Jun-86 02:22:02 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 45

I've been having trouble with my ST disk drive recently. The problem is that it would read fine, but cause the system to lock up anytime a write is tried. The system boots up and reads disks (and writes to the ram disk) fine, but if I try to write to a disk, the drive activity light lights up, the drive spins, and then the screen goes white. I must then reset the system to get things going again. The system seems to actually write one sector (if I try to create or rename a file, the system will crash, but the creation or renaming will be there on the disk next time that I bring the system up.)

I have the following configuration:

520ST with 1Meg memory upgrade with 68 ohm resistors
1 Single sided disk drive
Color monitor
TOS on disk
Older brick power supply with one cord coming from each end

Checking the power supplies has revealed the following:

Voltages coming to the disk drive are fine
+/-12 Volt supplies to system unit are fine
+5 volt supply to system unit is +5.33 Volts under load

I do not have easy access to someone else's 520ST system to try different pieces in (they don't seem to be real popular here).

My question is if anyone has any suggestion of what to do. Specifically, could a 5V supply supplying 5.33 cause a problem (I realize that 7400 series IC's are rated only to 5.25, but the rest of the system is working, after all). Is there maybe an RC circuit in the floppy controller that is real sensitive to voltage variations? Or is it maybe just a dirty disk drive ? Any ideas on things to try would be appreciated. Also, does anybody know what Atari does if someone tries to send a 1Meg upgrade 520St for warranty repair work. Do they fix it under warranty, fix it but charge you, or refuse to even look at it?

Any help would be appreciated.

Joe Augenbraun

"Let's go commit those crimes!"
"Ya, yah, let's get Sushi and not pay"
         - from the movie _Repoman_

From 2375989060456588865
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7612c0784ab27e8b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-10 17:13:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!nike!cad!ucbvax!GW.UMICH.EDU!hwb
From: hwb@GW.UMICH.EDU
Newsgroups: net.micro.atari16
Subject: IP/TCP on Atari ST machines.
Message-ID: <8606102334.AA10586@ucbvax.Berkeley.EDU>
Date: Tue, 10-Jun-86 20:13:37 EDT
Article-I.D.: ucbvax.8606102334.AA10586
Posted: Tue Jun 10 20:13:37 1986
Date-Received: Sat, 14-Jun-86 03:45:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Are people considering to get IP/TCP protocols and their applications running
on Atari ST type of machines, e.g., by porting the (almost) public domain
MIT PC/IP code?

     -- Hans-Werner

From -17315979655125735
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9ead25fa2e0eab02,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,9ead25fa2e0eab02,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-06-10 18:18:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!voder!kevin
From: kevin@voder.UUCP
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Where are CES reports?
Message-ID: <1370@voder.UUCP>
Date: Tue, 10-Jun-86 21:18:45 EDT
Article-I.D.: voder.1370
Posted: Tue Jun 10 21:18:45 1986
Date-Received: Wed, 11-Jun-86 18:53:40 EDT
Reply-To: kevin@voder.UUCP (The Last Bugfighter)
Distribution: na
Organization: National Semiconductor, Santa Clara
Lines: 8

Xref: decwrl net.micro.atari8:302 net.micro.atari16:1040

   Ok people, how come we havn't seen any reports on Atari at CES????

Kevin Thompson   {ucbvax,pyramid,nsc}!voder!kevin

"It's a sort of threat, you see. I've never been very good at them
  myself but I'm told they can be very effective."

From -6160537375073257574
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4bc3634a01df7420,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 04:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!nike!cad!ucbvax!ncsc!moore
From: moore@ncsc (Jim Moore)
Newsgroups: net.micro.atari16
Subject: Final Word Questions
Message-ID: <8606111217.AA21554@ucbvax.Berkeley.EDU>
Date: Wed, 11-Jun-86 07:09:00 EDT
Article-I.D.: ucbvax.8606111217.AA21554
Posted: Wed Jun 11 07:09:00 1986
Date-Received: Sat, 14-Jun-86 04:43:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

I hope someone can answer these for me (please!):

How can I make backup copies of Final Word (the copy protection gets in the
way)? The add-on manual says I can....

How can I save files to the b drive instead of a (which already has the system
disk in it)?

I appreciate any comments.

jim moore
ncsc

From -3405022515922594343
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4bc3634a01df7420
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-06-11 07:46:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!nike!cad!ucbvax!YALE.ARPA!fischer
From: fischer@YALE.ARPA (Michael Fischer)
Newsgroups: net.micro.atari16
Subject: Re: Final Word Questions
Message-ID: <8606111446.AA03014@Yale-Bulldog.YALE.ARPA>
Date: Wed, 11-Jun-86 10:46:18 EDT
Article-I.D.: Yale-Bul.8606111446.AA03014
Posted: Wed Jun 11 10:46:18 1986
Date-Received: Sat, 14-Jun-86 04:54:31 EDT
References: <moore@ncsc.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

> I hope someone can answer these for me (please!):
>
> How can I make backup copies of Final Word (the copy protection
> gets in the way)? The add-on manual says I can....

You can copy the files individually. This will involve an inordinate
amount of disk swapping unless you have two drives or a RAM disk.
You will still need to insert one of the original disks as a key
when loading Final Word.

--Mike Fischer

From -4755609146697233135
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,156d213cee24cfde,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 10:44:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!ll-xn!nike!cad!ucbvax!aids-unix!fxl
From: fxl@aids-unix (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: Re: CAD3D to DEGAS, etc. Solution and Question...
Message-ID: <8606111941.AA27633@ucbvax.Berkeley.EDU>
Date: Wed, 11-Jun-86 13:44:47 EDT
Article-I.D.: ucbvax.8606111941.AA27633
Posted: Wed Jun 11 13:44:47 1986
Date-Received: Sat, 14-Jun-86 06:35:13 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I believe a recent Antic Article addresses this very problem.
It gives C source code for a program to convert from color
to mono and back. You will need a C-compiler however to use this,

unless there is an executable version floating around somewhere.

FXL

From 4575803238933453927
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b275f1fa211ae7e3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 10:57:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!think!nike!cad!ucbvax!NSWC-WO.ARPA!sscalsk
From: sscalsk@NSWC-WO.ARPA
Newsgroups: net.micro.atari16
Subject: add request
Message-ID: <8606111935.AA27582@ucbvax.Berkeley.EDU>
Date: Wed, 11-Jun-86 13:57:06 EDT
Article-I.D.: ucbvax.8606111935.AA27582
Posted: Wed Jun 11 13:57:06 1986
Date-Received: Sat, 14-Jun-86 06:35:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

please add sscalsk@nswc-wo.arpa back on this mailing list.

Stan Scalsky Naval Surface Weapons Center - White Oak
ARPA: sscalsk@nswc-wo.arpa
Compuserve: 70337,2015

From 1567145355128911523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,87c97eacd449f9a4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 14:11:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!lll-crg!lll-
lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Minor programming challenge...
Message-ID: <341@atari.UUcp>
Date: Wed, 11-Jun-86 17:11:41 EDT
Article-I.D.: atari.341
Posted: Wed Jun 11 17:11:41 1986
Date-Received: Tue, 17-Jun-86 05:48:36 EDT
References: <187@percival.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 18

In article <187@percival.UUCP>, russ@percival.UUCP (Russ Schwartz) writes:
> (By the way, Neil, any clues as to what the completed version of NEO will
> contain and when it will be out? I've heard it may contain animation
> capabilities... will it be free to ST owners or cost what price?)

The final version of NEOchrome will indeed contain animation capabilities
and many other new features. We plan to sell this one, though -- it won't
be a freebie any more.
--
--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil
BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

From -5862346011986476229
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a35f636163d3f811
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 14:45:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: Re: ST520+ with built in RF-modulator
Message-ID: <1358@ihuxi.UUCP>
Date: Wed, 11-Jun-86 17:45:59 EDT
Article-I.D.: ihuxi.1358
Posted: Wed Jun 11 17:45:59 1986
Date-Received: Sun, 15-Jun-86 01:56:09 EDT
References: <24@nvpna1.UUCP>
Distribution: net.micro.atari16
Organization: AT&T Bell Laboratories
Lines: 20

             *****[Ignore header path]*****

> Can we expect all future ST models to be equiped with built in RF modulators
> or is it Atari's policy to sell these only in selected regions?
>
> Frans Dorrestein, The Netherlands.

From talking to Atari at the recent Consumer Electronic Show here in Chicago
and from what I have read elsewhere, all future 520ST computers will be
made with the RF modulator built-in but the 1040ST will never have the RF
modulator built-in. Since Atari doesn't make specific models for selected
regions, I'm sure that all regions will get the 520STM version when the

520ST's are flushed out of the pipe line.

Kit Kimes
AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

From -6649461614777830804
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fadb1d1a54794c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 16:50:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!pur-ee!uiucdcs!convex!megamax!m5
From: m5@megamax
Newsgroups: net.micro.atari16
Subject: RE: Megamax C & I/O Redirection
Message-ID: <3100004@megamax>
Date: Wed, 11-Jun-86 19:50:00 EDT
Article-I.D.: megamax.3100004
Posted: Wed Jun 11 19:50:00 1986
Date-Received: Tue, 17-Jun-86 07:29:13 EDT
Lines: 31
Nf-ID: #N:megamax:3100004:000:778
Nf-From: megamax!m5   Jun 11 18:50:00 1986

I haven't been able to duplicate the alleged problems with I/O redirection
under Megamax C. Specifically, the following program seems to work:

```
main(argc, argv)
int argc;
char *argv[];
{
     char string[64];

     scanf("%s", string);
     printf("%s\n", string);
}
```

I've tried this as a TTP application from the desktop and from microcsh. It
seems to work with microcsh pipes as well.

Note that `argc' and `argv' MUST be declared. If not, the compiler/linker
will use a dummy version of an internal routine called `argcv'. The dummy
version doesn't do anything. This is documented on page 1-7 of the Megamax
manual.

If anybody has a short program that demonstrates failure of I/O redirection
I'd be happy to look at it.

Mike McNally
Hanger About
Megamax Inc.

...convex!ctvax!m5

From -5780499443828827494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244ed950cf580a92,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 17:46:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!nike!ucbcad!ucbvax!XX.LCS.MIT.EDU!
JKR%OZ.AI.MIT.EDU
From: JKR%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU ("Glen T. Slick")
Newsgroups: net.micro.atari16
Subject: STUPID Packaging
Message-ID: <12214083812.76.JKR@OZ.AI.MIT.EDU>
Date: Wed, 11-Jun-86 20:46:15 EDT
Article-I.D.: OZ.12214083812.76.JKR
Posted: Wed Jun 11 20:46:15 1986
Date-Received: Sat, 14-Jun-86 07:02:32 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 27

<Flame On>

I just went out and bought "Temple of Apshai Trilogy" from Epyx and I'm
rather annoyed to find out that it doesn't run with my monochrome monitor.
All I get is the stupid box telling me that it only runs in low resolution.
Since I couldn't demo it at the store where I bought it, all I could do
was read the outside of the box. The only restriction that I could find
says "Disk Requires 512k". When was the last time anyone saw an ST with
less than 512k and no disk drive. Even the instruction inside never mention
the need for a color monitor (not that I could read them until after I bought
the program). I guess I'll just have to give the stupid program to a friend
with a color monitor.

<Flame Off>

Why can't people clearly label the monitor requirements (and TOS rom
requirements, for that matter) of their software on the outside of the
packaging? I certainly won't be buying any more programs unless they
explicitly state that they work with monochrome monitors.

"Guerrilla war struggle is a new entertainment"
                  -Gang of Four

Glen T. Slick

From 3369006653659393619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,e6fc5f4fa9bfa30c
X-Google-Attributes: gid142096,public
X-Google-Thread: 159752,e6fc5f4fa9bfa30c
X-Google-Attributes: gid159752,public
X-Google-Thread: 140593,fa1b0082d74e9151
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-11 22:12:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site
batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16,net.micro.amiga,net.sources
Subject: Re: MicroEmacs source
Message-ID: <443@batcomputer.TN.CORNELL.EDU>
Date: Thu, 12-Jun-86 01:12:39 EDT
Article-I.D.: batcompu.443
Posted: Thu Jun 12 01:12:39 1986
Date-Received: Tue, 17-Jun-86 08:20:13 EDT
References: <574@tekred.UUCP> <5124@topaz.RUTGERS.EDU> <1865@gitpyr.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 10
Keywords: micro emacs source
Xref: watmath net.micro.atari16:1038 net.micro.amiga:3605 net.sources:5088

I'm now chasing the last bugs in a new, improved version of microEMACS
that adds many features (e.g. search for complementing bracket)
and also uses the complete ST keyboard (from F1 to Help).
I hope to make it available in a few weeks, perhaps via the
STarter kit (if Kindly Mr. Franco agrees...), in both
C source and executable (Megamax compiled) form.
(My impression is that uuencoding and then netting is unreliable.
It is 44K long, and the source code is about 175K!)

- Moshe Braner, Cornell, 607-272-3487

From -3886095260452648407
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c5c0fa418b16d311,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 05:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
ucbvax!ncsc!moore

From: moore@ncsc.UUCP
Newsgroups: net.micro.atari16
Subject: st and rf modulator
Message-ID: <8606121324.AA11966@ucbvax.Berkeley.EDU>
Date: Thu, 12-Jun-86 08:17:00 EDT
Article-I.D.: ucbvax.8606121324.AA11966
Posted: Thu Jun 12 08:17:00 1986
Date-Received: Mon, 16-Jun-86 16:48:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Neil @ Atari, will you comment on a recent message indicating that all future
520ST's will be equipped with RF Modulators?

jim moore

From 6409164888124513970
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,9ead25fa2e0eab02
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,9ead25fa2e0eab02
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 06:06:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!mhuxr!mhuxn!ihnp4!ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Where are CES reports?
Message-ID: <1359@ihuxi.UUCP>
Date: Thu, 12-Jun-86 09:06:26 EDT
Article-I.D.: ihuxi.1359
Posted: Thu Jun 12 09:06:26 1986
Date-Received: Fri, 13-Jun-86 03:27:59 EDT
References: <1370@voder.UUCP>
Distribution: na
Organization: AT&T Bell Laboratories
Lines: 19
Xref: ihnp4 net.micro.atari8:301 net.micro.atari16:1054

*****[Ignore header path]*****

>
>   Ok people, how come we havn't seen any reports on Atari at CES????
>
I was at the CES and really enjoyed it but am not in a position to give
any kind of authoritative report. What I would like to see is someone
download the ANTIC reports from CompuServe. There should be one for
each day and they sometimes have a follow-up overall report the following

week. The past several shows someone has always downloaded it. I don't have an account on CompuServe yet (but I will by the next show). Any kind soul willing to download it?

Kit Kimes
AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

From 889637666556040020
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4bc3634a01df7420
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 07:02:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!hplabs!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Final Word Questions
Message-ID: <446@batcomputer.TN.CORNELL.EDU>
Date: Thu, 12-Jun-86 10:02:48 EDT
Article-I.D.: batcompu.446
Posted: Thu Jun 12 10:02:48 1986
Date-Received: Tue, 17-Jun-86 08:20:30 EDT
References: <8606111217.AA21554@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 5

I do not buy "copy protected" software. Hope you all join me on that.
(I still don't have a drawing program on my ST, because DEGAS is too primitive and N-VISION is "copy protected". Any others?)

- Moshe Braner, Cornell, 607-255-3498

From 6067339993378976794
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b4da52d79d38cea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 07:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!gatech!seismo!mcvax!unido!coma!rcm
From: rcm@coma.UUCP
Newsgroups: net.micro.atari16
Subject: Query: Atari-Prices in USA
Message-ID: <600005@coma.UUCP>

Date: Thu, 12-Jun-86 10:13:00 EDT
Article-I.D.: coma.600005
Posted: Thu Jun 12 10:13:00 1986
Date-Received: Tue, 17-Jun-86 20:56:57 EDT
Sender: notes@unido.UUCP
Lines: 16
Nf-ID: #N:coma:600005:000:354
Nf-From: coma!rcm   Jun 12 15:13:00 1986

Can somebody gimme a hint where I cn' buy an atari 260/520 or 1040
for a good price (I'm lookin' for a real bargain).
I'll be in New York later dis year n' wan information about atari-prices
in advance.

Greetins from BERLIN - the city that NEVER sleeps

Thanx 'n advance,

Ralph-Chrisitan Mocny

E-MAIL: mocny@db0tui11.bitnet
rcm@coma.uucp

From -7253478999832828321
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fadb1d1a54794c1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 13:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!pur-ee!
uiucdcs!convex!megamax!m5
From: m5@megamax
Newsgroups: net.micro.atari16
Subject: Re: Megamax C & I/O Redirection
Message-ID: <3100005@megamax>
Date: Thu, 12-Jun-86 16:26:00 EDT
Article-I.D.: megamax.3100005
Posted: Thu Jun 12 16:26:00 1986
Date-Received: Tue, 17-Jun-86 08:35:22 EDT
Lines: 13
Nf-ID: #N:megamax:3100005:000:429
Nf-From: megamax!m5   Jun 12 15:26:00 1986

Will somebody please send me a short example program for which I/O
redirection fails? I can't duplicate the problem.

One thing to check is that `argc' and `argv' are properly declared
as arguments to `main'. If not, then in order to save space, the

compiler will not reference the library routine which interprets
I/O redirection arguments.

Mike McNally
A person sort of associated with Megamax
...convex!ctvax!megamax!m5

From -6527611417916381971
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9662cefd52672c90,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 14:10:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP
Newsgroups: net.micro.atari16
Subject: 'C' freopen call
Message-ID: <695@neon.kcl-cs.UUCP>
Date: Thu, 12-Jun-86 17:10:02 EDT
Article-I.D.: neon.695
Posted: Thu Jun 12 17:10:02 1986
Date-Received: Tue, 17-Jun-86 09:06:19 EDT
Reply-To: andrew@kcl-cs.UUCP ()
Organization: Department of Computing, Kings College, University of London.
Lines: 16
Keywords: freopen I/O redirection

Hi,

I have just written a small program which redirects stdin to a file using
the 'freopen' call. Well it works fine. But how do I get stdin back after
finishing writing to the file. Normally one would write:

```
    freopen("/dev/tty","r",stdin);
                ^^^^^^^^
```

on a UNIX machine, but what is the 'filename' for stdin, stdout, stderr,
on the ATARI ?

Thanks in advance,

Andrew Smith.

From 8445421194795265926
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3bde723102a430bc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 15:57:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!harvard!bu-cs!
bucsb.bu.edu!riz
From: riz@bucsb.bu.edu.UUCP (Rizal Ishak)
Newsgroups: net.micro.atari16
Subject: Mini survey
Message-ID: <340@bucsb.bu.edu.UUCP>
Date: Thu, 12-Jun-86 18:57:29 EDT
Article-I.D.: bucsb.340
Posted: Thu Jun 12 18:57:29 1986
Date-Received: Tue, 17-Jun-86 21:37:23 EDT
Organization: Boston Univ Comp. Sci.
Lines: 18

As an user, answering these two questions may ultimately benefit
you.

1. Would you like to have different colored diskette covers so that
you can more readily distinguish your disks at a glance?

2 a. Would you rather purchase brandless 5 1/4 inch diskettes priced
at 50 cents each, or,

b. purchase brand name diskettes at $1.30 each?

Send your comments to riz@bucsb.bu.edu

Thank you for your co-operation with DISKOVERS, P.O BOX 684, Kenmore Square,
Boston, MA 02215, U.S.A.

From 2369011568153392587
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae97a2e30d18e53f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 18:35:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!jmlang
From: jmlang@water.UUCP (Jerome Lang)
Newsgroups: net.micro.atari16
Subject: 1stword to Latex conversion program in net.sources
Message-ID: <420@water.UUCP>
Date: Thu, 12-Jun-86 21:35:32 EDT
Article-I.D.: water.420
Posted: Thu Jun 12 21:35:32 1986
Date-Received: Sun, 15-Jun-86 03:49:14 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 11

I just posted 1stlatex to net.sources. It is a program that
takes 1stword files and translates them to Latex format. It
does most of the drudge work but some bells and whistles might
still be added. The file posted contains source and uuencoded
binary of the program.

Happy typesetting.
--
Je'ro^me M. Lang || jmlang@water.uucp
Dept of Applied Math || jmlang%water@waterloo.csnet
U of Waterloo || jmlang%water%waterloo.csnet@csnet-relay.arpa

From -1024643497094120826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30368fd5c054cff0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-12 22:38:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site
batcomputer.TN.CORNELL.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!tektronix!uw-beaver!bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: Mini-review of Megamax C
Message-ID: <460@batcomputer.TN.CORNELL.EDU>
Date: Fri, 13-Jun-86 01:38:35 EDT
Article-I.D.: batcompu.460
Posted: Fri Jun 13 01:38:35 1986
Date-Received: Tue, 17-Jun-86 08:23:48 EDT
References: <564@ssc-bee.UUCP> <526@druhi.UUCP> <1497@cwruecmp.UUCP>
Reply-To: braner@batcomputer.UUCP (braner)
Distribution: net
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 95

[]
    Although these objections hold, I would even overlook
segmentation (!) to get a bug-free (?) malloc() and a 15 sec
compile & link time (on RAM disk). For my (scientific) work,
the worst bug was the floating point comparision bug (it
claimed that -2 is greater than -1). 'Was', because here...
... (ta-da!) is the fix:
    I took a close look, using the mmdis disassembler,
at the double.o file (extracted from the double.l library with
the mmlib program.) Only one (1) byte is wrong, looks like a typo.
In the routine _fcom, where it says BSET #31,D1 it should say D2.
To patch it, use the following 'bth' program (compile it with mmcc).
    Bth.prg translates the bytes of any file into both hex and
ASCII representation. The output can be edited on any text editor,
and then fed into the htb program (posted earlier) to get it back
into binary. (Only the hex part needs to be changed, the ASCII part

is treated as a comment.) (Yes, Virginia, there is no way to assemble
the output of mmdis!)
    In this case, tell bth.prg to read double.l. In the output file,
look (on line 47) for the sequence "46 82 46 83 08 C1".
Change the C1 to C2. Run it through htb.prg to create newdbl.l,
and your done. From now on, mmlink yourprog.o newdbl.l.

```
/* Program to create a hex file from a binary file.
   by Moshe braner, 860613.
*/

#include <stdio.h>

#define  hinibble(b)  (((b)>>4) & 0x0F)
#define  lonibble(b)  ((b) & 0x0F)
#define  tohex(b)     ((b)<0xA ? ((b)+'0') : ((b)-0xA+'A'))

main() {
     register int c, b, i, t;
     int  n, m;
     FILE *infp, *outfp;
     char infname[80], outfname[80];
     char col[16];

     printf("\n\nBinary To Hex conversion program.  MB 8606.\n\n");
     printf("Enter name of source file: ",stdout);
     gets(infname);
     /* open file with "br" to avoid skipping of '\r's
        by Megamax library
     */
     if ((infp=fopen(infname,"br")) == NULL) {
          printf("cannot open source file!\n");
          exit(0);
     }
     printf("Enter name of output file: ");
     gets(outfname);
     if ((outfp=fopen(outfname,"w")) == NULL) {
          printf("cannot open output file!\n");
          exit(0);
     }
     m = 0;
     for (n=0; ; n++) {
          b=getc(infp);
          if (b != EOF)
               col[m++] = b;
          if ((b==EOF && m>0) || m>=16) {
               for (i=0; i<m; i++) {
                    t = col[i];
                    c = tohex(hinibble(t));
                    putc(c, outfp);
                    c = tohex(lonibble(t));
                    putc(c, outfp);
                    putc(' ', outfp);
```

```
                }
                for (; i<16; i++) {
                     putc(' ', outfp);
                     putc(' ', outfp);
                     putc(' ', outfp);
                }
                putc(' ', outfp);
                putc('*', outfp);
                putc(' ', outfp);
                for (i=0; i<m; i++) {
                     c = col[i];
                     if (c>=' ' && c<='~')
                          putc(c, outfp);
                     else
                          putc('.', outfp);
                }
                putc('\n', outfp);
                m = 0;
           }
           if (b == EOF)
                break;
     }
     printf("\nRead and translated %d bytes.\n", n);
}

/* - Moshe Braner, Cornell, 607-272-3487 */
```

```
From 3617000353235736126
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12c767,91dab69940435b0,start
X-Google-Attributes: gid12c767,public
X-Google-Thread: 140593,91dab69940435b0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-13 04:33:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!mcvax!unido!ab
From: ab@unido.UUCP
Newsgroups: net.games.hack,net.micro.atari16
Subject: Hack 1.0.3 for Atari ST
Message-ID: <161@unido.UUCP>
Date: Fri, 13-Jun-86 07:33:03 EDT
Article-I.D.: unido.161
Posted: Fri Jun 13 07:33:03 1986
Date-Received: Tue, 17-Jun-86 20:56:07 EDT
Organization: University of Dortmund
Lines: 22
Xref: watmath net.games.hack:1971 net.micro.atari16:1044

Hi there!

I ported Hack 1.0.3 to the Atari ST and would like to know, whether
```

anybody is interested in it. Before distributing it I want to add
the mouse as an input-device so that you can play much easier than
only with the keyboard.

I don't know yet how to distribute it, so this note is just to get
some feedback on the issue.

     Andreas Bormann
     University of Dortmund [UniDo]
     West Germany

Uucp: ab@unido.uucp
Path: {USA}!seismo!{mcvax}!unido!ab
     {Europe}!{cernvax,diku,enea,ircam,mcvax,prlb2,tuvie,ukc}!unido!ab
Bitnet: ab@unido.bitnet (== ab@ddoinf6.bitnet)
                \
F-111 bombers: -=>-->->*>   N 51 29' 05"   E 07 24' 42"
                /

From 6261762995671439955
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,48ed97a55107966a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-13 06:58:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdaisy.UUCP
Path: utzoo!decvax!bellcore!ulysses!burl!clyde!watmath!watnot!watdaisy!gsschaffer
From: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Newsgroups: net.micro.atari16
Subject: C Compiler (32-bit int)
Message-ID: <7776@watdaisy.UUCP>
Date: Fri, 13-Jun-86 09:58:57 EDT
Article-I.D.: watdaisy.7776
Posted: Fri Jun 13 09:58:57 1986
Date-Received: Sat, 14-Jun-86 15:43:02 EDT
Reply-To: gsschaffer@watdaisy.UUCP (Greg Schaffer)
Distribution: na
Organization: Computer Science Dept., University of Waterloo
Lines: 19

<Thanks to all those who responded>
The responses would indicate that there are two C compilers available
for the ST which use 32-bit integers (int). These are:

Lattice C:
    I have not heard any complaints about the compiler itself. Complaints are
  with the linker. The compiler can produce code files too big for the
  linker. Externals (symbols) are converted to upper case. There are bugs in
  libraries (strncpy mentioned). The linker is slow and obnoxious. But it
  can be interfaced with the DRI loader (if one has it)

Hippo C:
    It has 32-bit integers - nothing else good was said!

I will probably get the Lattice C soon - and hope for the best.

UUCP: {ihnp4|allegra|utzoo|utcsri}!watmath!watdaisy!gsschaffer
--
UUCP: {ihnp4|allegra|utzoo|utcsri}!watmath!watdaisy!gsschaffer

From -6621318746755286850
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7581810e05e31f7d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-13 07:38:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: WILL A FLOATING-POINT-COPROCESSOR OPTION EVER HAPPEN ??
Message-ID: <8606131438.AA01222@ucbvax.Berkeley.EDU>
Date: Fri, 13-Jun-86 10:38:58 EDT
Article-I.D.: ucbvax.8606131438.AA01222
Posted: Fri Jun 13 10:38:58 1986
Date-Received: Tue, 17-Jun-86 19:24:46 EDT
References: nrl-acoustics
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet> Now that Fortran 77 is available
for the 520/1040 ST, will.we.ever@SU-SCORE.ARPA:menton@nrl-acoustics
Organization: The ARPA Internet
Lines: 6

see the option of adding a floating-point-coprocessor such as the MC68881?
The convenience of running Fortran at home would be nicely augmented by a
10(+)-fold increase in number-crunching speed. Neil ??
                            Bob Menton
                            MENTON@NRL-ACOUSTICS

From -3860801686436354708
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7581810e05e31f7d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-13 08:04:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!v5130b.DECnet!menton
From: menton@v5130b.DECnet ("V5130B::MENTON")
Newsgroups: net.micro.atari16
Subject: WILL A FLOATING-POINT-COPROCESSOR OPTION EVER HAPPEN ??
Message-ID: <8606131504.AA01526@ucbvax.Berkeley.EDU>

Date: Fri, 13-Jun-86 11:04:58 EDT
Article-I.D.: ucbvax.8606131504.AA01526
Posted: Fri Jun 13 11:04:58 1986
Date-Received: Tue, 17-Jun-86 19:25:17 EDT
References: nrl-acoustics
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: "V5130B::MENTON" <menton@v5130b.decnet> Now that Fortran 77 is available
for the 520/1040 ST, will.we.ever@SU-SCORE.ARPA:menton@nrl-acoustics
Organization: The ARPA Internet
Lines: 6

see the option of adding a floating-point-coprocessor such as the MC68881?
The convenience of running Fortran at home would be nicely augmented by a
10(+)-fold increase in number-crunching speed. Neil ??
                            Bob Menton
                            MENTON@NRL-ACOUSTICS

From -562406019463906003
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,125a914e2a485c2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-13 10:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CARLETON.BITNET!Mike_Wilson
From: Mike_Wilson@CARLETON.BITNET (Mike Wilson)
Newsgroups: net.micro.atari16
Subject: I *need* memory!
Message-ID: <8606131855.AA04757@ucbvax.Berkeley.EDU>
Date: Fri, 13-Jun-86 13:17:00 EDT
Article-I.D.: ucbvax.8606131855.AA04757
Posted: Fri Jun 13 13:17:00 1986
Date-Received: Tue, 17-Jun-86 19:27:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

Hi,
    I'm currently working on a project to port a new version of Smalltalk
(examplar-based, multiple inheritance, multiple PROCESSOR, for those who
are interested) to multiple 68000's on the VME bus. Currently we are
doing our development on Apple Mac "XL"s, but we are investigating the
use of other machines (because the Lisas are reaching the end of their
useful lifespan, and support is lousy!).

   The ATARI 1040 (or 520 for that matter) seems like a reasonable choice,
except for the question of memory. You see, the Smalltalk image alone (ie.
without *any* code to execute it) is well over 900K long, so unless we can
expand memory to at least 2Meg, we can't use them.

   So... My question is: What is the current (read: "Right Now!") limit on

the amount of expansion memory which is supported by the ATARI?

   By the way, an offshoot of this project would probably be a working Smalltalk for all ATARIs (Once it works, we could always prune it down to fit).

.Mike

From -8773524860728222586
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cd7fe08a3f651d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-14 05:20:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
mcvax!ukc!kcl-cs!agjenkin
From: agjenkin@kcl-cs.UUCP (znac264)
Newsgroups: net.micro.atari16
Subject: ST's and disc drive (why wont some work?)
Message-ID: <697@neon.kcl-cs.UUCP>
Date: Sat, 14-Jun-86 08:20:40 EDT
Article-I.D.: neon.697
Posted: Sat Jun 14 08:20:40 1986
Date-Received: Tue, 17-Jun-86 23:02:46 EDT
Reply-To: agjenkin@kcl-cs.UUCP (Alun Jenkins)
Organization: Department of Computing, Kings College, University of London.
Lines: 30

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>
Hi, I wonder if anyone on the net has had the same experience as
me regarding fitting your own drives to a 520STM.
I had three problems (maybe four)

     I) Getting a connector for the drive
          A) buy a second drive cable wit a friend and split it.
     II) Getting a drive to work
          A) Misubushi's just wont work, their spec is identical to
             Teacs which do. (3mS track to track etc)
                    Teacs cost a lot (150 pounds + case and
             PSU).So I used NEC drives (99 pound with case and leads)

     III) Decipering TOS errors
          Q) What does TOS error #35 mean etc (Heeellllllppppp)

Perhaps someone can tell me why that some drives work and some dont
even though on papaer they are identical ? also does anyone have
a list of TOS error codes and ``bomb'' codes (you know when you really
goofed up BOMB! perhaps BOMB BOMB BOMB BOMB ..... crash (after this
your begging the damm thing to give you you files back
YOU: Come on ST you know and I know you've got 36 files on that disk!

ST: TOS error #35!
YOU: All right already just tell me how much space is on the disk?
ST: (flicker flicker .....(isnt it quiet)..... CRASH)
YOU: Arrrghhhhh
)
help with the above will be appreciated

Alun Jenkins ..ukc!kcl-cs!agjenkins

From -4880680081512715171
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46c8b725da0b4ea5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-14 11:33:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!nike!ucbcad!ucbvax!
sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: problems with programs
Message-ID: <630@marlin.UUCP>
Date: Sat, 14-Jun-86 14:33:02 EDT
Article-I.D.: marlin.630
Posted: Sat Jun 14 14:33:02 1986
Date-Received: Tue, 17-Jun-86 21:28:38 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 33

The HARDWARE: Atari 520ST with color monitor, two SS disk drives
               and tos in ROM.

The PROBLEM: None of the code I have received on the net runs.
               It doesn't seem to matter what type of code,
               either. I have compiled c retreived with the ch
               shell stripping off the extra and by hand copying
               the lines of code. I have also uudecoded several
               binaries for the ST using three different uudecode
               programs on two different machines. Also, I
               recently received the "starters kit" (and a
               wonderfull package it is, too. Four disks packed
               to the hubs with great stuff.) but find that most
               of the programs tend to produce two mushroom
               clouds. Just like the programs I write. :-)

The METHOD: I save the net articles to my home directory on
               the UNIX machine at work using an IBM PC-XT
               running a h19 terminal emulator. Then I access
               the UNIX machine at home with the ATARI running
               ST-TALK. I use the capture mode. I don't seem to

understand the xmodem feature of the UNIX machine
and I can't get the kermit in the 520ST developer's
package to work at all.

The QUESTION: Is it just my machine?

The DISCLAIMER: I speak only for mayself. At least my wife
says I don't speak for her. :-)

The THANKS: Thanks.

From -2495606560055952181
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,73399c801833894e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-14 12:09:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!styx!nike!
ucbcad!ucbvax!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari16
Subject: Atari Basic
Message-ID: <631@marlin.UUCP>
Date: Sat, 14-Jun-86 15:09:51 EDT
Article-I.D.: marlin.631
Posted: Sat Jun 14 15:09:51 1986
Date-Received: Tue, 17-Jun-86 21:24:31 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 17

I recently pulled a basic program from "sources," and tried to
adapt it for Atari Basic (Yech). It bombs out with a "Too many
FOR loops" error. What does it mean?

Does Atari basic look for certain types of errors before it
begins program execution? The first program line contained
"FULLW 2" and CLEARW 2," but neither happened. Just the error.

Is there another BASIC available for the ST? I really don't like
working with the windows. Every program I've written in basic
has a couple of false starts when I clear windows or change
window sizes. I would rather have full screen outputs without
the framed in appearance of the window.

Thanks

From -2008036685089641035
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,73399c801833894e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-15 00:06:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Atari Basic
Message-ID: <406@cbmvax.cbmvax.cbm.UUCP>
Date: Sun, 15-Jun-86 03:06:55 EDT
Article-I.D.: cbmvax.406
Posted: Sun Jun 15 03:06:55 1986
Date-Received: Tue, 17-Jun-86 22:37:17 EDT
References: <631@marlin.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 22

In article <631@marlin.UUCP> dobbs@cod.UUCP (Lynn B. Dobbs) writes:
>
>I recently pulled a basic program from "sources," and tried to
>adapt it for Atari Basic (Yech). It bombs out with a "Too many
>FOR loops" error. What does it mean?
>
>Does Atari basic look for certain types of errors before it
>begins program execution? The first program line contained
>"FULLW 2" and CLEARW 2," but neither happened. Just the error.
>

Many basic interpreters do a quick scan when you type run, to tie
together for/next loops, def fn - call, and data statements.

As to your particular error, it could mean you have to many for
loops, loops nested too deep, or problems with matching the control
variable on the for/next pair - some require a variable and some
don't.
--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From -8999800011992828987
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a2a99b513ecae938,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-15 06:41:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: Screen saver/dimmer

Message-ID: <8606172339.AA28794@ucbvax.Berkeley.EDU>
Date: Sun, 15-Jun-86 09:41:30 EDT
Article-I.D.: ucbvax.8606172339.AA28794
Posted: Sun Jun 15 09:41:30 1986
Date-Received: Thu, 19-Jun-86 07:45:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 453

2 screen savers: the first one cycles thru the palette registers
(you could make this one even fancier, but i've
only got a monochrome set),
the second one turns the internal gereration of the
horizontal and vertical sync pulses off. This results
in a nice black screen, but it also means you lose
the hblank and vblank interrupts.
----->>>any routine in the vblank queue stops
----->>>disk changes will not be noticed
----->>>drives will not be deselected
so dont flame me if you scramble your disk!!
If anybody finds a way of using a timer interrupt
to get around this: tell me!

Use following batch file to assemble and link the programs:

```
as68 -p -l %1.s
link68 [u] %1.68k=%1
rm %1.o
relmod %1.68k %1.prg
rm %1.68k
wait
```

------>>>>>>> read the code and if you don't like it, change it!!!!

Simon

-----------------Cut here---

```
*****************************************************************
*
*               Screen Saver (c) V0.0 by S.Poole 1986
*
*               Use this at your own risk!!!!!!
*
*
*****************************************************************

gemdos      equ $1

keep        equ $31

xbios       equ $e

super       equ 38
```

```
nvbls       equ $454

vblqueue    equ $456

palbase     equ $FF8240

synmode     equ $FF820A

keyvec      equ $118

hires       equ 2

midres      equ 1

lores       equ 0

modereg     equ $FF8260


* for the monochrome monitor a value of 70 is one second
* for color monitors 60 or 50
*
* a value of 21000 waits 5 minutes before turning the screen off
waittime    equ 21000

changetime  equ 70

bpgsize     equ $100

textlen     equ $C

datalen     equ $14

bsslen      equ $1C

       .text

* put routine in VBL-queue and catch keyboard-midi interrupt

init:

*         calculate size of program and save it

          movea.l    $0004(A7),A0
          move.l     #bpgsize,D6
          add.l      textlen(A0),D6
          add.l      datalen(A0),D6
          add.l      bsslen(A0),D6
          move.l     d6,len

*         print starting message
```

```
          move.l     #msg1,a0
          bsr        prstr

*         execute the putvbl routine in supervisor mode

          move.l     #putvbl,-(sp)
          move       #super,-(sp)
          trap       #xbios

*         if result of putvbl negative (=no slot found) terminate

          bmi        abort

*         otherwise  terminate and stay resident

          clr.w      -(A7)
          move.l     D6,-(A7)
          move.w     #keep,-(A7)
abort:    trap       #gemdos

*****************************************************************

*         find an empty slot and install screen saver

putvbl:   move       nvbls,d0
            lsl        #2,d0
          move.l     vblqueue,a0
          clr        d1
loop1:    tst.l      (a0,d1)
          beq        free
          addq       #4,d1
          cmp        d0,d1
          bne        loop1
          move.l     -1,d0
          tst.l      d0
          rts

*         there was a free slot: so put address of screen saver in it

free:     move.l     #start,(a0,d1)

*         get keyboard and midi interrupt vector and save it

          move.l     keyvec,saveint

*         put our interrupt vektor in its place

          move.l     #newint,keyvec
          rts

*         a small routine to print strings

prstr:    move.l     a0,-(sp)
```

```
          move.w     #9,-(sp)
          trap       #gemdos
          addq.l     #6,sp
          rts

****************************************************************
****************************************************************


* our interrupt handler
*
*   don't forget: this routine is not allowed to use any
*   registers
*
*         reset the counter

newint:   move.w     #waittime,count

          cmpi.w     #1,flag
          bne        toold

*         stop cycling the palettes

          move.w     #0,cflag

*         jump to the old interrupt routine

toold:    move.l     saveint,-(a7)
          rts

****************************************************************
****************************************************************

* screen saver


start:

*         its zero so don't do anything

empty:    cmpi.w     #0,count
          beq        finish

*         if cflag has been cleared, restore everything

          cmpi.w     #1,cflag
          beq        dec
restore:  move.w     #15,d0
          move.l     #palbase,a0
          move.l     #palsave,a1
reloop:   move.w     (a1)+,(a0)+
          dbra       d0,reloop
          move.w     #0,flag
```

```
          move.w     #1,cflag
          bra        finish


*         decrement count, if zero turn screen off and set flag


dec:      subq       #1,count
          cmpi.w     #0,count
          bne        finish

*         if screen already turned off, reset count and cycle colors

flagon:   cmpi.w     #1,flag
          bne        turnoff



cycle:    move.w     #changetime,count

*         its got a monochrome monitor

          btst       #1,modereg
          beq        mid
          bchg       #0,palbase
          bra        finish

*         its got a color monitor

mid:      move.l     #palbase,a0
          btst       #0,modereg
          beq        lo
          move.w     6(a0),d1
          move.w     #2,d0
          adda.l     #4,a0
midcycle: move.w     (a0)+,(a0)
          suba.l     #4,a0
          dbra       d0,midcycle
          move.w     d1,palbase
          bra        finish

lo:       move.w     30(a0),d1
          move.w     #14,d0
          adda.l     #28,a0
locycle:  move.w     (a0)+,(a0)
          suba.l     #4,a0
          dbra       d0,locycle
          move.w     d1,palbase
          bra        finish

*         save palette registers
*
*
```

```
turnoff:  move.w     #15,d0
          move.l     #palbase,a0
          move.l     #palsave,a1
storepal: move.w     (a0)+,(a1)+
          dbra       d0,storepal

          move.w     #1,flag
          bra        flagon

finish:
          rts

       .data
flag:     dc.w        0
cflag:    dc.w        1
count:    dc.w     waittime
saveint:  dc.l        0
palsave:  dc.w        0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15
len:      dc.l        0
msg1:     dc.b     'Screen Saver (c) S.Poole 1986',0
       .end
------------------Cut here---------------------------------------
*****************************************************************
*
*               Screen Saver V0.0sync (c) by S.Poole 1986
*
*               Use this at your own risk!!!!!!!
*
*               Important: this version stops the VBL-interrupt,
*                          it turns the internal HSync and VSync
*                          signals off.
*
*****************************************************************

gemdos      equ $1

keep        equ $31

xbios       equ $e

super       equ 38

nvbls       equ $454

vblqueue    equ $456

synmode     equ $FF820A

keyvec      equ $118

* for the monochrome monitor a value of 70 is one second
* for color monitors 60 or 50
*
```

```
* a value of 21000 waits 5 minutes before turning the screen off
waittime    equ 21000

bpgsize     equ $100

textlen     equ $C

datalen     equ $14

bsslen      equ $1C

       .text

* put routine in VBL-queue and catch keyboard-midi interrupt

init:

*         calculate size of program and save it

          movea.l    $0004(A7),A0
          move.l     #bpgsize,D6
          add.l      textlen(A0),D6
          add.l      datalen(A0),D6
          add.l      bsslen(A0),D6
          move.l     d6,len

*         print starting message

          move.l     #msg1,a0
          bsr        prstr

*         execute the putvbl routine in supervisor mode

          move.l     #putvbl,-(sp)
          move       #super,-(sp)
          trap       #xbios

*         if result of putvbl negative (=no slot found) terminate

          bmi        abort

*         otherwise  terminate and stay resident

          clr.w      -(A7)
          move.l     D6,-(A7)
          move.w     #keep,-(A7)
abort:    trap       #gemdos

************************************************************

*         find an empty slot and install screen saver

putvbl:   move       nvbls,d0
```

```
            lsl         #2,d0
          move.l     vblqueue,a0
          clr        d1
loop1:    tst.l      (a0,d1)
          beq        free
          addq       #4,d1
          cmp        d0,d1
          bne        loop1
          move.l     -1,d0
          tst.l      d0
          rts

*         there was a free slot: so put address of screen saver in it

free:     move.l     #start,(a0,d1)

*         get keyboard and midi interrupt vector and save it

          move.l     keyvec,saveint

*         put our interrupt vektor in its place

          move.l     #newint,keyvec
          rts

*         a small routine to print strings

prstr:    move.l     a0,-(sp)
          move.w     #9,-(sp)
          trap       #gemdos
          addq.l     #6,sp
          rts

****************************************************************
****************************************************************


* our interrupt handler
*
*   don't forget: this routine is not allowed to use any
*   registers
*
*         reset the counter

newint:   move.w     #waittime,count

*         if screen turned off: turn it back on

          cmpi.w     #1,flag
          bne        toold
          bchg       #0,synmode
          move.w     #0,flag
```

```
*         jump to the old interrupt routine

toold:    move.l     saveint,-(a7)
          rts

*****************************************************************
*****************************************************************

* screen saver


start:

*         its zero so don't do anything

empty:    cmpi.w     #0,count
          beq        finish

*
*         decrement count if zero turn screen off and set flag

          subq       #1,count
          cmpi.w     #0,count
          bne        finish


          bchg       #0,synmode
          move.w     #1,flag

finish:   rts

       .data
flag:     dc.w        0
count:    dc.w     waittime
saveint:  dc.l        0
len:      dc.l        0
msg1:     dc.b     'Screen Saver (c) S.Poole 1986',0
       .end
```

```
From -6348772672969492749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46c8b725da0b4ea5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-15 08:27:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!pesnta!
hplabs!hp-sdd!ncr-sd!sdcsvax!noscvax!marlin!dobbs
From: dobbs@marlin.UUCP
Newsgroups: net.micro.atari16
Subject: re: problems with programs
Message-ID: <633@marlin.UUCP>
Date: Sun, 15-Jun-86 11:27:22 EDT
```

Article-I.D.: marlin.633
Posted: Sun Jun 15 11:27:22 1986
Date-Received: Tue, 17-Jun-86 23:05:06 EDT
Reply-To: dobbs@cod.UUCP (Lynn B. Dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 23

Well, it never fails, or at least it never fails me :-), once a silly question is asked, the answer pops up. I posted questions concerning pulling programs off the net and finding I couldn't run them. Fixed that one by using a few more synapse connections.

Capturing files with ST-TALK also captures the command to list the file on the host. Once I stripped the extranious header and footer, the programs ran fine.

I also said that some of the programs in the "STARTER KIT" wouldn't run. Fixed that, too. Bad disk drive.

Shortly after buying the 520, I bought a second SS drive. It was quieter and had a slightly easier-to-use disk release mechanism. The drive had a wide release button directly under the disk openning. The drive became real flaky lately and was eventually replaced by the retailer. The replacement is the same as the orignal, small button, noisy drive; BUT it works and so do all the programs.

Still don't know the answer to my basic question. What is the "Too many FOR loops" error in Atari Basic mean?

Disclaimer: Speech for myself, by myself, and of myself.

Thanks.

From 1952148577221732257
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fff782d8fe6b50b2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-15 09:11:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!nike!ucbcad!ucbvax!YUSOL.BITNET!CS112170
From: CS112170@YUSOL.BITNET
Newsgroups: net.micro.atari16
Subject: UUDECODE/UUENCODE with Megamax
Message-ID: <8606161915.AA08006@ucbvax.Berkeley.EDU>
Date: Sun, 15-Jun-86 12:11:00 EDT
Article-I.D.: ucbvax.8606161915.AA08006
Posted: Sun Jun 15 12:11:00 1986
Date-Received: Wed, 18-Jun-86 04:02:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

H E L P !!!!

I finally received Megamax. It's a nice compiler (although I abhore the editor!).

Problem is, it WON'T compile the uuencode.c and uudecode.c files. The main problem is due to the #include statements, which include files which don't exist (like "pwd").

Since I'm still new to C programming, I don't know how to fix these problems. So, if anyone has some source which CAN compile with Megamax, I'd appreciate receiving them, since some of the files coming through the net are quite useful.

David Pullara
CS112170@YUSOL.BITNET

From -1048428425073549538
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9662cefd52672c90
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-16 02:36:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!harvard!
seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP (Andrew Smith)
Newsgroups: net.micro.atari16
Subject: Re: 'C' freopen call
Message-ID: <698@neon.kcl-cs.UUCP>
Date: Mon, 16-Jun-86 05:36:36 EDT
Article-I.D.: neon.698
Posted: Mon Jun 16 05:36:36 1986
Date-Received: Thu, 19-Jun-86 08:54:29 EDT
References: <695@neon.kcl-cs.UUCP>
Reply-To: andrew@kcl-cs.UUCP (PUT YOUR NAME HERE)
Organization: Department of Computing, Kings College, University of London.
Lines: 20

In article <695@neon.kcl-cs.UUCP> andrew@kcl-cs.UUCP () writes:
>
>   freopen("/dev/tty","r",stdin);
>   ^^^^^^^^
>
>on a UNIX machine, but what is the 'filename' for stdin, stdout, stderr,
>on the ATARI ?
>

I have been playing around with different filenames and have found that "CON:" seems to cause 'freopen' not to return an error. But upon reading 'stdin' the character '^J' (10) is always returned.

Do I need to do anything else or may there be a bug in the LATTICE 'C' library ?

Thanks in advance,

Andrew Smith.

..!mcvax!ukc!kcl-cs!andrew

From 9028476384378173860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91dab69940435b0
X-Google-Attributes: gid140593,public
X-Google-Thread: 12c767,91dab69940435b0
X-Google-Attributes: gid12c767,public
X-Google-ArrivalTime: 1986-06-16 06:49:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!paone
From: paone@topaz.RUTGERS.EDU (Phil Paone)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Re: Hack 1.0.3 for Atari ST
Message-ID: <5173@topaz.RUTGERS.EDU>
Date: Mon, 16-Jun-86 09:49:06 EDT
Article-I.D.: topaz.5173
Posted: Mon Jun 16 09:49:06 1986
Date-Received: Wed, 18-Jun-86 03:00:09 EDT
References: <161@unido.UUCP>
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 9
Xref: watmath net.games.hack:1988 net.micro.atari16:1053

     YES!!!!!! I am very curious about the system setup you used to
compile it. What C compiler did you use? What type and how many
drives? I've been toying with the idea of porting it myself, but with
only a single ds drive and 360k ramdisk I didn't think it was possible
to compile and link the thing.

                        Phil

From 5533496425652872063
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46c8b725da0b4ea5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-16 08:18:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!JDavidson.WBST
From: JDavidson.WBST@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: problems with programs
Message-ID: <860616-081851-1400@Xerox>

Date: Mon, 16-Jun-86 11:18:14 EDT
Article-I.D.: Xerox.860616-081851-1400
Posted: Mon Jun 16 11:18:14 1986
Date-Received: Thu, 19-Jun-86 19:27:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

The fault lies not with your machine or even you. The two bombs indicate that the problem is a bus error. What it means is that the program you are trying to run expects TOS in RAM not ROM. To see if this is the problem trying booting your machine with a TOS boot disk and then trying to run a program that has previously chrashed with 2 bombs. I had a similar problem with a package I bought on Saturday. It wouldn't work with TOS in ROM but when TOS was in RAM it ran great.
{John}

From -4133789908433163829
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e49d9f1b0aeb4c2d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-16 11:06:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!mhuxv!mhuxh!mhuxj!mhuxn!ihnp4!
ihuxi!store2
From: store2@ihuxi.UUCP (Wilcox)
Newsgroups: net.micro.atari16
Subject: Summer 1986 START magazine TOC
Message-ID: <1360@ihuxi.UUCP>
Date: Mon, 16-Jun-86 14:06:05 EDT
Article-I.D.: ihuxi.1360
Posted: Mon Jun 16 14:06:05 1986
Date-Received: Wed, 18-Jun-86 04:24:09 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 75

*****[Ignore header path]*****

START Vol 1, Number 1 (Summer 1986)

page article

6 EDITORIAL
Explanation of purpose of START and type of market it is marketed for.
8 AUTHORS
A thumbnail sketch of the authors of the articles in this issue including Tom Hudson and Russ Wetmore.
12 CAPTURING MUSIC ON THE ST--A MIDI SEQUENCER by Tom Jeffries

Take advantage of your ST's built-in MIDI interface. This Simple Sequencer lets you record, save to disk, and play-back music created on your synthesizer.

21 STEALING THE ST PRINTER DRIVER by Tom Hudson
This Desk Accessory lets you install your own customized printer driver for either vertical or horizontal screen dumps at the press of the [Alt] [Help] key. Requires TOS in ROM.

29 MOVING 16-COLOR OBJECTS by Joe Chiazzese
Using AL routines within a C structure, this article demonstrates how to move 16-color objects (created with the C.O.L.R. Object Editor) swiftly around the screen.

32 THE DIGITAL MAGNET by David Small
This spectacularly colorful graphics program simulates magnetic field line generation. Works in any resolution.

36 TRACKING THE ELUSIVE GDOS by Tim Oren
A valuable examination of GDOS and metafiles by the programmer who helped write the GEM system.

44 PRACTICAL SOFTWARE FOR THE NON-DEVELOPER by Jack Powell
A quick overview of various Word Processors, Databases, Spreadsheets and Languages available for the ST usrs.

50 DISK INSTRUCTIONS
How to use the companion disk if you bought the magazine and disk combination.

52 SOPHISTICATED TEXT HANDLING by Cory Cole
How to manipulate text in GEM. A thorough investigation of sophisticated text handling.

60 VOODOO COMPUTING by David Small
The pragmatic art of defensive programming.

64 PROCEDURES: AL AND C ROUTINES... by Dan Matejka
These two AL routines, plus a full, C "help" text window modules will speed your programs and make them more professional.

69 CHIPS: OF DIAGNOSTICS AND DEBUGGING by Jim Dunion
A detailed look at the art of debugging the 68000, plus a dream list of what the best-dressed 68000 debugger may be wearing this season.

77 REVIEW: ST ASSEMBLERS by Chris Chabris
A quick look at what is available for the ST.

83 REVIEW: UNIX FOR THE ST by Russ Wetmore
A review of the uses and capabilities of MICRO C-SHELL by David Beckemeyer Development Tools.

88 RESOURSES by DeWitt Robbeloth
A look at the books available for the ST by Abacus and other publishers.

Comments: The magazine is designed for experienced computer users who own the ST computer. It contains high-end information that requires a good grounding in computer fundamentals and practices. The articles do not include program listings that you can type in. They are all included on a disk that comes bound in the magazine if you buy the $14.95 version or that can be bought separately if you just buy the $4 magazine. This is the only issue of the

magazine I plan to submit to the net. If another user wants to
do so, feel free.

Kit Kimes
AT&T--Information Systems Labs
1100 E. Warrenville Rd.
Naperville, IL 60566
...ihnp4!iwvae!kimes

From -2357327467164612021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,67f266be004cc420,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-17 06:50:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!hao!
noao!terak!anasazi!john
From: john@anasazi.UUCP (John Moore)
Newsgroups: net.micro.atari16
Subject: PC Board Designer Program
Message-ID: <350@anasazi.UUCP>
Date: Tue, 17-Jun-86 09:50:15 EDT
Article-I.D.: anasazi.350
Posted: Tue Jun 17 09:50:15 1986
Date-Received: Sat, 21-Jun-86 09:29:20 EDT
Reply-To: john@anasazi.UUCP (John Moore)
Organization: Anasazi, Phoenix Az.
Lines: 26
Keywords: I am most interested in finding out a few things about the PC

Board Designer program from Abacus. For those of you interested, the
advertising blurb makes it sound pretty good except for the price ($399).
It does single or double sided boards, with auto routing, and it has
a standard library of symbols but lets you add to them. It produces
output on Epson style printers and one other (I don't remember which).
They are working on (release 4-8 wks) drivers for some plotters.
My questions:

(1) Is this program really any good? Has anyone on the net used it
enough to tell if it works without too many bugs?

(2) Is it possible for the user to write a device driver for some
custom device?

(3) What will the additional device drivers cost?

(4) How suitable is MX-80 2X1 artwork for serious PC work?

I found it hard to get answers to these questions from Abacus.

--
John Moore (NJ7E)
{decvax|ihnp4|hao}!noao!mot!anasazi!john
{hao!noao|decvax|ihnp4|seismo}!mot!anasazi!john
mot!anasazi!john@SEISMO.CSS.GOV
(602) 861-7607 (day or evening)

7525 Clearwater Pkwy, Paradise Valley, AZ, 85253 (Home Address)

The opinions expressed here are obviously not mine, so they must be
someone else's.

From -6487894688467519741
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c5c0fa418b16d311
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-17 10:43:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!think!harvard!
seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: st and rf modulator
Message-ID: <352@atari.UUcp>
Date: Tue, 17-Jun-86 13:43:50 EDT
Article-I.D.: atari.352
Posted: Tue Jun 17 13:43:50 1986
Date-Received: Thu, 19-Jun-86 09:18:38 EDT
References: <8606121324.AA11966@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 25

In article <8606121324.AA11966@ucbvax.Berkeley.EDU>, moore@ncsc (Jim Moore)
writes:
>
> Neil @ Atari, will you comment on a recent message indicating that all
future 520ST's will be equipped with RF Modulators?

Yes, all current and future 520ST's will continue to be equipped with Rf
modulators. However, I can only speak for North America -- I am employed by
Atari (US) Corp., and other countries have their own autonomous
organizations.

--

--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From 2247531560456483495
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7581810e05e31f7d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-17 10:46:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!think!harvard!
seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: WILL A FLOATING-POINT-COPROCESSOR OPTION EVER HAPPEN ??
Message-ID: <353@atari.UUcp>
Date: Tue, 17-Jun-86 13:46:36 EDT
Article-I.D.: atari.353
Posted: Tue Jun 17 13:46:36 1986
Date-Received: Thu, 19-Jun-86 09:19:03 EDT
References: <8606131438.AA01222@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 27

In article <8606131438.AA01222@ucbvax.Berkeley.EDU>, menton@v5130b.DECnet
("V5130B::MENTON") writes:
> see the option of adding a floating-point-coprocessor such as the MC68881?
> The convenience of running Fortran at home would be nicely augmented by a
> 10(+)-fold increase in number-crunching speed. Neil ??

It looks likely that our 32-bit computer (the "TT") will have a math
coprocessor. The TT is being designed as an add-on box for the ST (through
the DMA channel). It will use the ST's I/O and graphics, but will perform
its own processing and have its own RAM. I will see how much more I can
find out and transmit to you right now -- please don't request more info,
this is all I have to give you right now.

--

--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -6747560937012571860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91dab69940435b0
X-Google-Attributes: gid140593,public

X-Google-Thread: 12c767,91dab69940435b0
X-Google-Attributes: gid12c767,public
X-Google-ArrivalTime: 1986-06-17 10:51:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!think!harvard!
seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Re: Hack 1.0.3 for Atari ST
Message-ID: <355@atari.UUcp>
Date: Tue, 17-Jun-86 13:51:03 EDT
Article-I.D.: atari.355
Posted: Tue Jun 17 13:51:03 1986
Date-Received: Thu, 19-Jun-86 09:19:29 EDT
References: <161@unido.UUCP>
Organization: Atari Corp/Mktg
Lines: 27
Xref: watmath net.games.hack:2004 net.micro.atari16:1061

In article <161@unido.UUCP>, ab@unido.UUCP (Andreas Bormann) writes:
>
> I ported Hack 1.0.3 to the Atari ST and would like to know, whether
> anybody is interested in it. Before distributing it I want to add
> the mouse as an input-device so that you can play much easier than
> only with the keyboard.
>
> I don't know yet how to distribute it, so this note is just to get
> some feedback on the issue.

If you mail me a copy on disk, I will place it on the Atari BBS and wherever
else is appropriate (CompuServe, BIX, GENIE, the works). I have already
done this for the "puzzle puzzle" shareware game from Germany.
--

--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -5007043481668868788
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c99a8cbf9e60655,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-17 14:36:31 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: Are all kermits public domain?
Message-ID: <1984@dalcs.UUCP>
Date: Tue, 17-Jun-86 17:36:31 EDT
Article-I.D.: dalcs.1984
Posted: Tue Jun 17 17:36:31 1986
Date-Received: Wed, 18-Jun-86 01:24:37 EDT
Distribution: net
Organization: Marine Ecology Lab.
Lines: 8

There is some confusion here about whether the kermit in the developer's
kit is in the public domain. The manual seems to say it is (right on
the title page), but we would like to make sure before passing it on to
anyone else.

To avert any flames about the superiority of xmodem -- some of us work
on Unix mainframes that support kermit but not xmodem, and would like to
use SOMETHING for errorfree downloading from the net.

From -105553752867971016
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54b0b93c2544cf3d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-17 16:00:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!lll-lcc!
dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Questions on 1040ST
Message-ID: <2587@islenet.UUCP>
Date: Tue, 17-Jun-86 19:00:53 EDT
Article-I.D.: islenet.2587
Posted: Tue Jun 17 19:00:53 1986
Date-Received: Sat, 21-Jun-86 12:31:15 EDT
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 70

I have several questions for anyone on the net. Perhaps Neil from Atari
could give us some answers.

1) What CAD programs are available for the 1040ST? I have heard of
   Graphic Artist and a new one from Germany titled "Data Becker". Is
   that the name of the program? How good is it? How good is the
   graphic artist? What printer/plotters do they support? Is a monochrome
   monitor required?

2) I know that Michtron is working on a flight simulator for the ST's. Is there a known date of release? Also, someone mentioned Sub-logic. Are they working on software for the ST?

3) At one of the Winter/Spring shows, I believe CES, it was mentioned that someone had developed a cartridge for the ST called MACartridge allowing ST users with a monochrome monitor to run Macintosh software. What has the outcome been? Has Atari seen the cartridge? Are they for sale? Perhaps someone needs to create a Macintosh-compatible ROM (similar to the PClones) to sell the cartridge.

4) The infamous Atari-IBM box has been talked about for awhile and I understand it was shown at the Hannover Fair in West Germany. How much and when will it be out? Are there options for 5 1/4 inch drives available for the box? I have heard $200 and out by Fall '86, but it is always nice to hear something straight from the horses mouth.

5) The video digitizer was shown at a recent Chicago show. This hooks into the cartridge slot and is compatible with a standard video camera. Anyone know of a price? When to ship?

6) What kind of expansion beyond 1 meg is Atari planning? I understand from the March '86 Byte that the MMU will handle 4 megs. It seems reasonable to assume that the machine can easily be expanded to 2 megs by piggy-backing 256K DRAMS.

7) What is the status of the graphics co-processor chip? Is it going to be available for the 1040ST or for a future machine (100 Mhz, 1024 X 1024 pixel monitor, true 32-bit workstation)? Is or will this be user installable or even dealer installable? Does this give me an increase in number of colors on screen, blitter capability, etc.

8) Whatever happened to GEM Write? Is Atari still working with Digital Research? Or is GEM Desktop all we get? Anybody else have an "integrated" word-processing & graphics combination? Will Microsoft products ever be available for the ST? Like Windows?

9) If I have a 1040ST, is it possible to add an RF modulator (not that I would want to personally)? I understand there is a place on the motherboard for such a thing.

10) One last question: when will the new version of NEOChrome be finished? (At least version 1.0, right?) This is the version that fills in the missing boxes and adds animation capabilities like the infamous bouncing ball demo and the Cockatoo demo flying across the screen.

Don't mean to be so tedious, or to ask so many questions and I don't expect all answers from one source. The only reason I ask is because I am a dealer for the ST series and these are questions that I have been literally HAUNTED with for the past several weeks.

On the other side of things, I suppose that being bombarded with a

thousand questions on a machine shows a tremendous enthusiasm for the machine but it is awfully nice to feed the hungry savages once in a while and not just play the dumb dealer who hears nothin', sees nothin', and speaks nothin' about a new machine. Seems that most of the questions are centered around software.

I would appreciate any and all comments/suggestions/inquiries/editorials.

From Waikiki Beach...

From 4999312404752317858
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b4da52d79d38cea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 05:55:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: Re: Query: Atari-Prices in USA
Message-ID: <8606181255.AA07471@ee.purdue.edu>
Date: Wed, 18-Jun-86 08:55:46 EDT
Article-I.D.: ee.8606181255.AA07471
Posted: Wed Jun 18 08:55:46 1986
Date-Received: Fri, 20-Jun-86 02:45:32 EDT
References: <600005@coma.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

47st Photo lists an Atari 520ST, Monochrome monitor and single sided disk drive for $495 in their ad in yesterday'd Wall Street Journal. They are not too hard to get to from either the train or bus stations in Manhatten.

--ddm (a New Yorker in Indiana...)

From -4837284756699281253
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,837f87b0532fd3ed
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 06:18:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!nike!ucbcad!ucbvax!
sdcsvax!ncr-sd!ncrcae!usceast!tech
From: tech@usceast.UUCP (System Technician)
Newsgroups: net.micro.atari16
Subject: Re: I/O redirection and reading EOF
Message-ID: <2259@usceast.UUCP>
Date: Wed, 18-Jun-86 09:18:23 EDT
Article-I.D.: usceast.2259

Posted: Wed Jun 18 09:18:23 1986
Date-Received: Sat, 21-Jun-86 09:51:13 EDT
References: <691@neon.kcl-cs.UUCP>
Reply-To: tech@usceast.UUCP (System Technician)
Followup-To: I/O redirection
Organization: Csci Dept, U of S. Carolina, Columbia
Lines: 90
Summary: The problem with redirection

In article <691@neon.kcl-cs.UUCP> andrew@kcl-cs.UUCP () writes:
>
>Hi,
>
>I have just written a 'shell' for the ATARI ST and implemented I/O redirection
>from the command level. I have a real problem when redirecting stdin as the
>called program has no way of detecting EOF if the input is from a redirected
>file. When trying the following:
>
>   cat < file
>
>'cat' just keeps trying to read past the end of file (cat is just a while not
>EOF getc loop).
>
>I have implemented redirection as:
>
>   handle = Fopen(filename,R_ONLY);
>   Fforce(KEYBOARD,handle);
>
>Is this OK ? (there is a small problem when the file is closed - I get a
>never ending bleep from the speeker - it appears as if stdin is not being
>set back to the console correctly).
>
>The problem appears to be because the GEMDOS call 'READ' ($3F) has no notion
>of EOF (the manual states that to detect EOF you must compare the size of the
>file with the number of characters read), so if you open the file with fopen
>all is OK as it is taken care of by the library stdio functions.
>
>The only way around this (as far as I can see) is to write my own detect_eof
>function which would return the standard FEOF if we have a 'real' file, but
>if we have stdin from the console look for say ^D, else check for EOF on the
>redirected file. The only problem with this is how do I check a file descriptor
>to see if it is realy stdin or a redirected stdin ?
>
>Can anybody help me ? I would be pleased of any help.
>
>Thanks in advance,
>
>Andrew Smith (..!mcvax!ukc!kcl-cs!andrew).

Hello,
     I have been working on a cross-compiler (VAX to 520st) and in
building the run time library have found many of the bugs with redirection.

There are several problems.

1) DO NOT USE Cconin/Cconout -- use Fread(0,buf,sizeof(buf))
There is a bug (as far as I can tell) in gemdos and the system bombs on redirection.

2) The read call works as follows.
a) if sizeof(buf) = 1 and the read call is to the keyboard the system will hang waiting for a character to be typed. There is no way to report an end of file. In the library I am writing I look for CNTL-Z.
b) if sizeof(buf) >1 and the read call is to the keyboard the system is doing (line at a time) input. What this means is that the Fread call inputs a line as though you were using the Cconrs system call. Note that line editing is invoked I.E. CNTL-H typed will scrub the last character entered. The returned value from Fread in this case is the COUNT of the characters in the line. This means that a blank line (typing a return) will give back a count of ZERO. soooo you must still look for a CNTL-Z from the keyboard.
c) if sizeof(buf) >1 and the read call is from a duplicated file handle -- using Fforce for instance. Then the system reads the file block at a time and a ZERO means EOF.

So, all you have to do is let your shell know which type of EOF trap to use depending on where the file is coming from. If it is truly from the keyboard ignore a ZERO and look for a special character CNTL-Z for instance. If input is from a FILE then look for ZERO instead.

Some other notes: The Cconin routines DO NOT work as advertised. Use Read instead. If you try to build an error channel you must do this.
also the micro c-shell uses the busted DRI C run time library. (I wish those guys would quit sending out toro-poo poo)
BTW will the sources for this shell be available?
Because of the problem mentioned above I have a great need.

This is my first posting. So go ahead flame me make my day

W.R.Wood

P.S. Good Luck

From 789800382397086940
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80139f62602d334e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 06:42:56 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!nike!ucbcad!
ucbvax!NCSC.ARPA!moore
From: moore@NCSC.ARPA (Moore)
Newsgroups: net.micro.atari16
Subject: 520st and rf modulator
Message-ID: <8606181342.AA05786@ncsc.ARPA>
Date: Wed, 18-Jun-86 09:42:56 EDT
Article-I.D.: ncsc.8606181342.AA05786
Posted: Wed Jun 18 09:42:56 1986
Date-Received: Sat, 21-Jun-86 12:43:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Has any more been said (officially) about all future 520ST's being supplied
with RF modulators?

jim

From -6092399945048556757
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46c8b725da0b4ea5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 08:00:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: problems with programs
Message-ID: <54600095@iuvax.UUCP>
Date: Wed, 18-Jun-86 11:00:00 EDT
Article-I.D.: iuvax.54600095
Posted: Wed Jun 18 11:00:00 1986
Date-Received: Sat, 21-Jun-86 06:57:23 EDT
References: <630@marlin.UUCP>
Lines: 20
Nf-ID: #R:marlin:-63000:iuvax:54600095:000:749
Nf-From: iuvax!franco   Jun 18 10:00:00 1986

The only piece of software in the STarter Kit that produces two mushrooms
in normal use is the mushroom analyser. Reasons for mushrooms on other
programs might be

1. the program requires the machine to be in low resolution and your
   machine is in medium or high resolution.

2. the program requires the machine to be in medium or high resolution
   and your machine is in low resolution.

3. the program requires your machine to have TOS in RAM and you have TOS in ROM

4. the program requires your machine to have TOS in ROM and you have TOS in RAM

Actually I could continue the list but you get the idea - you have to experiment a little, putting the machine in different modes, before giving up on a piece of software.

From -3987192476093893049
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a132bcea13e5511e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 08:03:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!axiom!drilex!rclex!harvard!olson
From: olson@endor.harvard.edu (Eric Olson)
Newsgroups: net.micro.atari16
Subject: Video out on 520 and 1040ST
Message-ID: <22@harvard.UUCP>
Date: Wed, 18-Jun-86 11:03:10 EDT
Article-I.D.: harvard.22
Posted: Wed Jun 18 11:03:10 1986
Date-Received: Thu, 19-Jun-86 04:23:55 EDT
Sender: news@harvard.UUCP
Reply-To: olson@endor.UUCP (Eric Olson)
Distribution: net
Organization: Aiken Comp Lab, Harvard
Lines: 23

Its my understanding, after reading all kinds of electronic and non-electronic info about the 520 and 1040ST, that:

- Initially, the 520ST had an analog RGB and non-standard hi-res B&W video out
- Future (and current) 520STs have a composite video out and an RF modulated video output.
- The 1040ST has only the analog RGB and non-standard B&W video out

I have also read one comment that seems to indicate that the 1040ST has composite video on some pin, but not brought out to a video jack.

QUESTIONS:

1) What resolution modes can be displayed through the composite video out?
2) What resolution modes can be displayed through the RF Modulated output?
3) Is there really composite video on some pin of some connector on the 1040ST?
4) Since I must have composite out for my application, what is the difference (besides cosmetic) between a 520ST upgraded to 1 Meg & 2 DS Drives versus a 1040ST with a DS external drive? Will they both run the hard disk?

Thanks muchly.

-Eric

From -7210463677526822735
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e49d9f1b0aeb4c2d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 08:22:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!nike!ucbcad!
ucbvax!hplabs!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Summer 1986 START magazine TOC
Message-ID: <1131@trwrb.UUCP>
Date: Wed, 18-Jun-86 11:22:09 EDT
Article-I.D.: trwrb.1131
Posted: Wed Jun 18 11:22:09 1986
Date-Received: Sat, 21-Jun-86 09:41:33 EDT
References: <1360@ihuxi.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 34

In article <1360@ihuxi.UUCP> store2@ihuxi.UUCP writes:
>
>   *****[Ignore header path]*****
>
>   START Vol 1, Number 1 (Summer 1986)
>

    (descriptions of various articles)

>
>Comments: The magazine is designed for experienced computer users who
>   own the ST computer. It contains high-end information that
>   requires a good grounding in computer fundamentals and practices.
>   The articles do not include program listings that you can type in.
>   They are all included on a disk that comes bound in the magazine
>   if you buy the $14.95 version or that can be bought separately if
>   you just buy the $4 magazine. This is the only issue of the
>   magazine I plan to submit to the net. If another user wants to
>   do so, feel free.
>
>   Kit Kimes
>   AT&T--Information Systems Labs
>   1100 E. Warrenville Rd.
>   Naperville, IL 60566
>   ...ihnp4!iwvae!kimes

O.k. Kit, how can we get a subscription to this magazine? It sounds
great!

--
Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From 1724914128825663520
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1ebafbff078d5ddb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 08:27:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!uwvax!uwmacc!
oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16
Subject: Third-party drive query
Message-ID: <2@uwmacc.UUCP>
Date: Wed, 18-Jun-86 11:27:38 EDT
Article-I.D.: uwmacc.2
Posted: Wed Jun 18 11:27:38 1986
Date-Received: Sat, 21-Jun-86 07:12:01 EDT
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 14

References:

<>

   Does anybody have any experience with third-party 3.5" double-sided
diskette drives? I'm most interested in the Shanner SD-2000 (advertised
in Antic magazine), which sells two for approximately the price of one
"official" drive. Any comments (good, bad, indifferent) would be
appreciated.
   I'd also be interested in any hard disk news-- has the disk driver
had the bugs shaken out of it yet, what do they cost, etc.
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: uwvax!uwmacc!oyster@rsch.wisc.edu

From -3344581134304210257
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91dab69940435b0
X-Google-Attributes: gid140593,public
X-Google-Thread: 12c767,91dab69940435b0
X-Google-Attributes: gid12c767,public

X-Google-ArrivalTime: 1986-06-18 08:29:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
mcvax!unido!ab
From: ab@unido.UUCP (Andreas Bormann)
Newsgroups: net.games.hack,net.micro.atari16
Subject: Re: Hack 1.0.3 for Atari ST
Message-ID: <162@unido.UUCP>
Date: Wed, 18-Jun-86 11:29:17 EDT
Article-I.D.: unido.162
Posted: Wed Jun 18 11:29:17 1986
Date-Received: Sat, 21-Jun-86 09:50:30 EDT
References: <161@unido.UUCP>
Organization: University of Dortmund
Lines: 29
Xref: watmath net.games.hack:2021 net.micro.atari16:1075

<Instead of responding to each single letter, I received...>

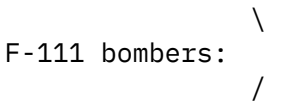
So far I got 25 responses from netters who are interested in Hack for
the Atari ST. A lot of them suggested to post an uuencoded binary to the
net. But I am not sure to do so because the binary with support files
is about 300kb in size, and compressed and uuencoded it will still be
around 200kb. But if there is more interest (let's say 100 netters) and
no one against it, I tend to post the binary. Otherwise I will distribute
it via diskettes.

If I decide to post: where should I do it? Could it be net.sources.games
or net.micro.atari16 or what else? And is there a maximum for article
size so that I have to split it into parts?

I do not intend to distribute the source since it is compiler dependent
(Lattice) and I used some include files from BSD.

    Andreas Bormann
    University of Dortmund [UniDo]
    West Germany

Uucp: ab@unido.uucp
Path: {USA}!seismo!{mcvax}!unido!ab
    {Europe}!{cernvax,diku,enea,ircam,mcvax,prlb2,tuvie,ukc}!unido!ab
Bitnet: ab@unido.bitnet (== ab@ddoinf6.bitnet)



From -2171686216068485155
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a80df90066249084,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 08:49:33 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!drune.UUCP!rwb
From: rwb@drune.UUCP
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8606181549.AA29386@ulysses.UUCP>
Date: Wed, 18-Jun-86 11:49:33 EDT
Article-I.D.: ulysses.8606181549.AA29386
Posted: Wed Jun 18 11:49:33 1986
Date-Received: Fri, 20-Jun-86 02:49:45 EDT
Sender: jason@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Greetings,

Are you still keeping a library of public domain ST software and if so do you have PC HACK yet? I have it running on my ST (compiled under Lattice C) and am willing to distribute it. Since the game diskette is full and the sources use 2 more diskettes, I am not enthusiastic about sending it on USENET. Please reply if you are interested.

Rodney Black
AT&T Infomation Systems
11900 North Pecos St.
Denver, CO 80234
(303) 538-3608
drune!rwb

From -8866851820855397249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2bfb1d10dc498769,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 09:09:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: How to compile PC Hack
Message-ID: <128@druxu.UUCP>
Date: Wed, 18-Jun-86 12:09:17 EDT
Article-I.D.: druxu.128
Posted: Wed Jun 18 12:09:17 1986
Date-Received: Fri, 20-Jun-86 01:29:13 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 63
Keywords: PC Hack, Lattice C

I, too, have been able to get PC HACK to compile and run on the 520/1040 ST computers. As the .ttp file is 270K bytes, I am not enthusiastic about posting it to the net and am looking for alternate ways of

distributing it.

Until that is accomplished, here is one way to compile and link it. I used the Lattice C compiler on a 1 Meg system with one single sided drive.

To compile: create a 512K RAM disk and copy to it the following files:

* the compiler (lc.ttp, lc1.ttp, lc2.ttp)
* compiler header files (stdio.h, setjmp.h, osbind.h)
* PC HACK header files (*.h) in a folder (call it headers.fld)
* the source file (*.c), four at a time (compile four, copy the .bin files, remove both .c and .bin files, copy four more, etc)
* an editor (if needed)

I found that the sources used most of two disks. Furthermore, the .bin files used something more than 1 disk. Consequently, the strategy is to copy a .c file to the RAM disk, compile it, copy the .bin file to another disk, and erase the .c and .bin from the RAM disk. The command to the compiler I used is (leave off lc if invoking lc from the desktop):

```
lc -n -iheaders.fld\ <file>
```

Pack as many .bin files on a disk as possible. I found that all files alphabetically before u_init.bin fit on one disk. The total time to compile all files without having to edit to correct problems was around 2 hours.

To link: after you have generated two disks containing .bin files, you are ready to link. Create a file called hack.lnk containing the linker directives. It should be modelled after c.lnk, but expand the body to include all the .bin files you compiled above (instead of taking the command line). Here the strategy is to copy the first disk of .bin files (the one that is full) to the RAM disk and place the second disk on the drive, writting the .ttp file to the drive; thus, each .bin file on the second disk should be referenced in the .lnk file as b:name.bin. Resize the RAM disk to 435K (this is the smallest I could make it and still fit everything on it, leaving the rest of the RAM for the linker). Copy to the RAM disk the following:

* the linker (link.ttp)
* the libraries (clib.bin and startup.lib)
* the all the .bin files from the first disk
* the hack.lnk file

Run the linker with the following command line (leave off link if invoked from the desktop):

```
link -with hack -nolist -prog b:hack.ttp
```

After 15 minutes (if all has gone well), you should have an executable file on drive b.

WARNING: the source files will not compile (nor will the .ttp file run) without modifications. In particular, the files have to be adapted for the Lattice C compiler and for the Atari terminal emulator. Furthermore, there are problems with the compiler (e.g. the strncpy library routine has a problem, the compiler generates some code that can't handle certain pointer arithmetic properly, etc.). I will shortly post a list of problems I have discovered. If you start with the MS-DOS

version, be prepared to spend considerable time in just getting the
compiler and linker to work and then in debugging the code.

Rodney Black
AT&T Information Systems
Denver, CO 80234
druxu!rwb

From 8818040844242987685
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,268f673f81daeaf7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-18 18:53:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!harvard!
seismo!mcvax!ukc!warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: CP/M emulator - a query
Message-ID: <543@snow.warwick.UUCP>
Date: Wed, 18-Jun-86 21:53:55 EDT
Article-I.D.: snow.543
Posted: Wed Jun 18 21:53:55 1986
Date-Received: Sat, 21-Jun-86 10:21:25 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 36

[A> <sigh>]

Hi,

An important question, this one. (quick answers appreciated)

Recently, I have picked up a copy of the PD CP/M emulator package (in
this case the `enhanced' package from Mikes Computer Store). In order
to work, the 3.5" disks must be formatted from TOS, then a program INIT
run from CP/M to make them usable. The problem is this:

a) The program INIT if run from drive A: as `INIT A:' will try to write
   to the utilities disk (bad idea I think)
b) I only have a single disk drive, and it does not prompt for swapping
   if I give it `INIT B:'
c) I have a few ramdisks, but none seem to be `INIT'able with eg.
   `INIT D:'

From the above, I am unable to init any disks, and can't even backup
the supplied utils disk. Therefore the emulator is useless.

Please help, What am I missing?

Any help appreciated.

Cheers,

--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From 2320730342756995689
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,a80df90066249084
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 07:37:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!princeton!allegra!ulysses!ucbvax!
DTIX.ARPA!norm
From: norm@DTIX.ARPA (Norman)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8606191437.AA03639@dtix.ARPA>
Date: Thu, 19-Jun-86 10:37:11 EDT
Article-I.D.: dtix.8606191437.AA03639
Posted: Thu Jun 19 10:37:11 1986
Date-Received: Sun, 22-Jun-86 12:15:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 4135809312954810017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,52efd48923a4be2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 07:59:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!nike!ucbcad!
ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: Re: Piano program for the ST
Message-ID: <8606191925.AA09952@ucbvax.Berkeley.EDU>
Date: Thu, 19-Jun-86 10:59:00 EDT
Article-I.D.: ucbvax.8606191925.AA09952
Posted: Thu Jun 19 10:59:00 1986
Date-Received: Sat, 21-Jun-86 12:41:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 38

Date: 19 June 1986, 09:58:52 EST
From: Ton van Overbeek   +31 1719 83041   TPC862   at ESTEC
To: INFO-ATARI16 at SU-SCORE.ARPA
Subject: Re: Piano program for the ST

In the PIANO shell archive we received from info-atari16 the
piano.uue file was damaged. There were lines longer than 61 characters
and two lines were garbage. Below you will find a listing of the
problematic part. I added the line numbers.

```
00001 begin 777 PIANO.PRG
00002 M8!H  %+"   -C   /J8                  "I/*FT !"/-  !@3B M  S0
00003 MK0 4T*T '-"\   % "( THW"O/____XN02\ +PU"9S\\ $I.0=_\    #"!Y
      .....
00490 M6@(  %H+  !:%   6AT  %HF  !:+P  6C@  %I   !:10  6DH  %I3  !:
00491 M7   6F4  %IN  !:=P  6H   %J)  !:D@  6IL  %JD  !:K0  6K8  %J_
00492 M  !:R   6M$   $  @ #  0 !0 &  4 "  !  @ "P $  T @ "!      #WE
      Note: line 492 is one character too long
      Lines 493 and 494 are garbage
      From line 495 (my linenumber, maybe higher or lower in reality)
      everything looks fine again
00495 M#  -  X #P"  ($ @0"! ((P $Q/040  %-!5D4  $-/4%D  %!,05D  $5$
00496 M250                              (  @ "  (            "
      .....
```

Could somebody please Email to me the correction for these lines,
or a complete piano.uue. The other files were OK.
Thanks in advance.

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       ...!ucbvax!tpc862@estec.bitnet   (USENET/UUCP)
       TPC862@ESTEC   (EARN/BITNET)

From 3053062683618756719
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,18f66783efe0cada,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 09:14:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: Problems with Lattice C and PC HACK

Message-ID: <129@druxu.UUCP>
Date: Thu, 19-Jun-86 12:14:23 EDT
Article-I.D.: druxu.129
Posted: Thu Jun 19 12:14:23 1986
Date-Received: Sat, 21-Jun-86 07:32:05 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 86
Keywords: Lattice C, bugs, PC HACK

<is there still a line eater?>
As promised, here are the problems I have encounterd in compiling PC HACK with the Lattice C compiler, that I attribute to the Lattice package. Though I will mention them in the context of PC HACK, other Lattice C users may recognize the symptoms in things they have done.

1) max() is #define'd in a header file (#define max(a,b) (a<b ? b: a)). In one function, it was used as a formal parameter (function(..,max,..)). The compiler didn't like the formal parameter. Solution: change the name of the formal parameter.

2) one function declared 7 formal parameters, all with a register storage class. The second pass of the compiler died with a CXERR message and no indication of where. Solution: remove the register storage class specifier (I suspect that the compiler has an internal limit of 5 or 6 register storage class formal parameters).

3) the linker saw all symbols as upper case letters (e.g. monname() and Monname() were both seen as MONNAME by the linker, and it complained about a multiply defined symbol). Solution: change the name of one function in the source (be sure to also change all references to it).

4) some files would not link. The linker complained about an "error in relocatable file". In the process of breaking the unlinkable files into pieces, to find what was wrong, I discovered that each piece would link. One would think that the compiler was running out of memory; however, I could find no relationship between file size and ability to link. The largest file failed to link, but it also failed to link after it was broken into three pieces, with each piece being small to medium sized. Furthermore, the second largest file linked with no problems, but smaller files would not. Solution: modularize. Break your files into small units and be careful about how variables are shared between files.

5) some messages sent to the screen were incomplete. The strncpy library routine ALWAYS places a null character ('\0') at the end of the copied string. The standard UNIX(r) routine places a null at the end of a string only if one is found in the source string before the specified number of bytes is copied. Solution: write a different strncpy routine.

6) address error bombs when reading or writing "bones" files to or from the RAM disk (I lied. I don't think this is a Lattice problem, because I had the same problem when using GEMDOS disk read and write calls). The mushroom (cherry bomb?) analyzer told me the bad instruction was a

MOV.W (A0),(A1) and one of the registers was an odd address. The source code I had for a RAM disk had no MOV.W instructions (all MOV.B), so I couldn't identify the culprit. I tried the similar code in a small program and everything worked fine. I eventually figured out that the error occured when writing (reading) the second sector of a file when the first sector was several even number of byte writes (reads), a single byte write (read), then a large write (read) of several thousand bytes. Solution: be sure an even number of bytes are written (read) in each read or write call.

7) bus error bombs when writing or reading the "bones" files (those files gave me a lot of trouble). This one was traced to something the compiler is doing. Here is what the variable declaration looked like:

```
struct permonst mons[]={
     some initializations
}
struct permonst pm_ghost={ initialization};
```

Later, a pointer was set to &pm_ghost and &mons was subtracted from it, yielding the index of pm_ghost in the mons array (even though it wasn't in the array). The result should have been 0x39, but it was 0x60039. The linker map showed that pm_ghost was 0x39*sizeof(permonst) bytes away from mons[0]. Solution: fold pm_ghost and similar structures into the mons array of structures. I haven't looked at the code generated, but it appears the compiler is performing array bounds checking.

8) "record" files (containing the scores from previous games) gets garbage. This has been traced to the scanf() library routine, but it isn't consistent. Sometimes the scores will be read fine and later, one won't (even if it was read fine earlier). Solution: other than write my own scanf, I haven't found one.

Conclusions: as most software developers know, after you see the problem, the solution is frequently obvious. I found it very difficult to find some of these problems because I didn't write the source and because it is so large. So, I am posting these notes in hopes someone else will be spared some effort.

Rodney Black
AT&T Information Systems
Denver, CO.
...!druxu!rwb

From 8337854569481329957
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,46c8b725da0b4ea5
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 10:09:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!harvard!uwvax!
uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)

Newsgroups: net.micro.atari16
Subject: Re: problems with programs
Message-ID: <7@uwmacc.UUCP>
Date: Thu, 19-Jun-86 13:09:50 EDT
Article-I.D.: uwmacc.7
Posted: Thu Jun 19 13:09:50 1986
Date-Received: Sat, 21-Jun-86 12:45:03 EDT
References: <860616-081851-1400@Xerox>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 28

In article <860616-081851-1400@Xerox> JDavidson.WBST@XEROX.COM writes:
>
>   The fault lies not with your machine or even you. The two bombs
>indicate that the problem is a bus error. What it means is that the
>program you are trying to run expects TOS in RAM not ROM.

I have a question that I think might be related to this...

I am trying to do some things with the BIOS and XBIOS using an assembler.
Specifically, I am trying to monkey around with the screen resolution and
physical/logical screen addressing.

As far as I can tell, I am doing nothing wrong - yet the program results
in a double bomb and hangs the system. I have GEMDOS in ROM --- could the
above explanation be the culprit? (I'll try booting with GEMDOS in RAM
and see if I get the same error.) If this is the culprit, it bites the
big one...anyone know any way around it?

--
                            --- Rob DeMillo
                                Madison Academic Computer Center
                                ...seismo!uwvax!uwmacc!demillo

          "If you can't trust wimp lawyers anymore,
                 who can you trust...?"
                        -- Mildred Krebs

From 8196307242530804552
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a132bcea13e5511e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 10:14:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!nike!lll-crg!
lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Video out on 520 and 1040ST

Message-ID: <360@atari.UUcp>
Date: Thu, 19-Jun-86 13:14:51 EDT
Article-I.D.: atari.360
Posted: Thu Jun 19 13:14:51 1986
Date-Received: Sat, 21-Jun-86 10:31:19 EDT
References: <22@harvard.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 35

In article <22@harvard.UUCP>, olson@endor.harvard.edu (Eric Olson) writes:
>
> 1) What resolution modes can be displayed through the composite video out?
> 2) What resolution modes can be displayed through the RF Modulated output?

The answer to both is the same: both low and medium resolution will be
displayed through the composite, Rf, and RGB outputs. Unless you have a
wonderful TV set, picture quality of Rf in medium resolution is not too
great (TV's don't have enough bandwidth).

> 3) Is there really composite video on some pin of some connector on the 1040
ST?

No.

> 4) Since I must have composite out for my application, what is the
> difference (besides cosmetic) between a 520ST upgraded to 1 Meg & 2 DS
> Drives versus a 1040ST with a DS external drive? Will they both run the
> hard disk?

They are the same! Both will run the hard disk.
--

--->Neil @ Atari

...lll-crg!vecpyr!atari!neil   or ...lll-lcc!vecpyr!atari!neil

BIX: neilharris   CIS: 70007,1135   Delphi: NEILHARRIS
GENIE: nharris   WELL: neil   Atari Corp. BBS 408-745-5308

US Mail: Atari Corp.
         1196 Borregas Ave.
         Sunnyvale, CA 94086

"I'm a 20th century man but I don't want to die here." -- Ray Davies

From -435769149369559252
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7581810e05e31f7d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 13:02:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: Re: WILL A FLOATING-POINT-COPROCESSOR OPTION EVER HAPPEN ??
Message-ID: <8606192002.AA28286@ee.purdue.edu>
Date: Thu, 19-Jun-86 16:02:55 EDT
Article-I.D.: ee.8606192002.AA28286
Posted: Thu Jun 19 16:02:55 1986
Date-Received: Sat, 21-Jun-86 13:27:01 EDT
References: <353@atari.UUcp>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Please do get more info on the "TT" Neil! If it's possible I'd like to know
when it may be available (late this year, early or late next year?) as I am
considering another system which will suport UNIX...

Also any other juicey facts (specs, flavour of UNIX (Sys V, BSD, etc)) would
be greatly appreciated!!

--ddm

From 8730494598160454231
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9667d695199f9f14
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 13:08:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!nike!lll-crg!seismo!
cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Re: disk drive problem
Message-ID: <1094@unmvax.UUCP>
Date: Thu, 19-Jun-86 16:08:46 EDT
Article-I.D.: unmvax.1094
Posted: Thu Jun 19 16:08:46 1986
Date-Received: Sat, 21-Jun-86 12:07:39 EDT
References: <8606101825.AA06479@ucbvax.Berkeley.EDU>
Organization: Univ. of New Mexico, Albuquerque
Lines: 12

>
>   I've been having trouble with my ST disk drive recently. The problem
> is that it would read fine, but cause the system to lock up anytime a write is
> tried. The system boots up and reads disks (and writes to the ram disk) fine,
> but if I try to write to a disk, the drive activity light lights up, the drive
> spins, and then the screen goes white.

     I had exactly the same problem - mine was caused by bad

seating of the big square custom chips - the graphics chip and the mmu.
I've noticed that Atari is now using clips on these chips carriers. My
earlier machine had no chips. Try to be sure those chips are well seated
in their carriers.

From 66829250980526833
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c462279a1e6ba5bd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 13:19:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!JULIET.CALTECH.EDU!kegel
From: kegel@JULIET.CALTECH.EDU (Dan R. Kegel)
Newsgroups: net.micro.atari16
Subject: The compute box
Message-ID: <860619131916.00g@Juliet.Caltech.Edu>
Date: Thu, 19-Jun-86 16:19:16 EDT
Article-I.D.: Juliet.860619131916.00g
Posted: Thu Jun 19 16:19:16 1986
Date-Received: Sat, 21-Jun-86 13:31:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Neil has spoken:
> The new thingamajig will be real fast, have its own memory, but
> will use a current-model ST for I/O, via the DMA port.
> Please don't ask me any more questions.
All right; I'll just flame a little bit.
1. Won't using the DMA port for graphics I/O conflict with, or at least
   slow to a crawl, hard disk I/O? Or will the box have its own SCSI port
   for a hard disk?
2. Atari seems to be targeting this thing for compute-intensive, but
   graphics and I/O -nonintensive applications. Do such applications
   really exist? I was under the impression that the attraction of 68000-
   based micros like the ST was their ability to manipulate graphics
   with ease; for other purposes, you may as well get an IBM clone.
   At any rate, I have an insatiable hunger for fast graphics, as my
   interests are mainly in affordable data analysis and CAD workstations.
   (And for that reason, I can't use the ST; its resolution in color mode
    is simply too poor. Atari is being left in the dust in that regard
    by the wave of 16-color, 350 line graphics that is taking over the
    IBM world.)
- Dan (kegel@juliet.caltech.edu, kegel@citjulie.bitnet)

From -1880727393448123880
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8807c3c39556d8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 13:24:28 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!utcs!mnetor!yetti!mike
From: mike@yetti.UUCP
Newsgroups: net.micro.atari16
Subject: Laser Printers with ATARI 1040 ?
Message-ID: <383@yetti.UUCP>
Date: Thu, 19-Jun-86 16:24:28 EDT
Article-I.D.: yetti.383
Posted: Thu Jun 19 16:24:28 1986
Date-Received: Thu, 19-Jun-86 20:20:25 EDT
Reply-To: mike@yetti.UUCP (Mike Clarkson)
Organization: York University Computer Science
Lines: 21

Has anyone managed to hook up a 1040 ST with a laser printer in any
way shape or form? Perhaps 1st Word printing in Epson mode through
the parallel port to one of the cheaper laser printers that take
Epson code? If so, please mail me any comments on your results and
experiences, and I'll summarize to the net.

Any news on the possibilty of an ATARI laser-printer (Neil?)?
If so, any ideas on how it would be connected, and what software
it might work with?

--
Mike Clarkson,   ...!allegra \   BITNET:
     mike@YUYETTI or
CRESS, York University,   ...!decvax   \   SYMALG@YUSOL
4700 Keele Street,   ...!ihnp4   > !utzoo!yetti!mike
North York, Ontario,   ...!linus   /
CANADA M3J 1P3.   ...!watmath /   Phone: +1 (416) 737-2100 x 7767

"...the most inevitable business communications system on the planet."
                            - ROLM magazine advertisement
 which planet?

From -7605325656479191397
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c99a8cbf9e60655
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 15:33:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!trwrb.UUCP!sansom
From: sansom@trwrb.UUCP (Richard Sansom)
Newsgroups: net.micro.atari16
Subject: Re: Are all kermits public domain?
Message-ID: <8606192233.AA27671@trwrb.UUCP>
Date: Thu, 19-Jun-86 18:33:13 EDT
Article-I.D.: trwrb.8606192233.AA27671

Posted: Thu Jun 19 18:33:13 1986
Date-Received: Sat, 21-Jun-86 12:17:19 EDT
References: <1984@dalcs.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

With regard to the question about Kermit being in the public domain,
the following lines are from the official Columbia University Kermit
distribution package:

> "Kermit is a voluntary effort. Although the Kermit protocol was
> designed by us at Columbia and many of the Kermit programs were
> written by us, the majority of programs were contributed from
> elsewhere..."
>
> "The software, sources, and documentation remain free. Kermit is
> distributed in this manner with the understanding that it will
> never be sold as a product per se. This is done in the hope that
> use of Kermit will become widespread enough to make communications
> between any two computers a real possibility rather than a pipedream."
>
> "Kermit is non-proprietary, thoroughly documented, and in wide use."

Does this help you any? If not, then I would say (in my opinion)
that the version of Kermit supplied with the developer's kit is very
close (if not identical) to the sample Kermit program supplied in the
back of the Kermit protocol manual (written in C). If this is the
case, then it _is_ in the public domain.

Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From -1970597964285605628
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a06defb8b70887b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 16:13:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: Is there a memory manager for the ST?
Message-ID: <1985@dalcs.UUCP>
Date: Thu, 19-Jun-86 19:13:41 EDT
Article-I.D.: dalcs.1985
Posted: Thu Jun 19 19:13:41 1986
Date-Received: Fri, 20-Jun-86 01:31:43 EDT
Distribution: net
Organization: Marine Ecology Lab.

Lines: 6

I've been reading ads for memory managers for PC's which let you load
and unload accessories from the desktop. Is there anything like that
for the ST, so that you can load *.ACC files as needed or get rid of
them if you need the memory? It seems one has to reboot to change
accessories, which is a pain, and a lot of people seem to be writing
useful programs as accessories instead of loadable programs.

From -7882741121886596298
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f660195fab1f4b4f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 19:21:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!jmlang
From: jmlang@water.UUCP (Jerome Lang)
Newsgroups: net.micro.atari16
Subject: Scientific calculator posted in net.sources
Message-ID: <439@water.UUCP>
Date: Thu, 19-Jun-86 22:21:22 EDT
Article-I.D.: water.439
Posted: Thu Jun 19 22:21:22 1986
Date-Received: Fri, 20-Jun-86 04:38:18 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 13

I just posted a scientific calculator program on net.sources
It can be compiled either as a stand-alone program or as a desk
accessory (through a #define). Source is provided and the binary
for the desk accessory version. It still has some rough edges but
is useful enough for me to use it :-)

Hope you like it.

--
Je'ro^me M. Lang || jmlang@water.uucp
Dept of Applied Math || jmlang%water@waterloo.csnet
U of Waterloo || jmlang%water%waterloo.csnet@csnet-relay.arpa

From 4883590537886452287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c90636fd50ed2ce,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 20:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!ut-sally!seismo!
mcvax!unido!coma!axel

From: axel@coma.UUCP
Newsgroups: net.micro.atari16
Subject: GEM-Kermit now available
Message-ID: <600009@coma.UUCP>
Date: Thu, 19-Jun-86 23:01:00 EDT
Article-I.D.: coma.600009
Posted: Thu Jun 19 23:01:00 1986
Date-Received: Sat, 28-Jun-86 01:04:06 EDT
Sender: notes@unido.UUCP
Lines: 29
Nf-ID: #N:coma:600009:000:1136
Nf-From: coma!axel   Jun 20 04:01:00 1986

GEM-Kermit for ATARI ST

I'm posting the GEM-Kermit, an implementation of the kermit file-transfer protocol, which makes use of the GEM-capabilities to present a friendlier user-interface than "the other" kermit. Besides of that, GEM-Kermit can interact with IBM mainframes, a skill which the dev.-kit kermit lacks.

GEM-Kermit was implemented by Bernhard Nebel of Technical University Berlin, W-Germany. For comments, gripes, suggestions or complaints please contact HIM (nebel@db0tui11.bitnet). I'm only a poor irresponsible person, who posts GEM-Kermit to netland because Bernhard has no direct access to usenet.

GEM-Kermit comes in 6 Parts. The first two consist mainly of the uuencoded executables, the rest is source.
Part 2, the uuencoded GEM-Kermit, is the biggest (about 62K). I hope it will get through to all interested sites. I'm not sure whether 60K is one of the magic limits in netland. Let me know, if trouble arises.

I'll post the whole cludge to net.micro.at16. If somebody thinks it should also be posted to net.sources - let me know (why).

cheers, axel@coma.uucp

(Axel Mahler, Tech.Univ.-Berlin)

From -3159138837737306368
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 14bc6d,7ca7dda00936a123,start
X-Google-Attributes: gid14bc6d,public
X-Google-Thread: 140593,7ca7dda00936a123,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-19 20:32:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!think!nike!styx!lll-crg!lll-lcc!well!wvucenic

From: wvucenic@well.UUCP (Wayne Vucenic)
Newsgroups: net.micro.atari16,net.lang.lisp
Subject: Wanted: XLISP 1.6 for ST
Message-ID: <1309@well.UUCP>
Date: Thu, 19-Jun-86 23:32:51 EDT
Article-I.D.: well.1309
Posted: Thu Jun 19 23:32:51 1986
Date-Received: Sat, 21-Jun-86 12:01:02 EDT
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 12
Keywords: lisp
Xref: watmath net.micro.atari16:1083 net.lang.lisp:885

Does anyone know where I can obtain the C source to XLISP 1.6 (or later)
for the Atari ST?

As my only network connection is at 1200 baud across a 60 mile phone
call (rather expensive), it'd be really great if I could send someone
a floppy and return postage for the source.

Thanks for any help.
==========
Wayne Vucenic
...{ucbvax, ihnp4, allegra, decvax}!hplabs!well!wvucenic
==========

From 4398914352086003638
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7467c89d9446e2df,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 01:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!harvard!cmcl2!
acf8!schwrtze
From: schwrtze@acf8.UUCP (E. Schwartz group)
Newsgroups: net.micro.atari16
Subject: help on font loader
Message-ID: <12420001@acf8.UUCP>
Date: Fri, 20-Jun-86 04:07:00 EDT
Article-I.D.: acf8.12420001
Posted: Fri Jun 20 04:07:00 1986
Date-Received: Sun, 22-Jun-86 03:28:35 EDT
Organization: New York University
Lines: 17

Hi,
     I have just uudecoded the fontloader program and associated
fonts. The font.acc installs o.k. and comes up when selected. After
I select a font, the systems looks like it reboots, and the desktop
comes up as normal. I have a 1040STf (i.e., TOS in ROM). Any info
would be appreciated.

Wesley Kaplow

ARPA: wesley@nyu-alaya.arpa

AT&T: (212)982-3926

POST: 88 Bleecker St.
      New York, N. Y. 10012-1514 APT:6M

From -1634892040933119300
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b7b7c1cc65b9773,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 05:16:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!tarvydas
From: tarvydas@utcsri.UUCP (Paul Tarvydas)
Newsgroups: net.micro.atari16
Subject: wanted: Alcyon .o spec
Message-ID: <3003@utcsri.UUCP>
Date: Fri, 20-Jun-86 08:16:53 EDT
Article-I.D.: utcsri.3003
Posted: Fri Jun 20 08:16:53 1986
Date-Received: Fri, 20-Jun-86 08:19:02 EDT
Distribution: net
Organization: CSRI, University of Toronto
Lines: 9

Does anybody have the spec for the object file format (.o)
which is used by the developer's kit linker or have a guess
as to what I'll find there when I (hex) dump a .o file?
Is the Alcyon format significantly different from that used
by the linkers of other compilers?

thanx
Paul Tarvydas
...{ihnp4...}!utcsri!tarvydas

From -7294851685406643021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c99a8cbf9e60655
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 07:32:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site moncol.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!hjuxa!petsd!moncol!john
From: john@moncol.UUCP (John Ruschmeyer)
Newsgroups: net.micro.atari16

Subject: Re: Are all kermits public domain?
Message-ID: <242@moncol.UUCP>
Date: Fri, 20-Jun-86 10:32:09 EDT
Article-I.D.: moncol.242
Posted: Fri Jun 20 10:32:09 1986
Date-Received: Sat, 21-Jun-86 10:57:12 EDT
References: <1984@dalcs.UUCP>
Reply-To: john@moncol.UUCP (John Ruschmeyer)
Distribution: net
Organization: Monmouth College, W. Long Branch, NJ
Lines: 60

In article <1984@dalcs.UUCP> silvert@dalcs.UUCP (Bill Silvert) writes:
>There is some confusion here about whether the kermit in the developer's
>kit is in the public domain. The manual seems to say it is (right on
>the title page), but we would like to make sure before passing it on to
>anyone else.

The following is quoted from the material distributed with the KERMIT
distribution from Columbia University:

------------------------------start of quote---------------------------------

Although KERMIT is free and available to anyone who requests it, it is not in
the "public domain". The protocol, the manuals, the Columbia implementations,
and many of the contributed implementations bear copyright notices dated 1981
or later, and include a legend like

  Copyright (C) 1985, Trustees of Columbia University in the City of New York.
  Permission is granted to any individual or institution to use, copy, or
  redistribute this software so long as it is not sold for profit, provided
  this copyright notice is retained.

The copyright notice is to protect KERMIT, Columbia University, and the
various contributors from having their work usurped by others and sold as a
product. In addition, the covering letter which we include with a KERMIT tape
states that KERMIT can be passed along to others; "we ask only that profit not
be your goal, credit be given where it is due, and that new material be sent
back to us so that we can maintain a definitive and comprehensive set of KERMIT
implementations".

------------------------------- end of quote --------------------------------

The document goes on to mention that you can do thing things like include
KERMIT support in a commercial package, but it doesn't seem like that
applies in this case.

In short, there should be no problem as long you don't make money on it.

>To avert any flames about the superiority of xmodem -- some of us work
>on Unix mainframes that support kermit but not xmodem, and would like to
>use SOMETHING for errorfree downloading from the net.

The major advantages to XMODEM are a)that it is more likely to be supported by a given system and b)that on any given file it tends to be faster than KERMIT. The increased speed is due to larger packet size (128 vs 94 bytes), less packet overhead, and the lack of character encoding (which is why an 8-bit data path is needed).

Actually, however, XMODEM is in many ways inferior to KERMIT, just more supported in the real world. In particular, XMODEM transfers require an 8-bit data path (no parity) and make no provision for sending batches of files. (The latter problem is addressed by XMODEM-based protocols such as MODEM7, TELELINK, YMODEM, and ZMODEM.) Further, KERMIT can be implemented on many machines (such as IBM mainframes) where KERMIT could never be implemented.

BTW, there are implementations of XMODEM available which do run under UNIX. Check net.sources and mod.sources for programs named UMODEM and rz/sz (or rb/sb).

From 2893190726445628332
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95169168c8cce787,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-20 11:39:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!PAVEPAWS.BERKELEY.EDU!dillon
From: dillon@PAVEPAWS.BERKELEY.EDU (Matt Dillon)
Newsgroups: net.micro.atari16
Subject: Question on processor expansion
Message-ID: <8606201839.AA06129@pavepaws>
Date: Fri, 20-Jun-86 14:39:35 EDT
Article-I.D.: pavepaws.8606201839.AA06129
Posted: Fri Jun 20 14:39:35 1986
Date-Received: Sat, 21-Jun-86 13:35:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of California at Berkeley
Lines: 5

Anybody know if it's possible to upgrade the ST's 68000 to a 68010 or 68020?

-Matt

From 3842071656386923644
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e004c3b963f37974,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 14:10:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpf!rtb
From: rtb@ihlpf.UUCP (Todd)
Newsgroups: net.micro.atari16
Subject: Cleaning disk heads
Message-ID: <506@ihlpf.UUCP>
Date: Wed, 28-May-86 17:10:35 EDT
Article-I.D.: ihlpf.506
Posted: Wed May 28 17:10:35 1986
Date-Received: Fri, 30-May-86 05:47:23 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 14

After owning an ST since last August, I have come to the conclusion
that it is time to clean the disk heads (my most-used drive is
becoming unreliable). Does anyone out there have any recommendations
on cleaning kits or techniques? When I owned my 5 1/4" drive computer
I used the Verbatim cleaning kit. I realized that it may be abrasive,
but it doesn't make any difference if I only clean the heads every 6
months anyway. I have an aversion to the cotton swab and alcohol
technique due to the fact due to the fact that I once caused a lot
of trouble with my pressure pad (in a 5 1/4" drive). I'm open
to any suggestions. If I find a good answer I'll post it to the net.

Thanks,
R.T. Bradstrum

From 5598340708571469040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,780cc792bc502c1b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 17:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!YUSOL.BITNET!CS112170
From: CS112170@YUSOL.BITNET
Newsgroups: net.micro.atari16
Subject: ProGEM
Message-ID: <8605300832.AA05713@ucbvax.Berkeley.EDU>
Date: Wed, 28-May-86 20:58:00 EDT
Article-I.D.: ucbvax.8605300832.AA05713
Posted: Wed May 28 20:58:00 1986
Date-Received: Sat, 31-May-86 06:57:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Is there anyone on BITNET who has the earlier releases of the file
called ProGEM ?? If you have them, and are willing to send them to me,
leave me mail at CS112170@YUSOL.bitnet

Note, if there's anyone through the gateways that's willing to do it,
please send mal as well.
          (^^-- mail)

Thanks in advance.

Dave Pullara
CS112170@YUSOL.bitnet

From 3647551303014271109
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 22:47:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
qantel!lll-lcc!unisoft!fnf
From: fnf@unisoft.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Unix for 520st? Please let it be!
Message-ID: <69@unisoft.UUCP>
Date: Thu, 29-May-86 01:47:33 EDT
Article-I.D.: unisoft.69
Posted: Thu May 29 01:47:33 1986
Date-Received: Sat, 31-May-86 05:17:22 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP> <560@pucc.BITNET>
<3479@ukma.UUCP> <1101@ellie.UUCP>
Reply-To: fnf@unisoft.UUCP (Fred Fish)
Distribution: net
Organization: UniSoft Systems; Berkeley, CA
Lines: 19

In article <1101@ellie.UUCP> mesches@ellie.UUCP (Scott Mesches) writes:
>
>I origionally bought my 520st cause I was told AT&T was porting UNIX to it.

Wasn't this discussed to death months ago? Didn't it turn out that what
actually happened is that AT&T announced they were looking at using the
520 as a *terminal* for a Unix system and the news got rather distorted?

I doubt you will ever see a working, reliable Unix for the *current* offerings
from either Atari or Commodore. The disadvantages of running Unix as a
general purpose OS without memory protection are just too great. Though of
course an ST running a Unix derived kernel and fully debugged, well-behaved
"canned" applications is certainly doable, the question is, is it worth
it?

==
Fred Fish   UniSoft Systems Inc, 739 Allston Way, Berkeley, CA 94710 USA
{ucbvax,lll-lcc}!unisoft!fnf   (415) 644 1230   TWX 11 910 366-2145
==

From 4665458370130158736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fc7682cfe014304
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 03:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!unido!hmm
From: hmm@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Need help with AES objects and the R
Message-ID: <96100011@unido.UUCP>
Date: Thu, 29-May-86 06:51:00 EDT
Article-I.D.: unido.96100011
Posted: Thu May 29 06:51:00 1986
Date-Received: Sun, 1-Jun-86 05:28:21 EDT
References: <162@molihp.UUCP>
Sender: notes@unido.UUCP
Lines: 11
Nf-ID: #R:molihp:-16200:unido:96100011:000:548
Nf-From: unido!hmm   May 29 11:51:00 1986

I think the reason for the RCS not outputting pixel coordinates is that
resource files should be usable with different resolutions. This is also
stated somewhere in the GEM manual, as far as I know. But I have to
admit that the RCS is a real hassle to deal with. Did you ever try
to incorporate multiple icons in your resource file using RCS ? It screws up
the resource file completeley, and you have to remove the complete
object tree which contains these icons.

     Hans-Martin Mosner (hmm@unido.uucp, hmm@unido.bitnet)
     University of Dortmund

From 3120126430723498632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3082db85bef62b8d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 05:04:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!dcl-cs!strath-cs!paisley!rh
From: rh@cs.paisley.ac.uk (Robert Hamilton)
Newsgroups: net.micro.atari16
Subject: micro emacs 1 of 3
Message-ID: <149@paisley.ac.uk>
Date: Thu, 29-May-86 08:04:56 EDT
Article-I.D.: paisley.149
Posted: Thu May 29 08:04:56 1986
Date-Received: Sun, 1-Jun-86 07:28:48 EDT
Sender: rh@paisley.ac.uk
Reply-To: rh@cs.paisley.ac.uk (Robert Hamilton)
Organization: Paisley College of Technology Scotland.

Lines: 12

The next 2 entries consist of a readme, startup file for u-emacs
and finally u-emacs for the ST (uuencoded)

This version was compiled using Lattice C.

--
UUCP: ...!seismo!mcvax!ukc!paisley!rh
DARPA: rh%cs.paisley.ac.uk | Post: Paisley College
JANET: rh@uk.ac.paisley.cs | Department of Computing,
Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                       | Scotland.
                       | PA1 2BE

From -3313505313079476235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f613b9403e0f5188,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 05:06:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!dcl-cs!strath-cs!paisley!rh
From: rh@cs.paisley.ac.uk (Robert Hamilton)
Newsgroups: net.micro.atari16
Subject: micro emacs 2 of 3
Message-ID: <150@paisley.ac.uk>
Date: Thu, 29-May-86 08:06:17 EDT
Article-I.D.: paisley.150
Posted: Thu May 29 08:06:17 1986
Date-Received: Sun, 1-Jun-86 07:29:05 EDT
Sender: rh@paisley.ac.uk
Reply-To: rh@cs.paisley.ac.uk (Robert Hamilton)
Organization: Paisley College of Technology Scotland.
Lines: 73

```
#! /bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #! /bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    README
#    emacs.rc
# This archive created: Tue May 27 10:21:09 1986
export PATH; PATH=/bin:$PATH
echo shar: extracting "'README'" '(820 characters)'
if test -f 'README'
then
     echo shar: will not over-write existing file "'README'"
else
cat << \SHAR_EOF > 'README'
Here is u-emacs for the ST ...
Enclosed also an emacs.rc which will set up some bindings.
```

```
It should be on the same disk as emacs.tos
The Arrow keypad is set up thus:-

Arrow keys:   as you would expect!
INSERT:       Scroll forward
ESC INSERT:   Scroll forward other window
Clr/home: Scroll back
ESC Clr/home: Scroll back other window
HELP:         Start of line
UNDO:         End of line
ESC Right ARR:     Hunt forward
ESC Left ARR: Hunt Back


Ctl X C : Execute command.prg (This must be on the current  disk/path)
ESC S:        Execute ST command or file.
          NOTE:     PWD       (print current path)
               CD B:\fred    (Change disk and/or path)



NOTES:   U-emacs restricts itself to about 140K. This is to allow
room to load command.prg, make etc etc.
This can be overridden on the command line by a %SPACE entry
(you'll have to make emacs a .ttp file to do this)
SHAR_EOF
fi # end of overwriting check
echo shar: extracting "'emacs.rc'" '(323 characters)'
if test -f 'emacs.rc'
then
     echo shar: will not over-write existing file "'emacs.rc'"
else
cat << \SHAR_EOF > 'emacs.rc'
;    EMACS.RC: Startup file for MicroEMACS 3.4
;
;             This file is executed everytime the
;             editor is entered

;    ***** Rebind the Function key group
add-global-mode                  exact
bind-to-key set-mark             ^@
bind-to-key hunt-forward         M-^F
bind-to-key hunt-backward        M-^B
bind-to-key shell-command        M-S
bind-to-key execute-macro        M-E
SHAR_EOF
fi # end of overwriting check
#    End of shell archive
exit 0
--
UUCP:     ...!seismo!mcvax!ukc!paisley!rh
DARPA:    rh%cs.paisley.ac.uk         | Post: Paisley College
JANET:    rh@uk.ac.paisley.cs         |    Department of Computing,
```

Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                                  | Scotland.
                                  | PA1 2BE

From 8713710932546488536
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dad4fb5bc57aebf5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 05:57:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!disunix.UUCP!
jhs
From: jhs@disunix.UUCP.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Looking for 1040ST Dealer in Central NJ (around Red Bank NJ).
Message-ID: <8605291257.AA14454@mitre-bedford.ARPA>
Date: Thu, 29-May-86 08:57:59 EDT
Article-I.D.: mitre-be.8605291257.AA14454
Posted: Thu May 29 08:57:59 1986
Date-Received: Sat, 31-May-86 05:13:22 EDT
References: <118@odyssey.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

Is Hightstown nearby? It is in Ma Bell area code 609.

Anyway, CSC, Inc. in Hightstown *** M A Y *** sell 1040s. They definitely do
have some other Atari products like the Model 850 communications interface for
the 800 series.

Their phone number is (609) 448-8889. I have dealt with them by mail order
and found them to give excellent service.

-John Sangster
jhs@mitre-bedford.arpa

From -8795388587802828747
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1611e0,b391c2434b59b344,start
X-Google-Attributes: gid1611e0,public
X-Google-Thread: 140593,b391c2434b59b344,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 07:20:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!ll-xn!mit-amt!mit-
eddie!genrad!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.news.adm
Subject: new news group - anyone interested ?
Message-ID: <378@imagen.UUCP>

Date: Thu, 29-May-86 10:20:04 EDT
Article-I.D.: imagen.378
Posted: Thu May 29 10:20:04 1986
Date-Received: Sat, 31-May-86 06:49:31 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 19
Xref: watmath net.micro.atari16:944 net.news.adm:762

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

i'd like to start 2 new newsgroups - mod/atari16/sources and
mod/atari16/binaries. there would be archives kept locally for both
of these which would have an automatic retrival system via email.
please vote ya or nay via email (flames accepted) and i will
summarize to the net and if favorable petition the powers that be.
--

     "I ain't gay, but there are sure times when i wish i could say
          that i wasn't straight"

Name: James M. Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 5382887224784755366
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ab56a00a0ebe7c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 08:05:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!cmcl2!lanl!
unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Re: vt52 on ST520 (TERMCAP, windows)
Message-ID: <1081@unmvax.UUCP>
Date: Thu, 29-May-86 11:05:43 EDT
Article-I.D.: unmvax.1081
Posted: Thu May 29 11:05:43 1986
Date-Received: Sat, 31-May-86 06:33:37 EDT
References: <300@entropy.UUCP>
Organization: Univ. of New Mexico, Albuquerque
Lines: 29

>
> We have a 520ST but can't get it to quite work with vi under vt52.

I use my ST all the time, but... The ST has MORE capability
than the basic VT-52, but there is only ONE critical difference.
Copy the VT52 termcap entry, rename it to atarist or something,
and change the entry li:24 to li:25. Then everything works fine.
The ST has 25 lines and not 24. This messes up scrolling at the bottom
(the editor moves the cursor to the bottom line, then issues linefeeds
to scroll the screen up. If it thinks the bottom line is 24, linefeeds
will simply move to line 25 on the ST and not do the expected scrolling.)
There have been plenty of other postings of ST termcap entries, but
I thought maybe an explanation of just what the problem is would help
in case you don't get the exact detail now, you can reconstruct the problem
later.

By the way, we are experimenting with STs here as terminal
replacements. We will either develop custom window software, or
adapt the ST to work with X windows. The ST in 40 or 50 line mode
has the potential for a GREAT multi-window terminal for Unix. We
will post the code when it is done, or would like to hear from anyone
who is doing something similar to avoid duplicate work.
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From -9205959174454836981
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a8811b0950c9b528,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 12:37:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!sri-spam!nike!styx!
lll-crg!lll-lcc!eckert
From: eckert@lll-lcc.UUcp (Philip D. Eckert)
Newsgroups: net.micro.atari16
Subject: DEGAS printer driver
Message-ID: <314@lll-lcc.UUcp>
Date: Thu, 29-May-86 15:37:05 EDT
Article-I.D.: lll-lcc.314
Posted: Thu May 29 15:37:05 1986
Date-Received: Sun, 1-Jun-86 06:47:31 EDT
Reply-To: eckert@lll-lcc.UUCP (Philip D. Eckert)
Organization: Lawrence Livermore Labs, Lab Comp Ctr
Lines: 5

H E L P ! I have a C. Itoh Prowriter and I need a printer driver to
use with the DEGAS paint program, I see that it comes with an EPSON driver
and I am hoping someone out there has one that can be posted.

From 4522292473528111081
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4d9b4ea95e25f66c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 15:34:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!MITRE-BEDFORD.ARPA!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: special purchase deal on 520ST systems???
Message-ID: <8605292223.AA03279@mitre-bedford.ARPA>
Date: Thu, 29-May-86 18:34:01 EDT
Article-I.D.: mitre-be.8605292223.AA03279
Posted: Thu May 29 18:34:01 1986
Date-Received: Sat, 31-May-86 05:21:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 15

I have heard of a possible special deal on 520ST systems - full color
systems with RGB monitor and disk drives for $599.00. The only catches are
(1) the deal is not certain at this time and (2) the units will be technically
used units, because they were bought by a major customer who subsequently
decided not to keep them. If anybody is interested in signing up or inquiring
about this possibility, they can do so by logging into the BBS at Nite-Lite
Systems, (617) 663-4221 and leaving a message indicating their interest.
To maximize the chances of the deal's going through, it would be useful to
indicate how sure you are that you will want a system at that price.

I have no financial interest in Nite-Lite Systems, other than being a
potential customer if this deal goes through.

-John Sangster
jhs@mitre-bedford.arpa

From -4567110311613247751
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 14bc6d,59458ab3295c26a9,start
X-Google-Attributes: gid14bc6d,public
X-Google-Thread: 140593,59458ab3295c26a9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 16:58:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!
cernvax!cui!shneider
From: shneider@cui.UUCP (SCHNEIDER Daniel)
Newsgroups: net.lang.lisp,net.micro.atari16
Subject: query: Robinsons LISP/ST, Scheme for Atari ST
Message-ID: <160@cui.UUCP>

Date: Thu, 29-May-86 19:58:38 EDT
Article-I.D.: cui.160
Posted: Thu May 29 19:58:38 1986
Date-Received: Sat, 31-May-86 06:43:47 EDT
Reply-To: shneider@mcvax!cernvax!cui.UUCP (SCHNEIDER Daniel)
Organization: University of Geneva/Switzerland
Lines: 45
Xref: watmath net.lang.lisp:855 net.micro.atari16:943

1) Did anybody try out Robinsons LISP/ST ?
   (Seen in June Issue of Atari User, Vol.2,No.2)
   It costs 90 UK pounds, or 100 with a GEM interface.
   Is it really COMMON LISP (it claims so) ?
   Does it have an Editor (emacs-like) with a Lisp interface (no information
   about that) ?

2) Does anybody know of a Scheme implementation for the ST, possibly with
   a flavor package (like the TI PCS) ?

Thanks for your replies !

Daniel K.Schneider
Departement de science politique
Universite de Geneve
1211 GENEVE 4 (Switzerland)
Tel. (..41) 22 20 93 33 ext. 2357

to VMS/BITNET: to UNIX/EAN (preferable):

BITNET: SCHNEIDER@CGEUGE51 shneider%cui.unige.chunet@CERNVAX
ARPA: SCHNEIDER%CGEUGE51.BITNET@WISCVM shneider%cui.unige.chunet@ubc.csnet
uucp: mcvax!cernvax!cui!shneider
X.400/ean: shneider@cui.unige.chunet

--

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to VMS/BITNET: to UNIX/EAN (preferable):

BITNET: SCHNEIDER@CGEUGE51 shneider%cui.unige.chunet@CERNVAX
ARPA: SCHNEIDER%CGEUGE51.BITNET@WISCVM shneider%cui.unige.chunet@ubc.csnet
uucp: mcvax!cernvax!cui!shneider
X.400/ean: shneider@cui.unige.chunet

From -4792372072744843632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ab56a00a0ebe7c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 18:17:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!gatech!seismo!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: vt52 on ST520 (TERMCAP, windows)
Message-ID: <5026@ut-sally.UUCP>
Date: Thu, 29-May-86 21:17:24 EDT
Article-I.D.: ut-sally.5026
Posted: Thu May 29 21:17:24 1986
Date-Received: Sat, 31-May-86 06:22:04 EDT
References: <300@entropy.UUCP> <1081@unmvax.UUCP>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Distribution: net
Organization: U. Texas CS Dept., Austin, Texas
Lines: 25

In article <1081@unmvax.UUCP> wampler@unmvax.UUCP (Bruce Wampler) writes:
>....
>   By the way, we are experimenting with STs here as terminal
>replacements. We will either develop custom window software, or
>adapt the ST to work with X windows. The ST in 40 or 50 line mode
>has the potential for a GREAT multi-window terminal for Unix. We
>will post the code when it is done, or would like to hear from anyone
>who is doing something similar to avoid duplicate work.
>--
>Dr. Bruce E. Wampler
>University of New Mexico
>..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

Speaking of Unix* windows for the ST, hasn't anybody out there done a port
of the Macintosh uw program to the ST. The sources for both the Mac and the
Unix end are public domain (I expect you could get them out of net.sources.mac,
I have them). For those who aren't familiar with uw, it handles a number of
windows, each of which is a sub-shell of a login to a Unix system. It's really
great!   Anybody done the port, or working on it??

*Unix -- it's somebody's trademark and all that nonsense.
                  Maurice T. Franklin
                  CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

From 9017145257233227325
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,77099fd691cbe95a
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,77099fd691cbe95a

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 23:06:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <318@atari.UUcp>
Date: Fri, 30-May-86 02:06:22 EDT
Article-I.D.: atari.318
Posted: Fri May 30 02:06:22 1986
Date-Received: Sun, 1-Jun-86 07:24:35 EDT
References: <708@tekigm2.UUCP>
Organization: Atari Corp/Mktg
Lines: 21
Keywords: Dead Magazine
Xref: linus net.micro.atari8:229 net.micro.atari16:806

In article <708@tekigm2.UUCP>, wrd@tekigm2.UUCP (Bill Dippert) writes:
> Did the Atari Explorer magazine die a quiet death? After the first four
> (?) issues, it seemingly has vanished into the vaporware warehouse. Perhaps
> it was prophetic that the last issue had a black cover?

No. Actually the magazine was doing quite well. The only problem we had
was staff -- we are trying to do an awful lot with few people, so the folks
involved in the magazine kept getting pulled into other tasks, to the
detriment of the magazine's schedule.

Solution: we hired David Ahl and Betsy Staples, both formerly of Creative
Computing, and let them set up shop back in Morris Plains, NJ. We have
given them enough corporate backing to put together a real staff whose sole
duty is the magazine. The Explorer will continue to be Atari's voice, and
will be stonger due to more attention devoted to it.

Look for the first issue under Ah/ & Staples in July, and bimonthly for the
next while. 1987 -- monthly, if ahl goes well.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -5691816561180818995
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16249ef5308d9400
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 23:13:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: A Checkers Program for the ST
Message-ID: <319@atari.UUcp>
Date: Fri, 30-May-86 02:13:09 EDT

Article-I.D.: atari.319
Posted: Fri May 30 02:13:09 1986
Date-Received: Sun, 1-Jun-86 07:24:49 EDT
References: <8605180748.AA29278@ohio-state.ARPA> <297@brueer.ee.brunel.ac.uk>
Organization: Atari Corp/Mktg
Lines: 23

In article <297@brueer.ee.brunel.ac.uk>, ralph@ee.brunel.ac.uk
(Ralph Mitchell) writes:
> In article <8605180748.AA29278@ohio-state.ARPA> terrell@OHIO-STATE.ARPA.UUCP
writes:
> >
> >The next few postings are for a checkers program (named cadenza) that
> >I have written.
>
> OK, I believe that this program works. However when I try to run it on
> my 520, it doesn't

It works fine on my machine. I just put it on the Atari BBS, so hopefully
it will be disseminated soon.

TOS Error #35 is "Too many files open" (no more handles left). Either you
glitched the copy of the program, or a prior application wasn't closing
things properly.

A real book version of the documentation will appear this Fall at book
stores. We'll let you know when things get close.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -5423162512180821331
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d39f907ee47cd87
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-29 23:14:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: What's the 'F' for?
Message-ID: <320@atari.UUcp>
Date: Fri, 30-May-86 02:14:19 EDT
Article-I.D.: atari.320
Posted: Fri May 30 02:14:19 1986
Date-Received: Sun, 1-Jun-86 07:25:01 EDT
References: <151@percival.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 10

In article <151@percival.UUCP>, russ@percival.UUCP (Russ Schwartz) writes:

> [This is another fine myth you've gotten me into! - Lar L. & Har D.]
>
> I don't ever remember anyone explaining what the small 'F' stood for after
> the ST on the 1040 STs. I've got the hint that the small 'M' on the newer
> 520 STs are for modulated, so does the 'F' stand for Floppy?

Give that man a cee-gar.

--->Neil @ Atari

From 3263853717490090685
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9b60a7b65de5b482
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 04:19:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
mcvax!ukc!reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: monitor output
Message-ID: <309@brueer.ee.brunel.ac.uk>
Date: Fri, 30-May-86 07:19:29 EDT
Article-I.D.: brueer.309
Posted: Fri May 30 07:19:29 1986
Date-Received: Mon, 2-Jun-86 16:52:51 EDT
References: <860527-100642-1332@Xerox>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 34

In article <860527-100642-1332@Xerox> BHolland.ElSegundo@Xerox.COM.UUCP writes:
>What is the GPO connection on the monitor jack for, also is there a
>composite color output? Thanks
>
>Bill

Looking at the circuit diagram, i can confidently state that the GPO pin is
attached to pin 15 of U19. U19 is apparently a YM2149, but that may not be
a manufacturers part number. U19 appears to have 2 parallel ports, 3 analog
pins and a bus interface. Serial port B is connected direct to the printer
(centronics) socket on the back of the keyboard unit. Port A supports GPO,
RTS & DTR on the Serial socket, and has 3 lines going to the Floppy disk
port for drive 0/1 select and side select. The 3 analog pins are attached
to the audio in/out pins on the monitor socket. The bus interface goes to
2 6850 ACIA's and a 68901.

There doesn't appear to be composite video, but then hasn't there been some
discussion here recently about retro-fitting 1040's with modulator, etc.
Maybe composite video appears there.

The above information is probably copyright Atari Corp., but I think it's
sufficiently vague that it doesn't disclose any company secrets. Besides,
you could probably get the circuit diagrams direct from Atari anyway...
My copies of the diagrams came with the Dev. Kit.
--
=-=-=-

is sufficient. A complete C binding is preferred.
Thanks for any answers. Mail them to me and I'll summarize to the net
or mail to this group directly.

Ton van Overbeek
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P.O.Box 299
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Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
TPC862@ESTEC (EARN/BITNET)

From -7146176314902728661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9106df02c43e1e9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 07:42:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!gatech!gitpyr!tynor
From: tynor@gitpyr.UUCP (Steve Tynor)
Newsgroups: net.micro.atari16
Subject: How to set up the RS-232 port? (rsconf)
Message-ID: <1840@gitpyr.UUCP>
Date: Fri, 30-May-86 10:42:29 EDT
Article-I.D.: gitpyr.1840
Posted: Fri May 30 10:42:29 1986
Date-Received: Sun, 1-Jun-86 07:20:30 EDT
Reply-To: tynor@gitpyr.UUCP (Steve Tynor)
Organization: Georgia Institute of Technology
Lines: 31

=-=-=-

   2) can anyone list the various values that should be passed for the control
      register values. (ie. do the status registers need to be cleared. what bits
in
      the control registers control what, etc.)

I thank anyone who can shine light on my problem.

=-=
If the facts do not conform to the theory, they must be disposed of.

    Steve Tynor
    Georgia Instutute of Technology

 ...{akgua, allegra, amd, harpo, hplabs,
     ihnp4, masscomp, ut-ngp, rlgvax, sb1,
     uf-cgrl, unmvax, ut-sally} !gatech!gitpyr!tynor

From 885270664873359242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f998e14dfe50442a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 08:27:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!allegra!princeton!caip!topaz!uwvax!uwmacc!
oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16
Subject: Re: Screen dimmer, PD software, etc.
Message-ID: <2239@uwmacc.UUCP>
Date: Fri, 30-May-86 11:27:53 EDT
Article-I.D.: uwmacc.2239
Posted: Fri May 30 11:27:53 1986
Date-Received: Sat, 31-May-86 15:37:08 EDT
References: <304@atari.UUcp>
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Distribution: na
Organization: UWisconsin-Madison Academic Comp Center
Lines: 34

In article <304@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>The people at Solar Powered Software make a set of products...
>
>I recommend that you go for the whole set, which is called *******. In
>addition to the crt saver, it includes an auto-booting ramdisk of adjustable
>size (by editing a text file) and a print spooler/formatter.
>
   It amazes me what people have to pay money for! These "products", and
many I've noticed like them, are not so much products as relatively simple
utilities. Such utilities should be (and are, to a large extent) available
free on any BB worth its salt. I mean, can you believe somebody is actually
selling 'make'?! Luckily, we have kind and generous people like Mssrs.
Franco and Fish (for the Am*ga), who selflessly give of their time and

machine use so the rest of us will benefit from PD software.
   Anyway, my first project is writing a ramdisk utility like the above, but with the added feature of automatically copying specified files to the ramdisk (they'll be listed in the config file along with the size). This will be public domain, especially as it is based on Mike's Ramdisk. So if you're willing to wait awhile (my C compiler is due Any Day Now), you won't have to buy one. Also, I'll look into the screen dimming, just to be perverse. (Would one "merely" have a short program monitoring the mouse and keyboard, which would twiddle with the color values after a certain amount of time, and then reset them at the next keyboard/mouse activity? I know how that kind of thing is done on the 8-bit line...)

   On another topic... perhaps that monitor with the built-in disk drive actually functions as a bulk diskette eraser (:-). Actually the IBM PC I`m using right now has two floppy drives immediately under the extremely static-y (staticky?) monitor, and I don't have any problems with it-- and if IBM can do it, *surely* Atari can! (:-)

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: uwvax!uwmacc!oyster@rsch.wisc.edu

From -4527316202273478912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8c302d5861c8c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 11:45:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DOCKMASTER.ARPA!Pase
From: Pase@DOCKMASTER.ARPA (Bill Pase)
Newsgroups: net.micro.atari16
Subject: Cadenza and Uudecode
Message-ID: <860530184528.924876@DOCKMASTER.ARPA>
Date: Fri, 30-May-86 14:45:00 EDT
Article-I.D.: DOCKMAST.860530184528.924876
Posted: Fri May 30 14:45:00 1986
Date-Received: Sun, 1-Jun-86 08:22:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I had a bit of trouble getting 'cadenza' (the checkers program) to run but finally solved the problem. It seems that by time I got the cadenza.uue file to my machine all of the trailing blanks had been striped off. These are important to the version of uudecode I have. The file should have the first line with 'begin' the mode and the filename fillowed by a newline only. The last line should contain 'end' followed by the newline. All of the other lines should be blank filled to the same length. (Strictly speaking the last couple of lines are shorter, but that is unimportant.) So to get the program to run you should either blank fill the lines using an editor or fix your uudecode

to supplyu| the trailing blanks as required. Anyhow have fun, it seems
to work just fine now. /bill {the blank eater strikes again ...}

From -4763260027242135754
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,77099fd691cbe95a
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,77099fd691cbe95a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 15:51:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!nike!cad!ucbvax!sdcsvax!noscvax!
marlin!dobbs
From: dobbs@marlin.UUCP (Lynn B. Dobbs)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <628@marlin.UUCP>
Date: Fri, 30-May-86 18:51:51 EDT
Article-I.D.: marlin.628
Posted: Fri May 30 18:51:51 1986
Date-Received: Sun, 1-Jun-86 08:33:36 EDT
References: <708@tekigm2.UUCP> <318@atari.UUcp>
Reply-To: dobbs@marlin.UUCP (Lynn B. dobbs)
Organization: Naval Ocean Systems Center, San Diego
Lines: 17
Xref: linus net.micro.atari8:233 net.micro.atari16:814

Neil @ Atari responded thusly:

> ... The Explorer will continue to be Atari's voice, and
>will be stonger due to more attention devoted to it.
>
>Look for the first issue under Ahl & Staples in July, and bimonthly for the
>next while. 1987 -- monthly, if ahl goes well.
>
>--->Neil @ Atari

I know I should have kept the card that told me how to subscrib, but I
didn't. (sigh)

How about posting the subscription info.

The US Navy denies any responsibility for me or my opinions.

From -3959547100755359626
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c53fc8ee9cd0db7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-30 16:44:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!seismo!
mcvax!ukc!reading!sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Anyone got a better TERMIO>C
Message-ID: <180@sage.cs.reading.Ac.Uk>
Date: Fri, 30-May-86 19:44:13 EDT
Article-I.D.: sage.180
Posted: Fri May 30 19:44:13 1986
Date-Received: Tue, 3-Jun-86 04:42:36 EDT
References: <435@elmgate.uucp>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 11

The best editor Ive found is the GST editor (available seperately or with any
GST products). It is a full GEM based editor that can edit up to 4 file, and
even cut and paste between them. It alows long line (>80, I think about150).

It has a help menu available and very good PRINTED (ie not disk file)
instructions.

The only complaint I have about it (does any GST employee monitor the net)
is that there is no GOTO line number in it.

Simon Gordon @ Sibly Hall , Reading University , UK.

From -1429091925539142630
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fc7682cfe014304
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-31 06:37:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: RCS BUGS! (was "Need help with AES objects and the RCS")
Message-ID: <1049@watdragon.UUCP>
Date: Sat, 31-May-86 09:37:59 EDT
Article-I.D.: watdrago.1049
Posted: Sat May 31 09:37:59 1986
Date-Received: Sun, 1-Jun-86 08:03:26 EDT
References: <162@molihp.UUCP> <96100011@unido.UUCP>
Reply-To: jsgray@watdragon.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 14
Summary:

In article <96100011@unido.UUCP> hmm@unido.UUCP writes:
>...
>Did you ever try

>to incorporate multiple icons in your resource file using RCS ? It screws up
>the resource file completeley, and you have to remove the complete
>object tree which contains these icons.

So I wasn't dreaming! I was building free trees with icons and bit images
and they were killing RCS or crashing my application program. Is there
a nice workaround, or a fixed RCS on the way?

Still waiting for my replacement power supply (four weeks now),

Jan Gray   jsgray@watdragon   University of Waterloo   519-885-1211 x3870

From -7860234707398461286
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,11a42b26cca86ac7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-31 09:03:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!princeton!allegra!ulysses!mhuxr!mhuxn!
ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Screen dimmer
Message-ID: <54600089@iuvax.UUCP>
Date: Sat, 31-May-86 12:03:00 EDT
Article-I.D.: iuvax.54600089
Posted: Sat May 31 12:03:00 1986
Date-Received: Wed, 4-Jun-86 19:28:18 EDT
References: <1250549656@DOCKMAST.UUCP>
Lines: 15
Nf-ID: #R:DOCKMAST:1250549656:iuvax:54600089:000:671
Nf-From: iuvax!franco   May 31 11:03:00 1986

/**** iuvax:net.micro.atari16 / ut-sally!franklin / 3:43 pm May 29, 1986 ****/
In article <860527141930.358902@DOCKMASTER.ARPA> Pase@DOCKMASTER.ARPA (Bill Pase)
writes:
>Does anyone know of a software screen dimmer for the ST? It seems that
>for someone who knows how to do a desk accessory and handle the screen
>and keyborad it should be easy. ....
> Thanx. /bill

I too would like to see a screen dimmer for the ST. (Been meaning to ask this..)
                  Thanks,
                  Maurice T. Franklin
                  CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu
/* ---------- */

From 7436965874957396717

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30368fd5c054cff0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-31 10:58:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ssc-vax!ssc-bee!ditzel
From: ditzel@ssc-bee.UUCP (Charles L Ditzel)
Newsgroups: net.micro.atari16
Subject: Mini-review of Megamax C
Message-ID: <564@ssc-bee.UUCP>
Date: Sat, 31-May-86 13:58:50 EDT
Article-I.D.: ssc-bee.564
Posted: Sat May 31 13:58:50 1986
Date-Received: Tue, 3-Jun-86 22:24:39 EDT
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 174

Subject: Megamax C
Newsgroups: net.micro.atari16
Distribution: net

I recently received Megamax C and my first impressions are very favorable.

Having *suffered* with trying to deal with an Apple Mac Plus and both DeSmet C and Aztec C ...i appreciate what Megamax has done on the Atari. Of course some of the problems with the Mac Plus are non-existent on the Atari. For starters, the ST has had a hierarchical file structure from the very beginning...(Apple's recent introduction of their HFS is surprising in its lateness and is causing problems with existing software packages that depend on their original flat file structure).

In any case...on to the good stuff...

The Megamax development package comes with two single sided diskettes and a thick binder with the documentation. The layout of this binder is :

1: The Atari ST Environment
2: Language Extensions
3: The Linker
4: Megamax Shell
5: Megamax Editor
6: Megamax Resource Construction Program
7: Librarian
8: Disassembler
9: Code Improver
10: Unix Compatible Routines
11: GEM AES Routines
12: GEM VDI Routines

13: Bios Routines
14: Xbios Routines
15: GEM DOS
16: System Globals
17: Error Codes
Appendix A: Header Files
Appendix B: System Limits and Extensions
Appendix C: Keyboard Codes
Index

(Yes - shockingly an *index*. Anyone that has had anything to do with both the Manx Aztec compiler documentation for both the PC and the Mac may faint...)

The diskettes included contain:
-compiler
-system library
-graphical shell
-desk accessory library
-linker
-editor
-header files
-double precision library
-examples
-code improver
-resource construction program
-disassembler
-librarian
-megaroids (a game written in Megamax C)

A note : a make facility is included.

Apparently for $50 one can also get the source code listings of system library functions. (these are not included in the Megamax development package).

Updates will cost $20.

The Megamax C package is capable of being used off the:
1) GEM Desktop
2) Beckmeyer Micro C Shell (unix-like shell) or COMMAND.TOS
(I haven't tested this out)
3) Megamax Graphical Shell

Graphical Shell:
So far not only have i found the Megamax graphical shell(gs) tolerable but also likeable. Tho' my preference i suspect will eventually be the Micro C shell. So far i have found the gs pretty good.

Editor:
The editor that is supplied is from acceptable to good. I *really* disliked the editor supplied with the Atari/DRI development package. The megamax editor is quirky on two points: find and the arrow

keys - if these are editor quirks and not my own doing.

Resource Construction Program:
Is similar but not identical to the DRI RCS.
The DRI RCS has some trash can and clipboard icons not found in the Megamax version. The Megamax RCP instead uses a pull down menu to accomplish these functions. I didn't use those icons for much but some people may miss them. Megamax improved significantly over RCS by including an icon design tool. Additionally they include an options menu that has a sort (sorts the tree structure of the immediate children of the selected object).

Librarian:
I have not got around to looking at this.

Disassembler:
ditto.

Code Improver:
ditto.
The code improver "performs simple branch optimizationss on an object file that has never been in a library.

Unix compatible routines:
abs,atof,close,toupper,tolower,_toupper,_tolower,toascii,creat,isalpha,
isupper,islower,isdigit,isalnum,isspace,ispunct,isprint,iscntrl,isascii,
exit,_exit,fclose,fflush,ferror,feof,clearerr,fileno,fopen,freopen,fread,
fwrite,fseek,rewind,ftell,getc,getchar,fgetc,getw,gets,fgets,lseek,malloc,
free,calloc,open,printf,fprintf,sprintf,putc,putchar,fputc,putw,puts,
fputs,rand,srand,read,sbrk,scanf,fscanf,sscanf,setbuf,setjmp,longjmp,
strcat,strncat,strcmp,strncmp,strcpy,strncpy,strlen,strtol,atal,atoi,ungetc,
unlink,write

footnote: i asked megamax if a system() function existed...they pointed to execv(name,argv) --- (char *name; char *argv[]) as existing but being undocumented...i tried this and couldn't find it...

AES,VDI,etc:
I haven't had time to examine AES, VDI, Bios and Xbios functions but a cursory glance tells me I don't seem to be missing anything that I have in the DRI/Atari development package. I have ported a couple of things that seem to work nicely. The port times were pretty good.

Another nice feature in the documentation is a listing of all the system globals, errors, header files.

C compiler:
I had program (written with DRI C) that put up a menu bar and window it ported in 10 or 15 minutes. Of that time 95% of the time was spent in the editor. The main problem stemmed from using some of the unportable #defines from DRI's <portab.h> - BYTE, LONG, WORD.. Megamax C complained...about the DRI RCS generated C code using these keywords...i changed these to the more portable char, long,int and all was well...The compiler is pretty fast (tho' i

have a one megabyte ST which helps :)

*compiler is a one pass compiler.

*space used by a program at run time is divided into a number of segments.
Each segment may contain up to 32KB.

*8KB stack space. changeable by modifing the init.c file in the system
library.

*linkable object code is generated directly. no assembly post-pass.

*overlay mechanism

*inline assembly code

Linker:
*smart linker - loads only what is need.
*gives stats

CONCLUSION
The overall package is a streamlined well documented one (includes explanations
a la unix man pages of all unix,aes,vdi,bios,xbios functions). In my mind
it accomplishes in considerably less paper what the messy Manx Aztec C
documentation can not do in hundreds of pages.

This mini-review is should in no way be taken to be a comprehensive
examination of the product. These are just my observations.

My current feeling about the package is very positive. It seems to be
the environment I was hoping to find. The fact that i can use it in
a number of environments (Micro-C shell,Command.tos,GEM desktop, megamax
graphical shell) provides an even more flexible package.

From 6769705515247048733
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df8c55a106160ac1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-31 15:14:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!csd2!dimitrov
From: dimitrov@csd2.UUCP (Isaac Dimitrovsky)
Newsgroups: net.micro.atari16
Subject: MicroEmacs Reference Card
Message-ID: <6670004@csd2.UUCP>
Date: Sat, 31-May-86 18:14:00 EDT
Article-I.D.: csd2.6670004
Posted: Sat May 31 18:14:00 1986
Date-Received: Sun, 1-Jun-86 08:37:52 EDT
Organization: New York University
Lines: 66

[]
Here is a reference card for the microemacs editor that comes with the ST developer's kit. It could be useful to someone like me who is experienced at using screen editors but has not used emacs. You should be able to figure out how to use microemacs just from this card (until you get used to using it, you can put the card in a one line window at the top of your screen and use it as a quick reference). Anyway, it should be preferable to the tutorial that comes on the disk, which is unbelievably verbose.

Isaac Dimitrovsky 251 Mercer Street, New York NY 10012 (212) 674-8652
allegra!cmcl2!csd2!dimitrov (l in cmcl2 is letter l not number 1)

You know the great thing about tv? If something important happens anywhere at all in the world, no matter what time of the day or night, you can always change the channel - Jim Ignatowski
---cut here---

MicroEmacs Command Card

Movement Commands

^A	to start of line	^E	to end of line
<esc><	to start of buffer	<esc>>	to end of buffer
^F	forward a char	^B	back a char
<esc>F	forward a word	<esc>B	back a word
^N	forward a line	^P	back a line
^V	forward a screen	<esc>V	back a screen
^S	search forward	^R	search backward

Edit Commands

^D delete next char (with argument: kill next argument chars)
<del> delete previous char (with argument: kill previous argument chars)
<esc>D kill next word <esc><Del> kill previous word
^K kill to end of line or kill newline if at end of line
(with argument 0: kill from start of line to current char
with positive argument: kill next argument line
with negative argument: kill previous argument lines)
^@ set mark ^W kill from mark to current char
^Y insert copy of kill buffer and set current char to end of this text
<esc>L make next word lowercase <esc>U make next word uppercase
<esc>C capitalize next word
^T transpose current and previous chars

Buffer Commands

^X^V create new buffer containing file and display it in current window
^XB change buffer displayed in current window
^XK delete buffer
^X^R read file into current buffer ^X^W write current buffer to file
^X^F change current buffer's associated file
^X^S save current buffer on its associated file
^Z save current buffer and exit ^X^C exit without saving buffer

Window Commands

^X1 delete all but current window and expand current window to fill screen
^X2 split current window into two; usually followed by ^XB or ^X^V

```
^X^B    create window showing information on all buffers
^XN     to next window                  ^XP     to previous window
^XZ     enlarge current window          ^X^Z    shrink current window
^X^N    scroll current window forward   ^X^P    scroll current window backward
<esc>!  move current line to top of current window
        (with argument 0: move it to center
        with positive argument: move it to argument lines from top
        with negative argument: move it to argument lines from bottom)

Other Commands
^U      specify argument to other commands
^C      escape to MS-DOS                ^G      abort a command
^X(     begin macro definition          ^X)     end macro definition
^XE     execute macro                   ^L      redraw screen


From -7449667138316067007
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2a7408597c9ad562,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-01 13:33:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!well!wvucenic
From: wvucenic@well.UUCP (Wayne Vucenic)
Newsgroups: net.micro.atari16
Subject: Megamax C
Message-ID: <1191@well.UUCP>
Date: Sun, 1-Jun-86 16:33:57 EDT
Article-I.D.: well.1191
Posted: Sun Jun  1 16:33:57 1986
Date-Received: Tue, 3-Jun-86 23:16:24 EDT
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 26

I've just started using the Megamax C compiler.  From what little I've
used it so far, I think I'm going to like it a lot.

I was wondering if any other users had encountered any bugs or other
"gotchas" that it'd be useful to know about?  You know, the kind that
have you beating your head against the wall until you finally figure
out what in the heck is going on.

I've found one of these regarding makefiles.  I followed the example on
page 4-3, and tried running it from their shell.  I kept getting an
"I can't find that file" error.  I figured I was doing something wrong,
but I finally figured out that their example is wrong.  If your makefile
ends with a link command (optional), the link command has to be
"mmlink.ttp ...", NOT "mmlink ..." as stated in the manual.

I also fully agree with the earlier posting about cursor movement in their
editor.  I think it's crazy to have to reach for the mouse to move the cursor up
one line!  (ALL cursor movement requires the mouse.  The cursor keys
scroll the WINDOW, leaving the cursor in the same place!)
```

Anyone else have experiences to relate?

==========
Wayne Vucenic
...{ucbvax, ihnp4, allegra, decvax}!hplabs!well!wvucenic
==========

From -6538935381696119920
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,bc82fe81b2b3054f,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 142096,bc82fe81b2b3054f,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,bc82fe81b2b3054f,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,bc82fe81b2b3054f,start
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-06-01 17:39:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.amiga,net.micro.atari16,net.micro.68k,net.micro.6809
Subject: OS-9 68K on BIX
Message-ID: <1232@lsuc.UUCP>
Date: Sun, 1-Jun-86 20:39:15 EDT
Article-I.D.: lsuc.1232
Posted: Sun Jun 1 20:39:15 1986
Date-Received: Sun, 1-Jun-86 20:52:04 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 24
Xref: lsuc net.micro.amiga:3285 net.micro.atari16:915 net.micro.68k:665
net.micro.6809:383
Summary: Continuation of OS-9 68K

Due to a mixup in management, the OS-9 68K Special Conference on the Byte Information EXchange was mistakenly re-announced for June '86. Well, Byte management, not being the type to allow disappointment has extended the accounts for all the Guest Experts through to the end of June '86. Although we have no commitment from them to maintain their presence on BIX, we have taken steps to notify them of the extensions and hope that they will have the time to participate.

In particular, Kim Kempf has told me he intends to check in daily on BIX, Peter Dibble has been active lately, as has Frank Hogg, and Peter Gallanis has checked in for messages. I hope to see Brian Lantz back on and Peter Beaven as well. Discussion, for now will take place mainly in the regular 'os.9' conference and will likely be wider ranging than the original 68K Special Conference.

As before, we welcome all relevant discussion.

Cheers! -- Jim O.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -9062114014086400168
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,25a2be06fe10f662,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 03:45:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!nike!cad!ucbvax!
JULIET.CALTECH.EDU!dmh
From: dmh@JULIET.CALTECH.EDU (David M Hull)
Newsgroups: net.micro.atari16
Subject: Megamax C mini-review
Message-ID: <860602034528.001@Juliet.Caltech.Edu>
Date: Mon, 2-Jun-86 06:45:28 EDT
Article-I.D.: Juliet.860602034528.001
Posted: Mon Jun 2 06:45:28 1986
Date-Received: Wed, 4-Jun-86 00:28:14 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 112

In entry #761 (5/31/86)
ditzel@ucbvax.berkeley.edu (Charles L Ditzel) writes:

>I recently received Megamax C and my first impressions are very favorable.

I found this review to be generally useful and informative. I may indeed acquire this system for my work, if it's as good as it looks. Below are various comments, questions, gripes and flames.

>Editor:
>The editor that is supplied is from acceptable to good. I *really*
>disliked the editor supplied with the Atari/DRI development package.
>The megamax editor is quirky on two points: find and the arrow
>keys - if these are editor quirks and not my own doing.

On the basis of what features do you reccomend the megamax editor over micro-emacs (I assume this is what you mean by the atari/DRI editor)? Why did you dislike micro-emacs? A statement like the above is next to useless.

>Unix compatible routines:

>abs,atof,close,toupper,tolower,_toupper,_tolower,toascii,creat,isalpha,
>isupper,islower,isdigit,isalnum,isspace,ispunct,isprint,iscntrl,isascii,
>exit,_exit,fclose,fflush,ferror,feof,clearerr,fileno,fopen,freopen,fread,
>fwrite,fseek,rewind,ftell,getc,getchar,fgetc,getw,gets,fgets,lseek,malloc,
>free,calloc,open,printf,fprintf,sprintf,putc,putchar,fputc,putw,puts,
>fputs,rand,srand,read,sbrk,scanf,fscanf,sscanf,setbuf,setjmp,longjmp,
>strcat,strncat,strcmp,strncmp,strcpy,strncpy,strlen,strtol,atal,atoi,ungetc,
>unlink,write

But not fork(), wait(), getenv(), setenv()? Sounds like about par for the microcomputer C course (which is not /so/ bad).

>C compiler:
>I had program (written with DRI C) that put up a menu bar and window
>it ported in 10 or 15 minutes. Of that time 95% of the time
>was spent in the editor. The main problem stemmed from
>using some of the unportable #defines from DRI's <portab.h> -
>BYTE, LONG, WORD.. Megamax C complained...about the DRI RCS generated
>C code using these keywords...i changed these to the more portable char,
>long,int and all was well...The compiler is pretty fast (tho' i
>have a one megabyte ST which helps :)

You're joking, right? The whole idea behind DRI's "mandatory coding conventions" ;=| is that you make one silly <portab.h> file for each compiler/system/whatever, and *leave the .c files alone*. Thus

```
#define BYTE  char
```

once and for all.

<flame on>

Whether this is all worth anything is another story. In particular, it seems that their LONG declaration is often better served by (void *) (which may even become standard if people take a liking to implementing standards --- ANSI has put massive amounts of work into this type of stuff --- unsigned char's and the lot.) Seeing LONG used to mean (type *), like in the gem manual makes me somewhat ill. C supports high level distinctions like "A long is not necessarily a pointer and vice-versa". Why shoot yourself in the foot with such a neanderthal convention?

My developer's package came with two versions of APSKEL.C --- atari's and DRI's. The main differences were:

1) DRI's worked --- it redrew the window at the right time.
   Atari's was somewhat fractured when it came to updating.
2) Atari's had comments like (I quote from memory)

```
/* #include this to insure incompatability with all known systems
*/
```

or somesuch at the top of portab.h, and
/* Storage wasted for idiotic bindings
*/
after the declarations for intin[] and company.

While I agree with atari's sentiments, I find it disturbing that they managed to introduce bugs into a working program. Also, one (or both) of the versions had constructs like

```
wind_update(TRUE);
```

where you just have to know that TRUE means 1 (fortunately this is the non-zero value that everyone picks) and that 1 means either begin update or end update (fortunately context makes this clear, /if/ the code is correct). You tell me why they didn't just #include the proper file and be done with it. A magic number is marginally more legible than a meaningless manifest. (By the way, wind_update has /four/ meaningful input values, not two, as suggested by the use of TRUE), but a well chosen #define beats the shit out of both.

Moral: The preprocessor is /your friend/, if you let it be. But (alas) it seems that no one wants to take the trouble to use it responsibly. (I will now duck as legions of responsible programmers pelt me with rocks and garbage. Of course /my/ code is always flawlessly perfect.)

<flame off>

>*space used by a program at run time is divided into a number of segments.
>Each segment may contain up to 32KB.

Is this a bug or a feature? As a survivor of the /wonderful/ world of the 80x86, I would tend to think bug. Does this actually mean something more humane and useful? Is there any way to get a huge array (>64K)?

Thanks again for the review.

-- dmh
(It's about the New Genre)

P.S. I will be disappearing from netland in a couple of weeks (I'm graduating), so get your digs in quick!

From 2199520313093052579
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a4328e4fb9b5419
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 07:17:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)

Newsgroups: net.micro.atari16
Subject: Interrupt Routines and Megamax C
Message-ID: <459@elmgate.UUCP>
Date: Mon, 2-Jun-86 10:17:24 EDT
Article-I.D.: elmgate.459
Posted: Mon Jun 2 10:17:24 1986
Date-Received: Wed, 4-Jun-86 07:38:36 EDT
References: <429@elmgate.uucp> <3100002@megamax>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 62
Summary: No more flame - Interrupt routines instead

In article <3100002@megamax>, eric@megamax writes:
> What you need to do is establish a different mechanism for communicating
> between the interrupt routine and the main program. The easiest method is
> to declare some space in the interrupt procedure, preceeding it with a label,
> and use PC relative addressing to access it. If you save A4 in the space
> then you can directly access C global variables from your interrupt procedure.
>

Thanks for the response Eric...

The premise I was under was munged up. I kept thinking that some routine
was bombing my code. Indeed it 'twas I that was screwing up some system
routine by incrementing the interrupted code's D7. As soon as I stopped
incrementing D7 everything went hunky dori.

However......
A new question..... why do I get spurious interrupt traps 40-50% of the
time or more when I crank that timer up? To see what I mean use a prescaler
of 4 and a data value of 14 or less. Indeed, at times the machine goes to
sleep period. Other times as I've mentioned you'll be staring at 24
bombs.

Correct me if I'm wrong, the MFP interrupts at CPU level 6. Further, since
we use the MFP's software end of interrupt mode, no new level 6 interrupt
can interrupt or pass it's vector during my interrupt routine. Not even the
level 14 and 15 MFP interrupts. Since their are no level 7 (NMI) interrupts
that I'm aware of (are there?) what could be causing the spurious
interrupts? Even if their were another level 6 source (I believe the
MFP is the only one) it should be blocked because the CPU is already at
level 6. Right? The timer is clocked at 2.457 (or something like that) mhz
so I don't *THINK* it's timing out before my code (being run at 8mhz) is
completed. And again even if it were it won't be noticed until I clear the
In Service Register right? Is there a limitation of the MFP I don't know
of? For example you can't generate another interrupt with xxxus of the
previous because the vector register junk can't setup in time. Or something
like that? If so I missed it in the Motorola MFP manual.

Any ideas?   Anyone???

Now this is the type of stuff we should be discussing. I love it...

PS. Has anyone noticed that the current ST could NOT use a 68020? The $##%$#$! OS writer's used the upper byte of the exeception vectors for data! Just like Motorola said not to! Wonderful aye? Of course their are other things that would need changing as well. Guess they never intended to extend the ST/TOS system beyond the current ST's. Then again considering GEMDOS.... it might be just as well. 8-)

PPS. Does anyone know if GEMDOS is reentrant. I've heard that it is NOT and I've heard it is to 4 levels. Anyone know fur sure? Neil? What kinda hacking would it take to make fully reentrant? How 'bout the XBIOS and BIOS code? Is it fully reentrant?

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -3122944871765249922
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9c87122adb7906a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 08:03:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP (Andrew Smith)
Newsgroups: net.micro.atari16
Subject: GEMDOS routines 'Dup' and 'Fforce'
Message-ID: <680@neon.kcl-cs.UUCP>
Date: Mon, 2-Jun-86 11:03:49 EDT
Article-I.D.: neon.680
Posted: Mon Jun 2 11:03:49 1986
Date-Received: Thu, 5-Jun-86 07:31:40 EDT
Reply-To: andrew@kcl-cs.UUCP ()
Organization: Department of Computing, Kings College, University of London.
Lines: 12

Hello,

Could someone tell me how to use the GEMDOS routines 'Dup' ($45) and 'Fforce' ($46). The documentation I have (First Publishing book, 'Atari ST Internals') doesn't explain how to use these routines.

Many thanks,

Andrew B Smith.

(..!mcvax!ukc!kcl-cs!andrew)

From -873060524645203763
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,501be273ac57db10,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 08:34:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!styx!nike!cad!ucbvax!OHIO-
STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Alleged Problems with Cadenza (the Checkers Program)
Message-ID: <8606021534.AA02439@ohio-state.ARPA>
Date: Mon, 2-Jun-86 11:34:38 EDT
Article-I.D.: ohio-sta.8606021534.AA02439
Posted: Mon Jun 2 11:34:38 1986
Date-Received: Wed, 4-Jun-86 07:28:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

The disk containing the program must not be write protected, as
the moves of each game are stored in a disk file.

Terrell

From 8939889263599827777
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77099fd691cbe95a
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,77099fd691cbe95a
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-06-02 09:03:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.UUCP (Jeff Gortatowsky)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <460@elmgate.UUCP>
Date: Mon, 2-Jun-86 12:03:54 EDT
Article-I.D.: elmgate.460
Posted: Mon Jun 2 12:03:54 1986
Date-Received: Wed, 4-Jun-86 07:39:26 EDT
References: <708@tekigm2.UUCP> <318@atari.UUcp> <628@marlin.UUCP>
Organization: Eastman Kodak Co., Rochester, NY
Lines: 19
Xref: linus net.micro.atari8:236 net.micro.atari16:828

> >Look for the first issue under Ahl & Staples in July, and bimonthly for the

> >next while. 1987 -- monthly, if ahl goes well.
> >
> >--->Neil @ Atari
>

You know Neil, I could have sworn that when I bought my ST back in October
of last year I sent in the subsciption card to AE with either the bill me
or credit card fields ('fields' ... must but a 'puter nut!) filled in.
Never did get a single issue. Course I don't remember getting billed
either. Oh well, how can I tell if my subcription was never filled or if
there was no magazine to fill it with and will get one when it becomes
available?

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company
<Kodak won't be responsible for the above comments, only those below>

From -3362627220747018197
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bd4596f90f9cb664
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 10:31:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!
molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: How do I get the program name (argv[0])?
Message-ID: <166@molihp.UUCP>
Date: Mon, 2-Jun-86 13:31:08 EDT
Article-I.D.: molihp.166
Posted: Mon Jun 2 13:31:08 1986
Date-Received: Thu, 5-Jun-86 19:16:57 EDT
References: <520@snow.warwick.UUCP>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 20

In article <520@snow.warwick.UUCP> fkc@snow.UUCP (Frank K Carver) writes:
>Does anyone know any way to read the name of an application or accessory
>once it has been started (argv[0] to traditional `C' programmers).

  Don't have the books handy, but there are some routines to do this.
The 'gemlib' startup code with the dev kit pulls things off the command
line and puts it into the char *argv[] array like a UNIX system would,
but it ALWAYS puts the string 'C Runtime' into *argv[0]. This is a
pain, so the AES has a routine called SHEL_READ which allows you to pull
stuff off the 'command line' or wherever the command came from, and I
think they DO have the ability to get at the command name. There is
also a SHEL_WRITE which allows you to generate a new 'command line' for

Pexec()'ing another process, plus a couple of other routines. Check the
Abacus GEM Reference Manual. Now if you could make multiple links to
the same executable, you'd be in business!

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
     #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From 3821975257765585165
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd115afb8595fe3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 10:42:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!princeton!allegra!ulysses!mhuxr!mhuxn!
ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.atari16
Subject: Re: How to photograph color monitor?
Message-ID: <892@ihwpt.UUCP>
Date: Mon, 2-Jun-86 13:42:43 EDT
Article-I.D.: ihwpt.892
Posted: Mon Jun 2 13:42:43 1986
Date-Received: Wed, 4-Jun-86 07:20:33 EDT
References: <726@mprvaxa.UUCP>
Organization: AT&T Bell Laboratories
Lines: 22

> Can anyone out in netland give me pointers, hints on how to photograph
> color monitor displays?
>
> Thanks,
> Taylor Jackson

Main thing is to use a slow shutter speed, no faster
than 1/32. This is especially important with a focal-plane
shutter. Slow film is fine because you can open your lens
all the way up, since no depth of field is needed.

El cheapo camers have slow blade shutters, so should work well
if you use fast film. Parallax thru the viewfinder will
require some guesswork on anything other than an SLR.

If your camera has thru-the-lens light metering, use it and
believe it, provided you move in close enuf to fill the entire
viewfinder with the screen. And of course, darken the room
as best you can.

I've had good luck with color and amber CRTs myself.
     mike k

From 8598736077162817599
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,25a2be06fe10f662
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 13:19:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!bellcore!decvax!ittatc!
dcdwest!sdcsvax!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: Megamax C mini-review
Message-ID: <2456@ism780c.UUCP>
Date: Mon, 2-Jun-86 16:19:56 EDT
Article-I.D.: ism780c.2456
Posted: Mon Jun 2 16:19:56 1986
Date-Received: Sat, 7-Jun-86 05:28:42 EDT
References: <860602034528.001@Juliet.Caltech.Edu>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 17

In an article dmh@JULIET.CALTECH.EDU (David M Hull) writes:
>
>   But not fork(), wait(), getenv(), setenv()? Sounds like about par
>for the microcomputer C course (which is not /so/ bad).
>

I knew some people once who were implementing a UNIX(R) library for a Mac
C compiler. One of them wanted to provide fork() like this:

```
fork() {
     errno = EAGAIN;
     return -1;
}
```

This should also work for the ST... :-)
--
Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim

From 7457352437861064311
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,de34fdc6181e7364,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 14:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!nike!cad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET

Newsgroups: net.micro.atari16
Subject: RCS problems with icons, bit images.
Message-ID: <8606021501.AA12141@ucbvax.Berkeley.EDU>
Date: Mon, 2-Jun-86 17:54:00 EDT
Article-I.D.: ucbvax.8606021501.AA12141
Posted: Mon Jun 2 17:54:00 1986
Date-Received: Wed, 4-Jun-86 07:25:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 47

OPTIONS: NOACK   LOG   SHORT   NOTEBOOK ALL

Date: 2 June 1986, 16:53:50 EST
From: Ton van Overbeek   +31 1719 83041   TPC862   at ESTEC
To: INFO-ATARI16 at SU-SCORE.ARPA
Subj: RCS problems with icons, bit images.

hmm@unido.bitnet writes:
> Did you ever try to incorporate multiple icons in your resource
> file using RCS ? It screws up
> the resource file completeley, and you have to remove the complete
> object tree which contains these icons.
>
>   Hans-Martin Mosner (hmm@unido.uucp, hmm@unido.bitnet)
>   University of Dortmund

I found the following when trying to make a dialogue box with the Resource Construction Set. The dialog box included both text and an image (bitblk). Sometimes it worked, sometimes three boms appeared when trying to open the dialog box (that happened both in the RCS and in the apllication using the resource). It turned out that the problem is the generation of the .RSC file by the RCS. First the resource header (as defined in one of the header files) is generated. Then all the strings used in menu's, TEDINFO's, alertboxes, etc. After that follow the bit images of the images and the icons.

These images have to start on a word boundary ||||||||||||

When the total number of bytes in all the strings (including the ending nulls) is odd you will have a problem.

The remedy is simple. Construct your resource. Save it. Load it again. Try to open something with an image or icon in it. If boms occur, change one of the strings (doesn't matter which one) by adding or deleting one character (a space probably). And, magic, it works.

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
Control Systems Section

P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       TPC862@ESTEC   (EARN/BITNET)

From -2866243190285703692
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-02 15:48:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!sage.cs.reading.Ac.Uk!
gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <181@sage.cs.reading.Ac.Uk>
Date: Mon, 2-Jun-86 18:48:01 EDT
Article-I.D.: sage.181
Posted: Mon Jun 2 18:48:01 1986
Date-Received: Thu, 5-Jun-86 07:33:42 EDT
References: <8605111518.AA11708@ohio-state.ARPA> <170@sage.cs.reading.Ac.Uk>
<259@ubc-cs.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 26

In article <259@ubc-cs.UUCP> manis@ubc-cs.UUCP (Vince Manis) writes:
>Simon Gordon, in an exasperated sounding posting, remarks that language
>implementors are ripping users off by claiming that their languages provide
>full Gem support when in fact they don't. I must disagree. I have used

I foun out about two weeks after sending this message about the new TDI
modula-2. But at a 25 pound (UK) update fee, that in effect ups the cost
of the compiler by 25%. If it wasnt for people like me buying these
languages (and the ST) when it first came out (and often waiting months
for delivery) then some of these companies would go bankrupt before
getting out the PROPER version.

METACOMCO charge a slightly better 10 pound update fee - but they dont
supply the acc object file or a resource editor. I have managed to
get copies of these that I can use with most languages - but no doubt
as soon as I pay for an update TDI will bring out yet another better
version and screw me for another 25 pounds if i want it.

SOME REPUTABLE COMPANIES (on other machines) PROVIDE FREE UPGRADES IF
YOU SEND IN THE ORIGANAL DISK (this doesnt stop you using a backup
while you wait for delivery.

Please, all the companies with more money than me - GIVE ME A CHANCE.
I am trying to keep up to date - when i can afford it.

Simon @ Reading

From 1041952910552042239
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16249ef5308d9400
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-03 04:11:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: A Checkers Program for the ST
Message-ID: <315@brueer.ee.brunel.ac.uk>
Date: Tue, 3-Jun-86 07:11:55 EDT
Article-I.D.: brueer.315
Posted: Tue Jun 3 07:11:55 1986
Date-Received: Thu, 5-Jun-86 20:12:14 EDT
References: <8605180748.AA29278@ohio-state.ARPA> <297@brueer.ee.brunel.ac.uk>
<319@atari.UUcp>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 42

In article <319@atari.UUcp> neil@atari.UUCP writes:
>In article <297@brueer.ee.brunel.ac.uk>, ralph@ee.brunel.ac.uk
>(Ralph Mitchell) writes:
>> In article <8605180748.AA29278@ohio-state.ARPA> terrell@OHIO-STATE.ARPA.UUCP
>writes:
>> >
>> >The next few postings are for a checkers program (named cadenza) that
>> >I have written.
>>
>> OK, I believe that this program works. However when I try to run it on
>> my 520, it doesn't
>
>It works fine on my machine. I just put it on the Atari BBS, so hopefully
>it will be disseminated soon.
>
>TOS Error #35 is "Too many files open" (no more handles left). Either you
>glitched the copy of the program, or a prior application wasn't closing
>things properly.
>
>A real book version of the documentation will appear this Fall at book
>stores. We'll let you know when things get close.
>
>--->Neil @ Atari
>   ...lll-crg!vecpyr!atari!neil

Thanks to Neil and Bill (Pase@DOCKMASTER.ARPA) for answering my query. I
think the problem is probably lack of trailing blanks.

BTW, Neil, I get TOS Error #35 even if I re-boot the system, open 1 window
and then run cadenza. "Too many files open" ?? You sure 'bout that ?? :-)

Ralph Mitchell
--
=-=
Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
Uxbridge | JANET: ralph@uk.ac.brunel.ee
UB8 3PH |
UNITED KINGDOM | "Noli illegitemi carborundum"
=-=

From 4832675473268418820
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,77099fd691cbe95a
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,77099fd691cbe95a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-03 12:31:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <329@atari.UUcp>
Date: Tue, 3-Jun-86 15:31:03 EDT
Article-I.D.: atari.329
Posted: Tue Jun 3 15:31:03 1986
Date-Received: Thu, 5-Jun-86 07:46:15 EDT
References: <708@tekigm2.UUCP> <318@atari.UUcp> <628@marlin.UUCP>
Organization: Atari Corp/Mktg
Lines: 17
Xref: linus net.micro.atari8:239 net.micro.atari16:835

In article <628@marlin.UUCP>, dobbs@marlin.UUCP (Lynn B. Dobbs) writes:
>
> I know I should have kept the card that told me how to subscrib, but I
> didn't. (sigh)
>
> How about posting the subscription info.

Send $15 for 6 issues or $39.95 for 18 issues to:
  Atari Explorer
  PO Box 3427
  Sunnyvale CA 94086

Canadians add $5/6 issues, others outside of US add $10/6 issues.
Mastercard and Visa accepted.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -1568165621940477271
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77099fd691cbe95a
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,77099fd691cbe95a
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-06-03 12:37:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atari Explorer
Message-ID: <330@atari.UUcp>
Date: Tue, 3-Jun-86 15:37:04 EDT
Article-I.D.: atari.330
Posted: Tue Jun 3 15:37:04 1986
Date-Received: Thu, 5-Jun-86 07:46:30 EDT
References: <708@tekigm2.UUCP> <318@atari.UUcp> <628@marlin.UUCP>
<460@elmgate.UUCP>
Organization: Atari Corp/Mktg
Lines: 12
Xref: linus net.micro.atari8:240 net.micro.atari16:836

In article <460@elmgate.UUCP>, jdg@elmgate.UUCP (Jeff Gortatowsky) writes:
>
> You know Neil, I could have sworn that when I bought my ST back in October
> of last year I sent in the subsciption card to AE...
> Never did get a single issue. Course I don't remember getting billed
> either. Oh well, how can I tell if my subcription was never filled?

Please call Sherry Cann at 408-745-4204. She has the subscription records
and can give you a status report. Judging by your description, your request
has vanished -- you should have received SOMETHING by now.

--->Neil @ Atari

From 9191212627969642605
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8d06c7ab9889c343,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-03 13:21:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!topaz!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Questions for Atari
Message-ID: <2243@uwmacc.UUCP>
Date: Tue, 3-Jun-86 16:21:06 EDT

Article-I.D.: uwmacc.2243
Posted: Tue Jun 3 16:21:06 1986
Date-Received: Thu, 5-Jun-86 07:43:33 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 34

This is a mild complaint aimed at Atari - I hope I can get
a response out of Neil...(how 'bout it, Neil? ;-))

We purchased our ST back in January. My understanding was that
when I sent in the warrenty card, I would receive ST BASIC in the
mail along with a manual. Well, gosh, here it is June, and I haven't
heard word one from Atari. If I didn't buy a PASCAL and an Assembler,
I'd have been stuck with a $800 Logo-only machine. (*shudder*)

How's'bout sending me my property gang?! ;-)

Incidently, here is a seperate question also for the gang at Atari:

Neil ---
   What was the story behind the policy decision to make people who
already have Atari ST's purchase seperately the GEMDOS in ROM chips?
Since you are now providing them bundled with the ST at the same price,
don't you think it would have been "polite" to send out TOS chips to
all of us that bought the ST when it was still a "risky, new machine"?

Just curious....

--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

          "If you can't trust wimp lawyers anymore,
                 who can you trust...?"
                        -- Mildred Krebs

From -6355164391887586348
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,faacb4f706f584c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-03 15:01:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpf!rtb
From: rtb@ihlpf.UUCP (Todd)
Newsgroups: net.micro.atari16
Subject: Atari at CES
Message-ID: <525@ihlpf.UUCP>

Date: Tue, 3-Jun-86 18:01:13 EDT
Article-I.D.: ihlpf.525
Posted: Tue Jun 3 18:01:13 1986
Date-Received: Sat, 7-Jun-86 14:13:27 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 51

Just got back from Summer CES in Chicago and thought I'd share
what I saw and heard there.

Atari

Atari was there in force with a really big exhibit. As you walked
into the Atari area there was a Video digitizer on the left
and an audio digitizer on the right (both hooked up to 520 STs).
The Video digitizer was made by Hippo. It plugs into the ROM slot
and uses a standard video camera (b&w). The pictures are taken
every 8 seconds and can be stored in a NEOCHROME format. You can
later use NEOCHROME to modify the captured imaged. It retailed for
around $150 and can be used with either the mono or color 520ST.
I forget the name of the company that was demonstrating the audio
digitizer. A lot of third party developers were there showing off
their latest and greatest programs. Faster Than Light (makers
of SUNDOG) were showing a beta version of DUNGEONMASTER. A D&D
type game where you actually see the inside of the cave as you
walk along (imagine WIZARDRY made with really fantastic graphics).
EPYX was showing ROGUE, the ST version has some really nice features.
Firebird (makers of PAWN) were showing STARGLIDER, my favorite
in the show, kind of like the arcade version of STAR WARS. Blue Moon
software was demonstrating a SIDEKICK-like GEM utility.
HIPPO had a 520ST hooked up to a HP laser printer demonstrating
HIPPOWORD. I asked several vendors about support for the new
24 pin printers, and most of the new packages will support
the LQ800 and others. A lot of the displays were so crowded
I couldn't see all the software being shown. There were also
demos of Battlezone and Joust, but no Star Raiders. (I have heard
that Star Raiders is being sold in Europe, any comments out
there???) Batteries Included was advertizing PAPERCLIP ELITE
but was not actually showing it. ABUCAS had their own booth
and was showing the Circuit Board Design program and a 3D
graphics program. They are coming out with 6 new programs this
year but I can't remember what they are. Atari was not showing
of any new hardware, so I didn't get to see the new MS-DOS box.

Commadore

Commadore had a really small booth in a really obscure corner.
They were not even showing the AMIGA but were pushing a new
C-64. This gives fuel to the rumor that they are dropping the
Amiga. I asked about the Amiga and was told that the Amiga

was shown at the last show so they were showing the 64 and
128 only at the CES so all Commadore machines would get
equal exposure.(???????????) Oh well, I better not go on or
I will be accused of being a doomsayer.

R.T. Bradstrum

From -4033643680246656001
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e5e52a978df87107,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-03 16:30:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!
mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)
Newsgroups: net.micro.atari16
Subject: TDI Pascal <> GEM
Message-ID: <727@mprvaxa.UUCP>
Date: Tue, 3-Jun-86 19:30:30 EDT
Article-I.D.: mprvaxa.727
Posted: Tue Jun 3 19:30:30 1986
Date-Received: Thu, 5-Jun-86 19:38:31 EDT
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 15

Have recently purchased the TDI Pascal, and have discovered it is a true
UCSD Pascal, complete with its own OS. Zero compatability with GEM, so...
Has anyone got a utility to convert GEM files to something readable by the
system? Have all my source on 5 1/4 floppies, and would like to be able to
port it over to the ST. TDI Pascal does come with Remtalk.code (undocumented)
but don't need the hassle of enlisting friends (with computers) to connect up
every time I need to transfer some source.

If no utilities around, any offers on a 'used only once on a rainy Sunday' set
of Pascal disks with manual? (Comes complete with low opinion of 'enhanced to
improve file access' feature).

Taylor Jackson
Above are my opinions, hopefully everyone else's, too.

From -5228623799128011395
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd115afb8595fe3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 07:53:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!ritcv!cci632!ccird1!rb
From: rb@ccird1.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16

Subject: Re: How to photograph color monitor?
Message-ID: <437@ccird1.UUCP>
Date: Wed, 4-Jun-86 10:53:45 EDT
Article-I.D.: ccird1.437
Posted: Wed Jun 4 10:53:45 1986
Date-Received: Thu, 5-Jun-86 20:10:31 EDT
References: <726@mprvaxa.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI Rochester Development, Rochester NY
Lines: 18
Summary: Some tips

In article <726@mprvaxa.UUCP> jackson@mprvaxa.UUCP (Taylor Jackson) writes:
>Can anyone out in netland give me pointers, hints on how to photograph
>color monitor displays?

There was a real nice article on how to do this about four years ago.

In short, it is reccomended that you use an SLR camera, mounted on
a tripod. Darken the room as much as possible. Set the shutter
speed for at least 1/2 second, preferably longer, and set your f
stop way down, say to f22, use a light meter to get the best setting.
If there is any "overscan" such as is found on ntsc monitors, the scan
lines will disappear. An ST screen (mono) has just a little "crawl",
so your final picture will not look like a screen, but like a white
piece of paper. Diagonal lines will still have a slight "stair case"
look as always, but vertical lines and most text will appear quite
solid.

Good luck.

From 2510520137051437793
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ff151f1ad67332dc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 08:21:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: PROFF printer drivers
Message-ID: <316@brueer.ee.brunel.ac.uk>
Date: Wed, 4-Jun-86 11:21:27 EDT
Article-I.D.: brueer.316
Posted: Wed Jun 4 11:21:27 1986
Date-Received: Fri, 6-Jun-86 05:05:52 EDT
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 15

Does anyone have a PROFF printer driver for a NEC8023 ?

The problem is that bold and underline don't work properly on the NEC

because of the way it stores and prints lines. It is effectively
ignoring backspaces... :-) You tend to get bold text lliikkee tthhiiss or
for underlined text l_i_k_e t_h_i_s_ !!
--
=-=
Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
Uxbridge | JANET: ralph@uk.ac.brunel.ee
UB8 3PH |
UNITED KINGDOM | "Noli illegitemi carborundum"
=-=

From -1839755745710615599
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30368fd5c054cff0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 08:31:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: Mini-review of Megamax C
Message-ID: <526@druhi.UUCP>
Date: Wed, 4-Jun-86 11:31:26 EDT
Article-I.D.: druhi.526
Posted: Wed Jun 4 11:31:26 1986
Date-Received: Sat, 7-Jun-86 07:09:18 EDT
References: <564@ssc-bee.UUCP>
Distribution: net
Organization: AT&T Information System Labs, Denver, Co
Lines: 55
Summary: more observations

In article <564@ssc-bee.UUCP>, ditzel@ssc-bee.UUCP (Charles L Ditzel) writes:
>
> I recently received Megamax C and my first impressions are very favorable.
>

I too recently purchased Megamax C. I really like the package and agree
with what Charles wrote about it. I do have a couple of observations that
I would like to share.

1) I/O redirection does not work correctly with Megamax C. I first heard
about this on Compuserve, and I have since tried it for myself. I tried
redirecting output from a program supplied with the Mirco C shell into
a program compiled with Megamax. The Megamax program is supposed to filter
the standard input and print some results on stdout. The Megamax program
doubled the input lines and inserted garbage characters before sending
output to stdout. If stdin was not redirected in the shell, then the program
worked correctly.

I also tried redirecting stdout and the program crashed! Obviously this is a bug in the libraries that needs to be fixed. Especially since the documentation states explicitly that i/o redirection should work correctly.

I must add, however, that this is the only major bug that I have heard about, or experienced. Everything else seems to work as advertised.

2) The icon editing feature of the RCS supplied with Megamax is good, but I wish you could save/load icons to/from the disk. This would be a timesaver when using a set of "standard" icons in an application.

3) My overall impression of the package is very favorable. The documentation is fairly comprehensive and mercifully concise.

Developing programs with this package is much more pleasureable than with the developer's kit. I have a one meg 520ST with a half-meg ramdisk. I can fit everything needed for the edit/compile/link cycle (compiler, linker, headers, libraries, editor, shell) on the ramdisk and still have enough space (>100K) for my source files.

The compile/edit cycle is great when running under the graphical shell. First you edit the program, then compile. If the compiler finds bugs, the editor is reinvoked and loads your source file in one window and a file containing your error messages in another. The error messages even make sense! Since you are running under the ramdisk everything is very fast and convenient. It certainly blows away the DRI development environment in terms of productivity and ease of use.

If you don't need to compile programs that redirect i/o, or if you already have the developer's kit for compiling those kinds of programs (I do), then I heartily recommend Megamax C.

Barry Locklear
AT&T Information Systems Labs
Denver, CO
ihnp4!druhi!lbl
(303) 538-4954

From -4026256182356685985
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1097347699372ebb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 08:44:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!nike!cad!ucbvax!ESTEC.BITNET!TPC862
From: TPC862@ESTEC.BITNET
Newsgroups: net.micro.atari16
Subject: Line A variables at negative offsets, info wanted.
Message-ID: <8606041319.AA10561@ucbvax.Berkeley.EDU>
Date: Wed, 4-Jun-86 11:44:00 EDT
Article-I.D.: ucbvax.8606041319.AA10561
Posted: Wed Jun 4 11:44:00 1986

Date-Received: Thu, 5-Jun-86 19:43:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

OPTIONS: NOACK LOG SHORT NOTEBOOK ALL

Date: 4 June 1986, 10:38:33 EST
From: Ton van Overbeek +31 1719 83041 TPC862 at ESTEC
To: INFO-ATARI16 at SU-SCORE.ARPA
Subj: Line A variables at negative offsets, info wanted.

There are Line A variables at negative offsets from the Line A variables
base address returned by the $A000 opcode. See for instance the listing
of the HI50 program recently posted on the net and the info on the
position of the text cursor a while back. In the toolkit info I have
only the Line A variables at positive offsets are described.
Does anybody have a description of all the line A variables and their
meaning ? If so, please post it and/or mail to me.
It seems that with these 'negative' Line A variables you can implement
font loaders, change fonts, etc.
Thanks for any info.

Ton van Overbeek
European Space Research and Technology Centre (ESTEC)
Control Systems Section
P.O.Box 299
2200 AG Noordwijk, The Netherlands.
Phone: +31 1719 83041
Email: TPC862%ESTEC.BITNET@WISCVM.WISC.EDU (ARPA)
       TPC862@ESTEC   (EARN/BITNET)

From -5912640159148788505
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,780cc792bc502c1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-06-04 08:54:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!alberta!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: ProGEM
Message-ID: <168@molihp.UUCP>
Date: Wed, 4-Jun-86 11:54:49 EDT
Article-I.D.: molihp.168
Posted: Wed Jun 4 11:54:49 1986
Date-Received: Sat, 7-Jun-86 05:33:35 EDT
References: <8605300832.AA05713@ucbvax.Berkeley.EDU>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)

Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 15
Summary: Did anybody get this stuff?

In article <8605300832.AA05713@ucbvax.Berkeley.EDU> CS112170@YUSOL.BITNET writes:
>
>Is there anyone on BITNET who has the earlier releases of the file
>called ProGEM ??

  We have never received the macros needed for proff'ing the Progem info
or most of the Progem documents. Seems like ages since we've seen anything
at all from Case Western Reserve University, anyway, so maybe the news feed
is/was broken. Anyway, could we get this stuff mailed from someone nearby,
or posted if this is a widespread problem?

UUCP : ...!ubc_vision!molihp!robt   Robert Thurlow
      #
My thoughts are my own, and are void where prohibited by law.
     #
"There was something fishy about the butler. I think he was a
     #
Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #

From -6102856542827107689
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fef0a9ab68743edb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 18:33:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!axiom!drilex!rclex!walt
From: walt@rclex.UUCP (Walter L. Weber)
Newsgroups: net.micro.atari16
Subject: Convert 1/2Mb to 1Mb disk drives??
Message-ID: <765@rclex.UUCP>
Date: Thu, 22-May-86 21:33:57 EDT
Article-I.D.: rclex.765
Posted: Thu May 22 21:33:57 1986
Date-Received: Fri, 23-May-86 23:59:12 EDT
Organization: Ridge Computers (Eastern Region), Lexington, MA
Lines: 19

In the May 1986 issue of ST Applications (new magazine) there is
an advertisement for a company who is doing hardware upgrades of
SS drives to double sided. They advertisement reads
    "Send your SF354 disk drive unit (No power supplies please)
     with $120 plus shipping & handling to....."

The company is called "Komputer Korral" in Portales, NM.

Does anyone have any experience with this company, or with upgrading

their drives to double-sided?

(Please don't say "You should have thought about that BEFORE.....", since
 that statement is reserved for parents taking children on long
 automobile trips! :-)
--
Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers   PHONE: (617) 861-6000
Lexington, Mass.   COMPUSERVE: 76515,2423

From -6186282449390750767
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fef0a9ab68743edb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 22:13:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site cbmvax.cbmvax.cbm.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!psuvm.bitnet!psuvax1!vu-vlsi!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Convert 1/2Mb to 1Mb disk drives??
Message-ID: <285@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 23-May-86 01:13:11 EDT
Article-I.D.: cbmvax.285
Posted: Fri May 23 01:13:11 1986
Date-Received: Sun, 25-May-86 11:01:13 EDT
References: <765@rclex.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 28

In article <765@rclex.UUCP> walt@rclex.UUCP (Walter L. Weber) writes:
>In the May 1986 issue of ST Applications (new magazine) there is
>an advertisement for a company who is doing hardware upgrades of
>SS drives to double sided. They advertisement reads
>   "Send your SF354 disk drive unit (No power supplies please)
>   with $120 plus shipping & handling to....."
>
>The company is called "Komputer Korral" in Portales, NM.
>
>Does anyone have any experience with this company, or with upgrading
>their drives to double-sided?
>
>Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt

I don't know about the company, but this sounds like a reasonable deal.
You can upgrade the unit youself, by replacing the actual floppy drive
with an Epson SMD-180 drive. You would would have to pay around $100
for the drive, and it would only take a few minutes to switch the drive
and bezel.

The Korral could make a nice profit, since they can buy the drives at
wholesale prices, and resell the old single sided drive to a repair
shop. Now why didn't I think of that?
--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 2285411678467912555
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7a7171879f4074cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 22:27:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utai.UUCP
Path: utzoo!utcsri!utai!jenkin
From: jenkin@utai.UUCP (Michael Jenkin)
Newsgroups: net.micro.atari16
Subject: vt52 with function keys
Message-ID: <1700@utai.UUCP>
Date: Fri, 23-May-86 01:27:56 EDT
Article-I.D.: utai.1700
Posted: Fri May 23 01:27:56 1986
Date-Received: Fri, 23-May-86 02:56:00 EDT
Distribution: net
Organization: CSRI, University of Toronto
Lines: 76

Here is a very simple vt52 emulator for the st with function keys.
It is a quick hack designed to work with CMS systems. It defines
the arrow keys, the enter key, and f1-f10 are defined as CMS
function keys f1-f10. This was written using HIPPO-C (yes, you
can write things using HIPPO-C), and converting to DRI 'C' should
be straight forward.

To use, save this to disk, compile, and link with the -S option.
Move a:\a.prt to a:\vt52.tos and you're ready to go.
---------------------------- cut here ------------------------------
```
# include <stdio.h>
/*
     vt52.c - a very simple vt52 emulator with function keys
*/

# define ESC  0x1b

int c, k;

esc(s)
char *s;
{
     auxout(ESC);
     for(;*s;s++){
```

```
          while(!auxos());
          auxout(*s);
     }
}

main()
{
     while(1){
          while(auxis() < 0)
               putchar(auxin() & 0xff);
          if(conis() < 0){
               c = rawcin();
               k = c & 0xff;
               c = c >> 16;
               if(c < 0x3a) /* regular keyboard character */
                    auxout(k);
               else if((c >= 0x3b) && (c < 0x44)){ /* function key */
                    auxout(ESC);
                    auxout('1' + (c - 0x3b));
               } else if(c == 0x44){
                    esc("0");
               } else { /* special function keys */
                    switch(c){
                    case 0x62: /* help - return to desktop */
                         term0();
                         break;
                    case 0x48: /* cursor up */
                         esc("A");
                         break;
                    case 0x4b: /* cursor left */
                         esc("D");
                         break;
                    case 0x50: /* cursor down */
                         esc("B");
                         break;
                    case 0x4d: /* cursor right */
                         esc("C");
                         break;
                    case 0x72: /* keypad enter */
                         esc("?M");
                         break;
                    }
               }
          }
     }
}
--
Michael Jenkin                         University of Toronto
USENET:  {utzoo,floyd,linus,decvax,ihnp4,allegra}!utcsri!utai!jenkin
CSNET:   jenkin@Toronto
ARPA:    jenkin%Toronto@CSNet-Relay
BELL:    416-978-7321
```

From -6558760750728872875
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d0346650703bfda,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 03:30:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
ucbvax!DHDEMBL5.BITNET!SANDER
From: SANDER@DHDEMBL5.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: TDI's MODULA-2 and desk accessories
Message-ID: <8605231021.AA03572@ucbvax.Berkeley.EDU>
Date: Fri, 23-May-86 06:30:42 EDT
Article-I.D.: ucbvax.8605231021.AA03572
Posted: Fri May 23 06:30:42 1986
Date-Received: Sun, 25-May-86 12:09:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 39

---------- cut here ----------
From Chris Sander in Heidelberg / SANDER@DHDEMBL5.BITNET

TDI has just released a new version of their MODULA-2
compiler, version 2.10a, with significant improvements:

... desk accessories are now supported
    by linking the desk accessory run time support
    module GEMACCX.LNK in place of GEMX.LNK
... desktop-like user interface
... one-step procedure to compile and link
... improved editor
... etc. etc.

We paid 25 pounds UK for the update.

They also offer a developer's tool kit, including
a symbolic debugger and a resource construction tool
called RSCMAKER. But we have not seen it yet.

TDI Software Inc.'s coordinates:

UK: 29 Alma Vale Road, Bristol BS8 2HL,   phone: UK-272-742796
US: 10410 Markison Road, Dallas, Texas 75238   phone: USA-214-348-4942

I intend to write a mini-review of the MODULA compiler soon.
If you mail your comments to me directly, I will try to
include them in the review.

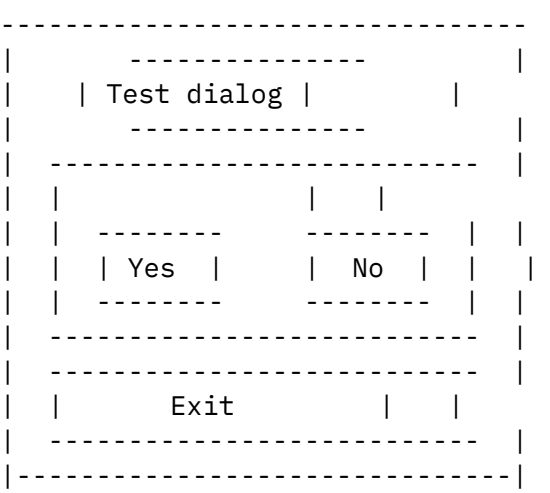
Disclaimer: I could care less about TDI's profits.

Claimer: ... but I *am* interested in promoting MODULA-2.
          It certainly beats PASCAL, FORTRAN (what's that ?),
          and even C (if it weren't for UNIX) and ADA
          (M-2 is much smaller).

Chris Sander at the Max Planck Institute of Medical Research

From 169302879960181078
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fc7682cfe014304,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 09:51:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
bullwinkle!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Need help with AES objects and the RCS.
Message-ID: <162@molihp.UUCP>
Date: Fri, 23-May-86 12:51:02 EDT
Article-I.D.: molihp.162
Posted: Fri May 23 12:51:02 1986
Date-Received: Mon, 26-May-86 01:43:28 EDT
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 84
Keywords: AES, RCS

  I have been playing with a friends' development kit for a couple of days and have had some problems. To learn about the RCS, I made a resource with one dialog box and a small program to listen to it with EVENT_BUTTON. The dialog box is set up like this:



  The 'Yes' and 'No' are BUTTONS with the RADIO_BUTN flag set, and the 'EXIT' is a BUTTON with DEFAULT and EXIT flags set. All three of these

are also SELECTABLE. The 'Yes' and 'No' are also 'children' to the BOX enclosing it, so the RADIO_BUTN flag should mean something. But I have troubles.

1) I have to have code to explicitly darken and lighten the 'Yes' and 'No' buttons with OBJC_CHANGE or else nothing happens. Am I misunderstanding the idea of radio buttons? I thought they would do this visual feedback for me. What is the use of the RADIO_BUTN flag?

2) The 'Exit' must be selected with a mouse click. The 'Return' key is always ignored. I *KNOW* this works in other programs; any ideas on what I am doing wrong? Do the EXIT and DEFAULT flags fight?

3) The RSRC_LOAD works fine, and fails as it should if the .RSC file is not found. I then do a FORM_ALERT to complain, and after accepting the abort option, I do a V_CLSVWK and an APPL_EXIT. The screen is then filled with randomly positioned flickering checkmarks and the system goes off to la-la land, requiring RESET. I don't know what else I must clean up to avoid this; any ideas? (It is a nice effect, though. :-))

I then tried to get a good stand-alone example that is clear without the RCS. I saved a copy of my resource with the 'Output' option set to 'produce a .C file' to get the data structures, and added this to my code. The RSRC_* routines went away and my OBJC_* functions now apply themselves directly to the "OBJECT rs_object[]" array. Then I tried it.

4) The dialog box now comes up tiny, about the size of a matchhead. None of the features are visible, unless you have a great imagination. It is possible to hit the 'Exit' button, but it takes great talent. And hitting the 'Exit' button is the only way out, remember.

Turns out the numbers are too small for all of the objects in the structure; they are in CURSOR coordinates, not PIXEL coordinates like I want. So are they stored differently in a loadable resource file? If so, why the difference? If not, what changes them to pixel coordinates whan I load/use the resource?

Obvious solution: translate all the coordinates to PIXEL coordinates. I tried this two ways: I got out my hand calculator and multiplied each x and width by (640/80) = 8, and each y and height by (400/25) = 16, and then I tried the RSRC_OBFIX routine on each member of the array on startup. Both approaches caused the same results, leading to ...

5) The BOX and BUTTON outlines are drawn first, with the text I expect being changed to gibberish. Then in from both sides come two great sweeps of grey, which blotto the boxes when they meet in the center. Then where the old 'Yes' box was supposed to be darkens and the areas where the 'No' and 'Exit' boxes were supposed to be lighten, as the initial OBJC_CHANGE calls take effect. Finally, the mouse cursor appears. Then I can poke at where the boxes were and get them to darken and lighten, just like before, except there are no outlines or text. (This, too, is a nice effect.)

Any help on how this stuff works would be appreciated. So would help on what changes to make to incorporate and use the .C output file from the RCS. I post a summary of any mail.

```
#   UUCP : ...!ubc_vision!molihp!robt     Robert Thurlow
         #
#   My thoughts are my own, and are void where prohibited by law.
     #
#   "There was something fishy about the butler.  I think he was a
     #
#    Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #
```

```
From 41705839117991634
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e821c713a4a12a7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 11:19:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
bullwinkle!batcomputer!braner
From: braner@batcomputer.TN.CORNELL.EDU (braner)
Newsgroups: net.micro.atari16
Subject: Re: keypad probem ,need vt100 for ST
Message-ID: <343@batcomputer.TN.CORNELL.EDU>
Date: Fri, 23-May-86 14:19:23 EDT
Article-I.D.: batcompu.343
Posted: Fri May 23 14:19:23 1986
Date-Received: Sun, 25-May-86 18:17:52 EDT
References: <8605162146.AA21671@ucbvax.Berkeley.EDU>
Reply-To: braner@batcomputer.UUCP (braner)
Organization: Theory Center, Cornell University, Ithaca NY
Lines: 16
```

I have written a small program that installs an alternative keyboard tranlation table into TOS. The table is read as a (binary) file. I currently have a file which translates Backspace to rubout, Delete to ^D, and the arrow keys to what is needed for microEmacs. A file can be created for vi, say, using a simple C program I have also written. The numeric pad keys CAN be distinguished, if you want.

Catches: A key can only be translated to ONE ASCII code with this method. The installed table is used only by programs that call the usual TOS char input routine. Communication programs may bypass that upon some function keys, e.g. XMOTER preempts all F# keys and more.

Nevertheless, this method is an easy way to make life easier INSIDE existing programs/environments! Email if interested.

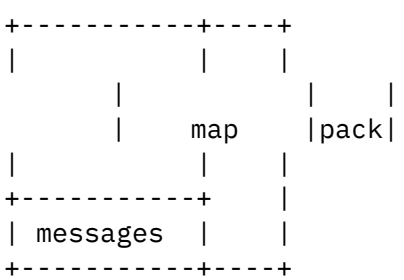
From -121781437660286473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e932cb6adec0520a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 12:01:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: New Products!
Message-ID: <8605231901.AA00867@ee.purdue.edu>
Date: Fri, 23-May-86 15:01:18 EDT
Article-I.D.: ee.8605231901.AA00867
Posted: Fri May 23 15:01:18 1986
Date-Received: Sun, 25-May-86 13:58:41 EDT
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

Just visited my local Atari-shop (Von's Computers) and saw three new products:

1) A clock module. This little beauty plugs into your ROM port and via an AUTO folder program and/or DA sets the system time from a battery powered clock (which looks kinda like a watch chip). I have no idea who makes this; I was busy playing with item three... Has any one heard of or have such a gizmo? I'm considering getting one... Cost: $45.00

2) Epyx has Temple of Apshai for the ST. The game includes the ENTIRE Apshai series in one game! Cost: $37.00

3) Last, and clearly the best. Epyz has Rogue for the ST. It's a graphically 'enhanced', windowed version which looks to be exceptionally well done. You have three windows:



The map window has a 'zoom" button to switch it from a 1/4 window scrolling map to a full map. The pack window shows icons of what you've picked up and expands to fill the whole screen giving details of each item. The message window gives you the normal rogue messages.

I played for about 20 minutes at my dealer and can hardly wait for the long weekend! Cost: $37.00

--ddm

From 1345563688602352969
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,177eade10079cce7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 13:57:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!ut-sally!
utah-cs!sandra
From: sandra@utah-cs.UUCP (Sandra J Loosemore)
Newsgroups: net.micro.atari16
Subject: microemacs v30 (again)
Message-ID: <3798@utah-cs.UUCP>
Date: Fri, 23-May-86 16:57:21 EDT
Article-I.D.: utah-cs.3798
Posted: Fri May 23 16:57:21 1986
Date-Received: Sun, 25-May-86 17:43:05 EDT
Organization: University of Utah CS Dept
Lines: 10
Keywords: it works

Thanks to all those who responded to my question about getting microemacs
v30 to run on the ST. Eventually I hit upon the idea of casting the pointers
it was trying to subtract to long, the compiler warnings went away, and it
linked fine. Since others have gotten the code to work "as is", I suspect
there is a bug in the version of the C compiler that came with my developer's
kit (which I just got a few weeks ago) that is not present in earlier
versions.

-Sandra Loosemore
(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)

From 4341293964005956423
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 14:05:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: overheating 1040
Message-ID: <174@sage.cs.reading.Ac.Uk>
Date: Fri, 23-May-86 17:05:08 EDT
Article-I.D.: sage.174
Posted: Fri May 23 17:05:08 1986
Date-Received: Mon, 26-May-86 01:26:23 EDT
References: <8605131618.AA10686@mitre-bedford.ARPA> <241@ubc-cs.UUCP>
<3444@ukma.UUCP>

Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 21

In article <3444@ukma.UUCP> knnngt@ukma.UUCP (Alan Kennington) writes:
>
>
>   I've found that my 1040 runs at a reasonable temperature when
>it's not doing anything in particular. But if you do disk copies for
>a couple of hours, then you notice the melting. If I weren't hopping
>onto a plane very soon to go to the radioactive terrorist jungle
>called Europe, I'd write a quick demo program to do lots of
>intensive copying to test the point. Would anyone care to write
>a short program to copy a disk back and forth, and post it to
>this net group?
>.......ak.

I dont know about the 1040, but when I first got my 520 i used it to give a
demo at our universities freshers fair.

It ran the slide show program solidly for about 6 hours without a problem.
With the slide show the disk drive motor is permanently on, but of course
it only reads, not writes, the disk.

S.J.Gordon @ Sibly Hall, Reading University, UK

From -7071937575152524547
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 14:08:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 1040ST
Message-ID: <175@sage.cs.reading.Ac.Uk>
Date: Fri, 23-May-86 17:08:09 EDT
Article-I.D.: sage.175
Posted: Fri May 23 17:08:09 1986
Date-Received: Mon, 26-May-86 01:26:45 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP> <560@pucc.BITNET>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Distribution: net
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 35

In article <560@pucc.BITNET> 6064927@pucc.BITNET writes:
>>In article <278@brueer.brueer.UUCP> ralph@brueer.UUCP (Ralph Mitchell) writes:
>>>*** REPLACE THIS LINE WITH YOUR MESSAGE ***
>>>

>>>I've just heard a rumour that Unix will be available on 1040 ST's by about
>>>the end of this year. Can anyone on the net confirm or deny this ??
>>>--
>>>=-=
>>>Ralph Mitchell   VOICE: +44 895 74000 Ext 2561
>>>Computer Centre   ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
>>>Brunel University   UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
>>>Uxbridge   JANET: ralph@uk.ac.brunel.ee
>>>UB8 3PH
>>>UNITED KINGDOM   "Noli illegitemi carborundum"
>>>=-=
>>
>>Yes indeed,
>>   As I understand the situation at the end of this year/start of next
>>a new machine - the EST - will become available. This has the 68020, a blitter
>>and a better graphics chip giving 4096 colour pallette.
>>   It will run all properley written ST software, and proberbly be
>>supplied with unix as well. (unix would not work well on just the 68000 without
>>a lot more memory and hard disk)
>>
>>Simon Gordon
>>Sibly Hall
>>Reading University
>>Reading
>Can we get any confirmationm from Atari on this one? If not, can we at
>least get some more rumors from Atari people? Also, can we hear
>something more about the cheap laser printer I heard was in the works?
>-Antonio Romero   6064927@pucc.bitnet

This came out of Sam Trammel interviews in ST USER (issue 3 i think) and
ATARI USER (June issue). ---- from the horses mouth.

From -3961590758647198400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a345b4cbfbfb529b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 14:17:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Games and other programs for the ST.
Message-ID: <860523171701.00000386.AKGT.BB@UMass>
Date: Fri, 23-May-86 17:17:01 EDT
Article-I.D.: UMass.860523171701.00000386.AKGT.BB
Posted: Fri May 23 17:17:01 1986
Date-Received: Sun, 25-May-86 17:27:25 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Hi,

"mckay@ee.pordue.edu" review some nice games for the ST, but I have a
small question. I have a MONOchrome system, so lots of the COLOR stuff
wont work, while other stuff will work fine. It would be VERY nice if
from now on, when you (meaning any of you out there) review something,
could you please say in what resolution it runs in, and if it will run
in other resolutions? I would love to get rogue, but I wont be able to
until I find a dealer who has one or a friend, so I can test it to see
if it runs in monochrome. Thanks.

Rick Flashman

Flash%UMass.BITNET@WISCVM.ARPA

From 7486895783474487882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bd4596f90f9cb664,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 16:15:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: How do I get the program name (argv[0])?
Message-ID: <520@snow.warwick.UUCP>
Date: Fri, 23-May-86 19:15:39 EDT
Article-I.D.: snow.520
Posted: Fri May 23 19:15:39 1986
Date-Received: Thu, 29-May-86 03:29:38 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 37

[Lineater ----> TRASH]

Hi Guys, More questions.

Does anyone know any way to read the name of an application or accessory
once it has been started (argv[0] to traditional `C' programmers). I've
been trying to get the info, but can't seem to find it. In particular,
I would like to have a single version of a RAM using accesory/program -
say an editor or ramdisk, and have it start up with the correct data
size just by changing the name.

Usual caveats apply: 1040, ROM TOS, Lattice C, PD assembler.

Any help, pointers, or workarounds appreciated.

Cheers,

Frank.

Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT
--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From 3017905953276039271
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 18:39:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!lll-crg!lll-
lcc!well!espen
From: espen@well.UUCP (Peter Espen)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 1040ST? Please let it be!
Message-ID: <1147@well.UUCP>
Date: Fri, 23-May-86 21:39:05 EDT
Article-I.D.: well.1147
Posted: Fri May 23 21:39:05 1986
Date-Received: Sun, 25-May-86 18:13:51 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP> <560@pucc.BITNET>
<3479@ukma.UUCP>
Distribution: net
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 11
Summary: Unix licenses aren't cheap

In article <3479@ukma.UUCP>, sean@ukma.UUCP (Sean Casey) writes:
>
> If Atari could produce a cheap (< $2000) Unix Box that ran Berkeley Unix,
> I and about 500,000 other people would buy them as fast as we could write
> the checks. (hint hint)
> --

How would the cost of the Unix licenses themselves affect the
cost of a Microcomputer running Berkeley Unix?

From 1466960334876079472
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d5f41e925046236
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 19:42:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!harvard!
seismo!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: VT52 emulator dies
Message-ID: <4986@ut-sally.UUCP>
Date: Fri, 23-May-86 22:42:45 EDT
Article-I.D.: ut-sally.4986
Posted: Fri May 23 22:42:45 1986
Date-Received: Sun, 25-May-86 18:09:39 EDT
References: <3794@utah-cs.UUCP> <4912@ut-sally.UUCP> <160@molihp.UUCP>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Distribution: net
Organization: U. Texas CS Dept., Austin, Texas
Lines: 36

In article <160@molihp.UUCP> johna@molihp.UUCP (John M Altstadt) writes:
>In article <4912@ut-sally.UUCP> franklin@sally.UUCP (Maurice Franklin) writes:
>>In article <3794@utah-cs.UUCP> sandra@utah-cs.UUCP (Sandra Loosemore) writes:
>>>I've been experiencing a problem with the desktop VT52 emulator on a
>>>fairly regular basis, and I'm wondering if I'm the only one. What happens
>>>is this: some noise comes over the phone line (like when it hangs up on
>>>the other end), and suddenly the terminal emulator goes dead. Nothing
>>>-Sandra
>>>(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)
>>
>>...the desktop emulator. I'll have finished a call and want to
>>dial another, but the ATDP 1234567 does not echo on the screen. Turning the..
>>   Maurice T. Franklin
>
>I once had a similar problem with my Concorde modem and the XMODEM....
>Whenever I went into file capture mode before I was connected to
>some other machine, the <ctrl>S that was sent out would be echoed
>back to my ST by the modem! Voila, nobody talks to anybody anymore!
>
>I don't know if this is the problem of the first poster, since it is
>fairly unlikely that spurious line noise would become ^S, but it sounds
>possible for the second poster.
>   John M. Altstadt

Could be, could be. I don't think its related to the XMODEM program, since
I seldom use capture mode. It could be that the line noise sandra refers to,

which I also get whenever I disconnect, might just have a ^S in it. If it did, would this cause the RS232 line to hang? Remember, turning the modem off doesn't do any good, only rebooting. Anybody else have comments/solutions?

Maurice T. Franklin
CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu
[Disclaimer: The University of Texas at Austin, the Computer Science Dept, nor just about anybody else, is to be held responsible for what I say here.]

From 6293022126793451653
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244a4719be30cb8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-23 23:50:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray
From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: Power supply
Message-ID: <1017@watdragon.UUCP>
Date: Sat, 24-May-86 02:50:39 EDT
Article-I.D.: watdrago.1017
Posted: Sat May 24 02:50:39 1986
Date-Received: Sun, 25-May-86 11:05:20 EDT
References: <8605100658.AA12747@ucbvax.Berkeley.EDU> <3407@ukma.UUCP>
<171@sage.cs.reading.Ac.Uk>
Reply-To: jsgray@watdragon.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 16
Summary:

In article <171@sage.cs.reading.Ac.Uk> gordon@sage.UUCP (Simon Gordon) writes:
>Some people seem to get their facts twisted.

They sure do.

>2) With twice as many ram chips, the MMU must do extra work holding the
>inputs to the ram chips at their normal voltage. The resisters are therefore
>pull ups and do this job instead.

The resistors go "in series" with the drivers. Then are not pull up resistors; rather they are there to minimize undershoot and dampen the ringing that occurs when driving an inductive/capacitive load.

Still waiting for that replacement power supply,

Jan Gray jsgray@watdragon University of Waterloo 519-885-1211 x3870

From 3597393694804653196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,176c30334910febb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-24 03:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!harvard!
seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: TDI Modula/ST Version 2 released
Message-ID: <96100010@unido.UUCP>
Date: Sat, 24-May-86 06:25:00 EDT
Article-I.D.: unido.96100010
Posted: Sat May 24 06:25:00 1986
Date-Received: Mon, 26-May-86 01:41:44 EDT
Sender: notes@unido.UUCP
Lines: 20
Nf-ID: #N:unido:96100010:000:755
Nf-From: unido!uh   May 24 11:25:00 1986

New Modula-2 from TDI Inc.:

TDI has released Version Two of here Modula/ST package. I saw it yesterday
at our dealer. Seems to be very nice. There are made greater corrections
to compiler, linker and libraries (hard disk (path) support, corrected STRINGS
module and so on). Also there are some more new details:

- own shell (speaking desktop manager) supporting multi module programs
- more libraries
- supports ACC's and hardware interrrupt handlers
- and some more things.

I hope that we will get the package very soon; than I will write a short
review about it.

Uwe Hoch
Computer Science Department, University of Dortmund
4600 Dortmund 50, P.O. Box 500500, W.-Germany
E-mail address: uh@unido.uucp, uh@unido.bitnet

From 5839348515585070249
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8535e9121c4c20c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-24 13:09:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!brueer!tony
From: tony@brueer.UUCP (Tony Begg)
Newsgroups: net.micro.atari16
Subject: Atari with Ethernet Interface

Message-ID: <294@brueer.brueer.UUCP>
Date: Sat, 24-May-86 16:09:40 EDT
Article-I.D.: brueer.294
Posted: Sat May 24 16:09:40 1986
Date-Received: Tue, 27-May-86 06:30:29 EDT
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 15

A U.K. firm, Logic Replacement Technology Ltd. (tel +44 734 751087)
are developing an Ethernet interface for the Atari ST. It is to be
a daughterboard affair plugging into the 68000 socket, with the
68000 plugged into the daughterboard, where the Ether chips are
situated. They have a prototype working and are looking at the
production engineering. They are writing an implementation of TCP/IP
for TOS. They plan to show it at a UNIX show here (Olympia) June 3-5.

They haven't worked out a price yet, but I have heard 900 pounds
including the (1040?) ST rumoured.

I have no connection with the firm, other than as a potential
customer.

Tony Begg

From -2267609814050920217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5dfb84d5789b96ec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-24 16:51:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!SU-GSB-HOW.ARPA!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: disk drive in monitor
Message-ID: <8605260333.AA16829@ucbvax.Berkeley.EDU>
Date: Sat, 24-May-86 19:51:29 EDT
Article-I.D.: ucbvax.8605260333.AA16829
Posted: Sat May 24 19:51:29 1986
Date-Received: Tue, 27-May-86 06:47:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Hi - I saw a new monitor with a built in disk drive made by atari
for the 1040ST today. San Jose Computers had it at a swap meet. What
is the advantage of having the disk drive in the monitor? They also
had a double sided - 2 drive 520ST with color monitor for 899. That
seemed like a good deal.

- Brian Reilly

From -8312713286970846114
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a345b4cbfbfb529b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-24 20:47:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: Re: Games and other programs for the ST.
Message-ID: <8605250347.AA09930@ee.purdue.edu>
Date: Sat, 24-May-86 23:47:13 EDT
Article-I.D.: ee.8605250347.AA09930
Posted: Sat May 24 23:47:13 1986
Date-Received: Tue, 27-May-86 06:48:06 EDT
References: <860523171701.00000386.AKGT.BB@UMass>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Rick:
     Rogue & Temple of Aphsai ran in Low-rez color.
--ddm

From -9015002858776808552
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-24 23:41:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
rocksanne!sunybcs!ellie!mesches
From: mesches@ellie.UUCP (Scott Mesches)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 520st? Please let it be!
Message-ID: <1101@ellie.UUCP>
Date: Sun, 25-May-86 02:41:25 EDT
Article-I.D.: ellie.1101
Posted: Sun May 25 02:41:25 1986
Date-Received: Tue, 27-May-86 06:02:52 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP> <560@pucc.BITNET>
<3479@ukma.UUCP>
Reply-To: mesches@ellie.UUCP (Scott Mesches)
Distribution: net
Organization: SUNY/Buffalo Computer Science
Lines: 33

I origionally bought my 520st cause I was told AT&T was porting UNIX to it.

If I was misled, boy it was costly.
I'll sell my 520st in a minute if they only come out for
in for the 1040, and buy one of those. I go through withdrawl without
a few ls's every hour or so 8-)

Any info on this (Neil are you out there?) would be greatly appreciated.
Please mail me and I'll sum up to the net if there is enough interest.

Scott

Scott Mesches

ARPA: mesches.buffalo@rand-relay

CSnet: mesches@buffalo

uucp: {decvax!watmath}
{pur-ee!rocks34!rocksvax}
{{allegra, seismo}!rochester!rocksvax} !sunybcs!mesches

Bitnet: MESCHES@SUNYBCS

--

Scott Mesches
ARPA: mesches.buffalo@rand-relay
CSnet: mesches@buffalo
uucp: {decvax!watmath}
{pur-ee!rocks34!rocksvax}
{{allegra, seismo}!rochester!rocksvax} !sunybcs!mesches
Bitnet: MESCHES@SUNYBCS

From -4925242435941979926
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244a4719be30cb8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-25 10:28:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Re: Power supply
Message-ID: <1838@utecfa.UUCP>
Date: Sun, 25-May-86 13:28:10 EDT
Article-I.D.: utecfa.1838
Posted: Sun May 25 13:28:10 1986
Date-Received: Sun, 25-May-86 18:49:32 EDT
References: <8605100658.AA12747@ucbvax.Berkeley.EDU> <3407@ukma.UUCP>
<171@sage.cs.reading.Ac.Uk>
Organization: Engineering Computing Facility, University of Toronto
Lines: 40

gordon@sage.cs.reading.Ac.Uk (Simon Gordon) Writes:
 (in message dated: Fri, 16-May-86 19:57:21 EDT)

<> Some people seem to get their facts twisted.

<> There seem to be two problems
<> 1) Some of the older power supplies cannot supply enough power if you have
<> the extra 16 ram chips to give 1 meg (my one is black with a lead out of
<> each end, ive been using it for a month since the 1 meg upgrade and rom upgrade
<> which i had done at the same time)
<> 2) With twice as many ram chips, the MMU must do extra work holding the
<> inputs to the ram chips at their normal voltage. The resisters are therefore
<> pull ups and do this job instead.

<> Simon Gordon @ Sibly Hall Reading University UK

Now from what I read, the resistors went in series between the
MMU and the ram chip RAS and CAS lines. If so, how can they be pull-ups
then?

```
MMU ]----/\/\/\/\-----[41256 RAM chips
        resistor
```

is not the same as a pullup configuration:

```
                      ^ Vcc
                      |
                      |
                      <
                      >
                      <
                      |
                      |
MMU ]-------------------------+----[41256 RAM chips
```

From -7329011455894517345
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8bd7d5f533b11ff
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,b8bd7d5f533b11ff
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-05-25 10:34:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!lll-lcc!
vecpyr!atari!neil

From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Atariwriter Plus Bugs
Message-ID: <299@atari.UUcp>
Date: Sun, 25-May-86 13:34:46 EDT
Article-I.D.: atari.299
Posted: Sun May 25 13:34:46 1986
Date-Received: Thu, 29-May-86 02:40:01 EDT
References: <696@tekigm2.UUCP>
Organization: Atari Corp/Mktg
Lines: 28
Keywords: Crash, Save bug, Paging bug
Xref: watmath net.micro.atari8:263 net.micro.atari16:915

In article <696@tekigm2.UUCP>, wrd@tekigm2.UUCP (Bill Dippert) writes:
> Originally I send an abbreviated form of this letter to Neil Harris (neil
> @ atari) but have not been able to get an answer

It is probably my fault, but my mail to some people keeps getting returned
by the malificent mailer daemon. You'd think if it can get to me, the reply
function will get it back to you, but in about 50% of the replies it does
not. <sigh>

> Are you aware of a bugs in the first version of Atariwriter+ that was sold?
> 1) it does not consistently recognize the control E for ending a page.
> 2) the fatal bug is its's incorrectly handling of text longer than one page
>   long.
> 3) one final bug, it occasionally loses the ability to save a file.
>
> The net result of this is that I am quite unhappy with laying out $50
> and having these quite fatal bugs in it.

None of these problems should be occuring. There is either something wrong
with your copy of AW+, or something funny about your hardware. Please send
me your AW+ disk so we can examine it, and I will send you a replacement.

Send to:

   Atari Corp.
   1196 Borregas Ave.
   Sunnyvale, CA 94086
   Attn: Neil Harris

From -6798894602313878355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b73252952ca27157,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-25 13:01:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU

Newsgroups: net.micro.atari16
Subject: Directions for creating DA's with OSS Pascal...
Message-ID: <8605252001.AA21321@ee.purdue.edu>
Date: Sun, 25-May-86 16:01:48 EDT
Article-I.D.: ee.8605252001.AA21321
Posted: Sun May 25 16:01:48 1986
Date-Received: Tue, 27-May-86 06:48:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 301

These directions are from the OSS bulletin board and include source for a sample DA. Uuencoded binary for the DA will follow in my next message...

--Dwight Mckay, ECN Text & Workstation Software Support
[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

------------------------------ cut here ------------------------------

WRITING DESK ACCESSORIES USING PERSONAL PASCAL

In order to make a Personal Pascal program into a desk accessory, you must perform a few operations which are not described in the manual. First of all, you must make sure your program can be made into an accessory as follows:

1. The start of your program should contain an S0 compiler directive. This command tells the compiler not to adjust the size of the stack.

2. You should NOT use debug mode. Either change the option setting called "Full debug mode", or use a D- command along with the S0 command.

3. The value actually returned by the Init_Gem routine is the application identification number for your program. You must save this number in a variable, instead of just testing it. Again, look at the sample accessory for details.

4. Two additional GEM messages are sent to accessories. These messages, AC_Open and AC_Close, are not declared in the GEMCONST.PAS file. You should either declare them in your program (as the sample accessory does) or add them to the GEMCONST.PAS include file. You also must respond to these messages as shown in the sample accessory.

5. You need to declare one more EXTERNAL function in your desk accessory program:

```
FUNCTION Menu_Register( ap_id : integer ; VAR name : Str255 ) : integer ;
  EXTERNAL ;
```

   This function already appears in the PASGEM library, but it does not appear in GEMSUBS.PAS (you can add it there, if you wish). Use the Menu_Register function to insert the name of your accessory in the "Desk" menu. See the sample accessory for details.

Next, you need to create a file called PASACC.O by running the MAKEACC.PAS program listed below. You must enter a valid stack size; although you could use most any size, we recommend 5 Kbytes. After creating the PASACC.O file, link your program as follows:

1. You must link PASACC.O as the first link file, not the object file produced by your Pascal source program. Put the name of your Pascal object program in the "Additional Link Files" field of the link options dialog box.

2. Select the "Link..." item in the files menu. When the ITEM SELECTOR dialog appears, select the file PASACC.O-- remember, your program's .O file must already be in the "Additional Link Files" list!

3. The linker should load and link your program normally. The final output file will be named PASACC.PRG. Change this to any name, but give it the extension ".ACC" (this tells GEM to load the accessory upon booting). If you have an early version of GEM/TOS, you may need to name your file DESK3.ACC (the earliest version needed the "DESK#" primary name).

4. Copy your accessory file to a backup of your boot disk, and reboot your ST. The name of your accessory should appear under the "Desk" menu. If you select your accessory, it should run.

LISTING OF MAKEACC.PAS

```
PROGRAM Make_Accessory ;

  VAR
    stack_size : Integer ;
    answer : STRING ;

  PROCEDURE Write_Accstart( size : Integer ) ;

    VAR
      f : FILE OF integer ;

    PROCEDURE Word( w : Integer ) ;

      BEGIN
        f^ := w ;
        put( f ) ;
      END ;

    PROCEDURE Long( l : Long_Integer ) ;

      BEGIN
        Word( Int(Shr( l, 16 )) ) ;
        word( Int( l ) ) ;
      END ;

    BEGIN
      writeln( 'Opening PASACC.O...' ) ;
```

```
      rewrite( f, 'pasacc.o' ) ;
      writeln( 'Writing data...' ) ;
      (* Put out the object file header: *)
      Word( $601A ) ;
      Long( $14 ) ;
      Long( 0 ) ;
      Long( size+4 ) ;
      Long( 0 ) ;
      Long( 0 ) ;
      Long( 0 ) ;
      Word( 0 ) ;
      (* Now the code: *)
      Word( $4FF9 ) ;       (* lea user_stack,sp *)
      Long( size ) ;
      Word( $41F9 ) ;       (* lea stack_start,a0 *)
      Long( 0 ) ;
      Word( $2248 ) ;       (* movea.l a0,a1 *)
      Word( $4EF9 ) ;       (* jmp prg_start+12 *)
      Long( $20 ) ;
      (* Now the relocation information: *)
      Word( 7 ) ;
      Long( $50003 ) ;
      Word( 7 ) ;
      Long( $50003 ) ;
      Word( 7 ) ;
      Word( 7 ) ;
      Long( $50002 ) ;
      writeln( 'Finished!' ) ;
    END ;

  BEGIN
    REPEAT
      write( 'How many Kbytes for desk accessory stack? ' ) ;
      readln( stack_size ) ;
      write( stack_size:1, ' Kbytes-- is this correct? ' ) ;
      readln( answer ) ;
    UNTIL (length(answer) > 0) AND ((answer[1] = 'y') OR (answer[1] = 'Y')) ;
    IF ((answer[1] = 'y') OR (answer[1] = 'Y')) THEN
      Write_Accstart( stack_size*1024 ) ;
  END.
```

LISTING OF ACCDEMO.PAS (SAMPLE ACCESSORY)

```
(* We don't want any stack (PASACC.O takes care of the stack) and we certainly
   shouldn't be in full debug mode! *)

(*$S0,D-*)

PROGRAM Sample_Accessory ;

  CONST
    (*$I gemconst.pas*)
```

```
  AC_Open  = 40 ;     (* Two new messages which only accessories will get. *)
  AC_Close = 41 ;

TYPE
  (*$I gemtype.pas*)

VAR
  window,                     (* The handle of our window. *)
  ap_id,                      (* Our application identification handle. *)
  menu_id : integer ;         (* Index of our menu item in "Desk" menu. *)
  our_name,                   (* The name of our accessory. *)
  wind_name : Str255 ;        (* The title of our window. *)

(*$I gemsubs.pas*)

(* You must declare this function either in your accessory program (as here)
   or in the GEMSUBS.PAS file: *)

FUNCTION Menu_Register( id : integer ; VAR name : Str255 ) : integer ;
  EXTERNAL ;


(* Open our window, if not already open.  If our window IS open already, just
   make it the front window. *)

PROCEDURE Do_Open ;

  BEGIN
    (* Does our window already exist? *)
    IF window <> No_Window THEN
      Bring_To_Front( window )        (* Yes, just make it front window. *)
    ELSE
      BEGIN                           (* No, open a new window. *)
        wind_name := ' Accessory Test ' ;
        window := New_Window( G_Name|G_Close|G_Size|G_Move, wind_name,
                              0, 0, 0, 0 ) ;
        Open_Window( window, 0, 0, 0, 0 )
      END
  END ;



(* Close our window and delete it from the system. *)

PROCEDURE Do_Close ;

  BEGIN
    Close_Window( window ) ;
    Delete_Window( window ) ;
    window := No_Window
  END ;
```

```
(* Redraw an area of our window.  The area to redraw is passed in the
   parameters x0, y0, w0, and h0.  For simplicity, we just draw a rectangle
   of the same size as the area to redraw and draw an X in it.  This is also
   interesting to watch since it shows exactly what redraw messages GEM is
   sending. *)

 PROCEDURE Do_Redraw( handle, x0, y0, w0, h0 : integer ) ;

   VAR
     x,            (* These four variables are used to hold the size of *)
     y,            (* the current rectangle in the list for our window. *)
     w,
     h : integer ;

   BEGIN
     Begin_Update ;          (* Tell GEM we are updating, *)
     Hide_Mouse ;            (* and hide mouse so we don't mess up screen. *)
     Paint_Color( White ) ;  (* We'll be clearing each rectangle w/ white. *)
     (* This loop should look familiar, since it is copied out of the
       Pascal manual, p. 5-115, except for correcting a couple of errors! *)
     First_Rect( handle, x, y, w, h ) ;
     WHILE (w <> 0) AND (h <> 0) DO
       BEGIN
         IF Rect_Intersect( x0, y0, w0, h0, x, y, w, h ) THEN
           BEGIN
             (* The only thing that's new is what we're drawing: *)
             Set_Clip( x, y, w, h ) ;
             Paint_Rect( x, y, w, h ) ;    (* First clear to white... *)
             Frame_Rect( x, y, w, h ) ;    (* Then draw rectangle outline *)
             Line( x, y, x+w-1, y+h-1 ) ;  (* and two lines to form an X. *)
             Line( x+w-1, y, x, y+h-1 )
           END ;
         Next_Rect( handle, x, y, w, h ) ;
       END ;
     Show_Mouse ;              (* OK, we can redraw the mouse, too, *)
     End_Update                (* and tell GEM we're finished! *)
   END ;



(* This next routine performs all events we receive from GEM.  Since we are
   an accessory, we will never reach a state where we will stop running, so
   the loop below (for each event we get) is infinite! *)

 PROCEDURE Event_Loop ;

   VAR
     event, dummy : integer ;
     msg : Message_Buffer ;

   BEGIN
     WHILE true DO
```

```
        BEGIN
          (* Get one event-- we're only interested in messages. *)
          event := Get_Event( E_Message, 0, 0, 0, 0,
                       false, 0, 0, 0, 0, false, 0, 0, 0, 0,
                       msg, dummy, dummy, dummy, dummy, dummy, dummy ) ;
          CASE msg[0] OF
            AC_Open:
              IF msg[4] = menu_id THEN  (* If our menu item was selected, *)
                Do_Open ;               (* open the window! *)
            AC_Close:
             (* If we haven't already closed our window, pretend it's closed
                (because GEM is going to close it for us!)  Presumably, the
                program that was running when we were opened has finished. *)
              IF (msg[4] = menu_id) AND (window <> No_Window) THEN
                  window := No_Window ;
            WM_Sized,       (* Allow any size or position on the screen. *)
            WM_Moved:       (* (we really should have a minimum size!) *)
              Set_WSize( msg[3], msg[4], msg[5], msg[6], msg[7] ) ;
            WM_Closed:      (* User wants to close our window-- close it. *)
              Do_Close ;
            WM_Redraw:      (* Need to redraw a portion of our window. *)
              Do_Redraw( msg[3], msg[4], msg[5], msg[6], msg[7] ) ;
            WM_Topped:      (* Aha, user wants us to be front window! *)
              Bring_To_Front( msg[3] ) ;
          END
        END
      END ;



    (* Main routine-- initialize GEM, then insert our name into the "Desk" menu
       and go to our event loop.  That routine will NEVER return!  That's why we
       don't need an Exit_Gem call at the end of the program. *)

    BEGIN
      ap_id := Init_Gem ;         (* We do need to save our application ID... *)
      IF ap_id >= 0 THEN          (* that's a change from most programs. *)
        BEGIN
          (* Starting off with no window on the screen: *)
          window := No_Window ;
          (* Always put two spaces before the name of the accessory: *)
          our_name := '  Sample Accessory' ;
          (* Here is where we use the application ID number: *)
          menu_id := Menu_Register( ap_id, our_name ) ;
          Event_Loop ;
        END
    END.
```

```
From -7563363748557288 42
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2108b17c024252ab,start
X-Google-Attributes: gid140593,public
```

X-Google-ArrivalTime: 1986-05-25 23:23:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMass.BITNET!MPCOHAN
From: MPCOHAN@UMass.BITNET (Michael P. Cohan, UMass/Amherst)
Newsgroups: net.micro.atari16
Subject: GEM blit routines in Personal Pascal?
Message-ID: <860526022347.000012C7.AXHZ.AA@UMass>
Date: Mon, 26-May-86 02:23:47 EDT
Article-I.D.: UMass.860526022347.000012C7.AXHZ.AA
Posted: Mon May 26 02:23:47 1986
Date-Received: Tue, 27-May-86 06:49:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

I have been writing some nice GEM applications in O.S.S. Personal Pascal, and I like the package a lot. However, there is one glaring fault in the GEM support: There is no way to access the blit routines (I think it's called RASTEROP in the DRI documentation.) Can anyone suggest a decent way to scroll the contents of a window in some other way, or give me a way to access these routines? Does anyone know if version 2 of P.P. will include support for these routines? It's kind of impossible to do anything with text with the current release because there is no way to move the contents of a window other than redrawing the whole thing. (s--l--o--w!)
   One other thing, the overheating 1040's must be a problem that only happens to some machines. After reading about it, I left mine on for 5 days with no problems-- the top of the machine didn't feel particularly hot, even. And I have done some heavy disk copying (>15 disks), with no meltdowns [or even mild radiation leaks :-)]
      ---Michael P . Cohan   (just your basic UMass computer science
                              student)
 MPCOHAN%UMASS.BITNET@WISCVM.ARPA   (I hope!)
 MPCOHAN@UMASS.BITNET

From 490549402074394747
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50de05ab94d0cec0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-26 06:17:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: STarter kit
Message-ID: <54600088@iuvax.UUCP>
Date: Mon, 26-May-86 09:17:00 EDT
Article-I.D.: iuvax.54600088
Posted: Mon May 26 09:17:00 1986
Date-Received: Fri, 30-May-86 05:33:20 EDT
References: <15286644@ucbvax.UUCP>
Lines: 11

Nf-ID: #R:ucbvax:-1528664400:iuvax:54600088:000:300
Nf-From: iuvax!franco   May 26 08:17:00 1986

To receive a STarter Kit send four disks, formated single sided, SASE,
packing material to

John Franco
2535 Spicewood Lane
Bloomington, IN 47401
USA

The kit contains useful utilities, desk accessories, fonts (TOS.IMG only)
languages (xlisp, bradley's forth, pd assembler, tiny basic) and some docs.

From -5757366970748747629
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1fc7682cfe014304
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-26 10:17:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
bullwinkle!uw-beaver!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Need help with AES objects and the RCS.
Message-ID: <163@molihp.UUCP>
Date: Mon, 26-May-86 13:17:40 EDT
Article-I.D.: molihp.163
Posted: Mon May 26 13:17:40 1986
Date-Received: Fri, 30-May-86 04:49:54 EDT
References: <162@molihp.UUCP>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 24

  I made some progress with my problem over the weekend. Turns out that the '.C' output of the RCS does not do a complete job at filling in the structures. When it wants to install a pointer to *rs_strings[5] in the rs_object[] array, it puts a '5L' as a place marker - period. This is just a reminder to the user to fix things up properly, and if you don't go and do it, you're screwed. All those funny pointers cause lots of problems for the OBJC_* routines! Also, I lied : the RSRC_OBFIX does not fix the rs_object[] entries to PIXEL coordinates, it just screws up the program.

  So now I am disappointed in the RCS. If it will produce a '.C' file at all, it should do it right. It would be simple to write a filter to fix the output, since the rules are quite simple, so it should also be simple to do it right. It should also put out PIXEL coordinates. With the limitations in the linker and compiler, I suppose this isn't so

awful, but it is so GREAT in other ways that this fix would be nice.

  I'm still having trouble with radio buttons and default/exit, though.

```
#   UUCP : ...!ubc_vision!molihp!robt     Robert Thurlow
         #
#   My thoughts are my own, and are void where prohibited by law.
     #
#   "There was something fishy about the butler.  I think he was a
     #
#    Pisces, probably working for scale." -Nick Danger, 3rd Eye
     #
```

```
From -6129261584230119232
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,522c51aaa6eb672e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-26 20:11:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Undocumented feature in GEM
Message-ID: <1839@utecfa.UUCP>
Date: Mon, 26-May-86 23:11:08 EDT
Article-I.D.: utecfa.1839
Posted: Mon May 26 23:11:08 1986
Date-Received: Tue, 27-May-86 00:41:37 EDT
Organization: Engineering Computing Facility, University of Toronto
Lines: 34
```

Ever wondered why the second mouse button is not used by the GEM desktop? Well, it is ...:-) As always, its these undocumented features that prolong the enjoyment of using a system and make it more of an adventure. Anyway, to the matter at hand.

Imagine you have two windows open on the desktop, one for drive A and the other for drive B. If, say, the window for drive A is the active window, but you want to copy a file from window B to window A, you don't have to click on window B 40 times for things to happen. Simply hold down the right mouse button, while you position the pointer over the file in the inactive window. Now, keeping the right mouse button down, click on the left mouse button and drag the icon to the active window. Release both buttons and the file will be copied without the active window being changed! Similarly, you can also run a program which is sitting in an inactive window using a right-down-left-double-click.

Have fun!

Anees

--

Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

ps. I am not responsible for unearthing this feature. The honour belongs to some hacker out there.

From -1050864108799849838
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12306c,f0f3aed6fdb7dbbd
X-Google-Attributes: gid12306c,public
X-Google-Thread: 159df4,f0f3aed6fdb7dbbd
X-Google-Attributes: gid159df4,public
X-Google-Thread: 1384a9,f0f3aed6fdb7dbbd
X-Google-Attributes: gid1384a9,public
X-Google-Thread: 140593,f0f3aed6fdb7dbbd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-26 20:33:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!utcs!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16,net.micro.68k,net.lang.pascal,net.lang.f77
Subject: Re: F-77 and PASCAL Compilers for ATARI 1040 ST
Message-ID: <1224@lsuc.UUCP>
Date: Mon, 26-May-86 23:33:23 EDT
Article-I.D.: lsuc.1224
Posted: Mon May 26 23:33:23 1986
Date-Received: Tue, 27-May-86 00:16:23 EDT
References: <201@cybavax.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: net
Organization: Barrister & Solicitor, Toronto
Lines: 21
Xref: utcs net.micro.atari16:873 net.micro.68k:1671 net.lang.pascal:549
net.lang.f77:538
Summary: OS-9 68K F-77 and Pascal

While I can't comment on the versions you have asked about, the new OS-9 68K port for the Atari 1040ST will be available shortly. There is a good Pascal (essentially ISO with some minor differences--I have the manuals and can check the variations for you if necessary) and Fortran-77 is due out a bit later this summer. There is also a 3rd

party Pascal by Omegasoft and 2 major database tools (Sculptor which is a 4th generation language/application generator and CSG-IMS which is apparently network oriented). OS-9 is beyond any doubt the most mature and fully developed of the modern *small* OS's available for the 68K family of processors. The only software base which I feel is better developed is full blown Unix, and Unix has drawbacks as well as advantages when compared to OS-9.

Cheers! -- Jim O.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From 3857190651352866923
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f998e14dfe50442a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 07:19:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!
DOCKMASTER.ARPA!Pase
From: Pase@DOCKMASTER.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Screen dimmer
Message-ID: <860527141930.358902@DOCKMASTER.ARPA>
Date: Tue, 27-May-86 10:19:00 EDT
Article-I.D.: DOCKMAST.860527141930.358902
Posted: Tue May 27 10:19:00 1986
Date-Received: Thu, 29-May-86 01:59:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Does anyone know of a software screen dimmer for the ST? It seems that for someone who knows how to do a desk accessory and handle the screen and keyborad it should be easy. What I am looking for is something to darker the screen after the keyboard and mouse have been inactive. I read an add somewhere for such a device which was a part of some other product, any ideas? Thanx. /bill

From 3037916375338067214
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e86b854d312130e9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 07:50:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!topaz!remus!appelbau
From: appelbau@remus.RUTGERS.EDU (Appelbau)

Newsgroups: net.micro.atari16
Subject: MS-DOS for the ST
Message-ID: <147@remus.RUTGERS.EDU>
Date: Tue, 27-May-86 10:50:43 EDT
Article-I.D.: remus.147
Posted: Tue May 27 10:50:43 1986
Date-Received: Thu, 29-May-86 02:27:18 EDT
Sender: appelbau@topaz.RUTGERS.EDU
Organization: Rutgers Univ., New Brunswick, N.J.
Lines: 5

Neil, f you're out their can you or anybody confirm the rumor about
MS-DOS for the ST's.
Thanks,
Marc

From 1328469166281257412
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9b60a7b65de5b482,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 09:03:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!Xerox.COM!BHolland.ElSegundo
From: BHolland.ElSegundo@Xerox.COM
Newsgroups: net.micro.atari16
Subject: monitor output
Message-ID: <860527-100642-1332@Xerox>
Date: Tue, 27-May-86 12:03:55 EDT
Article-I.D.: Xerox.860527-100642-1332
Posted: Tue May 27 12:03:55 1986
Date-Received: Thu, 29-May-86 02:03:59 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

What is the GPO connection on the monitor jack for, also is there a
composite color output? Thanks

Bill

From -209516912329324217
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a4328e4fb9b5419
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 09:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!pur-ee!uiucdcs!
convex!megamax!eric
From: eric@megamax

Newsgroups: net.micro.atari16
Subject: Re: Sorry, but these guys.... (FLAME)
Message-ID: <3100002@megamax>
Date: Tue, 27-May-86 12:18:00 EDT
Article-I.D.: megamax.3100002
Posted: Tue May 27 12:18:00 1986
Date-Received: Fri, 30-May-86 08:33:54 EDT
References: <429@elmgate.uucp>
Lines: 57
Nf-ID: #R:elmgate.uucp:429:megamax:3100002:000:1815
Nf-From: megamax!eric   May 27 11:18:00 1986

Your program would work fine in a system with no other interrupts, however that is not the case on the ST. There are a number of interrupts that occur on a regular basis (vertical retrace, keyboard etc.) It is quite likely that your timer will go off while one of these routines is being serviced. It is also quite likely that one of these routines is using D7.

What you need to do is establish a different mechanism for communicating between the interrupt routine and the main program. The easiest method is to declare some space in the interrupt procedure, preceeding it with a label, and use PC relative addressing to access it. If you save A4 in the space then you can directly access C global variables from your interrupt procedure.

The following listing includes these modifications to your original program.

```
==========================================================
#include <stdio.h>
#include <osbind.h>

extern int my_timer_code ();
long count;

asm {
    my_timer_code:
        move.l  A4, -(A7)
        move.l  save_a4(PC), A4     /* Restore A4 */
        addq.l  #1, count(A4)       /* Just count interrupts */
        move.b  #0xDF,0xFFFA0F      /* Clear ISRA Timer A bit */
        move.l  (A7)+, A4
        rte

    save_a4:
        dc.l    0
    }


main()
{
    register int i;
    int (*my_interrupt_handler) ();
```

```
    asm {   /* Save A4 for use in interrupt routine */
        lea     save_a4(PC), A0
        move.l  A4, (A0)
    }
    my_interrupt_handler = my_timer_code; /* point to my interrupt */

    Xbtimer (0,1,100,my_interrupt_handler);  /* Enable timer A, prescale 4
                                                for 100 counts (100us ?) */

    for (i = 0; i < 30000; i++)
        ;

    Xbtimer (0,0,0,0L);

    printf ("Timer timed out %ld times.\n", count);
}
```

```
From -2724975195468088096
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5dfb84d5789b96ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 09:45:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!lll-crg!lll-
lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: disk drive in monitor
Message-ID: <300@atari.UUcp>
Date: Tue, 27-May-86 12:45:33 EDT
Article-I.D.: atari.300
Posted: Tue May 27 12:45:33 1986
Date-Received: Thu, 29-May-86 04:08:41 EDT
References: <8605260333.AA16829@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 13

In article <8605260333.AA16829@ucbvax.Berkeley.EDU>,
CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly) writes:
> I saw a new monitor with a built in disk drive made by atari
> for the 1040ST today.  San Jose Computers had it at a swap meet.  What
> is the advantage of having the disk drive in the monitor?

The PS3000 is a color monitor with a built-in single sided floppy drive.
This product is available in very limited quantities and is being test
marketed in California only.  The advantage of this is to reduce the ST
system's "footprint" -- the amount of desk space the system takes up.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil
```

From 5860632652371406072
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2108b17c024252ab
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 09:55:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: GEM blit routines in Personal Pascal?
Message-ID: <301@atari.UUcp>
Date: Tue, 27-May-86 12:55:21 EDT
Article-I.D.: atari.301
Posted: Tue May 27 12:55:21 1986
Date-Received: Thu, 29-May-86 04:08:52 EDT
References: <860526022347.000012C7.AXHZ.AA@UMass>
Organization: Atari Corp/Mktg
Lines: 17

In article <860526022347.000012C7.AXHZ.AA@UMass>, MPCOHAN@UMass.BITNET (Michael P. Cohan, writes:
> I have been writing some nice GEM applications in O.S.S. Personal Pascal,
> and I like the package a lot. However, there is one glaring fault in the
> GEM support: There is no way to access the blit routines (I think it's
> called RASTEROP in the DRI documentation.) Can anyone suggest a decent
> way to scroll the contents of a window in some other way, or give me a
> way to access these routines?

You can access any system call using Personal Pascal. Some are explicitely defined, and others must be defined by the user. Have you seen the text files from OSS? Originally placed the OSS BBS, these are also on CompuServe and BIX now. They explain how to use the AES, VDI, and BIOS calls that are not pre-defined. Maybe we should get these posted on the net...

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -3246945976079579788
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77099fd691cbe95a,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,77099fd691cbe95a,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-05-27 10:53:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 (USS@Tek, v1.1) based on 4.3bsd-beta 6/6/85; site tekigm2.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!tekig5!tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP (Bill Dippert)
Newsgroups: net.micro.atari8,net.micro.atari16

Subject: Atari Explorer
Message-ID: <708@tekigm2.UUCP>
Date: Tue, 27-May-86 13:53:58 EDT
Article-I.D.: tekigm2.708
Posted: Tue May 27 13:53:58 1986
Date-Received: Fri, 30-May-86 05:18:55 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 5
Keywords: Dead Magazine
Xref: watmath net.micro.atari8:265 net.micro.atari16:923

Did the Atari Explorer magazine die a quiet death? After the first four (?) issues, it seemingly has vanished into the vaporware warehouse. Perhaps it was prophetic that the last issue had a black cover?

--Bill--

From -2450415411314881654
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c53fc8ee9cd0db7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 11:55:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
kodak!elmgate!jdg
From: jdg@elmgate.uucp (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Anyone got a better TERMIO>C
Message-ID: <435@elmgate.uucp>
Date: Tue, 27-May-86 14:55:53 EDT
Article-I.D.: elmgate.435
Posted: Tue May 27 14:55:53 1986
Date-Received: Thu, 29-May-86 04:17:04 EDT
Organization: Eastman Kodak Company, Rochester, NY
Lines: 24

I've got sereral (or maybe one) versions of uemacs working the ST now but all suffer from one major mis-feature. When you scroll, the status line goes 'winging' on up the screen (delete lines) then heads back down to the bottom (insert lines). This is so annoying to me that I just put the disk away and went back to using MegaMax's editor (which is REAL pain as well). Has anyone put ST specific screen IO into a uemacs?

Speaking of MegaMax's editor.... does anyone else feel that when you use CURSOR keys, it's the *CURSOR* that should move? In case you haven't seen this *GEM* of an editor (pun intended) the cursor keys move the screen, leaving the text cursor where ever it happens to be. And that includes when the cursor is OFF the screen!! The ONLY way the position the cursor is to point and 'click'. Hunky dory aye?
Sheesh.....
Anyone recommend a really great editor... like one that allows lines > 80 columns 8^).

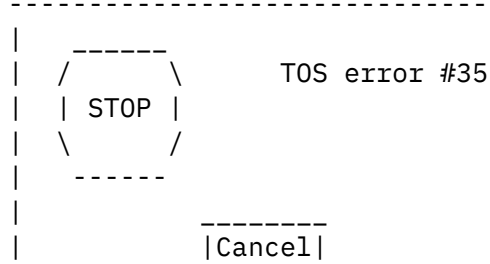
--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company

<Kodak won't be responsible for the above comments, only those below>

From -8665205472333268050
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16249ef5308d9400
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 12:19:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: A Checkers Program for the ST
Message-ID: <297@brueer.ee.brunel.ac.uk>
Date: Tue, 27-May-86 15:19:14 EDT
Article-I.D.: brueer.297
Posted: Tue May 27 15:19:14 1986
Date-Received: Fri, 30-May-86 07:29:48 EDT
References: <8605180748.AA29278@ohio-state.ARPA>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 39

In article <8605180748.AA29278@ohio-state.ARPA> terrell@OHIO-STATE.ARPA.UUCP
writes:
>
>The next few postings are for a checkers program (named cadenza) that
>I have written. The postings will include the source for the program
>(in OSS Pascal), the uuencoded binary, and the rules for checkers.
>
>The program must be able to write to the disk that it is saved on since
>it writes a file recording all moves of a game to the disk.

OK, I believe that this program works. However when I try to run it on
my 520, it doesn't :-). I have a standard, monochrome, 2xsingle-sided
disk, 520. No memory upgrade. I get a smart little box that says:



```
           |           --------           |
           --------------------------------
```

Anybody wanna tell me what's wrong ?? I would look it up in the manuals,
except that the Dev. Kit manuals I have are such bad photocopies and are
largely irrelevant... (Neil, how soon do we get *real* manuals ?? :-)

Ralph Mitchell
--
=-=
Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
Uxbridge | JANET: ralph@uk.ac.brunel.ee
UB8 3PH |
UNITED KINGDOM | "Noli illegitemi carborundum"
=-=

From 8545882211250133400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 16:34:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!
ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <259@ubc-cs.UUCP>
Date: Tue, 27-May-86 19:34:54 EDT
Article-I.D.: ubc-cs.259
Posted: Tue May 27 19:34:54 1986
Date-Received: Sun, 1-Jun-86 05:33:03 EDT
References: <8605111518.AA11708@ohio-state.ARPA> <170@sage.cs.reading.Ac.Uk>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 21

Simon Gordon, in an exasperated sounding posting, remarks that language
implementors are ripping users off by claiming that their languages provide
full Gem support when in fact they don't. I must disagree. I have used
TDI Modula-2 to write simple programs which use Gem (and they provide
a nifty program which uses pretty much all of VDI as a demo). The newest
version of TDI Modula-2 (they should be shipping it around now) is supposed
to come with a redone version of DRI's Resource Construction Set (different
bugs, presumably) and with source code for two desk accessories: a RAMdisk
and a print spooler.

Similarly, Personal Pascal can be used to write DA's. I don't know how, since
I don't use it. But I have seen extensive remarks on this subject on BIX

(the BYTE Information eXchange). I believe that OSS will send out information on this stuff to any registered user of the package.

There certainly are poor language implementations around (and I have a few gripes about TDI Modula-2). But the vendors *are* trying. Give them credit for that.

From 2270431137385339319
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f998e14dfe50442a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 18:10:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!gatech!seismo!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: Screen dimmer
Message-ID: <5013@ut-sally.UUCP>
Date: Tue, 27-May-86 21:10:27 EDT
Article-I.D.: ut-sally.5013
Posted: Tue May 27 21:10:27 1986
Date-Received: Fri, 30-May-86 06:57:54 EDT
References: <860527141930.358902@DOCKMASTER.ARPA>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Distribution: net
Organization: U. Texas CS Dept., Austin, Texas
Lines: 12

In article <860527141930.358902@DOCKMASTER.ARPA> Pase@DOCKMASTER.ARPA (Bill Pase) writes:
>Does anyone know of a software screen dimmer for the ST? It seems that
>for someone who knows how to do a desk accessory and handle the screen
>and keyborad it should be easy. ....
> Thanx. /bill

I too would like to see a screen dimmer for the ST. (Been meaning to ask this..)

Thanks,
Maurice T. Franklin
CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

From 547620564683536811
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1dd115afb8595fe3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 19:47:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)

Newsgroups: net.micro.atari16
Subject: How to photograph color monitor?
Message-ID: <726@mprvaxa.UUCP>
Date: Tue, 27-May-86 22:47:56 EDT
Article-I.D.: mprvaxa.726
Posted: Tue May 27 22:47:56 1986
Date-Received: Sun, 1-Jun-86 05:33:23 EDT
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 6

Can anyone out in netland give me pointers, hints on how to photograph
color monitor displays?

Thanks,
Taylor Jackson

From 1686857340550074994
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 19:51:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!aicchi!rns
From: rns@aicchi.UUCP (Schreiner)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 520st? Please let it be!
Message-ID: <762@aicchi.UUCP>
Date: Tue, 27-May-86 22:51:41 EDT
Article-I.D.: aicchi.762
Posted: Tue May 27 22:51:41 1986
Date-Received: Fri, 30-May-86 05:35:14 EDT
Organization: Analysts International Corp; Chicago Branch
Lines: 21

In article <1101@ellie.UUCP> mesches@ellie.UUCP (Scott Mesches) writes:
>
>I origionally bought my 520st cause I was told AT&T was porting UNIX to it.
>If I was misled, boy it was costly.
>I'll sell my 520st in a minute if they only come out for
>in for the 1040, and buy one of those. I go through withdrawl without
>a few ls's every hour or so 8-)
>

UNIX like any other multiprocessing OS is very unstable with out
hardware memory management. Even on a system that would be a
'single user' only environment, that user would want to run more
than one process at a time (printing, mail, uucp). With out the memory
management hardware crashing one program would could crash everything, yuck.

The 520 nor the 1040 have this hardware, although it could probably
be tack on. So if you need a ls fix from your 520, look into UNIX-like
shells that run on it.

Ron Schreiner
...ihnp4!ronsat!rns

From 3670890113572359345
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d39f907ee47cd87,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-27 20:12:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site percival.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!reed!dinadan!
percival!russ
From: russ@percival.UUCP (Russ Schwartz)
Newsgroups: net.micro.atari16
Subject: What's the 'F' for?
Message-ID: <151@percival.UUCP>
Date: Tue, 27-May-86 23:12:40 EDT
Article-I.D.: percival.151
Posted: Tue May 27 23:12:40 1986
Date-Received: Fri, 30-May-86 07:49:22 EDT
Distribution: net
Organization: The Nerds of the Round Table, Portland, OR.
Lines: 7

[This is another fine myth you've gotten me into! - Lar L. & Har D.]

I don't ever remember anyone explaining what the small 'F' stood for after
the ST on the 1040 STs. I've got the hint that the small 'M' on the newer
520 STs are for modulated, so does the 'F' stand for Floppy?

                            - Russell Schwartz

From 8893580736663541196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a5d4ec60c37d2d8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 00:32:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!
philmds!prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.atari16
Subject: Re: Anyone Else Had This Problem?
Message-ID: <8@prle2.UUCP>
Date: Wed, 28-May-86 03:32:47 EDT
Article-I.D.: prle2.8
Posted: Wed May 28 03:32:47 1986
Date-Received: Thu, 29-May-86 03:34:38 EDT
References: <8605200418.AA18920@ohio-state.ARPA>
Reply-To: slavenbg@prle2.UUCP (Gert Slavenburg)

Organization: Philips Research Laboratories Eindhoven
Lines: 44
Keywords: EPROM TOS
Summary: EPROM access time problems

In article <8605200418.AA18920@ohio-state.ARPA> terrell@OHIO-STATE.ARPA.UUCP writes:
>
>Once again my 520ST is screwed up. This time every time I try to do just
>about anything with the control panel, the system reboots. Often when I
>change the date, the background color near the cursor will be wrong.
>
Indeed this reminds me of a problem. Some time ago we massively installed EPROM TOS (because ROM TOS was available late in Europe and secondly we don't believe ROM TOS is bugfree enough yet). We used 250 nSec. access time EPROMs based on the fact that a US component suppliers uses(used ?) those.

We found similar problems (you can't move the sliders of the control panel and closing the control panel often causes fail/reboot).
Though Eric has no EPROM's, the similarity of the problems causes me to suspect that your machine has access time problems on the ROM's, probably due to extreme tolerances of several components. In that case you better exchange it !

General ADVICE on TOS EPROM's :
==========

We found out that the critical requirement for ROM or EPROM's in the 520ST is that data out should be valid 200 nSec. after applying Chip Enable. The original Atari ROM's are OK (of course).
If you have had EPROM's installed, you should verify the access time of the particular type that your supplier gave you. 250 nSec. EPROM's do not meet the requirements and may cause unexplainable system unreliability (like Eric has). You do need 200 nSec access time EPROMs theoretically, although certain brands or batches of 250 nSec EPROM's work. I wouldn't entrust my data to them though. We are now using 200 nSec. access time 32k*8 CMOS EPROM's without problems.

Some confusing FACTS :

If you have too slow EPROM's you cannot find out by repeatedly checksumming or otherwise testing the ROM area. Accessing them as data works fine. Executing from them only causes these problem. (can you imagine the time we wasted !?)

Atari has a warning out that certain brands of EPROM's do not work. They do not mention an access time problem, nor do they specify access time requirements. We found no brand related problems, just access time problems.

Neil (@ Atari), I would like your comments.

  Gert Slavenburg

From -2498132685164537501

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ab56a00a0ebe7c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 00:43:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site entropy.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!uw-beaver!uw-june!entropy!fetrow
From: fetrow@entropy.UUCP (David Fetrow)
Newsgroups: net.micro.atari16
Subject: vt52 on ST520
Message-ID: <300@entropy.UUCP>
Date: Wed, 28-May-86 03:43:09 EDT
Article-I.D.: entropy.300
Posted: Wed May 28 03:43:09 1986
Date-Received: Fri, 30-May-86 05:22:31 EDT
Organization: UW MathStat, Seattle
Lines: 20
Keywords: Problems with "vi"

We have a 520ST but can't get it to quite work with vi under vt52. Is there 1) Something we're doing wrong?, 2) A slightly different termcap that should be used instead or 3) a program that fixes the problem?

A response from people who have and have not had success are both desired. I know this must have shown up before but we weren't paying close attention until we got one.

--

- Dave Fetrow

"Don't ask me how it works or I'll start to whimper" - Arthur Dent

{ihnp4,tektronix}!uw-beaver!entropy!fetrow	:UUCP
entropy!fetrow@uw-beaver.arpa	:ARPA
fetrow@UWALOCKE,7833117@UWAVM	:BITNET
74175,1724	:Compuserve

From 5184843940414557253
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d49f0b70511cd556,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 05:17:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Additional moderators needed
Message-ID: <12210277561.9.G.ABRAMS@SU-SCORE.ARPA>

Date: Wed, 28-May-86 08:17:53 EDT
Article-I.D.: SU-SCORE.12210277561.9.G.ABRAMS
Posted: Wed May 28 08:17:53 1986
Date-Received: Fri, 30-May-86 05:38:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

There is a need to share the labor of moderating info-atari. At present
we have two people performing this task. It would be very helpful if
we could spread the work among a few more volunteers.

The work is not hard. It consists of scanning incoming messages, discarding
the ones of the form "host temporarily unreachable," and adding and
deleting people from the distribution lists.

The lists are maintained on this TOPS-20 host. I can provide enough manuals
to enable anyone to learn enough about TOPS-20 to help us. It will be
necessary to log into Score, so perhaps folks on gatewayed networks
can't help.

Please respond if you have an interest in seeing this distribution list
continue high quality operation.

     Marshall Abrams

From -8054067902909794909
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5dfb84d5789b96ec
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 09:31:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!brueer!ralph
From: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: disk drive in monitor
Message-ID: <303@brueer.ee.brunel.ac.uk>
Date: Wed, 28-May-86 12:31:20 EDT
Article-I.D.: brueer.303
Posted: Wed May 28 12:31:20 1986
Date-Received: Sat, 31-May-86 06:42:15 EDT
References: <8605260333.AA16829@ucbvax.Berkeley.EDU>
Reply-To: ralph@ee.brunel.ac.uk (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 27

In article <8605260333.AA16829@ucbvax.Berkeley.EDU> CON.REILLY@SU-GSB-
HOW.ARPA.UUCP writes:
>Hi - I saw a new monitor with a built in disk drive made by atari
>for the 1040ST today. San Jose Computers had it at a swap meet. What

>is the advantage of having the disk drive in the monitor? They also
>had a double sided - 2 drive 520ST with color monitor for 899. That
>seemed like a good deal.
>
>- Brian Reilly
>-------

Atari 520ST owners manual (page 8):

"Warning: when setting up your computer system, place your disk drive at
least 12 inches from your monitor. Monitors emit a magnetic field that
can damage information stored on disks."

Sure hope the combo unit has some magic magnetic shielding... :-)
--
=-=-=-

compatibility. Currently it can run full MSDOS. We are still engineering PCDOS capability, plus some of the tricky parts of the system that would allow programs like Flight Simulator and Lotus 1-2-3 to work. There is no word yet on the final configuration of this product, or on price or firm availability. We expect to see this in the Fall.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -2436947519968024520
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f998e14dfe50442a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 09:52:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!lll-lcc!
vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Screen dimmer
Message-ID: <304@atari.UUcp>
Date: Wed, 28-May-86 12:52:59 EDT
Article-I.D.: atari.304
Posted: Wed May 28 12:52:59 1986
Date-Received: Sat, 31-May-86 05:32:49 EDT
References: <860527141930.358902@DOCKMASTER.ARPA>
Organization: Atari Corp/Mktg
Lines: 18

In article <860527141930.358902@DOCKMASTER.ARPA>, Pase@DOCKMASTER.ARPA
(Bill Pase) writes:
> Does anyone know of a software screen dimmer for the ST? It seems that
> for someone who knows how to do a desk accessory and handle the screen
> and keyborad it should be easy. What I am looking for is something to
> darker the screen after the keyboard and mouse have been inactive.

The people at Solar Powered Software, 1807 N. Evergreen, Chandler, AZ 85224,
make a set of products that includes a crt saver. After the keyboard has
been inactive for about a minute, the crt goes black. This function can be
disabled if you want.

I recommend that you go for the whole set, which is called SolaPak. In
addition to the crt saver, it includes an auto-booting ramdisk of adjustable
size (by editing a text file) and a print spooler/formatter.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From 8845856851657745294
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 10:35:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!cybavax!rocort
From: rocort@cybavax.UUCP (ECS)
Newsgroups: net.micro.atari16
Subject: Re: overheating 1040
Message-ID: <202@cybavax.UUCP>
Date: Wed, 28-May-86 13:35:38 EDT
Article-I.D.: cybavax.202
Posted: Wed May 28 13:35:38 1986
Date-Received: Sat, 14-Jun-86 06:57:53 EDT
References: <8605131618.AA10686@mitre-bedford.ARPA> <241@ubc-cs.UUCP>
<3444@ukma.UUCP>
Reply-To: rocort@cybavax.UUCP (ECS)
Organization: University College Swansea, Wales
Lines: 15

In article <3444@ukma.UUCP> knnngt@ukma.UUCP (Alan Kennington) writes:
> ...   If I weren't hopping
>onto a plane very soon to go to the radioactive terrorist jungle
>called Europe, ...

Well, i guess they never told you about THREE MILE ISLAND!!

TERRORIST ? Its news to me, i'll have to check that one out,

the next time i'm in the U.S .

THANK GOD FOR SPITTING IMAGE!

R.CORT (EUROPEAN)

From -5215877355487723357
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bd4596f90f9cb664
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-28 11:38:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!lll-crg!lll-lcc!
vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: How do I get the program name (argv[0])?
Message-ID: <305@atari.UUcp>
Date: Wed, 28-May-86 14:38:22 EDT
Article-I.D.: atari.305
Posted: Wed May 28 14:38:22 1986
Date-Received: Sat, 31-May-86 05:33:04 EDT
References: <520@snow.warwick.UUCP>
Organization: Atari Corp., Sunnyvale CA

Lines: 20

> Does anyone know any way to read the name of an application or accessory
> once it has been started (argv[0] to traditional `C' programmers).

No. Not possible unless you have cooperation from the process that
Pexec()'d your application. GEMDOS does not pass or preserve the name
of the program that was loaded. The desktop does not cooperate.

This misfeature is a result of the way commandline arguments are
passed to an application. It's been a problem --- in the CP/M and
MSDOS model operating systems --- since the first CP/M-80 C compilers
came out....

--

-Landon Dyer, Atari Corp.   {lll-lcc,lll-crg!vecpyr}!atari!dyer

/--\
| The views represented here do not necessarily | "If Business is War, then
| reflect those of Atari Corp., or even my own. | I'm a Prisoner of Business!"
\--/

From 8559173637114800910
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e073e7bbc886f397
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 11:43:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: ATARI NETWORK, PRINTER DRIVERS
Message-ID: <286@atari.UUcp>
Date: Mon, 19-May-86 14:43:54 EDT
Article-I.D.: atari.286
Posted: Mon May 19 14:43:54 1986
Date-Received: Fri, 23-May-86 21:47:16 EDT
References: <8605162336.AA23370@ucbvax.Berkeley.EDU>
Organization: Atari Corp/Mktg
Lines: 17

In article <8605162336.AA23370@ucbvax.Berkeley.EDU>,
GEORGE_FRAJKOR@CARLETON.BITNET (GEORGE FRAJKOR) writes:
>
> DOES anybody know if someone is developing a networking or shared-
> peripheral system for the STs? Seems to me they'd make darn good
> classroom use computers (better and jsut as cheap as Apple, probably) if
> Atari would take the education market seriously. Anything that would
> enable 16 or so STs to share a common printer and hard disk or tap
> into a mainframe would sure help.

Computer Curriculum Corp. in Palo Alto has a gizmo to tie a roomful of ST's
together around a central host. I don't know the details, but I have seen
it in use and it does work. They have some nice CAI programs that use the
ST as a terminal, too.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From 7782695676913440778
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e4d8ad0eac6b1369,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 12:48:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!pesnta!hplabs!tektronix!uw-beaver!bullwinkle!
rochester!seismo!harvard!bunny!mdm0
From: mdm0@bunny.UUCP
Newsgroups: net.micro.atari16
Subject: An editor for musical scores on the 520ST?
Message-ID: <454@bunny.UUCP>
Date: Mon, 19-May-86 15:48:20 EDT
Article-I.D.: bunny.454
Posted: Mon May 19 15:48:20 1986
Date-Received: Thu, 22-May-86 06:13:45 EDT
Distribution: na
Organization: GTE Laboratories, Waltham, MA
Lines: 10

Is anyone aware of any editors for musical composition for
the 520ST? They can either be commercial or in public domain.
Any information, i.e. price, vendor, fuctionality, etc. would
be gratefully appreciated!
Thanks in advance,

--
Michael David Maggio
(Not one who would say NI)

From 3200464213655859577
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fec1299d1eb49913,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 12:56:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!hplabs!tektronix!tekig5!tekig4!georgew
From: georgew@tekig4.UUCP
Newsgroups: net.micro.atari16
Subject: Mass retailers pushing ST
Message-ID: <677@tekig4.UUCP>
Date: Mon, 19-May-86 15:56:51 EDT

Article-I.D.: tekig4.677
Posted: Mon May 19 15:56:51 1986
Date-Received: Tue, 20-May-86 20:54:17 EDT
Distribution: na
Organization: Oregon Home for Orphaned Responses
Lines: 3

Toys "R" Us is selling the 520 ST with disk drive and RGB monitor for $899.

Sorry if someone else already posted this. Our news connection is erratic.

From 5578640799381960233
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1cb897d3733c053e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 19:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!
ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: STarter kit notes
Message-ID: <54600085@iuvax.UUCP>
Date: Mon, 19-May-86 22:16:00 EDT
Article-I.D.: iuvax.54600085
Posted: Mon May 19 22:16:00 1986
Date-Received: Sat, 24-May-86 00:37:44 EDT
Lines: 48
Nf-ID: #N:iuvax:54600085:000:2713
Nf-From: iuvax!franco   May 19 21:16:00 1986

The number of STarter kits copied and mailed is fast approaching 100.
That gives you an idea of the amount of copying required by this operation.
In order to speed up the copying I am requesting that people sending disks
to me format those disks SINGLE SIDED and not double sided. I am afraid I
only have single sided disks.

Some people have asked if they could return the favor. The answer is yes.
If you are about to send me disks and have some PD software lying around I
would be grateful if you put it on your disks before you send them. Some
people have already sent me some fine pieces of software and some of these
have found their way into the STarter kit. Also, if you have any SONY disk
labels or equivalent (gloosy appearance - pencil doesn't show well) that you
don't need I would appreciate receiving some. If you send 5 yellow and 5 green
labels to me I will pay for the return postage (in US and Canada only).
Remember, I do not expect to receive anything in return for the copying so
don't feel you shouldn't send any disks because you don't have software or
labels to give me.

Finally two notes on the objective of this operation.

1. The main objective is to provide new ST users with some working software that immediately makes their machines useable. The software provided in the STarter kit is, with a few exceptions, good but not quite finished products - mostly everything has some (nearly always non-serious) deficiency. It is expected that users receiving the STarter kit will eventually acquire commercial grade software that replaces the material in the STarter kit. I mention this because I have sensed that a few people were disappointed with some pieces in the kit. Please don't be disappointed - remember that the objective is to get people off the ground quickly.

2. Another objective is to provide this software to a significant number of new users. This is most efficiently accomplished if people receiving the kit spread it around locally - perhaps through ST user groups. Many of you have already done this. In a few cases, however, I have received copying requests from people working in the same building or living within blocks of each other. In one case someone sent a second set of four disks without a note - presumably checking to see if any new stuff had been added lately. This copying is not easy. Please help me by being local distributors and by not requesting copying if you already know someone who has received the kit (unless, of course, he is a dirty rat and won't let you have the stuff).

Thank you, all.

franco@indiana.csnet

From -1204922217253989865
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a5d4ec60c37d2d8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 21:18:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Anyone Else Had This Problem?
Message-ID: <8605200418.AA18920@ohio-state.ARPA>
Date: Tue, 20-May-86 00:18:33 EDT
Article-I.D.: ohio-sta.8605200418.AA18920
Posted: Tue May 20 00:18:33 1986
Date-Received: Fri, 23-May-86 06:07:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Once again my 520ST is screwed up. This time every time I try to do just about anything with the control panel, the system reboots. Often when I change the date, the background color near the cursor will be wrong.

Sometimes some dots on the screen are wrong.

I have ROM TOS and a mono screen.

A while ago people were discussing the alleged reliability of ATARI ST COMPUTERS. I have had nothing but problems with mine. My first ST lasted about three days until it wouldn't boot (the disk drive would make a terrible noise, etc). The next ST had an unstable screen (text & graphics would quiver slightly). Finally this one is screwed up also.

The last time I sent in a computer to ATARI product servce, it took over 6 weeks to get my system back. They were ready to ship very soon after they got my unit, but because they were doing inventory, they kept the unit (ready to ship) in the fucking warehouse for about 3 weeks.

This is the kind of treatment I got with my Commodore-64. It looks like ATARI is unprepared both to produce a reliable product and to provide adequate support.

Eric Bergman-Terrell

From -103883456847095227
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,20cebaa8f7a8e74b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 22:03:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMass.BITNET!MPCOHAN
From: MPCOHAN@UMass.BITNET (Michael P. Cohan, UMass/Amherst)
Newsgroups: net.micro.atari16
Subject: assorted Rumors and interesting stuff in Compute
Message-ID: <860520010341.00000EF8.AEDN.AA@UMass>
Date: Tue, 20-May-86 01:03:41 EDT
Article-I.D.: UMass.860520010341.00000EF8.AEDN.AA
Posted: Tue May 20 01:03:41 1986
Date-Received: Fri, 23-May-86 06:11:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Atari has definitely licensed UNIX from AT&T. If nothing else, that convinces me they have a machine in the works, because presumably it cost them money, and ol' J.T. isn't going to spend ten cents unless he has to, from what I've seen! The rumors I've heard say that the machine will be an add-on box to the ST and will use the ST as a front-end processor. It will have a 68020, the blitter chip mentioned in the March BYTE article, and an enhanced, faster version of the ST video shifter chip. I seem to remember reading someplace that the V.shifter can run at 32 MHz instead of 16. If so, that would double the amount of data it can get from memory, and double the number of bit planes, which would give: 256 colors in low-res 16 in medium, and 4 in high. Coincidentally, or

perhaps not so coincidentally, I've heard in a few places that the 32-bit Atari will do 256 colors in low-res. Perhaps this is what they are doing? I don't know THAT much about hardware so if this isn't possible someone please tell me.
   Also, have people read the editorial in the June issue of COMPUTE? Looks like they are going to be starting an ST magazine or something.. how fine..
        --Michael Cohan, just your basic Computer student at UMass/Amherst..
          MPCOHAN@UMASS.BITNET
(UNIX is a trademark of AT&T Bell Labs, and all that mumbo jumbo)

From 6264107361787684497
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd28ee883af7e17d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 22:53:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!ucdavis!ucrmath!hope!wardlaw
From: wardlaw@hope.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SS vs DS disk drives
Message-ID: <449@hope.UUCP>
Date: Tue, 20-May-86 01:53:57 EDT
Article-I.D.: hope.449
Posted: Tue May 20 01:53:57 1986
Date-Received: Fri, 23-May-86 23:04:22 EDT
References: <113@uxrd1.UUCP>
Organization: University of California, Riverside
Lines: 25

> Can someone tell me if I buy a 520ST with the DS disk drives, will I
> be able to read/write SS disks too? Or must I get both drives in order
> to read/write both types? And what format is most prevalent? Thanx.

I have a 1040 ST and it has an internal DS drive. I can format, read, and write either SS or DS diskettes in it. All software that I have seen for the ST has been distributed on SS diskettes, including the packaged software that came from Atari with the machine (First Word, ST BASIC, LOGO, and NEOchrome). The DS drive can determine whether or not the diskette is SS or DS. You cannot read DS formatted diskettes on SD drives, however. I would recommend the DS drive (possibly two of them if you can afford it, since copying files in GEM can be a real pain in the *** if you only have 1 drive. I would also recommend that you grab the sources for the RAMDISK that was posted recently. It makes a big difference!) If you have any further questions, please let me know. I think that this is a great way to learn about the machine before actually using it!

     /**\
     ** Johnie Wardlaw,   Undergraduate: Computer Science **
     ** University of California, Riverside   **
     ** {ucbvax!ucdavis, ihnp4!ucla-cs} hope!ucrmath!wardlaw **
     **   **

```
     ** "The lights are on, but nobody's home!"          **
     **            -- Universal Studios, Black Box  **
     \*****************************************************/


From 6504801032692496652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-19 23:02:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watrose.UUCP
Path: utzoo!watmath!watnot!watrose!cdshaw
From: cdshaw@watrose.UUCP (Chris Shaw)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: "abuse" of the net
Message-ID: <8043@watrose.UUCP>
Date: Tue, 20-May-86 02:02:30 EDT
Article-I.D.: watrose.8043
Posted: Tue May 20 02:02:30 1986
Date-Received: Wed, 21-May-86 01:15:38 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp> <360@imagen.UUCP>
<2210@seismo.CSS.GOV> <365@imagen.UUCP>
Reply-To: cdshaw@watcal.UUCP (Chris Shaw)
Organization: U of Waterloo, Ontario
Lines: 70
Xref: watmath net.micro.atari16:815 net.mail:1629

In article <365@imagen.UUCP> turner@imagen.UUCP writes:
>i (in the form of my company) just paid for your ideas being transmitted

This is utter nonsense. You paid nothing. You don't own Imagen, and it
seems the higher-ups (making a few assumptions here...) are content
to have what traffic they may on Imagen's machines via USENET.
Saying "I, through my company" is a baldfaced argumentative trick
designed to give your words more weight than they would otherwise deserve.
Cut it out.

>> You can send whatever you want at your expense, but when you ask
>> me to pay for it (even implicity) you give me the right
>> to interfer with it.
>horse puckey! first who said that the free (read 'uncensored')
>exchange of ideas was free (read 'without cost')? it ain't
>second, you have a right to censored what you recieve at your
>machine but not what passes thru it. the system i am building
>based on email, hence if you are not a newsfeed you bear none of the
>costs, if on the other hand you are a newsfeed to others then you
>have given your implicit consent to bear the costs of a newsfeed.
>
>either you're from Stanford and don't know english or UC Berkeley and
>don't know math, but you mean function not correlation
```

>(the original joke was MIT and Harvard and has lost alot in the
>translation)

It has lost much more through its grossly incoherent presentation.
I have read the above passage about 4 times, and can still not decide
what you mean, Mr. Turner.

To confront the points as given, I agree that intercepting mail passing
through one's machine is very bad form, and people should stop doing
this unless entirely necessary due to technical constraints. Although
there is no WRITTEN contract, the custom of USENET is to let mail articles
pass at will. News custom is similar except that articles are expected
to stay within the confines of the newsgroup subject area.

Deleting mail for whatever reason disobeys the spirit of the arrangement.
When one considers that USENET is entirely voluntary, this kind of
pigheaded authoritarianism makes no sense at all. When one considers
the traditions of the countries where USENET exists (liberal democracies),
this kind of behaviour is entirely unacceptable. Far better a well-stated
policy (eg. no Net.flame) than a capricious enforcement of unspoken bias.

>Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)

There has been much talk lately along the lines of "why should I pay for
atari sources?". My response is as follows:

Clearly, the only way to regulate news traffic is by selectively carrying
certain newsgroups. If certain machines don't want ST sources, then
don't carry net.micro.atari16. Alternatively, create mod.sources.atari.
It happens in every micro group when it gets big, and this case is no
different.

I would add, however, that whining about the existence of an
atari source group in the face of the similar Macintosh newsgroups
is nothing short of inane. Net.sources.mac is number 1 in volume
month after month. People on the net clearly desire the group,
so there is no reason why it should not exist. If it costs too much
to carry, don't get it on your machine.

In short, stop wailing officiously about cost and do something, you whiners!
Put up or shut up !!!

Chris Shaw   watmath!watcal!cdshaw or cdshaw@watmath
University of Waterloo
In doubt? Eat hot high-speed death -- the experts' choice in gastric vileness !

From -7145079850860066307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c4c274fac13189,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-05-20 02:59:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!ritcv!rocksvax!rocksanne!
sunybcs!leo
From: leo@sunybcs.UUCP (Leo Wilson)
Newsgroups: net.micro.atari16
Subject: PC/InterComm proprietary file transfer
Message-ID: <3176@sunybcs.UUCP>
Date: Tue, 20-May-86 05:59:54 EDT
Article-I.D.: sunybcs.3176
Posted: Tue May 20 05:59:54 1986
Date-Received: Fri, 23-May-86 23:33:38 EDT
Reply-To: leo@gort.UUCP (Leo Wilson)
Organization: SUNY/Buffalo Computer Science
Lines: 25
Keywords: what is it?

Does anyone out there know what the proprietary file transfer protocol
Mark of the Unicorn distributes with PC InterComm is? I bought the
program about two months ago, and so far all I've done with this is
zip past it when making choices. Is it good for anything? Does it have
any bells and whistles that make it a better file transfer protocol than
kermit or xmodem? Does it even work?

So far lots of people have made passing reference to this or other
terminal emulator programs and I'm convinced that this is the best in
comparison with what I've read in this news group, but nobody has even
mentioned the proprietary protocol.

Is MOTU out there (I'm pretty sure they are), have you any comments or
insights?

Shalom,   -Leo

--

Leo E. Wilson(leo@buffalo.csnet)
364 West Delavan Avenue
Buffalo, NY 14213
(716)883-7573
UUCP:...![bbncca,decvax,dual,rocksanne,rocksvax,watmath]!sunybcs!leo

From 2880982401951318996
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,89629ad3942b158e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 09:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!unido!hmm
From: hmm@unido.UUCP
Newsgroups: net.micro.atari16

Subject: Re: SID output to disk
Message-ID: <96100009@unido.UUCP>
Date: Tue, 20-May-86 12:09:00 EDT
Article-I.D.: unido.96100009
Posted: Tue May 20 12:09:00 1986
Date-Received: Fri, 23-May-86 23:48:54 EDT
References: <15206440@stracs.UUCP>
Sender: notes@unido.UUCP
Lines: 15
Nf-ID: #R:stracs:-1520644000:unido:96100009:000:645
Nf-From: unido!hmm   May 20 17:09:00 1986

Maybe I've got the weirdest solution to this problem:
I've written a short program which redirects console output
(using BIOS calls) to both console and serial line.
That's rather simple to do, but I don't have access to this
atari in the moment, so I can't post the program now.
On the rs232 line I had a UN*X host running "cat >file".
After finishing SID, I connected to the host, typed EOF
and transmitted the file with kermit. I did not manage to
modify my program to write onto disk instead of the rs232 line,
maybe someone wants to try it ? I would be a valuable tool sometimes.

     Hans-Martin Mosner <hmm@unido>
     University of Dortmund

From 9217247720413940662
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,51c023706294eac3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 10:19:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Ng.PA
From: Ng.PA@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Infor on Atari 1040 ST
Message-ID: <860520-101936-2459@Xerox>
Date: Tue, 20-May-86 13:19:15 EDT
Article-I.D.: Xerox.860520-101936-2459
Posted: Tue May 20 13:19:15 1986
Date-Received: Fri, 23-May-86 06:28:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Ng.PA@Xerox.COM
Organization: The ARPA Internet
Lines: 15

Hi,

I am planning to purhase a 1040 ST, but I don't anymore about the machine beyond the hardware configuration. Could someone on the net give some infor on the software, programming laugages, and printers that are available on the ST. Also I would like to hear some hand-on exprience from some current owners.

Thanks in advance.

Nelson
PS: The programming laugaages I am interesed in the most are LISP, C, and Pascal.

From -7203865610050914636
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1752936cd6437309,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 12:20:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Software reset on the ST?
Message-ID: <860520152014.00000989.ADDI.AA@UMass>
Date: Tue, 20-May-86 15:20:14 EDT
Article-I.D.: UMass.860520152014.00000989.ADDI.AA
Posted: Tue May 20 15:20:14 1986
Date-Received: Fri, 23-May-86 06:50:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Hello,

I was wondering. Is there a software reset available on the ST? I find it disturbing to have to do a hardware-reset (that little switch in the back) every time I reset my 520. Sometimes I just wanna free up memory or re-boot desk accessories. But I am forced to reset it in hardware. Maybe someone could write a short program that did the job. I dunno. Or place it in a desk ACC. My ole c64 ONLY had a software reset, now my ST ONLY has a hardware reset. Any ideas and info is appreciated. Feel free to reply privatly or on the network.

Rick Flashman
Flash%Umass.Bitnet@WISCVM.ARPA (Something like that)
Or 1057 N. Pleasant, Amherst MA 01002
Or (413) 549-7399
(Want my credit card numbers too?)
Here: 35-%^$%$%$^&$%^-65 (Darn, line noise, oh well, I tried).

From -6063827303258020153

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-20 12:28:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <250@ubc-cs.UUCP>
Date: Tue, 20-May-86 15:28:29 EDT
Article-I.D.: ubc-cs.250
Posted: Tue May 20 15:28:29 1986
Date-Received: Sat, 24-May-86 04:42:40 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp> <360@imagen.UUCP> <2210@seismo.CSS.GOV> <365@imagen.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 11
Xref: linus net.micro.atari16:735 net.mail:1542

I find this whole discussion rather offensive. Indeed, this whole newsgroup should not exist if one is going to construe things narrowly. (Our department owns not one ST, and I doubt that it will ever buy one. Most members of the net are in the same position.)

Asking someone to E-mail some public domain code is, as far as I'm concerned, a reasonable use of the net. (It might be even better to ask for the code to be posted.) Any ST-related stuff of a non-commercial nature ought to be grist for net.micro.atari16's mill.

For Tramiel's sake, let's get back to some sensible discussion!

From 5370020017872120569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 122486,49970212791fb5bf
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-20 14:21:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.mail,net.news.group
Subject: Re: abuse of the net
Message-ID: <371@imagen.UUCP>
Date: Tue, 20-May-86 17:21:42 EDT

Article-I.D.: imagen.371
Posted: Tue May 20 17:21:42 1986
Date-Received: Wed, 21-May-86 06:20:38 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
<317@sdcarl.UUCP> <2021@hammer.UUCP>
Distribution: na
Organization: The Houses of the Holy
Lines: 35
Xref: decwrl net.micro.atari16:851 net.mail:1646 net.news.group:4982

> I don't see why UNIX machines should be expected to pay for distributing
> software and discussions for other operating systems. Why can't they
> set up their own network? Disk space and phone lines aren't free for
> machines that run UNIX anymore than they are for machines that run
> mac/amiga/ST/PC-DOS/VMS/whatever.
>
> (Before someone mentions groups like net.cooks, consider the difficulties
> of connecting a modem to your average saucepan.)
>
> Snoopy
> tektronix!tekecs!doghouse.TEK!snoopy

(as our hero mounts his high horse, he turns and says....)

if we were dealing in machines and not people i would agree with you
but we are not. Allow me to stretch a point, you surely expect your
company to light your office, provide furniture, health bennies etc.
why ? UNIX machine do not need any of those ! We are dealing in
people here and (at least) i do not live by unix alone. and i will
mention net.cooks, rec, motss etc. the beauty of the net is its
breadth of interests, its exciting to feel that you're not just tied
into another techno-nerd net.
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -1449236532827429362
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 14:24:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format
Message-ID: <372@imagen.UUCP>
Date: Tue, 20-May-86 17:24:17 EDT
Article-I.D.: imagen.372
Posted: Tue May 20 17:24:17 1986
Date-Received: Sat, 24-May-86 01:05:28 EDT
References: <186@bridge2.UUCP> <363@imagen.UUCP> <178@sfucmpt.uucp>
Distribution: net
Organization: The Houses of the Holy
Lines: 27

> > >
> > > Anybody know what the garbage character is or why it is there
> > > (incidentally, the character seemed always to be 0x12)?
> > >
> >
> > what you are seeing is a handshaking character called XON (ctrl-Q)
> > it tells terminals that support XON/XOFF protocal to start
> > processing incoming characters if a previous XOFF has halted it,
> > otherwise it is ignored
> > --
>
> ummmmm, isn't XON (ctrl/q, DC1) 0x11 ? and XOFF (ctrl/s, DC3) 0x13 ?
>
yes yes i admit it !!! i read the bloody chart wrong, next time ill
get it tatoo'd on my stomach where i can see it clearly
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -803359492259477883
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4c60c1bef4ecc1b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 15:46:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!pyramid!pesnta!fai!
ronc
From: ronc@fai.UUCP (Ronald O. Christian)

Newsgroups: net.micro.atari16
Subject: 1 meg ram chips in a 520 or 1040ST
Message-ID: <188@fai.UUCP>
Date: Tue, 20-May-86 18:46:57 EDT
Article-I.D.: fai.188
Posted: Tue May 20 18:46:57 1986
Date-Received: Sat, 24-May-86 04:12:05 EDT
Reply-To: ronc@fai.UUCP (Ronald O. Christian)
Organization: Fujitsu America, Inc.
Lines: 17

Has anyone tried to put any of the new 1 Meg dynamic ram
chips in either the 520 or 1040 ST? I'm specifically thinking
of the Fujitsu MB811000 1048,576 X 1 device. I can get
them really cheap... :-) The big problem I see is that
it's an Nmos device and probably draws too much power.
Anyone have experience?

Ron
--
--
Ronald O. Christian (Fujitsu America Inc., San Jose, Calif.)
seismo!amdahl!fai!ronc -or- ihnp4!pesnta!fai!ronc

Oliver's law of assumed responsibility:
"If you are seen fixing it, you will be blamed for breaking it."

From -4533771794106770492
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5a7eb0197f3c7377
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 20:26:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
ll-xn!adelie!rclex!walt
From: walt@rclex.UUCP (Walter L. Weber)
Newsgroups: net.micro.atari16
Subject: Re: compression of image files?
Message-ID: <758@rclex.UUCP>
Date: Tue, 20-May-86 23:26:38 EDT
Article-I.D.: rclex.758
Posted: Tue May 20 23:26:38 1986
Date-Received: Sat, 24-May-86 18:08:23 EDT
References: <752@rclex.UUCP> <285@atari.UUcp>
Organization: Ridge Computers (Eastern Region), Lexington, MA
Lines: 17
Keywords: 520st neochrome degas compression
Summary: original question now rephrased

In article <285@atari.UUcp>, neil@atari.UUcp (Neil Harris) writes:

> In article <752@rclex.UUCP>, walt@rclex.UUCP (Walter L. Weber) writes:
>> Has anyone ever seen or used an encoding or compression algorithm
>> to store image files?
> On the Atari Corp. BBS (408-745-5308) in SIG #7 (ST Art), you will find two
> programs -- a squeezer and an unsqueezer. We squeeze all pictures.....

What I meant to ask was if such a scheme existed which could be used on
an image file from within a program; in that way a "slideshow" or "animated"
demo/tutorial would be able to be more miserly with it's use of disc for
the images. I am thinking of run-length-encoding schemes, but have yet
to see anyone talk about it here on the net.

--
Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers   PHONE: (617) 861-6000
Lexington, Mass.   COMPUSERVE: 76515,2423

From 9060772632853707489
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-20 20:51:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!sean
From: sean@ukma.UUCP (Sean Casey)
Newsgroups: net.micro.atari16
Subject: Unix for 1040ST? Please let it be!
Message-ID: <3479@ukma.UUCP>
Date: Tue, 20-May-86 23:51:25 EDT
Article-I.D.: ukma.3479
Posted: Tue May 20 23:51:25 1986
Date-Received: Fri, 23-May-86 07:43:50 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP> <560@pucc.BITNET>
Reply-To: sean@ukma.UUCP (Sean Casey)
Distribution: net
Organization: The Leaning Tower of Patterson Office @ The Univ. of KY
Lines: 8

If Atari could produce a cheap (< $2000) Unix Box that ran Berkeley Unix,
I and about 500,000 other people would buy them as fast as we could write
the checks. (hint hint)
--

Sean Casey   UUCP: cbosgd!ukma!sean   CSNET: sean@uky.csnet
University of Kentucky   ARPA: ukma!sean@anl-mcs.arpa
Lexington, Kentucky   BITNET: sean@ukma.bitnet

From -9162246920971561177
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,371b904901d57abb

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 01:03:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: Lattice C: a mini-review
Message-ID: <812@hoptoad.uucp>
Date: Wed, 21-May-86 04:03:56 EDT
Article-I.D.: hoptoad.812
Posted: Wed May 21 04:03:56 1986
Date-Received: Sat, 24-May-86 00:15:44 EDT
References: <133@druxu.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 15
Keywords: 520ST, C language

In article <133@druxu.UUCP>, rwb@druxu.UUCP (BlackR) writes:

> 7) the linker is very powerful...

Also, unfortunately, it is ridiculously slow. It runs several
minutes(!) on hello.c style programs, and becomes the main slowdown in
a compile-link-debug -edit cycle.

> In summary, this product has potential, but save your money until it is
> fixed.

Agreed. I wouldn't buy it. I would get the developers kit from Atari instead.
(I have not used the Atari kit but haven't heard complaints.)
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

From -7928849889194790206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ffffe913a1ec2d12,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 06:10:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!david
From: david@looking.UUCP (David Rowley)
Newsgroups: net.micro.atari16
Subject: Quiet Relmod & Composite Video
Message-ID: <541@looking.UUCP>
Date: Wed, 21-May-86 09:10:51 EDT
Article-I.D.: looking.541
Posted: Wed May 21 09:10:51 1986
Date-Received: Fri, 23-May-86 07:14:41 EDT
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 18

[munch, munch]

Just thought I would pass on a mild warning about using RELMOD, from the developer's kit. It does not give out any diagnostic when confronted with a full disk write error, it just gives up and returns like everything went okay... Not a major problem, but annoying.

I know the subject has been discussed before, but... did anyone ever find out a commercially available RGB->Composite converter, at a reasonable price ? I don't particularly want to wire my own (seeing as my analog electronic skills are not up to snuff...) Surely there must be SOME demand for this product...

thanks

David Rowley
Looking Glass Software
{allegra,utzoo}!watmath!looking!david

From 38224671920858869
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9770faa95e7b7874,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 08:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!qantel!intelca!
oliveb!hplabs!ucbvax!GE-CRD.ARPA!montnaro%chenengo.tcpip
From: montnaro%chenengo.tcpip@GE-CRD.ARPA
Newsgroups: net.micro.atari16
Subject: image compression
Message-ID: <8605211535.AA25611@ucbvax.Berkeley.EDU>
Date: Wed, 21-May-86 11:13:00 EDT
Article-I.D.: ucbvax.8605211535.AA25611
Posted: Wed May 21 11:13:00 1986
Date-Received: Sat, 24-May-86 04:35:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 34

Received: by chenengo.steinmetz (3.0/1.1x Steinmetz)
     id AA16370; Wed, 21 May 86 10:08:20 EDT
Date: Wed, 21 May 86 10:08:20 EDT
From: Skip Montanaro <montnaro%chenengo.tcpip@csbvax>
Posted-Date: Wed, 21 May 86 10:08:20 EDT
Message-Id: <8605211408.AA16370@chenengo.steinmetz>
To: info-atari16@score.stanford.edu
Subject: image compression

In <752@rclex.UUCP> Walt Weber writes:

>Has anyone ever seen or used an encoding or compression algorithm
>to store image files? I have seen a couple of demos which appear
>to be compressed, as they are all different sizes and come up in
>a "slideshow" style presentation.

I would think that some adaptation of the algorithm used in compress
(available from mod.sources and quite protable) might be sufficiently fast
enough to do what you want. Compress is not restricted to ASCII files. We
use it to compress cpio output (used for backups) before sending to a VMS
VAX. We get (typically) about 50% compression and its speed is acceptably
fast.

==========
Skip Montanaro
ARPA: montanaro@ge-crd.arpa
US Mail: General Electric Company
      Corporate Research and Development
      P.O. Box 8
      Bldg KW, Room C210
      Schenectady, NY 12304
Phone: 518-387-7312
==========

From -3373528852472889757
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-21 08:17:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!allegra!mit-eddie!think!harvard!caip!cbmvax!
andy
From: andy@cbmvax.cbm.UUCP (Andy Finkel)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <273@cbmvax.cbmvax.cbm.UUCP>
Date: Wed, 21-May-86 11:17:24 EDT
Article-I.D.: cbmvax.273
Posted: Wed May 21 11:17:24 1986
Date-Received: Fri, 23-May-86 02:46:02 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
Reply-To: andy@cbmvax.UUCP (Andy Finkel)
Distribution: na
Organization: Commodore Technology, West Chester, PA
Lines: 66
Xref: mit-eddie net.micro.atari16:877 net.mail:1623

In article <2206@uwmacc.UUCP> oyster@uwmacc.UUCP (Vicarious Oyster) writes:
>In article <218@cbmvax.cbmvax.cbm.UUCP> andy@cbmvax.UUCP (Andy Finkel) writes:
>>In article <779@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>>>Sure, let's let {ucbvax,ihnp4,akgua,hplabs,sdcsvax} pay so this guy can

>>>play with his Atari. After all, he can't afford it, but they
>>>can. In fact, why not just post the entire contents of the BBS to
>>>the net -- then *everybody* can pay for the phone time.
>>
>>Please! He didn't say he couldn't afford it; He said he didn't WISH
>>to pay for the phone time.
>>
>>Somehow, that makes it worse.
>>
>   Here's the good part...
>

< Flaming Portion Deleted >

> - Joel ({allegra,ihnp4,seismo}!uwvax!uwmacc!oyster)

Well, I've already responded to the portion accusing Commodore of
abusing the net and being a bad net.citizen by email. (and haven't
heard anything back from Joel in response. (Basically, I just
paraphrased George Robbins posting, pointing out that we feed news/mail
around, and have to fight for our phone lines/charges like any other company,
and that usenet was an own-time occupation for the engineers here)

Now, to make it real clear WHY I wanted to respond to that initial message...

<Flame On >

It was the line "I don't WISH to pay".

That was the trigger. I have nothing against sources for *any* machine
being posted. I can almost always learn something from any source, even if
I don't happen to use that machine. (that's why I don't like binaries, but
that's something else).
No, what I was commenting on was the *rather have someone else pay for
something I want* attitude in that initial posting.
The request wasn't *Please email/post because I can't afford them* or
Please email/post because I can't get them otherwise, but
I'd rather have someone else pay
Whether the stuff is posted, or emailed makes no difference to my
dislike of that attitude.

<Flame Off >

(To the initial poster: sorry about all the fuss. I wasn't
really attacking you personally :-) By the way, since you want to
use the stuff for your work, why not see if your company/university/whatever
will pick up your phone bill ? (assuming the stuff isn't posted, that is)

                    andy finkel

--

               andy finkel

Commodore(Amiga)
{ihnp4|seismo|allegra}!cbmvax!andy
or pyramid!amiga!andy

Any expressed opinions are mine; but feel free to share.

I disclaim all responsibilities, all shapes, all sizes, all colors.

"Remember, no matter where you grow, there you are." - Buckaroo Bonsai.

From 8809896439545515281
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,856ea5b6b2f54752,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 09:21:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!qantel!intelca!
oliveb!hplabs!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: PD File Compaction Programs
Message-ID: <8605211621.AA02617@ohio-state.ARPA>
Date: Wed, 21-May-86 12:21:00 EDT
Article-I.D.: ohio-sta.8605211621.AA02617
Posted: Wed May 21 12:21:00 1986
Date-Received: Sat, 24-May-86 04:36:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

To all those I promised to send file compaction programs to:

I regret that I cannot do this for awhile since my computer is sick

From 3639413954335652364
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db49fec023ff61fa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 09:22:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!pyramid!
hplabs!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: PD File Compaction Programs (sorry)
Message-ID: <8605211622.AA02646@ohio-state.ARPA>
Date: Wed, 21-May-86 12:22:24 EDT
Article-I.D.: ohio-sta.8605211622.AA02646
Posted: Wed May 21 12:22:24 1986
Date-Received: Sat, 24-May-86 05:00:38 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I regret that I cannot send the file compaction programs out. My computer is crashed, and will soon be making its second journey to Sunnyvale.

I'll send the programs when the computer is back, but based on my last experience, it may take up to two months.

Terrell

From -7127433508510963511
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d0f9d50b3646c409
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 09:29:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!qantel!intelca!
oliveb!hplabs!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Looking for a good atari dealer (service) in the MD/DC area
Message-ID: <8605211629.AA16500@mitre-bedford.ARPA>
Date: Wed, 21-May-86 12:29:03 EDT
Article-I.D.: mitre-be.8605211629.AA16500
Posted: Wed May 21 12:29:03 1986
Date-Received: Sat, 24-May-86 04:36:26 EDT
References: <188@stsci.uucp>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 21

For a serious Atari dealer, try:

Applied Computers, Inc. Phone: (301) 948-0256
16220 Frederick Road (800) 4-ATARIS
Gaithersburg, MD 20877 (I *said* they were a serious Atari dealer!)

They seem like nice folks and have a good stock of hardware, software, books, and magazines. I have not had serious dealings with them other than to buy books, but I got good vibes about them from my one visit.

Incidentally, they are located at the intersection of Shady Grove Road and Frederick Road (Rt. 355), on the southwest corner, about the second business from the corner. (Don't make the mistake I did of looking for 16220 up north of the center of Gaithersburg!)

Good luck!

-John Sangster
jhs@mitre-bedford.arpa

From 4300227114757351955
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,94dd93e24b8ced2f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 09:58:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!case.CSNET!ozsoy
From: ozsoy@case.CSNET (ozsoy)
Newsgroups: net.micro.atari16
Subject: Re: help on keypad support for ST!
Message-ID: <8605220605.AA09445@ucbvax.Berkeley.EDU>
Date: Wed, 21-May-86 12:58:48 EDT
Article-I.D.: ucbvax.8605220605.AA09445
Posted: Wed May 21 12:58:48 1986
Date-Received: Sat, 24-May-86 18:06:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -3304647150238097916
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1a4328e4fb9b5419,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 10:30:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.uucp (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Sorry, but these guys.... (FLAME)
Message-ID: <429@elmgate.uucp>
Date: Wed, 21-May-86 13:30:21 EDT
Article-I.D.: elmgate.429
Posted: Wed May 21 13:30:21 1986
Date-Received: Sat, 24-May-86 04:05:29 EDT
Organization: Eastman Kodak Company, Rochester, NY
Lines: 84

> You got *that* right, too. I'm kind to animals, give to the charities
>of my choice, and even signal lane-changes. Incidentally, I haven't
>noticed your comments before outside of net.micro.amiga; you wouldn't
>by any chance have some *valid* reason for flaming in the Atari newsgroup,
>would you?

Don't suppose it ever occured to you that I might use/own *BOTH* an Atari ST *AND* an Amiga, huh? No I guess not. And if it had been an Atari official voiceing his opinion , I'd have supportted his right to do so also.
I'm 'company blind'. So long as they don't output downright advertisements here, I don't mind. It gives me a chance to communicate with people I might never get to meet, and could only read about 3 monthes later in a magazine.

Anyways you feel your way and I'll feel mine.

But your right, back to something useful.

********** A little help please *******

Here's a short routine written in the release version of MegaMax C
It bombs miserably (address errors). I'm typing it from memory, so forgive me if it's not perfect, however the routine DOES compile and link without errors at home on my machine.

Now it seems to load and start running, because there is a definite delay between the 'here we go' and the 3 bombs.
Makes me think it's either a stack overflow or something trashed in the Xbtimer call or after the loop exits. I hate these problems as they always turn out to be simple. But I'm at a loss. Any Ideas?

BTW, I have seen Russ W.'s code example for the 50hz GEM timer interrupt, where he saves A4. He says otherwise it gets trashed. I don't think that applies here. I'm not passing control to any GEM function so I don't think A4 can get trashed. Indeed looking at bios for Xbtimer shows that it simply moves my vector into $134 which is the 13th MFP vector. So only my routine should get control at the interrupt. Right? Wrong?
PS. Whats the clock rate for the MFP and the MFP timers? They can be clocked separatly. Are they?

Thanks for the help in advance

```
/***********************************
        My Time Int.
***********************************/

#include <stdio.h>

extern int my_timer_code ();

asm {
      my_timer_code:
          addq.l   #1,D7          /* Just count interrupts */
          move.b   #0xDF,0xFFFA0F /* Clear ISRA Timer A bit */
          rte
    }


main()
{
```

```
     register long count = 0;     /* Count of interrupts */
     register int i;
    int (*my_interrupt_handler) ();

     my_interrupt_handler = my_timer_code; /* point to my interrupt */

     Xbtimer (0,1,100,my_interrupt_handler);  /* Enable timer A, prescale 4
                                                 for 100 counts (100us ?) */

    for (i = 0; i < 30000; i++)
         ;

     Xbtimer (0,0,0,0L);

     printf ("Timer timed out %d times.\n");
}


--
Jeff Gortatowsky       {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company

<Kodak won't be responsible for the above comments, only those below>



From 1925390337991511769
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e457ca9d0f34aa1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 10:59:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.uucp (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Whoops!
Message-ID: <430@elmgate.uucp>
Date: Wed, 21-May-86 13:59:19 EDT
Article-I.D.: elmgate.430
Posted: Wed May 21 13:59:19 1986
Date-Received: Sat, 24-May-86 04:05:53 EDT
Organization: Eastman Kodak Company, Rochester, NY
Lines: 16

In my interrupt example I forgot (I think) to include the ",count"
in the last printf. Rest assured it still bombs. As I said I was
typing from memory.  Count being a register variable should be in
D7 since it's declared as the FIRST data register variable and
MegaMax allocates registers in reverse order starting with D7.

Anyways you get the idea.
Thanks again!
```

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company

<Kodak won't be responsible for the above comments, only those below>

From -8244105654977772316
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 12:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <294@atari.UUcp>
Date: Wed, 21-May-86 15:09:00 EDT
Article-I.D.: atari.294
Posted: Wed May 21 15:09:00 1986
Date-Received: Sat, 24-May-86 03:40:44 EDT
References: <8605111518.AA11708@ohio-state.ARPA> <170@sage.cs.reading.Ac.Uk>
Organization: Atari Corp/Mktg
Lines: 25

In article <170@sage.cs.reading.Ac.Uk>, gordon@sage.cs.reading.Ac.Uk
(Simon Gordon) writes:

> Unfortunately, most of the companies selling languages saying you have full
> access to GEM are TELLING FIBS !!!
>
> Firstly, you need an RSC file editor - these are not supplied by most of the
> companies and are needed to sort out the data for the pull down menus etc.
> The only places I have seen this is in the DRI dev kit (if you have $300)
> and with the MEGAMAX at about $200.
>
> Secondly, to make a program an acc instead of a normal program one must link
> it with a different startup routine, again not usualy supplied - and as TDI
> use their own linker (not the usual DEV kit or GST compatible ones) you cant
> even do it if you have the startup files from somewhere else.
>
> From a very annoyed user of TDI Modula 2, Metacomco Pascal and GST C.
> Simon Gordon @ Sibly Hall - Reading University.

Personal Pascal does, in fact, allow you to create desk accessories WITHOUT
the resource construction set. Complete instructions are included on
CompuServe, BIX, and the OSS BBS. I will post it to the net ASAP.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -3162305932863298181
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd28ee883af7e17d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 14:01:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!gould9!ncr-sd!hp-sdd!hplabs!tektronix!uw-beaver!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: SS vs DS disk drives
Message-ID: <251@ubc-cs.UUCP>
Date: Wed, 21-May-86 17:01:37 EDT
Article-I.D.: ubc-cs.251
Posted: Wed May 21 17:01:37 1986
Date-Received: Sun, 25-May-86 12:29:38 EDT
References: <113@uxrd1.UUCP>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 7

Double-sided drives (SF314's) will read single-sided disks with no
problem. I do it all the time. Do *not* buy a single-sided drive--the
cost is almost the same (in Canada, at least), and you will rapidly
run out of disk space.

From 7126348449824036193
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,876dff1f825cf1f0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-21 18:49:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CS.UCL.AC.UK!SUMIDA%vax1.oxford.ac.uk
From: SUMIDA%vax1.oxford.ac.uk@CS.UCL.AC.UK
Newsgroups: net.micro.atari16
Subject: Genetic algorithms
Message-ID: <8605220149.AA06607@ucbvax.Berkeley.EDU>
Date: Wed, 21-May-86 21:49:53 EDT
Article-I.D.: ucbvax.8605220149.AA06607
Posted: Wed May 21 21:49:53 1986
Date-Received: Sat, 24-May-86 18:03:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Has anyone been working on genetic algorithms (Holland, 1975) ?

brian@ox.vax1 University of Oxford,
Department of Zoology

From -5362467384659788091
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50de05ab94d0cec0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 04:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!ncsc!moore
From: moore@ncsc.UUCP
Newsgroups: net.micro.atari16
Subject: STarter kit
Message-ID: <8605221236.AA15936@ucbvax.Berkeley.EDU>
Date: Thu, 22-May-86 07:07:00 EDT
Article-I.D.: ucbvax.8605221236.AA15936
Posted: Thu May 22 07:07:00 1986
Date-Received: Sat, 24-May-86 21:29:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Pardon if this shouldn't be here, but I can't get to the addressee via ARPANET.

Franco@Indiana.csnet: Can you give the ground rules you've laid down concerning acquiring the STarter kit (and an address to send the SS disk)? My brother-in-law has an ST but hasn't found a user group in the Jacksonville, FL area yet. He's looking for *any* free software he can get his hands on. Thanks,

jim moore
(moore@ncsc)

From 1883998899567149515
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a5d4ec60c37d2d8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 05:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Anyone Else Had This Problem?
Message-ID: <54600087@iuvax.UUCP>
Date: Thu, 22-May-86 08:26:00 EDT
Article-I.D.: iuvax.54600087
Posted: Thu May 22 08:26:00 1986
Date-Received: Sun, 25-May-86 17:03:49 EDT

References: <15265826@ohio-sta.UUCP>
Lines: 11
Nf-ID: #R:ohio-sta:-1526582600:iuvax:54600087:000:550
Nf-From: iuvax!franco   May 22 07:26:00 1986

I think you might improve the reliability of your machine by doing the
1 meg upgrade. All that soldering may improve the connections to your
memory chips (seems to me that is where your problem is) and you can
resolder any additional suspicious looking connections. Also, while
you have the hood up you can reseat those custom chips that like to pop
out of their sockets during shipment. I gave this treatment to my
ST and I have not seen a problem since (5 months).

Be sure to take the usual anti-static precautions when messing around
inside.

From -2240145132308623598
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 06:12:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <8605221312.AA10611@ee.purdue.edu>
Date: Thu, 22-May-86 09:12:03 EDT
Article-I.D.: ee.8605221312.AA10611
Posted: Thu May 22 09:12:03 1986
Date-Received: Sat, 24-May-86 21:30:40 EDT
References: <170@sage.cs.reading.Ac.Uk>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

You CAN write desk accessories in OSS Pascal! The directions were posted to
Compuserve along with a small routine you link with a quite normal OSS
Pascal program. I'll upload the directions and a sample DA if I get the
chance over the weekend...

--Dwight Mckay, ECN Text & Workstation Software Support
[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

From 337498703672924444
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a2af581be3ca430,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-05-22 06:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!csd2!dimitrov
From: dimitrov@csd2.UUCP (Isaac Dimitrovsky)
Newsgroups: net.micro.atari16
Subject: ST developer's kit request
Message-ID: <6670003@csd2.UUCP>
Date: Thu, 22-May-86 09:31:00 EDT
Article-I.D.: csd2.6670003
Posted: Thu May 22 09:31:00 1986
Date-Received: Sat, 24-May-86 05:24:28 EDT
Organization: New York University
Lines: 12

[]
Hello, everyone. I have just received the ST developer's kit in the mail.
Unfortunately, one of the disks (the one labeled RCS ICON) is unreadable.
Is there anyone in the New York area who has the developer's kit? If so,
please write email to me. I'd like to copy this disk, if possible.

Isaac Dimitrovsky   251 Mercer Street, New York NY 10012   (212) 674-8652
allegra!cmcl2!csd2!dimitrov (l in cmcl2 is letter l not number 1)

You know the great thing about tv? If something important happens anywhere
at all in the world, no matter what time of the day or night, you can always
change the channel - Jim Ignatowski

From -509550683349146534
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9770faa95e7b7874
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 08:10:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: image compression
Message-ID: <8605221510.AA17733@mitre-bedford.ARPA>
Date: Thu, 22-May-86 11:10:21 EDT
Article-I.D.: mitre-be.8605221510.AA17733
Posted: Thu May 22 11:10:21 1986
Date-Received: Sat, 24-May-86 21:30:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 22

A lot of study has gone into image compression, so I am sure you can find some
very effective algorithms. One of the simplest to understand is "run-length
coding", in which repeated data (pixel) values are sent as a special "repeat
code" followed by the repeat count and the value, or some such thing (invent
your own protocol if you like). For certain kinds of images, this results is

a substantial compression. E.g. line drawings where most space is white
anyway, or highly structured scenes where large regions have the same color
and little or no texture.

If you are constructing the image (i.e. have your mits on the semantics of the
scene) then you can do MUCH better with "Videotex" encoding. The North
American Presentation-Level Protocol (NAPLPS) does a surprisingly good job of
representing simple pictures etc. There is an ANSII standards group (X3H33?)
working on such things. With Videotex encoding (NAPLPS, Teletel, Prestel,
several other standards), pictures can be coded in a few thousand bytes and
therefore sent over even 1200-baud lines in a few seconds!

That's about all I know except I could probably get some specific references
to articles, standards documents, etc. if you can't scrounge them up locally.

-John Sangster
jhs@mitre-bedford.arpa

From 8196396136628609866
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d5f41e925046236
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 08:38:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!rochester!
bullwinkle!uw-beaver!ubc-vision!molihp!johna
From: johna@molihp.UUCP (John M Altstadt)
Newsgroups: net.micro.atari16
Subject: Re: VT52 emulator dies
Message-ID: <160@molihp.UUCP>
Date: Thu, 22-May-86 11:38:43 EDT
Article-I.D.: molihp.160
Posted: Thu May 22 11:38:43 1986
Date-Received: Sun, 25-May-86 17:34:57 EDT
References: <3794@utah-cs.UUCP> <4912@ut-sally.UUCP>
Reply-To: johna@molihp.UUCP (John M Altstadt)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 33

In article <4912@ut-sally.UUCP> franklin@sally.UUCP (Maurice T. Franklin) writes:
>In article <3794@utah-cs.UUCP> sandra@utah-cs.UUCP (Sandra J Loosemore) writes:
>>I've been experiencing a problem with the desktop VT52 emulator on a
>>fairly regular basis, and I'm wondering if I'm the only one. What happens
>>is this: some noise comes over the phone line (like when it hangs up on
>>the other end), and suddenly the terminal emulator goes dead. Nothing
...
>>-Sandra
>>(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)
>
>I've had the same problem, and I don't think it is related to the VT52 emulator
>itself since the same thing has happened while using the xmodem program emulator
>as well as with the desktop emulator. I'll have finished a call and want to

                                ^^^^^^^^^^^^^^^^
>dial another, but the ATDP 1234567 does not echo on the screen. Turning the
...
>   Maurice T. Franklin

Please stand by, this is my first use of the net as anything other
than a passive reader.

I once had a similar problem with my Concorde modem and the XMODEM
terminal emulator that was posted to the net as source a while back.
Whenever I went into file capture mode before I was connected to
some other machine, the <ctrl>S that was sent out would be echoed
back to my ST by the modem! Voila, nobody talks to anybody anymore!

I don't know if this is the problem of the first poster, since it is
fairly unlikely that spurious line noise would become ^S, but it sounds
possible for the second poster.

                   John M. Altstadt

From -5482623403074073932
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f4c60c1bef4ecc1b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 08:43:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1 meg ram chips in a 520 or 1040ST
Message-ID: <8605221543.AA18956@mitre-bedford.ARPA>
Date: Thu, 22-May-86 11:43:52 EDT
Article-I.D.: mitre-be.8605221543.AA18956
Posted: Thu May 22 11:43:52 1986
Date-Received: Sat, 24-May-86 21:37:17 EDT
References: <188@fai.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 6

You might call Paul Swanson, (617) 663-4463 for an opinion. He has done
numerous 520ST upgrades and knows what the problems are. Paul is a 520ST
dealer, Atari service center, upgrade center, and peripheral/accessory dealer.

-John Sangster
jhs@mitre-bedford.arpa

From 1912998864826070273
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b8bd7d5f533b11ff,start

X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,b8bd7d5f533b11ff,start
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-05-22 08:45:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!gould9!ncr-sd!hp-sdd!hplabs!tektronix!tekig5!tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Atariwriter Plus Bugs
Message-ID: <696@tekigm2.UUCP>
Date: Thu, 22-May-86 11:45:45 EDT
Article-I.D.: tekigm2.696
Posted: Thu May 22 11:45:45 1986
Date-Received: Sun, 25-May-86 12:28:15 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 38
Keywords: Crash, Save bug, Paging bug
Xref: watmath net.micro.atari8:257 net.micro.atari16:874

Originally I send an abbreviated form of this letter to Neil Harris (neil @ atari) but have not been able to get an answer so am now putting it on the net in an expanded version.

****

Neil Harris or anyone else on the net:
Are you aware of a bugs in the first version of Atariwriter+ that was sold? I bought one of the first copies in the plain white and black envelope. It has several bugs, one of which is fatal.

1) it does not consistently recognize the control E for ending a page. You must do repeated c/r's and control E's before it will go to next page. I often do this to insert blank pages in text for photographs and it is annoying to have to add more than one control E.
2) the fatal bug is its's incorrectly handling of text longer than one page long. It should go onto the next page, instead it takes the last few lines and places them at the top of the same page, clobbering commands and the first few lines. I do not know whether it has anything to do with control T, control B or control Y. I suspect, however, that it is tied in with the control E problem mentioned above. The end result is that you have to hand end every page in a long document. Sometimes control T or B works fine, then the next thing you know it causes the program to partially crash. When it crashes then condition 3) occurs and other commands also seem to go away.
3) one final bug, it occasionally loses the ability to save a file. You can sometimes get out of this with a RESET, but usually you must reload AW+ and if you did not already make a backup, you have lost your file. I have not yet been able to figure out what causes the save command to go away. It also looses other commands at times [see 2) above].

The net result of this is that I am quite unhappy with laying out $50 for AW+ and having these quite fatal bugs in it. Are these bugs known to Atari and is there a fix or can I obtain a new disk, with the errors fixed?

Thanks in advance,

William Dippert
tektronix!tekigm2!wrd

From -7337865163595582339
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,962f092fc500c14e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 09:26:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!prls!pyramid!voder!kontron!stephan
From: stephan@kontron.UUCP (Stephan W. Wendl)
Newsgroups: net.micro.atari16
Subject: directories and memory
Message-ID: <808@kontron.UUCP>
Date: Thu, 22-May-86 12:26:33 EDT
Article-I.D.: kontron.808
Posted: Thu May 22 12:26:33 1986
Date-Received: Sat, 24-May-86 06:03:49 EDT
Distribution: net
Organization: Kontron Electronics, Mt. View, CA
Lines: 41

Some people reported having troubles when using more than a certain number of directories on their ST. This seems to be true and not true depending how one looks at it. I experimented around and found the following:

You CAN have definitely more than 20 (or 40 depending which hard disk driver you are using) directories. This limitation applies only to directories which are 'seen' (or 'active') by gemdos. This definitely allows you to have i.E. 10 directories in the root directory and 10 subdirectories in each of them (= 101 directories). You just can't activate (= list them, cd to them) all during the 'life' of your current TOS (failures are noticed by messages like: YOU CANT RUN THIS APPLICATION. THERE IS NOT ENOUGH MEMORY) which means ->reboot.

Above error messages prevent you from further using the current life operating system until reboot. But if one doesnt use windows (AES and VDI) at all one doesnt appear to have this problem. By not using VDI and AES one even can get almost 64kbyte more out of the memory (that seems to be the amount allocated by AES and VDI). How to do it? If you have a CLI (like command.prg) just put it in the AUTO directory of your BOOT disk and it comes up without VDI and AES plus more memory. If one does just compilation or other software development one doesn't need these parts of GEM.

In the case of too many directories I have experienced that one just can't make new directories but everything else seems to work.

If anyone else has different experience or something to add please share it with us here on the net. Happy computing.

```
#include <disclaimer.h>
#include <trademarks.h>
#include <personal.opinion.h>
#include <signature.h>
```

```
From -4240681869682948113
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3e011d132b75009f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 10:04:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: what is required to start an accessory?
Message-ID: <519@snow.warwick.UUCP>
Date: Thu, 22-May-86 13:04:40 EDT
Article-I.D.: snow.519
Posted: Thu May 22 13:04:40 1986
Date-Received: Thu, 29-May-86 03:28:50 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 34

[There is no line ea..

Hi,

As an owner of Lattice C, I am rather annoyed that I can't write desk
accessories. There is no provision for anything other than a standard
application startup. What I would really like from the net is some
details of what the ST actually requires when starting an application,
or an accessory, or any other type of program it might support.

I have the First Publishing/Abacus books 'Atari ST internals' and 'GEM
on the atari ST' and they are blatantly developers-pack books. Even for
the assembler-code examples, they say 'and be sure to include your
startup files'. What do these files contain? Is there any chance of
some public-domain versions? Are there any books that explain details
like this?
```

As far as I am aware, you can't get documentation like this at all
without the developers pack - please prove me wrong!

As usual, any help, pointers etc appreciated. Mail brightens my whole
day.

Cheers,
Frank.
--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From -6947393373349255495
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84a9528b4398a454
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 10:23:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Atari 520ST power supply failure
Message-ID: <8605221723.AA21666@mitre-bedford.ARPA>
Date: Thu, 22-May-86 13:23:42 EDT
Article-I.D.: mitre-be.8605221723.AA21666
Posted: Thu May 22 13:23:42 1986
Date-Received: Sat, 24-May-86 21:37:30 EDT
References: <172@sage.cs.reading.Ac.Uk>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 21

One point that may clear up some confusion. When you hang too much load on
a circuit like the MMU, this does at least three things:

1. It causes a DROP in the voltage at the load.
2. It causes more current to flow through the source device, even though
    each individual load device may draw a slightly reduced current.
3. It causes an INCREASE in the voltage drop ACROSS COMPONENTS INSIDE THE
    MMU, and thus an increase in power dissipation there.

What is especially damaging is when the driving circuit (MMU in this case) is
so overworked that it goes out of "saturated mode", in which the voltage drop
inside the switching transistors is very low, and into a "linear" mode in
which substantial voltages can develop, say, across base-collector junctions.

Substantial may mean 2 or 3 volts instead of the normal 0.2 or so. Multiply this by a 2x increase in current, and you can see why something might fail.

I haven't investigated the ST upgrade problem, and in fact don't own an ST yet, but I suspect this is what is going on.

-John Sangster
jhs@mitre-bedford.arpa

From 4026253099872034342
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,c7897e16c45924fb,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,c7897e16c45924fb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 10:33:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!gould9!ncr-sd!hp-sdd!hplabs!tektronix!tekig5!tekigm!tekigm2!wrd
From: wrd@tekigm2.UUCP
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Printer Buffers
Message-ID: <697@tekigm2.UUCP>
Date: Thu, 22-May-86 13:33:11 EDT
Article-I.D.: tekigm2.697
Posted: Thu May 22 13:33:11 1986
Date-Received: Sun, 25-May-86 12:28:35 EDT
Organization: Tektronix, Inc., Beaverton, OR
Lines: 15
Xref: watmath net.micro.atari8:258 net.micro.atari16:875

Has anyone in netland found a way to use surplus 8 bit Atari's for printer buffers, either for other 8 bit Atari's or for 16 bit ST's???

It would seem to me that somehow the joystick ports could be used to connect spare 1200XL's or 800XL's and give a very nice 64k printer buffer. For my own requirements, I want to be able to use a 64k 1200XL to act as a printer buffer for either a 130XE (128k), 800XLE (256k) or 1200XLE (256k) 8bit computers -- connected to either a 1027 printer directly or thru an 850 interface to a centronics parallel printer port. I am certain that for either 8 or 16 bit applications, some form of software driver would have to be written, hopefully the electronics would be no more than connecting two joystick ports together.

Thanks in advance,
--Bill--

From -7763797862429971590
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12306c,f0f3aed6fdb7dbbd,start
X-Google-Attributes: gid12306c,public

X-Google-Thread: 159df4,f0f3aed6fdb7dbbd,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 1384a9,f0f3aed6fdb7dbbd,start
X-Google-Attributes: gid1384a9,public
X-Google-Thread: 140593,f0f3aed6fdb7dbbd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 10:38:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!cybavax!gdigby
From: gdigby@cybavax.UUCP (Elec. Eng.)
Newsgroups: net.micro.atari16,net.micro.68k,net.lang.pascal,net.lang.f77
Subject: F-77 and PASCAL Compilers for ATARI 1040 ST
Message-ID: <201@cybavax.UUCP>
Date: Thu, 22-May-86 13:38:21 EDT
Article-I.D.: cybavax.201
Posted: Thu May 22 13:38:21 1986
Date-Received: Sun, 25-May-86 18:03:36 EDT
Distribution: net
Organization: University College Swansea, Wales
Lines: 31
Xref: watmath net.micro.atari16:886 net.micro.68k:1676 net.lang.pascal:555
net.lang.f77:536

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

COMPILER PACKAGES for ATARI 1040 ST

Hello,

I've just negotiated with the bank manager for a 1040 ST. I was wondering if anyone could send me any comments on the follow PASCAL compilers:-

USCD PASCAL	price	74.75	pounds sterling inc VAT
Meta PASCAL (Metacomco)		89.95	inc VAT
Pro PASCAL (Prospero)		129.95	inc VAT

And also has anyone any comments on the following FORTRAN-77 compilers

USCD F-77		??.??
Pro F-77	(Prospero)	129.95

Thanks alot

Gareth

"Do you know what one of those can do? It can strip the paint off your house and give your family a permanent orange afro!!" -: Spies Like Us

==========
Gareth Digby, Electrical Engineering Dept, University College, SWANSEA, SA1 8PP.
Wales, U.K.
JANET : gdigby@uk.ac.swan.cs
UUCP : {UK} !ukc!cybavax!gdigby

PHONE   : +44 792 205678 ext 4565
==

From -5440998190099266168
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c6c61654d4b40e6b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 11:21:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!jmlang
From: jmlang@water.UUCP (Jerome Lang)
Newsgroups: net.micro.atari16
Subject: COPY.C for 520ST
Message-ID: <390@water.UUCP>
Date: Thu, 22-May-86 14:21:44 EDT
Article-I.D.: water.390
Posted: Thu May 22 14:21:44 1986
Date-Received: Sat, 24-May-86 18:11:41 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 134

Somebody requested a copy.ttp in a recent ST Wish list.
Here's mine.
usage is :
 copy infile1 outfile1 [infile2 outfile2 ...]

In case of an error, the error message is displayed and then
the program waits for any key to be struck. This is because
of the failure of the desktop to have a little patience ... error
messages usually disappear....

Je'ro^me M. Lang || jmlang@water.uucp
Dept of Applied Math || jmlang%water@waterloo.csnet
U of Waterloo || jmlang%water%waterloo.csnet@csnet-relay.arpa
Waterloo, Ont, CANADA N2L 3G1 ||
======== cut here ============
: This is a shar archive.   Extract with sh, not csh.
: The rest of this file will extract:
: copy.inp copy.c
echo Extracting copy.inp
sed 's/^X//' > copy.inp << 'e-o-f'
X[u] COPY.68K=gemstart,COPY,osbind,gemlib
e-o-f
echo Extracting copy.c
sed 's/^X//' > copy.c << 'e-o-f'
X/*
X *
X * Copy.c   copies files from source to destination

```
X *  usage : copy infile outfile [ infile outfile ...]
X * Jerome M. Lang
X * February 12, 1986
X */
X
X#include <osbind.h>
X
X#define F_READ    0
X#define F_WRITE 1
X
X#define BUF_LEN   16384
X
Xtypedef int  FDESC;
X
Xchar    buffer[ BUF_LEN ];
X
Xmain(argc, argv)
Xint argc;
Xchar    *argv[];
X{
X
X    FDESC    infile, outfile;
X    FDESC    openwr();
X
X    if( 1 == argc )
X         usage();
X
X    while( --argc > 0 )
X    {
X         if( 0 > (infile = (FDESC)Fopen(*++argv,F_READ)) )
X         {
X              erreur(" Can't open infile ",*argv);
X              break;
X         }
X         Cconws(*argv);
X         Cconws("->");
X
X         if( 0 == --argc)
X         {
X              usage();
X              break;
X         }
X
X         if( 0 > (outfile = openwr(*++argv)) )
X         {
X              erreur(" Can't create outfile ", *argv);
X              fclose(infile);
X              break;
X         }
X
X         Cconws(*argv);
X         Cconws("\r\n");
X
```

```
X         copyfile(infile, outfile);
X
X         Fclose(infile);
X         Fclose(outfile);
X    }
X}
X
Xerreur(a,b)
Xchar *a, *b;
X{
X    Cconws(a);
X    Cconws(b);
X    Cconws("\r\n");
X    Cconout('\007');
X    Cconin();
X}
X
Xusage()
X{
X         erreur("usage: copy infile outfile [ infile outfile ..]","");
X}
X
Xcopyfile(in, out)
XFDESC    in,out;
X{
X    long howmany;
X
X    while( ( howmany =  Fread(in,(long) BUF_LEN, buffer)) > 0 )
X         if(howmany != Fwrite(out, howmany, buffer))
X         {
X              erreur("Error in writing","");
X              break;
X         }
X}
X
XFDESC
Xopenwr(file)
Xchar     *file;
X{
X    FDESC     handle;
X
X    if( (handle = (FDESC)Fcreate(file, 0)) < 0)
X         return( (FDESC)Fopen(file, F_WRITE) );
X    else
X         return( handle );
X}
e-o-f
exit 0
--
Je'ro^me M. Lang      ||                      jmlang@water.uucp
Dept of Applied Math       ||               jmlang%water@waterloo.csnet
U of Waterloo         ||     jmlang%water%waterloo.csnet@csnet-relay.arpa
```

From -7491376402636560381
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a5d4ec60c37d2d8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 11:27:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!sean
From: sean@ukma.UUCP (Sean Casey)
Newsgroups: net.micro.atari16
Subject: Re: Anyone Else Had This Problem?
Message-ID: <3494@ukma.UUCP>
Date: Thu, 22-May-86 14:27:58 EDT
Article-I.D.: ukma.3494
Posted: Thu May 22 14:27:58 1986
Date-Received: Sat, 24-May-86 22:11:21 EDT
References: <8605200418.AA18920@ohio-state.ARPA>
Reply-To: sean@ukma.UUCP (Sean Casey)
Organization: The Leaning Tower of Patterson Office @ The Univ. of KY
Lines: 24

In article <8605200418.AA18920@ohio-state.ARPA> terrell@OHIO-STATE.ARPA (Eric Terrell) writes:
>
>The last time I sent in a computer to ATARI product servce, it took over
>6 weeks to get my system back. They were ready to ship very soon after
>they got my unit, but because they were doing inventory, they kept the
>unit (ready to ship) in the fucking warehouse for about 3 weeks.

Although it's not official policy here at the lab where I work, we have found that an effective way to deal with this sort of situation is to call them up every day and ask them what is going on. If you get less than satisfactory answers, get the person's name and ask to talk to management personnel. This usually produces quick shipments. Be sure when you deal with a company that you get a phone number where you can have the order tracked down.

We bugged Digital for weeks when our uVax II didn't arrive on time. We'd call them up every day: "Where's our Vax?". The answers were usually pretty funny. :-)

Sean
--

Sean Casey UUCP: cbosgd!ukma!sean CSNET: sean@uky.csnet
University of Kentucky ARPA: ukma!sean@anl-mcs.arpa
Lexington, Kentucky BITNET: sean@ukma.bitnet

From -7361178789596284786
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a5d4ec60c37d2d8
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-05-22 11:38:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!sean
From: sean@ukma.UUCP (Sean Casey)
Newsgroups: net.micro.atari16
Subject: Re: Anyone Else Had This Problem?
Message-ID: <3495@ukma.UUCP>
Date: Thu, 22-May-86 14:38:35 EDT
Article-I.D.: ukma.3495
Posted: Thu May 22 14:38:35 1986
Date-Received: Sat, 24-May-86 22:11:37 EDT
References: <8605200418.AA18920@ohio-state.ARPA> <3494@ukma.UUCP>
Reply-To: sean@ukma.UUCP (Sean Casey)
Organization: The Leaning Tower of Patterson Office @ The Univ. of KY
Lines: 20

Oh yes, I also should add that *anytime* you deal with someone through the
mail (ordering, having fixed, etc.) you should:

1. Wait about a week. (for things to get to you, for your order to get there)
2. Call them and check on the order. (unless you've already received it)
3. Make sure they've got the order.
4. See if they've shipped it.
5. Find out when they're going to ship it and HOLD THEM TO THAT DATE.

By bringing attention to the order, you'll get it out of the TO DO pile and
in motion. It also gives you ammunition should they start delaying. "Gee
I called and YOU SAID it would be shipped Friday". Once again, if all else
fails, start taking down names and calling up management.

--

Sean Casey   UUCP: cbosgd!ukma!sean   CSNET: sean@uky.csnet
University of Kentucky   ARPA: ukma!sean@anl-mcs.arpa
Lexington, Kentucky   BITNET: sean@ukma.bitnet

From -2745791653123319681
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a42a723e3188bb92
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 14:51:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Compilers for the ST
Message-ID: <173@sage.cs.reading.Ac.Uk>
Date: Thu, 22-May-86 17:51:12 EDT
Article-I.D.: sage.173

Posted: Thu May 22 17:51:12 1986
Date-Received: Sun, 25-May-86 17:31:43 EDT
References: <2673@yale.ARPA>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Distribution: net
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 12

GST is the company that supply first word.
They also sell a very good text editor, macro assembler, and an integer only c.
If you have ever used the metacomco languages you will know that they can
produce 2 formatsd of binary file, the .o for linking with link68, and .bin
for linking with the linker actualy supplied which is the GST linker.

Hope that clears things up a bit

S. J. Gordon
Sibly Hall
Reading University
UK

From 5387715714648299043
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5070880a990f09cc
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 15:08:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!caip!seismo!mcvax!ukc!
reading!minster!nigel
From: nigel@minster.UUCP (nigel)
Newsgroups: net.micro.atari16
Subject: Re: ATARI NETWORK, PRINTER DRIVERS
Message-ID: <786@minster.UUCP>
Date: Thu, 22-May-86 18:08:54 EDT
Article-I.D.: minster.786
Posted: Thu May 22 18:08:54 1986
Date-Received: Sun, 25-May-86 17:31:13 EDT
References: <860519-051622-1172@Xerox>
Reply-To: nigel@minster.UUCP (nigel)
Organization: University of York, England
Lines: 36

In article <860519-051622-1172@Xerox>
"John_A._Davidson:ROCH0846:Xerox.ns"@XEROX.COM.UUCP writes:
>
>   In the last newsletter I received from the Atari Group in Rochester.
>(A.C.O.R.N.) it mentioned that:
>   " Software Punch of Liverpool, U.K. is working on an
>Ethernet-compatable networkk of cables that allow ST computers to share
>information."
>
>   What protocol levels they intend to support I have no idea.

>   {John}

Aha. They are working on 5 different levels - last count! Or at least
that's what they told me on the 'phone. Paraphrasing and deciphering the
sales literature, I concluded this: the whole system is called AtariNet,
with two levels known as PunchNet (19200 baud RS232 - i.e. ULC (Ultra Low
Cost) CSMA-CD), and MegaNet (40Mbit optical fibre link). What are the other
3 levels you ask? One is Ethernet compatible (I guess this means 10Mbit
data rate and very little other similarity), another is 1Mbit, and the last
was quoted on the 'phone as 560MBit..... All the networks can be connected
to an Atari, and the latter used as a bridge between them. They use their
own protocols, and FEPs for high data rates (a 6809 board was quoted for
the 'Ethernet' system). PunchNet and MegaNet are supposedly available, but
something about the brochure makes me uneasy.

I hope they come up with something, but what would be really nice is a simple
Ethernet box, which doesn't impose a protocol, so I can connect my AtariBox
to the Ether using whatever protocol we go for locally.

     Nigel Roles (...!mcvax!ukc!minster!nigel)
     Department of Computer Science
     University of York

PS I note that your quote from A.C.O.R.N. incorrectly spells "compatible" in
just the same way the letter I have from Software Punch - I wonder if they
are by any chance related?

From 4911596650706705172
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76fe58aeec7b4d5a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-22 17:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: modifying icons
Message-ID: <8605230141.AA27586@ucbvax.Berkeley.EDU>
Date: Thu, 22-May-86 20:25:00 EDT
Article-I.D.: ucbvax.8605230141.AA27586
Posted: Thu May 22 20:25:00 1986
Date-Received: Sat, 24-May-86 21:57:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

On the Macintosh different types of files have different icons within
a window. So an Infocom game looks different than a Macwrite file or
some other application. Could someone tell me if it is possible to
create a custom icon for an application? Or is one limited to the

pads and folders?
                        thank you peter [D[D[D[D[D[D[D,
                          peter lorraine (qbzj@cornella)

From 5079218010848909938
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 07:34:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS programs
Message-ID: <282@brueer.brueer.UUCP>
Date: Thu, 15-May-86 10:34:03 EDT
Article-I.D.: brueer.282
Posted: Thu May 15 10:34:03 1986
Date-Received: Sun, 18-May-86 12:23:22 EDT
References: <306@sdcarl.UUCP>
Reply-To: ralph@brueer.UUCP (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 16

In article <306@sdcarl.UUCP> tre@sdcarl.UUCP writes:
>I logged on to the Atari Home Base BBS last night and found many useful
>programs. However, I do not wish to pay for the phone time. Would any
>one at Atari be willing to make these programs available by E-mail???

I'll second that !! Alternatively, does Atari UK have a bulletin board,
or does anyone over here know of any Atari BBS in the UK ??
--
=-=-=-

Subject: Environment strings
Message-ID: <860515093902.020@Juliet.Caltech.Edu>
Date: Thu, 15-May-86 12:39:02 EDT
Article-I.D.: Juliet.860515093902.020
Posted: Thu May 15 12:39:02 1986
Date-Received: Sat, 17-May-86 04:42:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

[sorry if this is a duplicate message]

Hi-

Does anyone know how to get at the flinking environment string (like if you don't know what's already there in order to use SHEL_ENVRN)? What, if anything, is usually stored there? Who looks at the environment string (e.g., is there a PATH variable that maybe the silly COMMAND or silly BATCH programs use? (I somehow doubt it)).

I tried printing out the contents of memory at _base (which is set up in GEMSTART.O and company). It did not match up with either of the formats given in the CPM-68K documentation (one mentions environment strings, one doesn't --- and then there's the_envir, the system variable). Of course TOS is not, never was and never will be CPM-68K. Maybe I should dig up some MS-DOS documentation?

(I realize there are a couple of REGISTERED TRADEMARKS in the above. Please don't shoot.)

Also, who do I have to sleep with to get (C) source for a ramdisk (source for my own information, ramdisk because I need it)? Who decided that a C compiler with (effectively (?)) 7-character identifiers was fit to be seen in public (/real/ programmers . . .)?

Ok., so I'm culturally deprived -- what's a :-) and how do I keep them away from innocent bystanders? And which is better --- /emphasis/ or *emphasis*? I haven't been so distressed since I didn't know which fork to use . . .

-- dmh
(It's about the New Genre)

From -2106483544910255843
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 11:04:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!bullwinkle!uw-beaver!ubc-vision!
sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format
Message-ID: <178@sfucmpt.uucp>
Date: Thu, 15-May-86 14:04:42 EDT
Article-I.D.: sfucmpt.178
Posted: Thu May 15 14:04:42 1986
Date-Received: Sun, 18-May-86 15:06:14 EDT
References: <186@bridge2.UUCP> <363@imagen.UUCP>
Distribution: net
Organization: Computing Science Dept, SFU, Burnaby, B.C. Canada
Lines: 26

> >
> > Anybody know what the garbage character is or why it is there
> > (incidentally, the character seemed always to be 0x12)?
> >
> > Thank you Neil!
> >
> > Paul Fries
> > Mountain View, CA
>
> *** REPLACE THIS LINE WITH YOUR MESSAGE ***
>
> what you are seeing is a handshaking character called XON (ctrl-Q)
> it tells terminals that support XON/XOFF protocal to start
> processing incoming characters if a previous XOFF has halted it,
> otherwise it is ignored
> --

ummmmm, isn't XON (ctrl/q, DC1) 0x11 ? and XOFF (ctrl/s, DC3) 0x13 ?

--

 john chapman

 email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
 not the address in the header.

From 8520189880421043590
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c49d8884e62cd4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 12:17:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Getting a new Power Supply
Message-ID: <8605151917.AA01730@ohio-state.ARPA>
Date: Thu, 15-May-86 15:17:03 EDT
Article-I.D.: ohio-sta.8605151917.AA01730
Posted: Thu May 15 15:17:03 1986
Date-Received: Sat, 17-May-86 04:48:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

After hearing all of the bad things about the old 520ST power supplies
(with the cords coming out of opposite ends) I am considering buying a
new one.

How much, and from whom?

Thanks in advance,

Eric Bergman-Terrell

From 4407181122600579492
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 122486,49970212791fb5bf,start
X-Google-Attributes: gid122486,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-15 12:21:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 (Tek) 9/28/84 based on 9/17/84; site hammer.UUCP
Path: utzoo!decvax!tektronix!orca!hammer!seifert
From: seifert@hammer.UUCP (Snoopy)
Newsgroups: net.micro.atari16,net.mail,net.news.group
Subject: Re: abuse of the net
Message-ID: <2021@hammer.UUCP>
Date: Thu, 15-May-86 15:21:01 EDT
Article-I.D.: hammer.2021
Posted: Thu May 15 15:21:01 1986
Date-Received: Sat, 17-May-86 18:43:47 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
<317@sdcarl.UUCP>
Reply-To: tekecs!doghouse.TEK!snoopy (Snoopy)
Distribution: na
Organization: The Daisy Hill Puppy Farm
Lines: 29

In article <317@sdcarl.UUCP> tre@sdcarl.UUCP (Tom Erbe) writes:
>.
>   So what is the verdict?? Is the posting of sources and binaries for
>the ST kosher? Or is the net only around for UNIX and like systems? If it
>is, how are the following newsgroups justified?
>
>   net.sources.mac
>   mod.amiga.sources
>   mod.amiga.binaries
>
>   I for one, use many machines (IBM,SMI,DEC,Atari,Apple,Motorola,etc.)
>at work, and most of them are not UNIX machines. I appreciate getting useful
>programs for these machines from the net. If I have to, I will call a BBS
>to get certain useful programs, but I prefer not to, when: A) UCSD (my place
>of employ) should be paying for the acquisition, B) it is annoying to stay up
>until 1 AM, only to get 20 minutes of access to a busy BBS, and C) my VAX has
>uucp, which does it all so much better.

I don't see why UNIX machines should be expected to pay for distributing
software and discussions for other operating systems. Why can't they
set up their own network? Disk space and phone lines aren't free for
machines that run UNIX anymore than they are for machines that run
mac/amiga/ST/PC-DOS/VMS/whatever.

(Before someone mentions groups like net.cooks, consider the difficulties
of connecting a modem to your average saucepan.)

Snoopy
tektronix!tekecs!doghouse.TEK!snoopy

From 2938777337398471158
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 15:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!princeton!allegra!ulysses!mhuxr!
mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: abuse of the net
Message-ID: <54600083@iuvax.UUCP>
Date: Thu, 15-May-86 18:53:00 EDT
Article-I.D.: iuvax.54600083
Posted: Thu May 15 18:53:00 1986
Date-Received: Mon, 19-May-86 02:12:56 EDT
References: <779@hoptoad.UUCP>
Lines: 28
Nf-ID: #R:hoptoad:-77900:iuvax:54600083:000:1654
Nf-From: iuvax!franco   May 15 17:53:00 1986

It seems to me that most BBSs that I hook into allow 1hr connect time. However, these BBSs are so busy that it is virtually impossible to get on except between 3:00-5:00AM weekdays and 3:00-9:00AM weekends (EST). Obviously the demand for file transmission has exceeded resource capacity. Hence an alternative is desperately needed. The net is a great alternative in many ways. I think it should be utilized immediately for this purpose. Realizing, however, that there are valid concerns regarding too much software being put on the net I think that certain restrictions should be imposed on source/binary transmission. Exactly what the optimal formula is I don't know but it probably should involve a combination of file length and number of transmissions per week. I would be very happy if everyone could agree on such a formula because, in my mind, the result would be a much more useful net. While I am here let me propose a formula for binaries: Let U(P) denote the number of storage units used by program P. Let S(P) be the size of a file in kbytes. Define U(P) as

U(P)=S(P) DIV 8

I propose that the total numbers of storage units transmitted over the net per week be less than 8. Net users would be asked not to transmit any more units of data until the number of units transmitted over the previous two week period fell below 16. I am not making any great claims for this proposal...I am just throwing it out for purposes of generating discussion.

By the way - don't ask me for any BBS numbers...if any more people find out about these numbers I will not be able to get on even saturday morning at 5:00AM (EST).

From -4962954881559801062
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 16:05:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <365@imagen.UUCP>
Date: Thu, 15-May-86 19:05:57 EDT
Article-I.D.: imagen.365
Posted: Thu May 15 19:05:57 1986
Date-Received: Sun, 18-May-86 13:20:58 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp> <360@imagen.UUCP>
<2210@seismo.CSS.GOV>
Organization: The Houses of the Holy
Lines: 58
Xref: linus net.micro.atari16:662 net.mail:1524

talk about excessive quoting ! ill try to trim this down
> In article <360@imagen.UUCP>, turner@imagen.UUCP writes:
> >
> > why not indeed ?
.
.
> > since when is the purpose of the net changed from the free
> > exchange of ideas and information ? i certainly believe that
> > software falls into that catagory.
>
>
> It seems to me that if I pay to transmit your free exchange of
> ideas is ceases to be free.
>
i (in the form of my company) just paid for your ideas being
transmitted
> You can send whatever you want at your expense, but when you ask
> me to pay for it (even implicity) you give me the right
> to interfer with it.
horse puckey! first who said that the free (read 'uncensored')
exchange of ideas was free (read 'without cost')? it ain't
second, you have a right to censored what you recieve at your
machine but not what passes thru it. the system i am building
based on email, hence if you are not a newsfeed you bear none of the
costs, if on the other hand you are a newsfeed to others then you
have given your implicit consent to bear the costs of a newsfeed.
>
> I remove an average of 2 full source copies of rogue or hack
> from the mail queues on seismo each week.
>
(sarcastic comment about net.police deleted (-:) {by
net.police.police ?}
.
.
>
> Is there really an extremely high correlation between the belief in the
> obligation of free exchange and 1/(number of users your computer supports)
> or am I overly sensitive.
>
either you're from Stanford and don't know english or UC Berkeley and
don't know math, but you mean function not correlation
(the original joke was MIT and Harvard and has lost alot in the
translation)
> ---rick

--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101

        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -3261376146146437380
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-15 16:58:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site ism780c.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!psuvm.bitnet!psuvax1!burdvax!sdcrdcf!
ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <2268@ism780c.UUCP>
Date: Thu, 15-May-86 19:58:18 EDT
Article-I.D.: ism780c.2268
Posted: Thu May 15 19:58:18 1986
Date-Received: Mon, 19-May-86 04:18:07 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp> <360@imagen.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 13
Xref: watmath net.micro.atari16:796 net.mail:1623

In article <360@imagen.UUCP>, turner@imagen.UUCP writes:
>
> since when is the purpose of the net changed from the free
> exchange of ideas and information ? i certainly believe that
> software falls into that catagory.

The original request was for E-mail, not for a posting to the net.
I don't think that there would be much objection to a net posting
of the material in question, since it would probably be useful to
many people, perhaps even some who pay the costs.

--
Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim || ihnp4!cithep!tim

From 8589601757318531922
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5060b825413bbf1f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 17:03:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: ramdisk source I hope it's not too long ...
Message-ID: <8605160529.AA07907@ucbvax.Berkeley.EDU>
Date: Thu, 15-May-86 20:03:17 EDT
Article-I.D.: ucbvax.8605160529.AA07907
Posted: Thu May 15 20:03:17 1986
Date-Received: Sat, 17-May-86 04:49:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 483

```
/*This program is copyright 1986 by Mchael Vederman, distribute it freely
so long as proper credit for code is given.  The ramdisk resize was not
implemented with this version.*/


#include "d:portab.h"
#include "d:obdefs.h"
#include "d:define.h"
#include "d:gemdefs.h"
#include "d:osbind.h"

TEDINFO rs_tedinfo[] = {
"00100",
"Size:_____K",
"99999",
3, 6, 2, 0x1073, 0x0, -2, 6,12,
" Enter ramdisk size, then select     ",  /*THERE IS A CTRL-C AT END*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
" Type in the size you desire         ",  /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
" To free ramdisk memory, select      ", /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
" First enter new size, then select   ", /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1};

OBJECT rs_object[] = {
-1, 1, 15, G_BOX, NONE, OUTLINED, 0x21143L, 0,0, 576,160,
4, 2, 3, G_BOX, NONE, NORMAL, 0x11172L, 360,48,184,80,
3, -1, -1, G_BUTTON, 0x5, 0x28, "Deallocate Ramdisk", 16,32,152,16,
1, -1, -1, G_BUTTON, 0x5, 0x28, "Resize Ramdisk", 16,64,152,16,
```

```
8, 5, 7, G_BOX, NONE, SHADOWED, 0xFE1142L, 376,16,152,16,
6, -1, -1, G_FBOXTEXT, EDITABLE, NORMAL, &rs_tedinfo[0], 24,0,104,16,
7, -1, -1, G_BOXCHAR, NONE, NORMAL, 0x4000142L, 136,0,8,16,
4, -1, -1, G_BOXCHAR, NONE, NORMAL, 0x3000142L, 8,0,8,16,
9, -1, -1, G_BUTTON, 0x7, NORMAL, "EXIT", 136,144,56,16,
10, -1, -1, G_STRING, NONE, NORMAL, "Program by", 40,144,88,16,
11, -1, -1, G_STRING, NONE, NORMAL, "Michael Vederman", 208,144,128,16,
12, -1, -1, G_BOXTEXT, NONE, NORMAL, &rs_tedinfo[1], 32,48,312,16,
13, -1, -1, G_BOXTEXT, NONE, NORMAL, &rs_tedinfo[2], 32,16,312,16,
14, -1, -1, G_BOXTEXT, NONE, DISABLED, &rs_tedinfo[3], 32,80,312,16,
15, -1, -1, G_BOXTEXT, NONE, DISABLED, &rs_tedinfo[4], 32,112,312,16,
0, -1, -1, G_BUTTON, 0x25, SHADOWED, "Allocate Ramdisk", 376,48,152,16};

#define RAM DISK 0
#define SIZEBOX 5
#define ALOCSTR 11
#define DALOCSTR 13
#define RESIZSTR 14
#define ALOCBOX 15
#define DALOCBOX 2
#define RESIZBOX 3
#define GOODBYE 8

struct bpb
{ WORD recsiz,
       clsiz,
       clsizb,
       rdlen,
       fsiz,
       fatrec,
       datrec,
       numcl,
       bflags;
};



typedef LONG (*PL)();  /*pointer to function returning a long*/
typedef WORD (*PW)();  /*pointer to a function returning a word*/

PL getbpb;
PW mediach;
PL rwabs;

struct bpb rdiskbpb = { 512, 1, 512, 7, 5, 6, 18, 0, 0, +;

/*The 1 after 512 above will give you 1 sector clusters, for more useable
'DISK' space, you can do the same to the boot sector of a disk after you
format it, but before you write to it, by changing the second 02 (I
believe it is byte 12 offset) to a 01.  Using the extended formatter
you can get quite a lot of extra disk space.*/

char
```

```
alert1[]="[3][YOU HAVE TRIED TO ALLOCATE|TOO MUCH MEMORY. THE MAXIMUM|\
SIZE HAS BEEN ALLOCATED|CHECK DISK D INFO FOR SIZE][ Time to upgrade ]",
alert2[]="[3][COULD NOT ALLOCATE|TRY REBOOTING][ Oh Well... ]",
alert3[]="[1][Memory Allocated][ Thanks ]",
alert4[]="[0][Michael Vederman|15319 Tonya|Houston, Tx 77060|UHACE BBS+
 713-820-6120][ A U of H ACEware +",
alert5[]="[0][Memory Deallocate|does not work right|due to GEMDOS bugs.|\
You can reallocate up|to 1K less than before][ OK ]",
alert6[]="[0][Ramdisk Resize| |(under construction)][ OK ]",
alert7[]="[0][No memory allocated| |  Enter size and|    try again][ OK ]",
alert8[]="[1][Allocate ramdisk FIRST| |Then install drive D][ SURE ]";

extern   int gl_apid;

int  *ramdisk_ptr;

long size, newmaxsize;

long     *bpbvect = 0x472;
long     *rwvect  = 0x476;
long     *mcvect  = 0x47e;
long     *devset  = 0x4c2;

long    maxsize,newsize;

char     ok, in_place, dinstal;

int event

int  gl_hchar, gl_wchar, gl_wbox, gl_hbox,
    menu_id, phys_handle, handle, wi_handle,
     xdesk, ydesk, hdesk, wdesk, xold, yold, hold, wold,
     xwork, ywork, hwork, wwork,
    msgbuff[8], ret,
     contrl[12], intin[128], ptsin[128], intout[128], ptsout[128],
     work_in[11], work_out[57];

int    fo_cx, fo_cy, fo_cw, fo_ch,
     fo_doreturn;
/************************************************************************/
/*This is the ramdisk read/write abs routine*/

LONG rdrwabs(rw,buf,count,recno,dev)
WORD rw;
int *buf;
WORD count, recno, dev;
{  int i, *p;

   if (dev != 3) /*Drive D -- could be 2 for C, etc...*/
      return( (*rwabs)(rw,buf,count,recno,dev) );
   else
   { if (rw > 1) rw -=2; /* function number never > 1 */
```

```
     while ( count > 0 )
     {  p = ramdisk_ptr+(((long) recno) * 256L);
        if (rw==0) /* read */
          for (i=0; i<256; i++) *buf++ = *p++;
        else      /* write */
          for (i=0; i<256; i++) *p++ = *buf++;
        count--; recno++;
     }
     return(0L); /* everything worked (everything ALWAYS works!) */
   }
}

/************************************************************************/
LONG rdgetbpb(dev) /* get our BPB -- this describes certain attributes */
WORD dev;
{
   if (dev != 3)
      return( (*getbpb)(dev) ); /* real disk BPB */
   else
      return( &rdiskbpb ); /* ramdisk BPB */
}

/************************************************************************/

WORD rdmediach(dev) /* has the media changed -- ramdisk reinitted? */
WORD dev;
{
   if (dev != 3)
      return((*mediach)(dev)) ;
   else
     if (dinstal){ dinstal=FALSE; return( 2 );}
     else
       return( 0 ); /* if ramdisk just installed then get bpb else no */
}

/************************************************************************/
clear_fat()  /* erase any erroneous junk */
{
char *temp;

     for(temp=ramdisk_ptr; temp < ramdisk_ptr+9216; temp++)
          *temp = 0;
}
/************************************************************************/

install()  /* install ramdisk handler vectors */
{
         getbpb  = (PL) *bpbvect;
         mediach = (PW) *mcvect;
         rwabs   = (PL) *rwvect;
         *bpbvect = rdgetbpb;
         *mcvect  = rdmediach;
         *rwvect  = rdrwabs;
```

```
        *devset  = *devset | (0x8L);  /* set drive bits - 0x4L for C, etc. */
}
/*************************************************************************/
deinstall()  /* very interesting little fact:  ROM TOS does not re-init
              the vectors, so if you reset, ramdisk is still installed
              unless you do a xbios(38, deinstall) in main() */


{
        *bpbvect = 0x472;
        *mcvect  = 0x47e;
        *rwvect  = 0x476;
        *devset  = *devset & 0xfffffff7L; /* clear drive bits */
}
/*************************************************************************/

main()
{
     appl_init();
     phys_handle=graf_handle( &gl_wchar, &gl_hchar, &gl_wbox, &gl_hbox);
     menu_id=menu_register( gl_apid,"  Mike's Ramdisk " );
/* put name into desk menu */

     wind_get( 0, WF_WORKXYWH, &xdesk, &ydesk, &wdesk, &hdesk);
/* get max size of window */

    xbios(38, deinstall); /* deinstall vectors (just in case of reset)*/
    in_place = FALSE; /* ramdisk is not installed yet (for alert box) */
     wi_handle=(-1);
     start();
}
/*************************************************************************/
LONG atoi(s) /* convert the size entered by user to integer */
char s[];

{
WORD     n, i;

     for(i=0, n=0; s[i] >= '0' && s[i] <= '9' && i < 5; ++i)
          n = 10 * n +s[i] - '0';
     return(n);
}

/*************************************************************************/
do_ramdisk()
{
     ok = FALSE;
     maxsize = Malloc(-1L);
     size=atoi(rs_tedinfo[0].te_ptext);

/* In the following, we should probably limit the max size so as to not
screw up the system, but what the heck, you can allocate all your
memory, but for safety sake, it should be about 50-60K less */
```

```
          if (size)
              {
               newsize=(size+9)*1024;
               newmaxsize = maxsize/1024-9;
                  if ( newsize > maxsize )
                    {
                    form_alert(1,&alert1);
                    newsize=maxsize;
                    size=newmaxsize;
                    }
               ramdisk_ptr = Malloc(newsize);
               if (ramdisk_ptr)
                   {
                    in_place=TRUE;
                    rdiskbpb.numcl=(WORD)size * 2;
                    clear_fat();
                    xbios(38,install);
                    form_alert(1,&alert3);
                    ok = TRUE;
                   }
               else
                    form_alert(1,&alert2);
               }
          else
               form_alert(1,&alert7);
}
/*************************************************************************/
open_vwork()  /* standard stuff */
{
int i;
     for( i=0; i<10; work_in[i++]=1 ); work_in[10]=2;
     handle=phys_handle;
     v_opnvwk( work_in, &handle, work_out );
}

/*********************************************************************/

clear_window()
/* paint it white (could be a good song if it was black) */
{
int temp[4];
    graf_mouse(M_OFF,0x0L);/* mistake by many programs leaves mouse on */
     vsf_interior(handle,2);
     vsf_style(handle,8);
     vsf_color(handle,0);
     temp[0]=xwork;
     temp[1]=ywork;
     temp[2]=xwork+wwork;
     temp[3]=ywork+hwork;
     v_bar(handle,temp);
     graf_mouse(M_ON,0x0L);
}
```

```
/*************************************************************************/

open_window()
{
     wi_handle=wind_create( NAME, xdesk, ydesk, wdesk, hdesk );
     wind_set( wi_handle, WF_NAME," Mike's Ramdisk v 0.9 ", 0, 0 );
     graf_growbox( 15, 27, 160,8, xdesk, ydesk, wdesk,hdesk );
    wind_open( wi_handle, xdesk, ydesk, wdesk - 1, hdesk - 1 );
    wind_get( wi_handle, WF_WORKXYWH, &xwork, &ywork, &wwork, &hwork );
}

/*************************************************************************/
remove_rdisk() /* see ya later ramdisk */
{
rdiskbpb.numcl=(int)0;
xbios(38, deinstall);
dinstal=TRUE;
Mfree(ramdisk_ptr);
}

/*************************************************************************/

open_dialog()
{
int c;

/* This routine does a lot.  It probably could have been done easier
by direct assignment to the structure, but standard system calls never
hurt. (gag) It opens a dialog box into our window, then does a form_do,
indicating one editable field, which makes it wait for something to
happen.  Then it does whatever the return code tells it.  I tried for
the longest time to get the fmd_finish to erase the dialog, but it
doesn't.  It merely pipes a message, you have to do a redraw manually!!
Which means you better know VDI.  I cheated by getting rid of the whole
window, in this way it has to redraw the desktop, automatically. */

     clear_window(wi_handle);
     form_center(rs_object, &fo_cx, &fo_cy, &fo_cw, &fo_ch);
     form_dial(FMD_START,xdesk,ydesk,wdesk,hdesk,fo_cx, fo_cy, fo_cw, fo_ch);
     objc_draw(rs_object,0,15,fo_cx,fo_cy,fo_cw,fo_ch);
     if (!in_place)
          form_alert(1,&alert8);
     fo_doreturn=form_do(rs_object, SIZEBOX);
     form_dial(FMD_FINISH,xdesk,ydesk,wdesk,hdesk,fo_cx,fo_cy,fo_cw,fo_ch);

     switch (fo_doreturn)
          {
            case ALOCBOX:
               {

               do_ramdisk();
               if (ok){
               objc_change(rs_object, ALOCBOX, 0,
```

```
                xdesk, ydesk, wdesk,hdesk,
            SHADOWED+DISABLED, 0);
    objc_change(rs_object, ALOCSTR, 0,
            xdesk, ydesk, wdesk, hdesk,
            DISABLED, 0);
    objc_change(rs_object, DALOCSTR, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL, 0);
    objc_change(rs_object, RESIZSTR, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL, 0);
    objc_change(rs_object, DALOCBOX, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL|SHADOWED, 0);
    objc_change(rs_object, RESIZBOX, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL|SHADOWED, 0);
        }
    else
    objc_change(rs_object, ALOCBOX, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL|SHADOWED, 0);
    }
break;

case RESIZBOX:
    {
    objc_change(rs_object, RESIZBOX, 0,
            xdesk, ydesk, wdesk, hdesk,
            NORMAL|SHADOWED, 0);
    form_alert(1,&alert6);
    }
break;

case DALOCBOX:
    {
    remove_rdisk();
    objc_change(rs_object, ALOCBOX, 0,
            xdesk, ydesk, wdesk,hdesk,
            NORMAL|SHADOWED, 0);
    objc_change(rs_object, ALOCSTR, 0,
            xdesk, ydesk, wdesk,hdesk,
            NORMAL, 0);
    objc_change(rs_object, DALOCBOX, 0,
            xdesk, ydesk, wdesk,hdesk,
            DISABLED|SHADOWED, 0);
    objc_change(rs_object, DALOCSTR, 0,
            xdesk, ydesk, wdesk,hdesk,
            DISABLED, 0);
    objc_change(rs_object, RESIZBOX, 0,
            xdesk, ydesk, wdesk,hdesk,
            DISABLED|SHADOWED, 0);
    objc_change(rs_object, RESIZSTR, 0,
```

```
                    xdesk, ydesk, wdesk,hdesk,
                    DISABLED, 0);
             form_alert(1,&alert5);
             }
          break;

          case GOODBYE:
              {
              form_alert(1, &alert4);
              objc_change(rs_object, GOODBYE, 0,
                          xdesk, ydesk, wdesk,hdesk,
                    NORMAL, 0);
              }
          break;

     }

     wind_close(wi_handle);
     graf_shrinkbox(15,27,160,8, xdesk, ydesk, wdesk, hdesk );
     wind_delete(wi_handle);

     msgbuff[0]=AC_CLOSE;
     msgbuff[3]=menu_id;
     wi_handle=(-1);

}
/*************************************************************************/

start()
{

     while (TRUE)
     {
       event=evnt_multi( MU_MESAG,
              1, 1, ret,
              0, 0, 0, 0, 0,
              0, 0, 0, 0, 0,
              msgbuff, 0, 0, &ret, &ret, &ret, &ret, &ret, &ret );

       if ( event & MU_MESAG )
          switch( msgbuff[0] )
          {

            case AC_OPEN:
              if (msgbuff[4]==menu_id)
              {
               if (wi_handle==(-1))
                     { open_vwork();
                     open_window();
                     open_dialog(); }
              }
            break;
```

```
            case AC_CLOSE:
              if ((msgbuff[3]==menu_id) && (wi_handle != (-1) ))
               { v_clsvwk(handle); wi_handle=(-1); }
            break;

          }
     }
}

/* Th.. Th.. That's all Folks...  If you have any problems, please post
them either to the network, or send them to me directly ACS19@UHUPVM1.
I know that there will probably be a tab expansion somewhere along the
line, so I hope it does not get truncated.  If it does, I will repost
it.  I hope no one accuses me of 'abuse of the system', since I merely
wish to exchange and share info.  I have edited this a little, and I
have not recompiled it since, but I do not think there should be any
problems.  Let me know what you find.  Someone please send me the
other articles from BAMMI's posting of Tim Oren's tutorial, I have
10-12, and also need the macro defs, since he has not responded yet. */

/* Mike */


From -7501455128566648766
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,970a895707a4342d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 17:49:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ritvaxc.BITNET!jtl3767
From: jtl3767@ritvaxc.BITNET (John Lytle)
Newsgroups: net.micro.atari16
Subject: keypad problem  please help me
Message-ID: <8605160048.AA04523@ucbvax.Berkeley.EDU>
Date: Thu, 15-May-86 20:49:01 EDT
Article-I.D.: ucbvax.8605160048.AA04523
Posted: Thu May 15 20:49:01 1986
Date-Received: Sat, 17-May-86 04:47:45 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 7

Hello,
        I would like to know is there anymodem program for either 16
and 8 bits that support keypad full screen mode?? I need it so bady and
I can't find anywhere, I have ST-Term, STerminal and Chat but it don't
work with Keypad. Please respond and help me...
                                    John Lytle
                                    Rochester, New York


From 8008837294501517351
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3126b31866a40973,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 22:17:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DDATHD21.BITNET!XBR1YD22
From: XBR1YD22@DDATHD21.BITNET (Ralf Bayer {Herz-Baerchi})
Newsgroups: net.micro.atari16
Subject: TOS/PRG executable file format
Message-ID: <8605160517.AA07779@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 01:17:31 EDT
Article-I.D.: ucbvax.8605160517.AA07779
Posted: Fri May 16 01:17:31 1986
Date-Received: Sat, 17-May-86 04:49:29 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 33

I'd like to know the meaning of the information that is stored at the
beginning of a TOS executable file.

```
address         data            meaning

0000            60 1A           BRA $001C       ;branch over fields
0002            00 00 7E EC     length of file?
0006            00 00 00 00     ?
000A            00 02 25 04     ?
000E            00 00 00 00     ?
0012            00 00 00 00     ?
0016            00 00 00 00     ?
001A            00 00           ?
001C                                            ;begin of actual program
```

What do the several fields mean? Are they absolutely necessary or are
they just information for programs like debuggers and the like? Any
information greatly appreciated.

BTW, does anybody have a PD disassembler? Could someone mail it to me?

Thanx,
Ralf Bayer (The Care-Baer)
Computing Center @ the Technical University of Darmstadt, West Germany

Arpanet: xbr1yd22%ddathd21.BITNET@wiscvm.wisc.EDU (personal mail)
               #d22%ddathd21.BITNET@wiscvm.wisc.EDU (mailing lists)
BITNET: xbr1yd22 @ ddathd21   (no NETDATA format, need RFC-header)
               #d22 @ ddathd21   (NETDATA format, beware of the
                                  Number sign, it's part of the USERID)

> REAL programmers use FORTRAN <

From 2781806242479926180
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,357445b28b2b6ef1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 02:47:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!alberta!calgary!stone
From: stone@calgary.UUCP (Glen Stone)
Newsgroups: net.micro.atari16
Subject: 50 line screens
Message-ID: <128@vaxb.calgary.UUCP>
Date: Fri, 16-May-86 05:47:29 EDT
Article-I.D.: vaxb.128
Posted: Fri May 16 05:47:29 1986
Date-Received: Sat, 24-May-86 17:56:35 EDT
References: <255@rtech.UUCP>
Distribution: net
Organization: U. of Calgary, Calgary, Ab.
Lines: 148
Summary: Source and executable for 50 line screen

Here are the small programs for the monochrome system that give 50 lines
and 25 lines. Also in response to the mouse controls in micro-emacs
you'll notice that the cursor keys work in micro-emacs. You can write a small
program that changes the mouse such that it outputs the cursor keys...
thus the mouse works in micro-emacs. It's a bios or xbios call, I'm
sorry I haven't got the code handy right now. Also I have a micro-emacs
with the features we've added, but I'm not sure if current versions have them.
They are:

    -query-replace (ESC q)
    -Cntl x Cntl v works properly (create a second window and bring in
     the file all at once)
    -The editor works in 50 line mode
    - ESC w (like cntl W but just makes a copy)
    - ESC g (goto line)
    - Cntl x Cntl f works
    -others I can't remember- mostly the commands resemble EMACS commands

If this oldhat sorry for the waste of space, otherwise I guess I could
post the executable (the source is in complete shabbles right now)

Posted now are both source and executable for the 50/25 lines per screen.

-------- Source for 50 lines --------------

```
*  Make hi rez screen bios handle 50 lines of 8x8 characters
*
*
* author:
*               j d eisenstein
*
```

```
* date:
*               15-aug-85
*
              .text
              .global _hi50
LINEA_INIT      equ     $A000
GET_REZ         equ     4               ; extended bios resolution inquiry


_hi50:

        lea     stack,sp

        move.w  #GET_REZ,-(sp)          ; get screen resolution
        trap    #14
        addq.w  #2,sp

        cmp.w   #2,d0                   ; only execute if already in hi rez
        bne     exit


        dc.w    LINEA_INIT              ; get the important pointers

        move.l  04(a1),a1               ; a1 -> 8x8 font header

        move.l  72(a1),-$0A(a0)         ; v_off_ad <- 8x8 offset table addr
        move.l  76(a1),-$16(a0)         ; v_fnt_ad <- 8x8 font data addr

        move.w  #008,-$2E(a0)           ; v_cel_ht <- 8    8x8 cell height
        move.w  #049,-$2A(a0)           ; v_cel_my <- 49   maximum cell "Y
        move.w  #640,-$28(a0)           ; v_cel_wr <- 640  offset to cell Y+

exit:
        clr.w   -(sp)                   ; back to the os
        trap    #1


        ds.l    $10
stack:  ds.l    $01                     ; stack em up an blow em out

        end

-------- Source for 25 lines -------------


*  Make hi rez screen bios handle 25 lines of 8x16 characters
*
*
* author:
*               j d eisenstein
*
* date:
*               15-aug-85
```

```
*

         .text
         .global _hi25

LINEA_INIT      equ     $A000
GET_REZ         equ     4               ; extended bios resolution inquiry


_hi25:

        lea     stack,sp

        move.w  #GET_REZ,-(sp)          ; get screen resolution
        trap    #14
        addq.w  #2,sp

        cmp.w   #2,d0                   ; only execute if already in hi rez
        bne     exit


        dc.w    LINEA_INIT              ; get the important pointers


        move.l  08(a1),a1               ; a1 -> 8x16 font header

        move.l  72(a1),-$0A(a0)         ; v_off_ad <- 8x16 offset table ad
        move.l  76(a1),-$16(a0)         ; v_fnt_ad <- 8x16 font data addr

        move.w  #0016,-$2E(a0)          ; v_cel_ht <- 16    8x16 cell heigh
        move.w  #0024,-$2A(a0)          ; v_cel_my <- 24    maximum cell "Y"
        move.w  #1280,-$28(a0)          ; v_cel_wr <- 1280  vertical byte offset

exit:   clr.w   -(sp)                   ; back to the os
        trap    #1


        ds.l    $10
stack:  ds.l    $01                     ; hey chef, gimme a short stack


        end

------- Encoded 50 line executable ------------
begin 644 hres50
M8!H   "                                $_Y    ?#\\  1.3E1/L'P
M F8DH  B:0 $(6D 2/_V(6D 3/_J,7P "/_2,7P ,?_6,7P"@/_80F=.00
M
M                                  @
M
?

end
```

-------- Encoded 25 line executable --------
```
begin 644 hres25
M8!H   "                                $_Y    ?#F\\  1.3E1/L'P
M F8DH  B:0 ((6D 2/_V(6D 3/_J,7P $/_2,7P &/_6,7P% /_80F=.00
M
M                                  @
M
?

end
```

From -2610157297885794542
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a8a8fdf04848c3ab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 03:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!gatech!akgua!whuxlm!whuxl!houxm!ihnp4!
ucbvax!HGRRUG5.BITNET!VELTHUIS
From: VELTHUIS@HGRRUG5.BITNET (Frans J. Velthuis)
Newsgroups: net.micro.atari16
Subject: Wrong characters in printer output
Message-ID: <8605162138.AA21499@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 06:16:00 EDT
Article-I.D.: ucbvax.8605162138.AA21499
Posted: Fri May 16 06:16:00 1986
Date-Received: Mon, 19-May-86 01:08:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

When I double-click on a source-file and then choose the option
print then the symbols { } [and] are not printed correctly.
My printer is supposed to be Epson-compatible. (Nakajima 2200).
This problem is especially annoying with C-sources. First Word
does print the symbols correctly.
My question is: does anybody know how to get to the printer
character-table, so that I can put a program in the AUTO-folder
that changes the charactercodes?

Frans Velthuis
University of Groningen
The Netherlands

From -3320700538445377477
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd28ee883af7e17d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 05:29:19 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!atux01!uxrd1!jallen
From: jallen@uxrd1.UUCP (Jon Allen)
Newsgroups: net.micro.atari16
Subject: SS vs DS disk drives
Message-ID: <113@uxrd1.UUCP>
Date: Fri, 16-May-86 08:29:19 EDT
Article-I.D.: uxrd1.113
Posted: Fri May 16 08:29:19 1986
Date-Received: Sun, 18-May-86 12:42:53 EDT
Organization: AT&T Communications, Piscataway NJ
Lines: 6

Can someone tell me if I buy a 520ST with the DS disk drives, will I
be able to read/write SS disks too? Or must I get both drives in order
to read/write both types? And what format is most prevalent? Thanx.

Jon Allen
{...}!ihnp4!acpy01!jallen

From 4280666645319063648
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a42a723e3188bb92,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 10:16:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!yale!metcalf
From: metcalf@yale.ARPA (Chris Metcalf)
Newsgroups: net.micro.atari16
Subject: Compilers for the ST
Message-ID: <2673@yale.ARPA>
Date: Fri, 16-May-86 13:16:29 EDT
Article-I.D.: yale.2673
Posted: Fri May 16 13:16:29 1986
Date-Received: Sun, 18-May-86 15:40:18 EDT
Reply-To: metcalf@yale.ARPA (Chris Metcalf)
Distribution: net
Organization: Yale University CS Dept., New Haven CT
Lines: 22

I'm going to be coauthoring a book this summer about graphics and C
on the ST and Amiga -- introducing C through graphics and moving on
to an introduction to device-independent code for 3d graphics. I've
ordered the Developer's Kit for my 1040, but I'd like to be able to
discuss and/or recommend other compilers too.

I know that DRI, Lattice, MegaMax, Habba, and Manx all have compilers
either released or in beta test. Are there any others that anyone
out there has heard of? Is it possible to get Greenhills for the
Atari (as opposed to downloading your object code from a Sun or some
such)? What is "GST", which I have heard mentioned once or twice?

Once I get my hands on these compilers, I'll run some fairly comprehensive
benchmarks (starting with Dhrystone 1.1) and post the results. Let
me know of any other ST compilers, or any good/bad experiences with
the ones above, and I'll be very grateful. Thanks!
--
Chris Metcalf (metcalf@yale.ARPA)   ...!ihnp4!hsi!yale!metcalf
         (metcalf@yalecs.BITNET)   ...!decvax!yale!metcalf

I couldn't fail not to agree that anything other than that which isn't the
failure of his absence to leave couldn't do otherwise than make me happy.

From -5994327156096810664
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 12:14:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 (USS@Tek, v1.1) based on 4.3bsd-beta 6/6/85;
site tekigm2.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!tekig5!tekigm!
tekigm2!timothym
From: timothym@tekigm2.UUCP (Timothy D Margeson)
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format
Message-ID: <681@tekigm2.UUCP>
Date: Fri, 16-May-86 15:14:07 EDT
Article-I.D.: tekigm2.681
Posted: Fri May 16 15:14:07 1986
Date-Received: Mon, 19-May-86 04:53:54 EDT
References: <186@bridge2.UUCP> <363@imagen.UUCP> <191@bridge2.UUCP>
Reply-To: timothym@tekigm2.UUCP (Timothy D Margeson)
Distribution: net
Organization: Tektronix, Inc., Beaverton, OR.
Lines: 22

In article <191@bridge2.UUCP> pvf@bridge2.UUCP (Paul V. Fries) writes:
>> > Anybody know what the garbage character is or why it is there
>> > (incidentally, the character seemed always to be 0x12)?
>> > Paul Fries
>> > Mountain View, CA
>
>A quick check of an ASCII chart reveals that 0x12 is NOT the XON code.
>XON and XOFF are (respectively) 0x11 (^Q) and 0x13 (^S). The 0x12 code
>has the name DC2 in the ASCII chart. Regardless, why would the BBS be
>telling me XON in the first place? It never told me to stop (XOFF).
>Anyway, back to the original question. Why is the BBS sending the
>0x12?

0x12, or what ever 0x is, the 12 is a decimal equivalent for ACSII FF, of
formfeed. And it seems reasonable that the BBS's do send a form feed just
proir to dumping screens full of data to a remote site. My two cents.

--
Tim Margeson (206)253-5240
tektronix!tekigm2!timothym   @@   'Who said that?'
PO Box 3500 d/s C1-937
Vancouver, WA. 98665

From 1877513245153535734
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,acb18978f1380be4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:29:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: ramdisk source -- it was too big...
Message-ID: <8605170028.AA24221@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:29:21 EDT
Article-I.D.: ucbvax.8605170028.AA24221
Posted: Fri May 16 18:29:21 1986
Date-Received: Mon, 19-May-86 01:32:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 185

/* This program is divided into three parts to get it over BITNET */
/* There are control characters in this, and square and curly brackets
which may not display on your mainframe terminal. */

/*This program copyright 1986 by Michael Vederman, distribute it freely
so long as proper credit for code is given. The ramdisk resize was not
implemented with this version.*/

/* PART I */

```
#include "d:portab.h"
#include "d:obdefs.h"
#include "d:define.h"
#include "d:gemdefs.h"
#include "d:osbind.h"

TEDINFO rs_tedinfo[] = {
"00100",
"Size:_____K",
"99999",
3, 6, 2, 0x1073, 0x0, -2, 6,12,
" Enter ramdisk size, then select     ",  /*THERE IS A CTRL-C AT END*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
```

```
" Type in the size you desire         ",  /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
" To free ramdisk memory, select      ", /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1,
" First enter new size, then select   ", /*THERE IS A CTRL-C HERE*/
"",
"",
3, 6, 0, 0x1180, 0x0, -1, 39,1};

OBJECT rs_object[] = {
-1, 1, 15, G_BOX, NONE, OUTLINED, 0x21143L, 0,0, 576,160,
4, 2, 3, G_BOX, NONE, NORMAL, 0x11172L, 360,48,184,80,
3, -1, -1, G_BUTTON, 0x5, 0x28, "Deallocate Ramdisk", 16,32,152,16,
1, -1, -1, G_BUTTON, 0x5, 0x28, "Resize Ramdisk", 16,64,152,16,
8, 5, 7, G_BOX, NONE, SHADOWED, 0xFE1142L, 376,16,152,16,
6, -1, -1, G_FBOXTEXT, EDITABLE, NORMAL, &rs_tedinfo[0], 24,0,104,16,
7, -1, -1, G_BOXCHAR, NONE, NORMAL, 0x4000142L, 136,0,8,16,
4, -1, -1, G_BOXCHAR, NONE, NORMAL, 0x3000142L, 8,0,8,16,
9, -1, -1, G_BUTTON, 0x7, NORMAL, "EXIT", 136,144,56,16,
10, -1, -1, G_STRING, NONE, NORMAL, "Program by", 40,144,88,16,
11, -1, -1, G_STRING, NONE, NORMAL, "Michael Vederman", 208,144,128,16,
12, -1, -1, G_BOXTEXT, NONE, NORMAL, &rs_tedinfo[1], 32,48,312,16,
13, -1, -1, G_BOXTEXT, NONE, NORMAL, &rs_tedinfo[2], 32,16,312,16,
14, -1, -1, G_BOXTEXT, NONE, DISABLED, &rs_tedinfo[3], 32,80,312,16,
15, -1, -1, G_BOXTEXT, NONE, DISABLED, &rs_tedinfo[4], 32,112,312,16,
0, -1, -1, G_BUTTON, 0x25, SHADOWED, "Allocate Ramdisk", 376,48,152,16};

#define RAM DISK 0
#define SIZEBOX 5
#define ALOCSTR 11
#define DALOCSTR 13
#define RESIZSTR 14
#define ALOCBOX 15
#define DALOCBOX 2
#define RESIZBOX 3
#define GOODBYE 8

struct bpb
{ WORD recsiz,
       clsiz,
       clsizb,
       rdlen,
       fsiz,
       fatrec,
       datrec,
       numcl,
       bflags;
};
```

```
typedef LONG (*PL)();  /*pointer to function returning a long*/
typedef WORD (*PW)();  /*pointer to a function returning a word*/

PL getbpb;
PW mediach;
PL rwabs;

struct bpb rdiskbpb = { 512, 1, 512, 7, 5, 6, 18, 0, 0, +;

/*The 1 after 512 above will give you 1 sector clusters, for more useable
'DISK' space, you can do the same to the boot sector of a disk after you
format it, but before you write to it, by changing the second 02 (I
believe it is byte 12 offset) to a 01.  Using the extended formatter
you can get quite a lot of extra disk space.*/

char

alert1[]="[3][YOU HAVE TRIED TO ALLOCATE|TOO MUCH MEMORY. THE MAXIMUM|\
SIZE HAS BEEN ALLOCATED|CHECK DISK D INFO FOR SIZE][ Time to upgrade ]",
alert2[]="[3][COULD NOT ALLOCATE|TRY REBOOTING][ Oh Well... ]",
alert3[]="[1][Memory Allocated][ Thanks ]",
alert4[]="[0][Michael Vederman|15319 Tonya|Houston, Tx 77060|UHACE BBS+
 713-820-6120][ A U of H ACEware +",
alert5[]="[0][Memory Deallocate|does not work right|due to GEMDOS bugs.|\
You can reallocate up|to 1K less than before][ OK ]",
alert6[]="[0][Ramdisk Resize| |(under construction)][ OK ]",
alert7[]="[0][No memory allocated| |  Enter size and|    try again][ OK ]",
alert8[]="[1][Allocate ramdisk FIRST| |Then install drive D][ SURE ]";

extern   int gl_apid;

int  *ramdisk_ptr;

long size, newmaxsize;

long     *bpbvect = 0x472;
long     *rwvect  = 0x476;
long     *mcvect  = 0x47e;
long     *devset  = 0x4c2;

long    maxsize,newsize;

char     ok, in_place, dinstal;

int event

int  gl_hchar, gl_wchar, gl_wbox, gl_hbox,
    menu_id, phys_handle, handle, wi_handle,
     xdesk, ydesk, hdesk, wdesk, xold, yold, hold, wold,
     xwork, ywork, hwork, wwork,
    msgbuff[8], ret,
```

```
     contrl[12], intin[128], ptsin[128], intout[128], ptsout[128],
     work_in[11], work_out[57];

int    fo_cx, fo_cy, fo_cw, fo_ch,
     fo_doreturn;
/************************************************************************/
/*This is the ramdisk read/write abs routine*/

LONG rdrwabs(rw,buf,count,recno,dev)
WORD rw;
int *buf;
WORD count, recno, dev;
{  int i, *p;

   if (dev != 3) /*Drive D -- could be 2 for C, etc...*/
      return( (*rwabs)(rw,buf,count,recno,dev) );
   else
   { if (rw > 1) rw -=2; /* function number never > 1 */
     while ( count > 0 )
     {  p = ramdisk_ptr+(((long) recno) * 256L);
        if (rw==0) /* read */
          for (i=0; i<256; i++) *buf++ = *p++;
        else      /* write */
          for (i=0; i<256; i++) *p++ = *buf++;
        count--; recno++;
     }
     return(0L); /* everything worked (everything ALWAYS works!) */
   }
}

/************************************************************************/
LONG rdgetbpb(dev) /* get our BPB -- this describes certain attributes */
WORD dev;
{
   if (dev != 3)
      return( (*getbpb)(dev) ); /* real disk BPB */
   else
      return( &rdiskbpb ); /* ramdisk BPB */
}

/************************************************************************/

WORD rdmediach(dev) /* has the media changed -- ramdisk reinitted? */
WORD dev;
{
   if (dev != 3)
      return((*mediach)(dev)) ;
   else
     if (dinstal){ dinstal=FALSE; return( 2 );}
     else
       return( 0 ); /* if ramdisk just installed then get bpb else no */
}
```

```
/* END PART I */


From -108287701930461514
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64ba5a8917029ba,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:32:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: ramdisk source -- part II
Message-ID: <8605170014.AA23950@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:32:07 EDT
Article-I.D.: ucbvax.8605170014.AA23950
Posted: Fri May 16 18:32:07 1986
Date-Received: Mon, 19-May-86 01:32:22 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 145

/* HERE IS THE SECOND PART OF THE RAMDISK ACCESSORY */
/*Copyright 1986 Michael Vederman, distribute freely with proper credit*/
/*************************************************************************/
/* BEGIN PART II */
clear_fat()  /* erase any erroneous junk */
{
char *temp;

     for(temp=ramdisk_ptr; temp < ramdisk_ptr+9216; temp++)
          *temp = 0;
}
/*************************************************************************/

install()  /* install ramdisk handler vectors */
{
          getbpb  = (PL) *bpbvect;
          mediach = (PW) *mcvect;
          rwabs   = (PL) *rwvect;
          *bpbvect = rdgetbpb;
          *mcvect  = rdmediach;
          *rwvect  = rdrwabs;
          *devset  = *devset | (0x8L);  /* set drive bits - 0x4L for C, etc. */
}
/*************************************************************************/
deinstall()  /* very interesting little fact:  ROM TOS does not re-init
               the device bits, if you reset, the ramdisk drive is still
               there, unless you do an xbios(38, deinstall) in main() */
```

```
{
         *devset  = *devset & 0xfffffff7L; /* clear drive bits */
}
/************************************************************************/

main()
{
     appl_init();
     phys_handle=graf_handle( &gl_wchar, &gl_hchar, &gl_wbox, &gl_hbox);
     menu_id=menu_register( gl_apid,"  Mike's Ramdisk " );
/* put name into desk menu */

     wind_get( 0, WF_WORKXYWH, &xdesk, &ydesk, &wdesk, &hdesk);
/* get max size of window */

    xbios(38, deinstall); /* deinstall vectors (just in case of reset)*/
    in_place = FALSE; /* ramdisk is not installed yet (for alert box) */
     wi_handle=(-1);
     start();
}
/************************************************************************/
LONG atoi(s) /* convert the size entered by user to integer */
char s[];

{
WORD     n, i;

     for(i=0, n=0; s[i] >= '0' && s[i] <= '9' && i < 5; ++i)
          n = 10 * n +s[i] - '0';
     return(n);
}

/************************************************************************/
do_ramdisk()
{
     ok = FALSE;
     maxsize = Malloc(-1L);
     size=atoi(rs_tedinfo[0].te_ptext);

/* In the following, we should probably limit the max size so as to not
screw up the system, but what the heck, you can allocate all your
memory, but for safety sake, it should be about 50-60K less */

          if (size)
              {
               newsize=(size+9)*1024;
               newmaxsize = maxsize/1024-9;
                  if ( newsize > maxsize )
                    {
                    form_alert(1,&alert1);
                    newsize=maxsize;
                    size=newmaxsize;
                    }
```

```
               ramdisk_ptr = Malloc(newsize);
               if (ramdisk_ptr)
                   {
                    in_place=TRUE;
                    rdiskbpb.numcl=(WORD)size * 2;
                    clear_fat();
                    xbios(38,install);
                    form_alert(1,&alert3);
                    ok = TRUE;
                   }
               else
                    form_alert(1,&alert2);
               }
          else
               form_alert(1,&alert7);
}
/*************************************************************************/
open_vwork()  /* standard stuff */
{
int i;
     for( i=0; i<10; work_in[i++]=1 ); work_in[10]=2;
     handle=phys_handle;
     v_opnvwk( work_in, &handle, work_out );
}

/*************************************************************************/

clear_window()
/* paint it white (could be a good song if it was black) */
{
int temp[4];
    graf_mouse(M_OFF,0x0L);/* mistake by many programs leaves mouse on */
     vsf_interior(handle,2);
     vsf_style(handle,8);
     vsf_color(handle,0);
     temp[0]=xwork;
     temp[1]=ywork;
     temp[2]=xwork+wwork;
     temp[3]=ywork+hwork;
     v_bar(handle,temp);
     graf_mouse(M_ON,0x0L);
}
/*************************************************************************/

open_window()
{
     wi_handle=wind_create( NAME, xdesk, ydesk, wdesk, hdesk );
     wind_set( wi_handle, WF_NAME," Mike's Ramdisk v 0.9 ", 0, 0 );
     graf_growbox( 15, 27, 160,8, xdesk, ydesk, wdesk,hdesk );
    wind_open( wi_handle, xdesk, ydesk, wdesk - 1, hdesk - 1 );
    wind_get( wi_handle, WF_WORKXYWH, &xwork, &ywork, &wwork, &hwork );
}
```

```
/*************************************************************************/
remove_rdisk() /* see ya later ramdisk */
{
rdiskbpb.numcl=(int)0;
xbios(38, deinstall);
dinstal=TRUE;
Mfree(ramdisk_ptr);
}

/* END PART II */
```

From 1365153925820400407
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d8987f5e5b70fba,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:34:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!gatech!akgua!whuxlm!whuxl!houxm!ihnp4!
ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: ramdisk source -- part III
Message-ID: <8605170053.AA24506@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:34:32 EDT
Article-I.D.: ucbvax.8605170053.AA24506
Posted: Fri May 16 18:34:32 1986
Date-Received: Mon, 19-May-86 00:54:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 165

```
/* HERE IS THE THIRD PART OF THE RAMDISK ACCESSORY */
/* This program is copyright 1986 by Michael Vederman.  Distribute it
freely, so long as proper credit is given. */
/*************************************************************************/
/* BEGIN PART III */

open_dialog()
{
int c;

/* This routine does a lot.  It probably could have been done easier
by direct assignment to the structure, but standard system calls never
hurt. (gag) It opens a dialog box into our window, then does a form_do,
indicating one editable field, which makes it wait for something to
happen.  Then it does whatever the return code tells it.  I tried for
the longest time to get the fmd_finish to erase the dialog, but it
doesn't.  It merely pipes a message, you have to do a redraw manually!!
Which means you better know VDI.  I cheated by getting rid of the whole
window, in this way it has to redraw the desktop, automatically. */
```

```
clear_window(wi_handle);
form_center(rs_object, &fo_cx, &fo_cy, &fo_cw, &fo_ch);
form_dial(FMD_START,xdesk,ydesk,wdesk,hdesk,fo_cx, fo_cy, fo_cw, fo_ch);
objc_draw(rs_object,0,15,fo_cx,fo_cy,fo_cw,fo_ch);
if (!in_place)
     form_alert(1,&alert8);
fo_doreturn=form_do(rs_object, SIZEBOX);
form_dial(FMD_FINISH,xdesk,ydesk,wdesk,hdesk,fo_cx,fo_cy,fo_cw,fo_ch);

switch (fo_doreturn)
     {
       case ALOCBOX:
          {

          do_ramdisk();
          if (ok){
          objc_change(rs_object, ALOCBOX, 0,
                      xdesk, ydesk, wdesk,hdesk,
                  SHADOWED+DISABLED, 0);
          objc_change(rs_object, ALOCSTR, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  DISABLED, 0);
          objc_change(rs_object, DALOCSTR, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL, 0);
          objc_change(rs_object, RESIZSTR, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL, 0);
          objc_change(rs_object, DALOCBOX, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL|SHADOWED, 0);
          objc_change(rs_object, RESIZBOX, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL|SHADOWED, 0);
               }
          else
          objc_change(rs_object, ALOCBOX, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL|SHADOWED, 0);
          }
     break;

     case RESIZBOX:
          {
          objc_change(rs_object, RESIZBOX, 0,
                  xdesk, ydesk, wdesk, hdesk,
                  NORMAL|SHADOWED, 0);
          form_alert(1,&alert6);
          }
     break;

     case DALOCBOX:
          {
```

```
                remove_rdisk();
                objc_change(rs_object, ALOCBOX, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        NORMAL|SHADOWED, 0);
                objc_change(rs_object, ALOCSTR, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        NORMAL, 0);
                objc_change(rs_object, DALOCBOX, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        DISABLED|SHADOWED, 0);
                objc_change(rs_object, DALOCSTR, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        DISABLED, 0);
                objc_change(rs_object, RESIZBOX, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        DISABLED|SHADOWED, 0);
                objc_change(rs_object, RESIZSTR, 0,
                        xdesk, ydesk, wdesk,hdesk,
                        DISABLED, 0);
                form_alert(1,&alert5);
                }
            break;

            case GOODBYE:
                {
                form_alert(1, &alert4);
                objc_change(rs_object, GOODBYE, 0,
                            xdesk, ydesk, wdesk,hdesk,
                        NORMAL, 0);
                }
            break;

        }

        wind_close(wi_handle);
        graf_shrinkbox(15,27,160,8, xdesk, ydesk, wdesk, hdesk );
        wind_delete(wi_handle);

        msgbuff[0]=AC_CLOSE;
        msgbuff[3]=menu_id;
        wi_handle=(-1);

}
/*************************************************************************/

start()
{

        while (TRUE)
        {
          event=evnt_multi( MU_MESAG,
                1, 1, ret,
                0, 0, 0, 0, 0,
```

```
               0, 0, 0, 0, 0,
               msgbuff, 0, 0, &ret, &ret, &ret, &ret, &ret, &ret );

       if ( event & MU_MESAG )
          switch( msgbuff[0] )
          {

            case AC_OPEN:
              if (msgbuff[4]==menu_id)
              {
               if (wi_handle==(-1))
                     { open_vwork();
                     open_window();
                     open_dialog(); }
              }
            break;

            case AC_CLOSE:
              if ((msgbuff[3]==menu_id) && (wi_handle != (-1) ))
               { v_clsvwk(handle); wi_handle=(-1); }
            break;

          }
     }
}

/* Th.. Th.. That's all Folks...  If you have any problems, please post
them either to the network, or send them to me directly ACS19@UHUPVM1.
I know that there will probably be a tab expansion somewhere along the
line, so I hope it does not get truncated.  If it does, I will repost
it.  I hope no one accuses me of 'abuse of the system', since I merely
wish to exchange and share info.  I have edited this a little, and I
have not recompiled it since, but I do not think there should be any
problems.  Let me know what you find.  Someone please send me the
other articles from BAMMI's posting of Tim Oren's tutorial, I have
10-12, and also need the macro defs, since he has not responded yet. */

/* Mike */
/* END PART III */


From -5218059487369477393
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5a7eb0197f3c7377,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:38:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!axiom!drilex!rclex!walt
From: walt@rclex.UUCP (Walter L. Weber)
Newsgroups: net.micro.atari16
Subject: compression of image files?
Message-ID: <752@rclex.UUCP>
Date: Fri, 16-May-86 18:38:50 EDT
```

Article-I.D.: rclex.752
Posted: Fri May 16 18:38:50 1986
Date-Received: Sun, 18-May-86 13:26:43 EDT
Organization: Ridge Computers (Eastern Region), Lexington, MA
Lines: 15
Keywords: 520st neochrome degas compression

Has anyone ever seen or used an encoding or compression algorithm
to store image files? I have seen a couple of demos which appear
to be compressed, as they are all different sizes and come up in
a "slideshow" style presentation.

I would be interested in receiving any details regarding sources,
implementation, etc. which you might have.

BTW - good JOB! out there in Sunnyvale - an excellent product.

--
Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers
Lexington, Mass.

From 1417276807665882646
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3865d32a27fbfa
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:40:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!J.BBN.COM!aking
From: aking@J.BBN.COM (Allen King)
Newsgroups: net.micro.atari16
Subject: ST Wish List
Message-ID: <8605170002.AA23701@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:40:19 EDT
Article-I.D.: ucbvax.8605170002.AA23701
Posted: Fri May 16 18:40:19 1986
Date-Received: Mon, 19-May-86 01:32:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 78

I've been enjoying my 520 now for about two months, spending my time making
a Mandelbrot demo to learn GEM and VDI. The demo is flashy in that it gives
a full-screen low resolution picture quickly, with the resolution increasing
as you watch. I'll post it when its done.

After using the developers kit for a while, I've cataloged my impressions
in the form of a wish-list of desireable software improvements. If you have
found programs with the desired functionality, or if you have
found work-arounds to like problems, please share the wealth.

Being an engineer, and also an engineer at heart, I usually spend most of
my time worying about the parts of the system that don't work. However
least one get the wrong impression, most of the ST software I have does work.
I recommend ST as a viable entry, and quite an echonomical one at that.
Especially when one considers the public domain software to hack with.
But now for the wishes:

1. Link68 seems to not know about absolute pathnames. I like to keep directories
small, but to get it to work, libraries and applications must be mashed
together. Does anybody have any magic (besides moveing default files
to RAMDISK) ?

2. If anyone has done a comparison of MAKE's please send your
findings out the net.

3. Has anybody integrated mouse pointing into Micro-Emacs? T'would be
nice.

4. And Search Rules for the compiler! Do they exist? I hate putting absolute
pathnames in my sources, but hate moby folders that take the whole screen
even more.

5. If anybody has a Copy.TTP and/or Move.TTP, please post them. Perhaps
they exist in some repository which I haven't found. Or I could just
write them, but ...

6. It seems that Application Document types are known system-wide, but
the application handlers themselves must be in the current folder.
Also, I often want one application handler (e.g. micro-emacs) be
in effect for multiple document types (e.g. source.c and source.s).

7. Is there an option to save the desktop before an application starts
so that exiting the application and returning to the desk wouldn't involve
spinning the disk? Perhaps pickey, but it takes a few seconds
and happens quite often. Perhaps the Moby RAMDISK is the way out.

8. My friend made me extremely gealous over lunch the other day quoting
how his Thinkware C on a MAC+ did a compile-bind-go in 10 seconds. I'm
struggeling with a 90 second compile and a 5 minute load using the developers
kit. (I guess GEM libraries are big.) I know that both are about 5x faster
using RAMDISK, but I need more memory on my 520 to fit everything.

9. My warantee will be up in a month, and I'm going to get the old soldering
iron out. Does anybody have any experience with putting in 1M chips?
Does the ST's MMU handle them? (it seems to have pins enough, what about
refresh? (Neil?)) I believe it would require flying wires on a few address
lines, but no piggybacking. The thought of doing compiles and links from
a 1.5M RAMDISK really turns me on!

10. I'm looking for a set of graphics primitives that will make porting
my pet children's game to other PC's as well as the ST easy. Does GEM
foot that bill? How stiff would lisence fees be for customers
who didn't already have GEM, given the package wouldn't expose bare GEM

functionality to the user. Anybody know of other packages or conventions
that work?

11. Boy, would I like to have a copy of Switcher to go quickly between
contexts quickly. What I'd really rather have is multiprocess windows
like the Sun, but lets be realistic! Two practical questions though:
Is it possible to bring up a GEM application on the same desktop
as (using MAC terms) the finder? and Does GEM support any sort of
multi-tasking? Does any one out there have any hints?

"You can tell a craftsman by his tools",
         and
     "the men from the boys by the size of their toys".

From -1384909976259949537
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e821c713a4a12a7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:43:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!think!mit-eddie!genrad!decvax!decwrl!
ucbvax!ritvaxc.BITNET!jtl3767
From: jtl3767@ritvaxc.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: keypad probem ,need vt100 for ST
Message-ID: <8605162146.AA21671@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:43:37 EDT
Article-I.D.: ucbvax.8605162146.AA21671
Posted: Fri May 16 18:43:37 1986
Date-Received: Mon, 19-May-86 01:23:31 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 12

Hello,
        I would like to know is there any modem program for either 16
or 8 bits that would support keypad for full screen mode?? just like
VT100, I know vt52 don't work with that problem. I have Chat, ST-talk and
STerminal but they don't work with keypad support. If you know any program
or suggest, please respond, I need it badly, more that you can imaged!
 mail back to me or
leave mail in GEnie my mail address is J.T.Lytle
                          Thanks,
                             John Lytle
                             NTID/RIT
                             Rochester, NY

From 4636402766416525102
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,62c73390932dd7d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 15:46:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!ritvaxc.BITNET!
jtl3767
From: jtl3767@ritvaxc.BITNET (John Lytle)
Newsgroups: net.micro.atari16
Subject: help on keypad support for ST!
Message-ID: <8605162222.AA22192@ucbvax.Berkeley.EDU>
Date: Fri, 16-May-86 18:46:50 EDT
Article-I.D.: ucbvax.8605162222.AA22192
Posted: Fri May 16 18:46:50 1986
Date-Received: Mon, 19-May-86 03:07:20 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 12

Hello,
        I would like to know is there any modem program for either 16
or 8 bits that would support keypad for full screen mode?? just like
VT100, I know vt52 don't work with that problem. I have Chat, ST-talk and
STerminal but they don't work with keypad support. If you know any program
or suggest, please respond, I need it badly, more that you can imaged!
 mail back to me or
leave mail in GEnie my mail address is J.T.Lytle
                          Thanks,
                             John Lytle
                             NTID/RIT
                             Rochester, NY

From 3561864851610149816
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 16:40:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!sage.cs.reading.Ac.Uk!
gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <170@sage.cs.reading.Ac.Uk>
Date: Fri, 16-May-86 19:40:20 EDT
Article-I.D.: sage.170
Posted: Fri May 16 19:40:20 1986
Date-Received: Fri, 23-May-86 22:35:50 EDT
References: <8605111518.AA11708@ohio-state.ARPA>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 33
Summary: TDI Modula 2

In article <8605111518.AA11708@ohio-state.ARPA> terrell@OHIO-STATE.ARPA.UUCP writes:
>
>I am currently interested in writing a desk accessory in TDI Modula-2 or
>OSS Personal Pascal (which should be in the mail soon).
>
>If someone has written a desk accessory in either of these languages,
>perhaps they could send me a copy.
>
>I tried just renaming the excutable file of one of my Modula-2 programs
>to whatever.acc, and the OS doesn't manage to boot.
>
>Are there any limitations associated with desk accessories? Are they
>restricted in the memory they can use?
>

Unfortunately, most of the companies selling languages saying you have full access to GEM are TELLING FIBS !!!

Firstly, you need an RSC file editor - these are not supplied by most of the companies and are needed to sort out the data for the pull down menus etc. The only places I have seen this is in the DRI dev kit (if you have $300) and with the MEGAMAX at about $200.

Secondly, to make a program an acc instead of a normal program one must link it with a different startup routine, again not usualy supplied - and as TDI use their own linker (not the usual DEV kit or GST compatible ones) you cant even do it if you have the startup files from somewhere else.

Perhaps if we all write to all the companies selling languages that claim full gem support but do not give it, we MIGHT get some action.

From a very annoyed user of TDI Modula 2, Metacomco Pascal and GST C.
Simon Gordon @ Sibly Hall - Reading University.

From -2656990328473790320
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244a4719be30cb8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 16:57:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!sage.cs.reading.Ac.Uk!gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Power supply
Message-ID: <171@sage.cs.reading.Ac.Uk>
Date: Fri, 16-May-86 19:57:21 EDT
Article-I.D.: sage.171
Posted: Fri May 16 19:57:21 1986
Date-Received: Fri, 23-May-86 22:36:04 EDT

References: <8605100658.AA12747@ucbvax.Berkeley.EDU> <3407@ukma.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 26

In article <3407@ukma.UUCP> knnngt@ukma.UUCP (Alan Kennington) writes:
>
>
>   So, the plot thickens. That explains why my new TOS ROMs blew - perhaps.
>When I replaced the old 2 chips with 6 new ones, one (or more) of the new
>ones blew. And everything worked okay again with the old ones.
>   And at the time I thought logically that increased power drain meant
>lower voltage, and therefore lower current per chip. The note this
>note follows explains that actually a higher power drain means more
>current per device. I hope that this new engineering concept will be
>explained to novices like myself in due course. How can the MMU be blown
>by extra chips on the board???
>   Respectfully,   ak.

Some people seem to get their facts twisted.

There seem to be two problems
1) Some of the older power supplies cannot supply enough power if you have
the extra 16 ram chips to give 1 meg (my one is black with a lead out of
each end, ive been using it for a month since the 1 meg upgrade and rom upgrade
which i had done at the same time)
2) With twice as many ram chips, the MMU must do extra work   holding the
inputs to the ram chips at their normal voltage. The resisters are therefore
pull ups and do this job instead.

Simon Gordon @ Sibly Hall Reading University UK

From -7247626590513356266
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 19:15:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!qantel!hplabs!sdcrdcf!
burdvax!psuvax1!psuvm.bitnet!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: overheating 1040
Message-ID: <3444@ukma.UUCP>
Date: Fri, 16-May-86 22:15:31 EDT
Article-I.D.: ukma.3444
Posted: Fri May 16 22:15:31 1986
Date-Received: Tue, 20-May-86 06:25:15 EDT
References: <8605131618.AA10686@mitre-bedford.ARPA> <241@ubc-cs.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 11

Summary: How to get it

I've found that my 1040 runs at a reasonable temperature when
it's not doing anything in particular. But if you do disk copies for
a couple of hours, then you notice the melting. If I weren't hopping
onto a plane very soon to go to the radioactive terrorist jungle
called Europe, I'd write a quick demo program to do lots of
intensive copying to test the point. Would anyone care to write
a short program to copy a disk back and forth, and post it to
this net group?
.......ak.

From -871271127405306812
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84a9528b4398a454
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 19:48:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!sage.cs.reading.Ac.Uk!
gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Atari 520ST power supply failure
Message-ID: <172@sage.cs.reading.Ac.Uk>
Date: Fri, 16-May-86 22:48:35 EDT
Article-I.D.: sage.172
Posted: Fri May 16 22:48:35 1986
Date-Received: Fri, 23-May-86 22:36:20 EDT
References: <2459@watmath.UUCP> <3408@ukma.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Distribution: net
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 37

In article <3408@ukma.UUCP> knnngt@ukma.UUCP (Alan Kennington) writes:
>
>
>But now the problems seem to be of
>three kinds:
>(1) Too much voltage on the 5V line.
>(2) Too much smoke from the "brick".
>(3) Blowing the MMU when extra RAM is added.
>Now the question may be asked whether these are mutually exlusive, or
>independent etc. My old supply had (1) but no (2). And I never tried (3).
>   So long,   Alan Kennington.

I have made a reply elsewhere with respect to this, but this article prompted
me further.

Why did your computer not blow at first ? This is simple. If a component is

being driven too hard (the extra power drawn by extra roms) then, it may cope apparently ok for a bit before the extra stress on the component forces it to pack up.

My first ST was purchased last september. At Xmas it packed up - it was working ok, I turned it off, had lunc, turned it back on and it just came up blank. Silica Shop (the major british supplier) replaced it (after a bit of a tussle). (just the keyboard that is)
In april I had the 1 meg ram upgrade done for me (with the resisters) and roms finished. My machine is still ok despite the power supply being the origanal september one and my machine having to stand being moved to and from university often on a motorcycle.

One interesting point was that the replacement (and it was definately not MY one repaired) had obviously been 'fiddled' with as the people that did the ram upgrade said that a couple of the ram chips on the board had been replaced and some chips had been resoldered. Sujesting it was a blown and repairred replacement - even though they sent it out with a new set of manuals, disks, and mouse (so I have two sets of these)

Odd. From Simon Gordon @ Sibly Hall , Reading , UK

From -4642914027054397096
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,62c73390932dd7d0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 21:02:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help on keypad support for ST!
Message-ID: <54600084@iuvax.UUCP>
Date: Sat, 17-May-86 00:02:00 EDT
Article-I.D.: iuvax.54600084
Posted: Sat May 17 00:02:00 1986
Date-Received: Mon, 19-May-86 06:16:16 EDT
References: <15227630@ucbvax.UUCP>
Lines: 2
Nf-ID: #R:ucbvax:-1522763000:iuvax:54600084:000:39
Nf-From: iuvax!franco   May 16 23:02:00 1986

I can't imagine you need it that badly.

From 2064325663316933444
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-16 21:26:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version P 1.00 3/01/86; site pucc.BITNET
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!puvax2!pucc.BITNET!
6064927
From: 6064927@pucc.BITNET (Antonio Romero)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 1040ST
Message-ID: <560@pucc.BITNET>
Date: Sat, 17-May-86 00:26:06 EDT
Article-I.D.: pucc.560
Posted: Sat May 17 00:26:06 1986
Date-Received: Mon, 19-May-86 04:47:02 EDT
References: <166@sage.cs.reading.Ac.Uk> <278@brueer.brueer.UUCP>
Reply-To: 6064927@pucc.BITNET
Distribution: net
Organization: Princeton University Computing Center
Lines: 31

>In article <278@brueer.brueer.UUCP> ralph@brueer.UUCP (Ralph Mitchell) writes:
>>*** REPLACE THIS LINE WITH YOUR MESSAGE ***
>>
>>I've just heard a rumour that Unix will be available on 1040 ST's by about
>>the end of this year. Can anyone on the net confirm or deny this ??
>>--
>>=-=
>>Ralph Mitchell   VOICE: +44 895 74000 Ext 2561
>>Computer Centre   ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
>>Brunel University   UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
>>Uxbridge   JANET: ralph@uk.ac.brunel.ee
>>UB8 3PH
>>UNITED KINGDOM   "Noli illegitemi carborundum"
>>=-=
>
>Yes indeed,
>   As I understand the situation at the end of this year/start of next
>a new machine - the EST - will become available. This has the 68020, a blitter
>and a better graphics chip giving 4096 colour pallette.
>   It will run all properley written ST software, and proberbly be
>supplied with unix as well. (unix would not work well on just the 68000 without
>a lot more memory and hard disk)
>
>Simon Gordon
>Sibly Hall
>Reading University
>Reading
Can we get any confirmationm from Atari on this one? If not, can we at
least get some more rumors from Atari people? Also, can we hear
something more about the cheap laser printer I heard was in the works?
-Antonio Romero   6064927@pucc.bitnet

From -6215541486229774936
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,69a6a351d959f32e,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-17 08:07:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: MichTron DOS Shell review.
Message-ID: <1481@cwruecmp.UUCP>
Date: Sat, 17-May-86 11:07:33 EDT
Article-I.D.: cwruecmp.1481
Posted: Sat May 17 11:07:33 1986
Date-Received: Mon, 19-May-86 03:25:27 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 44

From the Rock'n'Roll city --

Product: DOS Shell
Developer: MichTron, Inc.
Address: 576 S. Telegraph, Pontiac, Michigan 48053
Phone: (313) 334-5700
Price: $39.95 (list) $25.00 (discount)

This program is an MS-DOS shell. Supported commands are ? (help,)
cls, chkdsk, date, time, ver, verify, path, run (to start GEM
programs), exit, dir, copy, del, rename, type, chdir, mkdir, rmdir,
path, tree, vol, prompt and set. Batch files are supported with
the commands echo, goto, if, pause, remark and shift. Batch command
file arguments are permitted using the "%1 %2 ..." convention.
Conditions allowed in a batch if command are errorlevel, string
equality and file existence. Conditions may also be negated. I/O
redirection and filters are supported. Pipes are constructed from
intermediate files (of course.) Three special filters (more, sort
and find) are provided.

Search paths and prompts are easily changed. The command line interpreter
expands * and ? properly as file wild cards. The set command permits
abbreviations. An abbreviation must be preceded by a percent sign when
used, thus limiting the use of abbreviations for the creation of command
aliases. All abbreviations must fit into a 1K string buffer.
People who are used to typing "ls," "cp" or "mv" are in trouble
here and may have to define batch file equivalents. At least AUTOEXEC.BAT
is available to define all this stuff when DOS Shell is started from
the GEM desktop.

The program seems to work as advertised. Since DOS Shell resides on TOS,
some surprising differences from MS-DOS may be expected. I wish that
"ls," "cp" and "mv" were handled as acceptable command abbreviations.
Documentation is fair to good. A little familiarity with MS-DOS
is helpful as a few details get lost in the cracks.
The diskette is NOT copy protected. Since most of the programmers
at MichTron are students working their way through college, I would
recommend buying a copy. At $25 (discounted price) I received good

value. Further, DOS Shell will be supported by MichTron while public
domain shells may go unsupported.
--

paul drongowski   decvax!cwruecmp!pjd
case western reserve university   pjd%Case@CSNet-relay

From -8367276609817813902
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3126b31866a40973
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-17 08:48:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: TOS/PRG executable file format
Message-ID: <368@imagen.UUCP>
Date: Sat, 17-May-86 11:48:57 EDT
Article-I.D.: imagen.368
Posted: Sat May 17 11:48:57 1986
Date-Received: Mon, 19-May-86 06:30:35 EDT
References: <8605160517.AA07779@ucbvax.Berkeley.EDU>
Organization: The Houses of the Holy
Lines: 145

> I'd like to know the meaning of the information that is stored at the
> beginning of a TOS executable file.

ask and thou shalt recieve:

Date: Sun, 22 Dec 85 22:14:31 est
From: decwrl!decvax!cwruecmp!bammi (Jwahar R. Bammi)
To: decvax!decwrl!imagen!turner
Subject: Format of '.prg' files
Cc: decwrl!bammi

     I extracted the following info. from documents that came
with the development system. I have only found the .prg (output
of relmod) format, and not the .o format. The input of
relmod is the standard cp/m-68K relocatable files, so I
guess the .o format is the same as for cp/m-68K. I am not at
all familiar with cp/m-68K, and i could not find anyting in the
documents I have about the format of .o files. Maybe you are
familiar with cp/m-68k or have access to the relevant cp/m-68k
documents. Looking forward to your PD diss assmebler.

The format for a .prg file is as Follows (word = 16 bits). Output of
relmod - 16 bit relocatable objects are not supported by Gem Dos.

     14 Word Header

```
     Text Segment Image
     Data Segment Image
     Symbol Table (Optional)
     Relocation Info (Optional)


Header Format:
     Byte Size(words)   Contents
     0    1        Contains 601A H Denoting Contiguous
                   text, data and block storage segments
     2    2        Size of Text Segment - Bytes
     6    2        Size of Data Segment - Bytes
     10   2        Size of Block Storage Segment - Bytes
     14   2        Size of Symbol Table - Bytes
     18   2        Reserved - Always Zero
     22   2        Reserved - Always Zero
                   (This is supposed to contain the
                   Begining of the Text Segment and
                   execution, but execution always begins
                   at the top of the Text segement, hence 0)
     26   1        If Zero then Relocation info IS
                   present, No relocation info otherwise.
                   Always Zero for Gem Dos.


Symbol Table Format:
     Each entry is 7 words.

     Byte Size(words)   Contents
     0    4        Name - zero padded to 8 characters
     8    1        Type
     10   2        Value

     Type          Value
     defined            8000 H
     equated       4000 H
     global        2000 H
     equated register   1000 H
     external reference  800 H
     data based reloc.   400 H
     text based reloc.   200 H
     bss  based reloc.   100 H

     where:
       reloc. == relocatable

     A symbol with multiple characteristics has the bits OR'ed in
the type field.

     The value field is the value of the symbol (address, register
number, value of an expression or some other value). When the value
field is non-zero AND the type field contains an External Symbol, the
linker interprets the value to be a common region in which the size of
```

the region is the value in the value field. Multiple such entries may be present and the size of the common that the linker ultimately decides on, is the greatest of the values, of the same name.

The nm68 utility provided with the development system can be used to dump the symbol table.

Relocation Information:

If the last word in the header is Zero the relocation info is present in the following format: (following symbol table if present)

Byte	Size (BYTES)	Contents
0	4	Offset from the beginning of the Text Segment of the first longword needing relocation.
4	1	Relocation offset byte
5	1	" " "
.....		
xx	1	A byte containing Zero terminates

Relocation offset byte - Gives the offset to the Next longword in the Text Segment to relocate (offset from the First Offset) and so on. When an offset of Zero is encountered the relocation info is terminated. The bytes of Relocation offset give succeeding offsets. (so the smallest legal value is 4 (size of long word)). If a succeeding offset is greater than 254, then a byte containg One (1) will be encountered, signifying add 254 to the previous total.

I hope that I explained the above clearly. I guess an example is appropriate to say what i mean.

Suppose that the first longword to be relocated is at offset 128 from the begining of the text segment. The next one is at offset 132 from the begining. The next is at offset 390 from the begining of the text segment (ie. 258 bytes from the second longword to be relocated), Then the relocation info looks like

byte	Size(BYTES)	Contents
0	4	128
4	1	4
5	1	1 (add 254)
6	1	4 (128 + 4 + 254 + 4 = 390)

and so on.

I hope the above info help.

Seasons Greetings
Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay

CompuServe: 71515,155

--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -4535573365989779554
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-17 21:05:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: Re: 520 vs 1040
Message-ID: <18@nvpna1.UUCP>
Date: Sun, 18-May-86 00:05:29 EDT
Article-I.D.: nvpna1.18
Posted: Sun May 18 00:05:29 1986
Date-Received: Fri, 23-May-86 22:30:18 EDT
References: <8605121419.AA25503@ucbvax.Berkeley.EDU>
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Organization: Philips Research Laboratories Eindhoven
Lines: 26

In article <8605121419.AA25503@ucbvax.Berkeley.EDU> CS112170@YUSOL.BITNET.UUCP
writes:
>I'm having some difficulty deciding which ST to purchase. I thought that
>the 1040 was the machine to buy, but I would prefer to have the power
>supply and drive external to the system. So I thought, I might as well
>get a 520 with a double sided drive. But I've been told that upgrading
>the 520 isn't so easy due to the lack of space inside the case.

Here in Europe it is an official Atari policy to sell four types of ST-models
which are: 260ST, 520ST, 520ST+, and 1040ST. Leaving aside the 260-model, the
following is a comparison of the remaining three models:

model	characteristics	price relative to 520ST
520ST	including SS-drive	f 2500 or about $1000
520ST+	same as 520ST but 1Mbyte of memory	520ST + 15%
520ST+	DS-drive instead of SS-drive	520ST + 23%

1040ST (built in DS-drive)   520ST + 40%

It is astonishing that Atari apparently does not support the 520ST+ model in the States while they do support these models on our side of the great pool. The 520ST+ model is really a good compromise if you want both modularity and less vulnerability to problems and on the other hand 1Mbyte of memory. Why don't you (in the States) push Atari to support the 520ST+ model in the States as they do in Europe?

Frans Dorrestein.

From 8680449662875213832
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16249ef5308d9400,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:48:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: A Checkers Program for the ST
Message-ID: <8605180748.AA29278@ohio-state.ARPA>
Date: Sun, 18-May-86 03:48:21 EDT
Article-I.D.: ohio-sta.8605180748.AA29278
Posted: Sun May 18 03:48:21 1986
Date-Received: Mon, 19-May-86 05:32:17 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

The next few postings are for a checkers program (named cadenza) that I have written. The postings will include the source for the program (in OSS Pascal), the uuencoded binary, and the rules for checkers.

The program must be able to write to the disk that it is saved on since it writes a file recording all moves of a game to the disk.

Be sure to read the rules carefully. Most people who haven't played checkers for a few years have forgotten some of them.

Eric Bergman-Terrell (CSNET address terrell@ohio-state)

From -4020910713955988282
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,97a7bd646146d2b7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:53:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: ST Checkers Program: Pascal Source
Message-ID: <8605180753.AA29305@ohio-state.ARPA>
Date: Sun, 18-May-86 03:53:36 EDT
Article-I.D.: ohio-sta.8605180753.AA29305
Posted: Sun May 18 03:53:36 1986
Date-Received: Wed, 21-May-86 00:44:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

cadenza.pas

From 6278829881580256839
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c8a4461776c8e2b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:54:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: ST Checkers Program: Rules
Message-ID: <8605180754.AA29317@ohio-state.ARPA>
Date: Sun, 18-May-86 03:54:39 EDT
Article-I.D.: ohio-sta.8605180754.AA29317
Posted: Sun May 18 03:54:39 1986
Date-Received: Wed, 21-May-86 00:44:06 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

cadenza_rules

From -8391054357035551497
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e8d40ed37d273cdb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:55:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA.UUCP

Newsgroups: net.micro.atari16
Subject: ST Checkers Program: uuencoded binary
Message-ID: <8605180755.AA29322@ohio-state.ARPA>
Date: Sun, 18-May-86 03:55:09 EDT
Article-I.D.: ohio-sta.8605180755.AA29322
Posted: Sun May 18 03:55:09 1986
Date-Received: Tue, 20-May-86 07:13:48 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

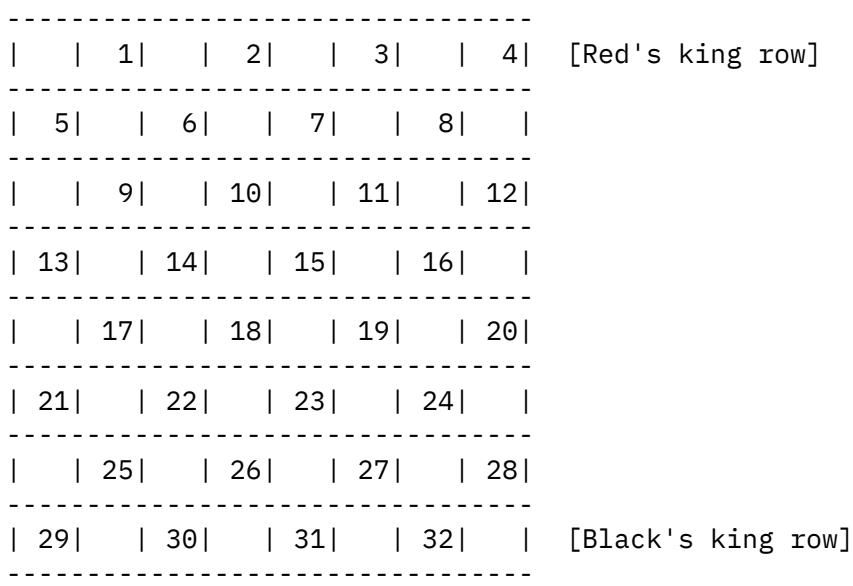
cadenza.uue

From 5905744761952677225
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8c5c3bc148079ce
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:58:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!OHIO-STATE.ARPA!
terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8605180758.AA29365@ohio-state.ARPA>
Date: Sun, 18-May-86 03:58:39 EDT
Article-I.D.: ohio-sta.8605180758.AA29365
Posted: Sun May 18 03:58:39 1986
Date-Received: Mon, 19-May-86 05:32:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 130

_T_h_e _R_u_l_e_s _o_f _C_h_e_c_k_e_r_s:

Squares on the checkerboard are numbered as follows:

TOP



BOTTOM

_M_o_v_i_n_g _t_h_e _p_i_e_c_e_s:

Black makes the first move, and players alternate until the game is over. A player must make a move if possible i.e. he may not pass. A move is either a simple move or a capture. A simple move for a black piece is a move to an empty adjacent diagonal square in the downward direction. A simple move for a red piece is a move to an empty adjacent diagonal square in the upward direction. If a piece makes it to the opposite end of the board (its king row) it is crowned and may move to any of the four squares adjacent to it that are empty.

_C_a_p_t_u_r_i_n_g:

A piece or a king captures in the same direction that it

moves. A capture is possible when one's piece or king can jump over an enemy piece placed in a square that otherwise the capturing piece or king could move to, and land on an empty square on the diagonal immediately beyond the jumped - over enemy piece. A captured piece is removed from the board. If after a capture the capturing piece is eligible to capture another piece, it must. The only exception to this rule is when a piece makes a capture and is thereby crowned - then it must wait for the next turn before capturing again. In general, whenever there is at least one capture available to a player during his turn, he MUST make one of the captures.

_W_i_n_n_i_n_g:

The game is over when during his turn a player cannot move (either because all of his pieces have been captured or because he cannot legally move his remaining pieces). This player is the loser of the game.

_P_l_a_y_i_n_g _t_h_e _C_o_m_p_u_t_e_r _G_a_m_e:

As your pieces are black, you will be making the first move of the game. Black pieces, black kings, red pieces, and red kings are represented by "b", "B", "r", "R", respectively. To the right of the game board is a numbered board. To make a move one enters the number of the square to be moved from followed by the number of the square to be moved to. Cheating is not allowed, so moves will be accepted until a legal one is entered. The game ends when either player wins, or when the human player's patience is exhausted. A record of the game (in standard checkers notation) is stored in a file named gamerec.txt.

May 18, 1986

From -7216182701773781136
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8c5c3bc148079ce
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 00:59:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8605180759.AA29370@ohio-state.ARPA>
Date: Sun, 18-May-86 03:59:12 EDT
Article-I.D.: ohio-sta.8605180759.AA29370
Posted: Sun May 18 03:59:12 1986
Date-Received: Tue, 20-May-86 06:39:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1908

```
program cadenza(input, output);

(*
This program plays checkers with a human opponent.  The depth of the
search of the game tree is determined by maxply and the game tree is
searched in minimax fashion with alpha-beta pruning.  The computer always
plays second and is red.
*)

const

  (*
  N is the number of rows and columns in the game board.  N must be an odd,
  positive number.
  *)
  n        =  8;

  (*
  maximum moves available at any one ply - should be equal to 4 times the
  maximum number of pieces of one player.
  *)
  maxmoves = 36;

  (* maximum depth of game tree search *)
```

```
  maxply   =  4;

  infinity = maxint;

type

  (* index into a game board *)
  boardindex   = 0..n;

  moverange    = 1..maxmoves;

  plyrange     = -1..maxply;

  onerange     = -1..1;

  piece        = (blackking, redking, blackman, redman, empty);

  piececolor   = (red, black, none);

  boardstatus  = (blackwin, redwin, undefined);

  gameboard    = array[1..n, 1..n] of piece;

  (* Board numbered with standard checkerboard notation. *)
  numbermatrix = array[1..n, 1..n] of integer;

  (* game tree *)
  tree         = ^node;

  (* game tree node *)
  node         = record

                   board    : gameboard;
                   children : array[moverange] of tree;
                   parent   : tree;
                   score    : integer;

                 end;

  (* list of legal moves *)
  list         = ^cell;

  (* cell of legal move list *)
  cell         = record

                   board : gameboard;
                   next  : list;

                 end;

  (* tally of the numbers of different pieces on a game board. *)
  tallyrecord  = record
```

```
                    blackkings,
                    blackmen,
                    redkings,
                    redmen      : integer;

                  end;


var
  currentboard      : gameboard;
  nextplayerscolor  : piececolor;
  gamerecord        : text;
  globalnumberboard : numbermatrix;


function colorofpiece(thepiece : piece) : piececolor;

(*
This function returns the color of a piece on a game board.
*)

begin (* colorofpiece *)

  case thepiece of

    blackman  : colorofpiece := black;
    blackking : colorofpiece := black;
    redman    : colorofpiece := red;
    redking   : colorofpiece := red;
    empty     : colorofpiece := none;

  end;

end; (* colorofpiece *)


procedure makenumberboard(var numberboard : numbermatrix);

(*
This procedure returns a matrix representing the standard numbering of
squares used in checkers literature.
*)

var
  row,
  column        : boardindex;
  currentnumber : integer;

begin (* makenumberboard *)

  (* Make all squares on the number board zero. *)
  for row := 1 to n do
    for column := 1 to n do
```

```
      numberboard[row, column] := 0;

  (* Prepare to number the squares of the number board. *)
  for column := 1 to n do
    if not odd(column)
      then numberboard[1, column] := column div 2;

  currentnumber := (n div 2) + 1;

  (* Number the squares of the number board. *)
  for row := 2 to n do
    for column := 1 to n do
      if numberboard[row - 1, column] = 0
        then begin

          numberboard[row, column] := currentnumber;
          currentnumber := currentnumber + 1;

        end;

end; (* makenumberboard *)


procedure getnumberboard(var numberboard : numbermatrix);

begin (* getnumberboard *)

  numberboard := globalnumberboard;

end; (* getnumberboard *)


procedure getrowandcolumn(squarenumber : integer; var row, column :
                                                        boardindex);

(*
This procedure returns the row and column corresponding to a square number.
*)

var
  numberboard : numbermatrix;
  localrow,
  localcolumn : boardindex;

begin (* getrowandcolumn *)

  getnumberboard(numberboard);

  row := 0;
  column := 0;

  for localrow := 1 to n do
    for localcolumn := 1 to n do
```

```
      if numberboard[localrow, localcolumn] = squarenumber
        then begin

          row := localrow;
          column := localcolumn;

        end;

end; (* getrowandcolumn *)


procedure tallypieces(currentboard : gameboard; var tally : tallyrecord);


(*
This procedure counts up the different kind of pieces on the game board.
*)

var
  row,
  column : boardindex;

begin (* tallypieces *)

  with tally do begin

    blackmen := 0;
    blackkings := 0;
    redmen := 0;
    redkings := 0;

    (* Count up the different pieces on the board. *)
    for row := 1 to n do
      for column := 1 to n do
        if currentboard[row, column] <> empty
          then
            case currentboard[row, column] of

              blackman  :  blackmen := blackmen + 1;
              blackking :  blackkings := blackkings + 1;
              redman    :  redmen := redmen + 1;
              redking   :  redkings := redkings + 1;

            end;

  end;

end; (* tallypieces *)


function capturemade(oldboard, newboard : gameboard) : boolean;

(*
```

```
This function returns true if the move represented by (oldboard) and
(newboard) was a capture.
*)

var
  oldtally,
  newtally  : tallyrecord;

begin (* capturemade *)

  (* Count the pieces on the two boards. *)
  tallypieces(oldboard, oldtally);
  tallypieces(newboard, newtally);

  (* See if a capture was made. *)
  capturemade := (oldtally.blackmen + oldtally.blackkings +
                  oldtally.redmen   + oldtally.redkings) >
                 (newtally.blackmen + newtally.blackkings +
                  newtally.redmen   + newtally.redkings);

end; (* capturemade *)


function boardsareequal(board1, board2 : gameboard) : boolean;

(*
This function returns true if the two boards (board1) and (board2) are
identical.
*)

var
  row,
  column : boardindex;

begin (* boardsareequal *)

  boardsareequal := true;

  (* Look for differences between the boards. *)

  for row := 1 to n do
    for column := 1 to n do
      if board1[row, column] <> board2[row, column]
        then boardsareequal := false;

end; (* boardsarequal *)


procedure findmovemade(oldboard, newboard : gameboard; var sourcesquare,
                                                       destsquare : integer);

(*
This procedure examines two successive game boards and returns the move
```

```
that changed the first board to the second board.  (sourcesquare)
represents the square that was moved from, and (destsquare) represents
the square that was moved to.
*)

var
  row,
  column : boardindex;
  color  : piececolor;


  function squarenumber(row, column : boardindex) : integer;

  (*
  This function, when given a row and column which index into a game
  board, will return a square number as is used in checkers literature.
  *)

  var
    numberboard : numbermatrix;

  begin (* squarenumber *)

    getnumberboard(numberboard);

    squarenumber := numberboard[row, column];

  end; (* squarenumber *)


begin (* findmovemade *)

  if not boardsareequal(oldboard, newboard)
    then begin

      (* Determine the color of the player who moved last. *)
      for row := 1 to n do
        for column := 1 to n do
          if (oldboard[row, column] = empty) and
             (newboard[row, column] <> empty)
            then color := colorofpiece(newboard[row, column]);

      (* Find the square moved from and the square moved to. *)
      for row := 1 to n do
        for column := 1 to n do
          if (oldboard[row, column] <> newboard[row, column]) and
             ((colorofpiece(oldboard[row, column]) = color) or
              (colorofpiece(newboard[row, column]) = color))
            then
              if (oldboard[row, column] = empty) or
                 (newboard[row, column] = empty)
                then begin
```

```
                  if oldboard[row, column] = empty
                    then destsquare := squarenumber(row, column);

                  if newboard[row, column] = empty
                    then sourcesquare := squarenumber(row, column);

                end

    end
    else begin

      sourcesquare := 0;
      destsquare := 0;

    end;

end; (* findmovemade *)


procedure disposelist(var garbage : list);

(*
This procedure reclaims the storage occupied by a list of legal moves.
*)

var
  templist : list;

begin (* disposelist *)

  while garbage <> nil do begin

    templist := garbage;
    garbage := garbage^.next;
    dispose(templist);

  end;

end; (* disposelist *)


procedure promotemen(var currentboard : gameboard);

(*
This procedure promotes a piece in its king row to a king.
*)

var
  column : boardindex;

begin (* promotemen *)

  for column := 1 to n do begin
```

```
    (* Promote any black men in their king row. *)
    if currentboard[n, column] = blackman
      then currentboard[n, column] := blackking;

    (* Promote any red men in their king row. *)
    if currentboard[1, column] = redman
      then currentboard[1, column] := redking;

  end;

end; (* promotemen *)


procedure displayboard(oldboard, newboard : gameboard; var gamerecord :
                                                                  text);

(*
This procedure displays a game board on the screen and the move that was
made to achieve it (in standard checkers notation).  A numbered checker
board is also printed out to facilitate move entry by the user.
*)

var
  row,
  column      : boardindex;
  dash        : integer;
  numberboard : numbermatrix;


  procedure showmovemade(oldboard, newboard : gameboard; var gamerecord :
                                                                    text);

  (*
  This procedure examines two boards and then displays the move that
  changed the first (oldboard) into the second (newboard).
  *)

  var
    sourcesquare,
    destsquare    : integer;

  begin (* showmovemade *)

    (* Find out what move changed the first board to the second one. *)
    findmovemade(oldboard, newboard, sourcesquare, destsquare);

    (* If a move was made, print it out. *)
    if (sourcesquare <> 0) and (destsquare <> 0)
      then begin

        writeln(sourcesquare : 4, '-', destsquare : 4);
        writeln(gamerecord, sourcesquare : 4, '-', destsquare : 4);
```

```
      end;

  end; (* showmovemade *)


begin (* displayboard *)

  writeln;

  showmovemade(oldboard, newboard, gamerecord);

  writeln;

  getnumberboard(numberboard);

  for row := 1 to n do begin

    for dash := 1 to 2 * (2 * n) + 1 do
      write('-');

    write(' ' : 10);

    for dash := 1 to 2 * (2 * n) + 1 do
      write('-');

    writeln(' ');

    (* Display the contents of the current board. *)
    for column := 1 to n do

      case newboard[row, column] of

        blackman  : write('| b ');
        blackking : write('| B ');
        redman    : write('| r ');
        redking   : write('| R ');
        empty     : write('|   ');

      end;

    write('|');

    write(' ' : 10);

    (* Display a numbered checker board. *)
    for column := 1 to n do
      if numberboard[row, column] <> 0
        then write('|', numberboard[row, column] : 3)
        else write('|', ' ' : 3);

    writeln('|');
```

```
  end;

  for dash := 1 to 2 * (2 * n) + 1 do
    write('-');

  write(' ' : 10);

  for dash := 1 to 2 * (2 * n) + 1 do
    write('-');

  writeln(' ');

end; (* displayboard *)


function legalboardindex(row, column : integer) : boolean;

(*
This function returns true if (row) and (column) are together a legal
index into a game board.
*)

begin (* legalboardindex *)

  legalboardindex := (row in [1..n]) and (column in [1..n]);

end; (* legalboardindex *)


procedure addtolist(currentboard : gameboard; var legallist : list);

(*
This procedure adds a game board to a list of legal moves.
*)

var
  newcell : list;

begin (* addtolist *)

  (* Allocate a new list cell. *)
  new(newcell);

  (* Initialize the new cell. *)
  newcell^.board := currentboard;

  (* Add the new cell to the list. *)
  newcell^.next := legallist;
  legallist := newcell;

end; (* addtolist *)
```

```
procedure addcaptures(currentboard : gameboard; row, column : boardindex;
                                                    var legallist : list);

(*
This procedure adds all legal moves involving captures into the list of
legal moves.
*)

var
  currentpiece : piece;


  function piecesareopposite(piece1, piece2 : piece) : boolean;

  (*
  This function returns true if (piece1) and (piece2) are of
  opposite colors.
  *)

  begin (* piecesareopposite *)

    if (colorofpiece(piece1) <> colorofpiece(piece2)) and
       ((colorofpiece(piece1) <> none) and
        (colorofpiece(piece2) <> none))
      then piecesareopposite := true
      else piecesareopposite := false;

  end; (* piecesareopposite *)


  procedure addonecapture(currentboard : gameboard; row, column :
                    boardindex; rowdelta, columndelta : onerange;
                     var legallist : list; currentpiece : piece);

  (*
  This procedure adds the capture produced by jumping in the direction
  indicated by (rowdelta) and (columndelta) to the list of legal moves
  if it is legal.
  *)

  var
    newboard : gameboard;

  begin (* addonecapture *)

    if legalboardindex(row + 2 * rowdelta, column + 2 * columndelta)
      then
        if (currentboard[row + 2 * rowdelta, column + 2 * columndelta]
                                                        = empty) and
           (piecesareopposite(
           currentboard[row + rowdelta, column + columndelta],
                                               currentpiece))
          then begin
```

```
            (* Capture the piece. *)
            newboard := currentboard;

            (* Jump over the piece to be captured. *)
            newboard[row + 2 * rowdelta, column + 2 * columndelta]
            := currentpiece;
            newboard[row, column] := empty;

            (* Remove the captured piece from the board. *)
            newboard[row + rowdelta, column + columndelta] := empty;

            (* Insert the new board into the list of legal moves. *)
            addtolist(newboard, legallist);

          end;

  end; (* addonecapture *)


begin (* addcaptures *)

  currentpiece := currentboard[row, column];

  if currentpiece <> empty
    then begin

      if currentpiece in [blackman, blackking, redking]
        then begin

          (* Try to capture the south-west piece. *)
          addonecapture(currentboard, row, column, +1, -1, legallist,
                                                   currentpiece);

          (* Try to capture the south-east piece. *)
          addonecapture(currentboard, row, column, +1, +1, legallist,
                                                   currentpiece);

        end;

      if currentpiece in [redman, blackking, redking]
        then begin

          (* Try to capture the north-west piece. *)
          addonecapture(currentboard, row, column, -1, -1, legallist,
                                                   currentpiece);

          (* Try to capture the north-east piece. *)
          addonecapture(currentboard, row, column, -1, +1, legallist,
                                                   currentpiece);

        end;
```

```
    end;

end; (* addcaptures *)


function canmoveagain(oldboard, newboard : gameboard) : boolean;

(*
This function returns true if the player who made the move that
changoard) to (moveboard) made a capture and can make another
capture with the same piece.
*)

var
  legallist     : list;
  row,
  column        : boardindex;
  sourcesquare,
  destsquare    : integer;


  function piececrowned(oldboard, newboard : gameboard) : boolean;

  (*
  This function returns true if the move represented by (oldboard) and
  (newboard) involved a crowning of a piece.
  *)

  var
    oldtally,
    newtally  : tallyrecord;

  begin (* piececrowned *)

    (* Count the different pieces on the two boards. *)
    tallypieces(oldboard, oldtally);
    tallypieces(newboard, newtally);

    piececrowned :=  (oldtally.redkings   < newtally.redkings) or
                     (oldtally.blackkings < newtally.blackkings);

  end; (* piececrowned *)


begin (* canmoveagain *)

  canmoveagain := false;

  (*
  If the player who moved last made a capture, see if he can make
  another with the same piece.
  *)
```

```
  if (capturemade(oldboard, newboard)) and
     (not piececrowned(oldboard, newboard))
    then begin

      (*
      Find the location of the piece that performed the last capture.
      *)

      findmovemade(oldboard, newboard, sourcesquare, destsquare);
      getrowandcolumn(destsquare, row, column);

      (* See if that piece can perform another capture. *)

      legallist := nil;
      addcaptures(newboard, row, column, legallist);

      if legallist <> nil
        then canmoveagain := true;

      disposelist(legallist);

    end;

end; (* canmoveagain *)


function legalmoves(oldboard, currentboard : gameboard; playerscolor :
                                                    piececolor) : list;

(*
This function returns a list of all of the legal moves from the current
game board.
*)

var
  row,
  column           : boardindex;
  legallist        : list;
  lastplayerscolor : piececolor;


  procedure promotelist(legallist : list);

  (*
  This procedure promotes all pieces in all the boards in a list of legal
  moves if they are in their own king row.
  *)

  begin (* promotelist *)

    if legallist <> nil
      then begin
```

```
      promotemen(legallist^.board);
      promotelist(legallist^.next);

    end;

end; (* promotelist *)


procedure addsimplemoves(currentboard : gameboard;
  row, column : boardindex; var legallist : list);

(*
This procedure adds all legal simple moves (moves not involving captures)
to the list of legal moves.
*)

var
  currentpiece : piece;


  procedure addonemove(currentboard : gameboard; row, column :
                boardindex; rowdelta, columndelta : onerange;
                 var legallist : list; currentpiece : piece);

  (*
  This procedure adds a simple move in the direction indicated by
  (rowdelta) and (columndelta) to the list of legal moves if such a
  move is possible and legal.
  *)

  var
    newboard : gameboard;

  begin (* addonemove *)

    (* Try to make the requested move. *)
    if legalboardindex(row + rowdelta, column + columndelta)
      then
        if currentboard[row + rowdelta, column + columndelta] = empty
          then begin

            (* Move the piece. *)
            newboard := currentboard;
            newboard[row + rowdelta, column + columndelta]
            := currentpiece;
            newboard[row, column] := empty;

            (* Insert the new board into the list of legal moves. *)
            addtolist(newboard, legallist);

          end;

  end; (* addonemove *)
```

```
begin (* addsimplemoves *)

  currentpiece := currentboard[row, column];

  if currentpiece <> empty
    then begin

      if currentpiece in [blackman, blackking, redking]
        then begin

          (* Try to move south-west. *)
          addonemove(currentboard, row, column, +1, -1, legallist,
                                                currentpiece);

          (* Try to move south-east. *)
          addonemove(currentboard, row, column, +1, +1, legallist,
                                                currentpiece);

        end;

      if currentpiece in [redman, blackking, redking]
        then begin

          (* Try to move north-west. *)
          addonemove(currentboard, row, column, -1, -1, legallist,
                                                currentpiece);

          (* Try to move north-east. *)
          addonemove(currentboard, row, column, -1, +1, legallist,
                                                currentpiece);

        end;

    end;

end; (* addsimplemoves *)


function iteratedcaptures(oldboard, newboard : gameboard) : list;

(*
This function returns the list of legal moves for a player who is
performing an iterated capture.
*)

var
  legallist     : list;
  sourcesquare,
  destsquare    : integer;
  row,
  column        : boardindex;
```

```
begin (* iteratedcaptures *)

  (*
  If the move is an iterated capture, find the legal
  captures involving the piece that made the previous capture.
  *)

  findmovemade(oldboard, newboard, sourcesquare, destsquare);

  getrowandcolumn(destsquare, row, column);

  legallist := nil;

  addcaptures(newboard, row, column, legallist);

  (* Promote any pieces that made it to their king rows. *)
  promotelist(legallist);

  iteratedcaptures := legallist;

end; (* iteratedcaptures *)


function whomoved(oldboard, newboard : gameboard) : piececolor;

(*
This function returns the color of the player whose move changed
(oldboard) to (newboard).
*)

var
  sourcesquare,
  destsquare    : integer;
  row,
  column        : boardindex;

begin (* whomoved *)

  findmovemade(oldboard, newboard, sourcesquare, destsquare);

  if (sourcesquare = 0) and (destsquare = 0)
    then whomoved := none
    else begin

      getrowandcolumn(sourcesquare, row, column);
      whomoved := colorofpiece(oldboard[row, column]);

    end;

end; (* whomoved *)
```

```
begin (* legalmoves *)

  (* Determine the color of the player who made the last move. *)
  lastplayerscolor := whomoved(oldboard, currentboard);

  (*
  If the player who made the last move can move again, return a list of
  the legal moves available to him.
  *)

  if canmoveagain(oldboard, currentboard)
    then legalmoves := iteratedcaptures(oldboard, currentboard)
    else begin

      (*
      Since the player who moved last cannot make another move, return
      a list of the legal moves available to the other player.
      *)

      case lastplayerscolor of

        none  : playerscolor := playerscolor;
        red   : playerscolor := black;
        black : playerscolor := red;

      end;

      legallist := nil;

      (* Add any possible captures to the list of legal moves. *)
      for row := 1 to n do
        for column := 1 to n do
          if colorofpiece(currentboard[row, column]) = playerscolor
            then addcaptures(currentboard, row, column, legallist);

      (*
      If no captures are possible, add simple moves to the list of legal
      moves.
      *)

      if legallist = nil
        then
          for row := 1 to n do
            for column := 1 to n do
              if colorofpiece(currentboard[row, column]) = playerscolor
                then addsimplemoves(currentboard, row, column, legallist);

      (* Promote any men in their king rows in the list of legal moves. *)
      promotelist(legallist);

      legalmoves := legallist;

    end;
```

```
end; (* legalmoves *)


function lengthoflist(thelist : list) : integer;

(*
This function returns the number of cells in a list.
*)

begin (* lengthoflist *)

  if thelist = nil
    then lengthoflist := 0
    else lengthoflist := 1 + lengthoflist(thelist^.next);

end; (* lengthoflist *)


function status(currentboard : gameboard; nextplayerscolor : piececolor) :
                                                              boardstatus;

(*
This function returns the status of a gameboard.  This will be either
a win by black, a win by red, a draw, or undefined (if the game is not
yet over).
*)

var
  tally  : tallyrecord;
  result : boardstatus;


  function mobility(currentboard : gameboard; color : piececolor) :
                                                          integer;

  (*
  This function returns the number of legal moves available to a player
  of color (color) with a given board (currentboard) if he is the next
  to move.
  *)

  var
    legallist : list;


  begin (* mobility *)

    (*
    See how many moves are available to the player if he were to
    play next.
    *)
    legallist := legalmoves(currentboard, currentboard, color);
```

```
    mobility := lengthoflist(legallist);

    disposelist(legallist);

  end; (* mobility *)


begin (* status *)

  tallypieces(currentboard, tally);

  result := undefined;

  with tally do begin

    (* Check to see if red has captured all of black's pieces. *)
    if (blackkings + blackmen = 0) and (redkings + redmen <> 0)
      then result := redwin;

    if result = undefined
      then
        (* Check to see if black has captured all of red's pieces. *)
        if (redkings + redmen = 0) and (blackkings + blackmen <> 0)
          then result := blackwin;

    if result = undefined
      then begin

        (* Check to see if black cannot move. *)
        if (mobility(currentboard, black) = 0) and
           (nextplayerscolor = black)
          then result := redwin;

        (* Check to see if red cannot move. *)
        if (mobility(currentboard, red) = 0) and
           (nextplayerscolor = red)
          then result := blackwin;

      end;

    status := result;

  end;

end; (* status *)


procedure initializeboard(var currentboard : gameboard);

(*
This procedure makes a game board ready for use at the beginning of a game.
*)
```

```
var
  row,
  column        : boardindex;
  numberboard   : numbermatrix;


begin (* initializeboard *)

  getnumberboard(numberboard);

  for row := 1 to n do
    for column := 1 to n do
      currentboard[row, column] := empty;

  (* Put black men on the game board. *)
  for row := 1 to (n div 2) - 1 do
    for column := 1 to n do
      if numberboard[row, column] <> 0
        then currentboard[row, column] := blackman;

  (* Place the red men on the board. *)
  for row := n downto n - (n div 2) + 2 do
    for column := 1 to n do
      if numberboard[row, column] <> 0
        then currentboard[row, column] := redman;

end; (* initializeboard *)


procedure playermove(var currentboard : gameboard; previousboard :
                                gameboard; var gamerecord : text);

(*
This procedure prompts the player for his move and makes the move if it
is legal.
*)

var
  oldboard,
  newboard         : gameboard;
  oldsquare,
  newsquare,
  maxsquarenumber  : integer;
  legallist        : list;
  error,
  legalmovemade    : boolean;


  function boardinlist(newboard : gameboard; legallist : list) : boolean;


  begin (* boardinlist *)
```

```
  if legallist = nil
    then boardinlist := false
    else
      if boardsareequal(legallist^.board, newboard)
        then boardinlist := true
        else boardinlist := boardinlist(newboard, legallist^.next);

end; (* boardinlist *)


procedure makemove(currentboard : gameboard; var newboard : gameboard;
                                    oldsquare, newsquare : integer);

(*
This procedure makes a move requested by the user (regardless of whether
it is legal or not).
*)

var
  oldrow,
  oldcolumn,
  newrow,
  newcolumn  : boardindex;

begin (* makemove *)

  newboard := currentboard;

  (*
  Get the row and column numbers corresponding to the square numbers.
  *)
  getrowandcolumn(oldsquare, oldrow, oldcolumn);
  getrowandcolumn(newsquare, newrow, newcolumn);

  (* If the requested move is a jump, make the move. *)
  if ((oldrow = newrow + 2) or (oldrow = newrow - 2)) and
     ((oldcolumn = newcolumn + 2) or (oldcolumn = newcolumn - 2))
    then begin

      (* Jump. *)
      newboard[newrow, newcolumn] := newboard[oldrow, oldcolumn];
      newboard[oldrow, oldcolumn] := empty;

      (* Perform the capture. *)
      newboard[(oldrow + newrow) div 2, (oldcolumn + newcolumn) div 2]
                                                          := empty;
    end
    else begin

      (* Make the simple move *)
      newboard[newrow, newcolumn] := newboard[oldrow, oldcolumn];
      newboard[oldrow, oldcolumn] := empty;
```

```
      end;

    (* If the move requires a promotion, make it. *)
    promotemen(newboard);

  end; (* makemove *)


  procedure readnumber(var number : integer; var error : boolean);

  (*
  Attempt to read in an unsigned integer.  If the read is successful,
  return its value in number.  Otherwise, set the error flag.
  *)

  var
    tempstring,
    digitstring : string;
    i           : integer;

  begin

    readln(tempstring);
    digitstring := '';

    (* Make sure the number string has only digits. *)
    for i := 1 to length(tempstring) do
      if tempstring[i] in ['0'..'9']
        then digitstring := concat(digitstring, tempstring[i]);

    error := digitstring = '';

    if not error
      then begin

        (* Convert number string into the corresponding integer. *)
        number := 0;

        for i := 1 to length(digitstring) do
          number := 10 * number + ord(digitstring[i]) - ord('0');

      end;

  end; (* readnumber *)


begin (* playermove *)

  maxsquarenumber := (n * n) div 2;
  oldboard := currentboard;

  repeat
```

```
repeat

  writeln('Square numbers must be between 1 and ',
                             maxsquarenumber : 3);
  writeln;
  write('Enter square to move from:  ');
  readnumber(oldsquare, error);

  if error
    then oldsquare := 0;

  write('Enter square to move to:    ');
  readnumber(newsquare, error);

  if error
    then newsquare := 0;

  if not ((oldsquare in [1..maxsquarenumber]) and
          (newsquare in [1..maxsquarenumber]))
    then begin

      writeln('Square number out of range');
      displayboard(currentboard, currentboard, gamerecord);

    end;

until (oldsquare in [1..maxsquarenumber]) and
      (newsquare in [1..maxsquarenumber]);

makemove(currentboard, newboard, oldsquare, newsquare);

legallist := legalmoves(previousboard, currentboard, black);

(*
If the requested move was not legal, read in another move request.
*)
if not boardinlist(newboard, legallist)
  then begin

    writeln('Illegal move, try again');
    legalmovemade := false;
    displayboard(currentboard, currentboard, gamerecord);

  end

  else begin

    (* Make the requested (legal) move. *)
    displayboard(currentboard, newboard, gamerecord);
    currentboard := newboard;
    legalmovemade := true;
```

```
      end;

    (* Discard the list of legal moves generated earlier. *)
    disposelist(legallist);

  until legalmovemade;

  (*
  Move again if a capture was made and another capture can be made,
  and a man was not promoted to a king.
  *)
  if canmoveagain(oldboard, currentboard)
     then playermove(currentboard, oldboard, gamerecord);

end; (* playermove *)


procedure computermove(var currentboard : gameboard; previousboard :
               gameboard; maxply : plyrange; var gamerecord : text);

(*
This procedure searches the game tree and choses the best move for the
computer.
*)

var
  bestmove  : gameboard;
  legallist : list;


  procedure linkupnewnode(var parentnode : tree; board : gameboard;
                                    currentply, maxply : plyrange);

  (*
  This procedure links up a new game board onto the game tree as a
  child of a parent node.  If the parent node is nil, it will point to
  the new game board.
  *)

  var
    index   : moverange;
    newnode : tree;


    function evaluation(currentboard : gameboard) : integer;

    (*
    This function returns an evaluation of the desirability of a given
    board.  The computer seeks a board with a high score, and its opponent
    seeks a board with a low score.
    *)

    var
```

```
  tally : tallyrecord;


  function uncapturablepieces(color : piececolor; currentboard :
                                          gameboard) : integer;

  (*
  This function returns the number of pieces of color (color) which
  cannot be captured because they reside on an outer edge of the
  game board.
  *)

  var
    i      : boardindex;
    result : integer;

  begin (* uncapturablepieces *)

    result := 0;

    (* Count up all the uncapturable pieces. *)
    for i := 1 to n do begin

      if colorofpiece(currentboard[1, i]) = color
        then result := result + 1;

      if colorofpiece(currentboard[i, 1]) = color
        then result := result + 1;

      if colorofpiece(currentboard[n, i]) = color
        then result := result + 1;

      if colorofpiece(currentboard[i, n]) = color
        then result := result + 1;

    end;

    uncapturablepieces := result;

  end; (* uncapturablepieces *)


begin (* evaluation *)

  (* Find out about the number and kinds of pieces on the board. *)
  tallypieces(currentboard, tally);

  with tally do
    if blackkings + blackmen = 0
      then evaluation := infinity
      else
        if redkings + redmen = 0
          then evaluation := -infinity
```

```
            else evaluation :=
                 round((redmen + redkings) / (blackmen + blackkings) *
                 (16 * (redmen + (redkings * 1.5)))) +
                 uncapturablepieces(red,   currentboard) -
                 round((blackmen + blackkings) / (redmen + redkings) *
                 (16 * (blackmen + (blackkings * 1.5)))) +
                 uncapturablepieces(black, currentboard);

  end; (* evaluation *)


begin (* linkupnewnode *)

  (* Get a new node. *)
  new(newnode);

  (* Initialize the node. *)
  newnode^.parent := parentnode;
  newnode^.board := board;

  if currentply = maxply
    then newnode^.score := evaluation(newnode^.board)
    else
      if odd(currentply)
        then newnode^.score := infinity
        else newnode^.score := -infinity;

  for index := 1 to maxmoves do
    newnode^.children[index] := nil;

  if parentnode <> nil
    then begin

      (* Link up the new node as a child of the parent. *)
      index := 1;

      while parentnode^.children[index] <> nil do
        index := index + 1;

      parentnode^.children[index] := newnode;

    end
    else parentnode := newnode;

end; (* linkupnewnode *)


procedure findbestmove(maxply : plyrange; previousboard : gameboard;
                                          var bestmove : gameboard);

(*
This procedure searches the game tree to depth (maxply) for the
best move to be made by the computer.
```

```
*)

var
  rootnode : tree;


  procedure expand(var currentnode : tree; currentply : plyrange;
                                     previousboard : gameboard);

  (*
  This procedure expands (gives children to) a node of the game tree.
  *)

  var
    index     : moverange;
    legallist,
    garbage   : list;

  begin (* expand *)

    (*
    Get all of the boards of the children of the node to be expanded.
    *)

    (*
    If the current node is the root node, then the appropriate previous
    board for the legal move generator is the previous game board.
    *)

    if currentply = 0
      then legallist :=
           legalmoves(previousboard, currentnode^.board, red)

      (*
      If the current node is not the root node, then the appropriate
      previous board for the legal move generator is that of its
      parent.
      *)
      else legallist :=
           legalmoves(currentnode^.parent^.board,
                       currentnode^.board, none);

    (* Link the current node to its children. *)
    garbage := legallist;

    index := 1;
    while legallist <> nil do begin

      (*
      Give the children their game boards and initial scores and link
      them to their parent.
      *)
```

```
    linkupnewnode(currentnode, legallist^.board, currentply + 1,
                                                        maxply);

    legallist := legallist^.next;
    index := index + 1;

  end;

  if index < maxmoves
    then
      for index := index to maxmoves do
        currentnode^.children[index] := nil;

  (* Discard the list of legal moves. *)
  disposelist(garbage);

end; (* expand *)


procedure searchforbestmove(maxply, currentply : plyrange;
           currentnode : tree; previousboard : gameboard);

(*
Exhaustively search the game tree to a depth of maxply.  Use the
minimax algorithm to find the best move.  Use alpha-beta pruning
to shorten the search.
*)

var
  currentchild : integer;
  pruned       : boolean;


  function min(a, b : integer) : integer;

  (*
  This function returns the lesser of its two arguments.
  *)

  begin (* min *)

    if a < b
      then min := a
      else min := b;

  end; (* min *)


  function max(a, b : integer) : integer;

  (*
  This function returns the greater of its two arguments.
  *)
```

```
  begin (* max *)

    if a > b
      then max := a
      else max := b;

  end; (* max *)


  function childsposition(child, parent : tree) : moverange;

  var
    position : moverange;

  begin (* childsposition *)

    position := 1;
    while parent^.children[position] <> child do
      position := position + 1;

    childsposition := position;

  end; (* childsposition *)


begin (* searchforbestmove *)

  if currentply < maxply
    then begin

      expand(currentnode, currentply, previousboard);

      currentchild := 1;
      while currentchild <= maxmoves do begin

        if currentnode^.children[currentchild] <> nil
          then searchforbestmove(maxply, currentply + 1,
               currentnode^.children[currentchild], previousboard);

        currentchild := currentchild + 1;

      end;

      (* Update best next move if found. *)
      if currentply = 1
        then
          if currentnode^.score > currentnode^.parent^.score
            then currentnode^.parent^.board := currentnode^.board;

    end;

    (* Back up the child's score. *)
```

```
      if (currentply <> 0)
        then begin

          if odd(currentply)
            then currentnode^.parent^.score :=
                 max(currentnode^.parent^.score, currentnode^.score)
            else currentnode^.parent^.score :=
                 min(currentnode^.parent^.score, currentnode^.score);

          pruned := false;

          (* Perform alpha-beta pruning if possible. *)
          if currentply >= 2
            then
              if (odd(currentply) and
                  (currentnode^.parent^.score >=
                   currentnode^.parent^.parent^.score)) or
                 (not odd(currentply) and
                  (currentnode^.parent^.score <=
                   currentnode^.parent^.parent^.score))
                then begin

                  pruned := true;

                  for currentchild := childsposition(currentnode,
                                currentnode^.parent) to maxmoves do
                    if currentnode^.parent^.children[currentchild] <> nil
                      then begin

                        dispose(currentnode^.parent^.
                             children[currentchild]);
                        currentnode^.parent^.children[currentchild] := nil;

                      end;

                end;

          if not pruned
            then dispose(currentnode);

        end;

    end; (* searchforbestmove *)


  begin (* findbestmove *)

    (* Get the root node of the game tree to be searched. *)
    rootnode := nil;

    linkupnewnode(rootnode, currentboard, 0, maxply);

    (* Search the game tree for the best move. *)
```

```
    searchforbestmove(maxply, 0, rootnode, previousboard);

    bestmove := rootnode^.board;
    dispose(rootnode);

  end; (* findbestmove *)


begin (* computermove *)

  (* If there is only one legal move available then make it. *)

  legallist := legalmoves(previousboard, currentboard, red);

  if lengthoflist(legallist) = 1
    then begin

      (* Make the only legal move move. *)
      previousboard := currentboard;
      currentboard := legallist^.board;

    end

    (* If there is more than one move available then choose the best one. *)

    else begin

      (* Find the best move in the game tree. *)
      findbestmove(maxply, previousboard, bestmove);

      (* Make the best move. *)
      previousboard := currentboard;
      currentboard := bestmove;

    end;

    disposelist(legallist);

  (* Display the selected move. *)
  displayboard(previousboard, currentboard, gamerecord);

  (* If the move made was an iterated capture, take another move. *)
  if canmoveagain(previousboard, currentboard)
    then begin

      write('Press <RETURN> to continue');
      readln;
      computermove(currentboard, previousboard, maxply, gamerecord);

    end;

end; (* computermove *)
```

```
procedure tellboardstatus(currentboard : gameboard; nextplayerscolor :
                                    piececolor; var gamerecord : text);

(*
This procedure reveals the status of the game board when a game is
over.
*)

begin (* tellboardstatus *)

  writeln;
  writeln(gamerecord);
  writeln;
  writeln(gamerecord);

  case status(currentboard, nextplayerscolor) of

     blackwin : begin

                  writeln('You win!!!');
                  writeln(gamerecord, 'You win!!!');

                end;

     redwin   : begin

                  writeln('The computer wins.');
                  writeln(gamerecord, 'The computer wins.');

                end;

  end;

end; (* tellboardstatus *)


procedure introduceprogram;

(*
Place a dialog box introducing the program on the screen.  Then wait until the
mouse button is pressed.
*)

const
  {$i gemconst.pas}

type
  {$i gemtype.pas}

{$i gemsubs.pas}

  procedure dodialogbox;
```

```
var
  intro_box : dialog_ptr;
  line_1,
  line_2,
  line_3,
  line_4,
  line_5,
  button    : integer;
  dialog    : tree_index;

begin

  (* Make mouse shape an arrow. *)
  init_mouse;
  set_mouse(m_arrow);

  (* Get a dialog box. *)
  intro_box := new_dialog(5, 0, 0, 70, 17);

  (* Add text lines and mouse button to the dialog box. *)
  line_1 := add_ditem(intro_box, g_string, none, 4,  2, 0, 0, 0, 0);
  line_2 := add_ditem(intro_box, g_string, none, 4,  4, 0, 0, 0, 0);
  line_3 := add_ditem(intro_box, g_string, none, 4,  6, 0, 0, 0, 0);
  line_4 := add_ditem(intro_box, g_string, none, 4,  8, 0, 0, 0, 0);
  line_5 := add_ditem(intro_box, g_string, none, 4, 10, 0, 0, 0, 0);
  button := add_ditem(intro_box, g_button, selectable | exit_btn | default,
                      30, 12, 7, 3, 2, black);

  (* Place text and mouse button in the proper places in the dialog box. *)
  set_dtext(intro_box, line_1,
  '               Cadenza - A Checkers Program', system_font, te_center);

  set_dtext(intro_box, line_2,
  '              Written by Eric Bergman-Terrell', system_font, te_center);

  set_dtext(intro_box, line_3,
  'Portions of this product are Copyright (c) 1986, OSS and CCD.',
  small_font, te_center);

  set_dtext(intro_box, line_4,
  '                  Used by permission of OSS.',
  small_font, te_center);

  set_dtext(intro_box, line_5,
  '     This software has been placed in the public domain.',
  system_font, te_center);

  set_dtext(intro_box, button, 'BEGIN', system_font, te_center);

  (* Dialog box will be placed in the center of the screen. *)
  center_dialog(intro_box);
```

```
    {
    Place the dialog box on the screen and wait for mouse button to be
    pressed.
    }
    dialog := do_dialog(intro_box, 0);

    { Remove the dialog box from the screen and delete it. }
    end_dialog(intro_box);
    delete_dialog(intro_box);

  end; (* dodialogbox *)


begin

  if init_gem >= 0
    then begin

      dodialogbox;
      exit_gem;
      hide_mouse;

    end;

end; (* introduceprogram *)


begin (* cadenza *)

  (* Prepare the game record file. *)
  rewrite(gamerecord, 'gamerec.txt');

  introduceprogram;

  page(output);

  writeln('You are black.');
  writeln(gamerecord, 'You are black.');

  writeln('The computer is red.');
  writeln(gamerecord, 'The computer is red.');

  writeln(gamerecord);

  (* Initialize the global number board. *)
  makenumberboard(globalnumberboard);

  initializeboard(currentboard);
  displayboard(currentboard, currentboard, gamerecord);

  repeat

    nextplayerscolor := black;
```

```
    (* If the game is not over, have the player make his next move. *)
    if status(currentboard, nextplayerscolor) = undefined
      then begin

        playermove(currentboard, currentboard, gamerecord);
        writeln(gamerecord);
        nextplayerscolor := red;

        (*
        If the game is not over, have the computer make its next move.
        *)
        if status(currentboard, nextplayerscolor) = undefined
          then begin

            computermove(currentboard, currentboard, maxply, gamerecord);
            writeln(gamerecord);

          end;

      end;

  until status(currentboard, nextplayerscolor) <> undefined;

  tellboardstatus(currentboard, nextplayerscolor, gamerecord);

  close(gamerecord);

end. (* cadenza *)
```

```
From 7610190192500424990
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d0f9d50b3646c409,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 11:11:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!gymble!umcp-cs!aplcen!osiris!stsci!fred
From: fred@stsci.uucp (Fred Romelfanger)
Newsgroups: net.micro.atari16
Subject: Looking for a good atari dealer (service) in the MD/DC area
Message-ID: <188@stsci.uucp>
Date: Sun, 18-May-86 14:11:43 EDT
Article-I.D.: stsci.188
Posted: Sun May 18 14:11:43 1986
Date-Received: Fri, 23-May-86 05:41:32 EDT
Organization: Space Telescope Science Institute
Lines: 14


  I am looking for a good atari dealer in the Maryland or Washington
D.C. area (within about 40 miles). I haven't seen too many that sell
```

(let alone service) the 520's or 1040's. Any help would be greatly
appreciated.

Fred Romelfanger
Space Telescope Science Institute
Baltimore, Md. 21218
{astrovax,cfa,charm,osiris,nrao1,noao}!stsci!fred
--

Fred Romelfanger
Space Telescope Science Institute
Baltimore, Md. 21218
{astrovax,cfa,charm,osiris,nrao1,noao}!stsci!fred

From 3752174347736667766
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 122486,49970212791fb5bf
X-Google-Attributes: gid122486,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 13:39:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!sun!chuq
From: chuq@sun.UUCP
Newsgroups: net.micro.atari16,net.mail,net.news.group
Subject: Re: abuse of the net
Message-ID: <3710@sun.uucp>
Date: Sun, 18-May-86 16:39:08 EDT
Article-I.D.: sun.3710
Posted: Sun May 18 16:39:08 1986
Date-Received: Mon, 19-May-86 04:49:53 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
<317@sdcarl.UUCP> <2021@hammer.UUCP>
Distribution: na
Organization: Fictional Reality, uLtd
Lines: 21
Xref: decwrl net.micro.atari16:833 net.mail:1642 net.news.group:4958

> I don't see why UNIX machines should be expected to pay for distributing
> software and discussions for other operating systems. Why can't they
> set up their own network? Disk space and phone lines aren't free for
> machines that run UNIX anymore than they are for machines that run
> mac/amiga/ST/PC-DOS/VMS/whatever.

Because there is a large base of users of those machines that happen to be
using Unix machines to communicate. The reality is that USENET hasn't been
a unix network for a long time, just a network that uses Unix. If you're
serious about limiting yourself to Unix discussions, we need to kill everything
else off except Unix, which would kill the net.

chuq

--
:From the lofty realms of Castle Plaid: Chuq Von Rospach
chuq%plaid@sun.COM FidoNet: 125/84   CompuServe: 73317,635
{decwrl,decvax,hplabs,ihnp4,pyramid,seismo,ucbvax}!sun!plaid!chuq

The first rule of magic is simple. Don't waste your time waving your hands
and hoping when a rock or a club will do -- McCloctnik the Lucid

From -6831705580844230444
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dfca40f380e6a09,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 20:09:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!qantel!hplabs!ucbvax!
OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: File Compression
Message-ID: <8605190309.AA02709@ohio-state.ARPA>
Date: Sun, 18-May-86 23:09:40 EDT
Article-I.D.: ohio-sta.8605190309.AA02709
Posted: Sun May 18 23:09:40 1986
Date-Received: Tue, 20-May-86 08:15:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I have some pd programs that do huffman-tree data compression. I'll send
them to whoever wants them.

Eric Bergman-Terrell (CSNET address terrell@ohio-state)

From -7946435131735757266
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-Thread: 122486,49970212791fb5bf
X-Google-Attributes: gid122486,public
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-18 20:24:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!utcs!mnetor!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16,net.mail,net.news.group
Subject: Re: abuse of the net
Message-ID: <1217@lsuc.UUCP>

Date: Sun, 18-May-86 23:24:56 EDT
Article-I.D.: lsuc.1217
Posted: Sun May 18 23:24:56 1986
Date-Received: Mon, 19-May-86 05:47:18 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
<317@sdcarl.UUCP> <2021@hammer.UUCP>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: na
Organization: Barrister & Solicitor, Toronto
Lines: 26
Xref: utcs net.micro.atari16:768 net.mail:1603 net.news.group:5401
Summary: And on the otherhand

In article <2021@hammer.UUCP> tekecs!doghouse.TEK!snoopy (Snoopy) writes:
>
>I don't see why UNIX machines should be expected to pay for distributing
>software and discussions for other operating systems. Why can't they
>set up their own network? Disk space and phone lines aren't free for
>machines that run UNIX anymore than they are for machines that run
>mac/amiga/ST/PC-DOS/VMS/whatever.
>
>(Before someone mentions groups like net.cooks, consider the difficulties
>of connecting a modem to your average saucepan.)
>
>Snoopy
>tektronix!tekecs!doghouse.TEK!snoopy

     I don't see why educational computer installations should pay
for the distribution and development of Unix system. Perhaps it would
be better if they limited their transmissions to library catalogues
and lecture schedules. Surely nothing more than that can be justified.

Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -193544757846674016
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d599e0ba774d230
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 05:11:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!dcl-cs!strath-cs!paisley!
rh
From: rh@cs.paisley.ac.uk (Robert Hamilton)
Newsgroups: net.micro.atari16
Subject: Re: microemacs v30 on the ST
Message-ID: <140@paisley.ac.uk>

Date: Mon, 19-May-86 08:11:46 EDT
Article-I.D.: paisley.140
Posted: Mon May 19 08:11:46 1986
Date-Received: Fri, 23-May-86 23:45:57 EDT
References: <3790@utah-cs.UUCP>
Sender: rh@paisley.ac.uk
Reply-To: rh@cs.paisley.ac.uk (Robert Hamilton)
Organization: Paisley College of Technology Scotland.
Lines: 26
Keywords: how do you get it to compile?

In article <3790@utah-cs.UUCP> sandra@utah-cs.UUCP writes:
>Has anybody succeeded in getting the MicroEmacs V30 (posted to mod.sources
>last month) to run on an Atari ST? I get warning messages like "pointer
>subtraction yields a long result" while compiling display.c, and then the
>linker dies with a seek error while trying to load display.o. This is
>with the developer's kit C compiler and using the .bat files supplied
>with the microemacs sources. I see some comments in the code at the
>relevant places in display.c referring to "Alcyon C hack", but I'm not
>enough of a C wizard to figure out exactly what's wrong or how to fix it.
>(Pointer arithmetic? Blecchhh!) Can anyone enlighten me?
>
>-Sandra Loosemore
>(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)

I ported u-emacs V30 to the ST using the Lattice compiler with little trouble.
I also included "shell escapes" (you can run make etc. from emacs) and
a couple of nice things like "cd" and "pwd"
If anybody wants it I could post it out (uuencoded?)
--
UUCP: ...!seismo!mcvax!ukc!paisley!rh
DARPA: rh%cs.paisley.ac.uk | Post: Paisley College
JANET: rh@uk.ac.paisley.cs | Department of Computing,
Phone: +44 41 887 1241 Ext. 219 | High St. Paisley.
                        | Scotland.
                        | PA1 2BE

From 5456194775745702116
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5070880a990f09cc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 05:15:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!
XEROX.COM!"John_A._Davidson:ROCH0846:Xerox.ns"
From: "John_A._Davidson:ROCH0846:Xerox.ns"@XEROX.COM.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ATARI NETWORK, PRINTER DRIVERS
Message-ID: <860519-051622-1172@Xerox>
Date: Mon, 19-May-86 08:15:35 EDT
Article-I.D.: Xerox.860519-051622-1172

Posted: Mon May 19 08:15:35 1986
Date-Received: Wed, 21-May-86 01:24:38 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

In the last newsletter I received from the Atari Group in Rochester. (A.C.O.R.N.) it mentioned that:
" Software Punch of Liverpool, U.K. is working on an Ethernet-compatable networkk of cables that allow ST computers to share information."

What protocol levels they intend to support I have no idea.
{John}

From -4136116617739755704
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e262fb14fe60661,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 09:54:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: desktop.inf
Message-ID: <8605191712.AA14312@ucbvax.Berkeley.EDU>
Date: Mon, 19-May-86 12:54:26 EDT
Article-I.D.: ucbvax.8605191712.AA14312
Posted: Mon May 19 12:54:26 1986
Date-Received: Fri, 23-May-86 05:48:35 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 134

In response to someones query about the desktop.inf.... tah dah -----
Everything you always wanted to know about desktop.inf, but were afraid to ask. Below is a typical desktop.inf file (with a few changes added for examples). Below each line is a definition of what each value represents.

#a000100
This is the first desk accessory, the rs232 config. Each 0 represents the first column of buttons on the set rs232 config dialog box. The first 0 is column 1 row 1, the second 0 is coumn 1 row 2, etc. A 1 value indicates that a button in the second column was chosen.

#b000000
This is the set printer config. It works the same way as the rs232 config.

#c777000700060007005520050555222077055707505550770311110 3

This is the color palette. The color value is set using 3 digits at a time, representing the red, green and blue values. The 3111103 at the end deals with the keyboard repeat rate, and sensitivity. (None of the above three will do anything if the associated desk accessory is not loaded)

#d
This is apparently reserved for a fourth accessory, and does nothing at this time (so far as I can see).

#E C4 02   (#E=Extras)
This is two things. The first value has to do with both the Set Preference dialog and the mouse double click rate. The byte is broken down as follows with the indicated bit set performing the noted action:

```
Bit       7       6       5       4       3    |   2       1        0
Value    128     64      32      16       8    |   4       2        1
     displays  sorted  sorted  confirm confirm |   double click rate
       TEXT      by      by    deletes copies  |   all three bits, values
   (if not set  size    date                   |   may only be from 0-4
     displays    \       /                     |   5-7 will turn off the
      icons)     both bits                     |   mouse buttons
                  sort by
                   type
```

If neither bit 5 or 6 is set the sort is by name

The second value is 03 for hi rez, 02 for medium rez, or 01 for low rez.

#W 00 00 02 0B 2A 0B 08 A:*.*@   (#W=Window)
#W 00 01 0A 01 45 09 08 A:\TEST.C*.*@
#W 00 00 0E 09 2A 0B 08 A:*.INF@
#W 00 00 0F 0A 2A 0B 00 @
The above four are the window defs. The first number is how far over the horizontal slider is, the second is the vertical slider. The third number is the x coordinate of the left hand side of the window (this takes on even values, with odd values the same as next lowest even value). The fourth number is the y coordinate (this takes single increments). The fifth and sixth numbers are the width and height, respectively. The last number indicates where on the screen the window will open from. (The window opens with a different shape and from a different place with each number, but when you close the window, it will go to another place on the screen. I have not hacked at this long enuf to figure it out.) A zero or FF will not open the window. The text indicates which drive's contents will be displayed. If the drive does not exist, the window won't open, ie. drive bits not set. Also, if the display validation is omitted, the window won't open.
The second def above will display the contents of the folder TEST.C, while The third def above will open a window, and only display the .INF files on drive A. If you close and open the window, the files will display as defined in the file and program defs below. (NOTE: this only applies to icon images, every file will display in text -- except if the file bits are marked to be hidden, system, volume, read/write and whatever other bits there are, in which case it won't display at all, but if it is read only, it will display -- strange HUH?) The bottom-most open window in

the list will be the active window.

#M 00 02 00 FF D FLOPPY DISK@ @   (#M=iMage (?))
#M 00 00 00 FF A DRIVE A@ @
#M 00 01 00 FF B FLOPPY DISK@ @
These describe the icon attributes. The first two numbers are the column and row position of the icon. The column can be from 0-7, the row 0-3. The third number determines the icon image which will be displayed. The image number is the same for this and the remaining defs in desktop.inf, as follows:

0= disk drive (drawer)   1= folder (sub-directory)   2= trash can
3= executable file (.PRG, .TOS, or .TTP)   4= text (stack of papers)

The fourth value doesn't seem to do anything, but must be a place holder for an unimplemented function. The single letter is the drive identifier, and the text is the drive name. The first @ indicates the end of the drive name. The second @ does nothing, but we can speculate as described below for the file identifiers. The order in the list determines the visual heirarchy of the icons, ie. which will display on top when moved over another icon.

#T 00 03 02 FF   BLACK HOLE@ @   (#T=Trash)
This is the same as the disk drive. If you move a disk drive identifier below this in the list, it will display on top of the trash if moved to the same location. The trash has no identifier letter, but you can put one in.

#F 03 04   @ *.INF@   (#F=Files)
#D FF 01   @ *.C@   (#D=Directories)
These two determine which type of file or directory will be displayed, when displayed as icons. The first line will make GEM display only .INF files for use with the SHOW, PRINT, CANCEL alert box. If you delete this line, no icons will be shown for any file, except as defined below for programs. The second line does the same for sub-directories, only .C folder icons will show. When files are displayed as text, all files will be there, but if you single click on an 'undefined' file type, the sytem will reboot. If you double click, the name will be highlighted, but you can't do anything.

#G 03 FF   *.APP@ @   (#G=Gem)
#G 03 FF   *.PRG@ @
#F 02 04   *.TOS@ @   (#F=File)
#P 03 04   *.TTP@ @   (#P=Parameters)
The above four determine the types of files defined as executable images. Notice that the #F, #D, #G and #P all have two @ symbols. This is defined as: the text before the first @ tells GEM this is a def for an executable file, while text after the first @ and before the second @ tells GEM that this is a def for a SHOWable file (ASCII or object). Note that if both are specified, like   #G 03 04   1ST_WORD.PRG@ *.TXT@   then when you double click on any .TXT file, the 1ST_WORD.PRG file will run, and the .TXT file will be taken as a parameter.
The first number indicates the icon image for the file before the first @, and the second number indicates the icon image for the file between the @'s.

Note that the disk drive def also has two @, which would indicate that the

FF is a def for the text in between the @'s, but I couldn't get anything
to happen.
Try playing around with your desktop.inf by placing different values for the
icon images (can be kinda fun). Be forewarned, tho, you can thoroughly
confuse GEM, although no harm will result.

This concludes the desktop.inf tutorial (for disk based desktop.inf, there
are a couple of desktop.inf's in memory which can do things, too).
There may be more to it, but I haven't figured it out yet.

From Houston,
Michael Vederman
ACS19@UHUPVM1

From -974380192657619489
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6c49d8884e62cd4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 10:14:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: Re: Getting a new Power Supply
Message-ID: <1795@mtgzy.UUCP>
Date: Mon, 19-May-86 13:14:54 EDT
Article-I.D.: mtgzy.1795
Posted: Mon May 19 13:14:54 1986
Date-Received: Fri, 23-May-86 05:12:57 EDT
References: <8605151917.AA01730@ohio-state.ARPA>
Organization: AT&T Information Systems Labs, Middletown NJ
Lines: 2

When I had my power supply go, I was quoted $75 to buy a new one.
Fortunately I was under warantee and paid nothing.

From -4223005364259474344
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b24a9f8e49f23aa2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 10:48:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMass.BITNET!Weefus
From: Weefus@UMass.BITNET (BECCO)
Newsgroups: net.micro.atari16
Subject: Philon phlame......
Message-ID: <860519134807.00000365.AAHA.AA@UMass>
Date: Mon, 19-May-86 13:48:07 EDT
Article-I.D.: UMass.860519134807.00000365.AAHA.AA
Posted: Mon May 19 13:48:07 1986

Date-Received: Fri, 23-May-86 05:50:49 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 36

** Information File on Philon/Fast Basic-M compiler (V1.3) **

I have just purchased the above named compiler, and after looking over the documentation, I think those (few?) of you who program in Basic like myself would be interested in some information about the package.

First of all, be aware that this compiler requires either two disk drives or (preferably) a hard disk. The reason for this is that the system comes on five (!) disks, four of which must be switched into-and-out-of the 'B' drive during the compilation process.

I can't give a review of the software proper, as I do not yet have the necessary second disk drive yet. (Donations, please? ;-))

The biggest complaint I have is that the licensing agreement that comes with the package is incredibly restrictive. Unlike the Good Folks at OSS, who make the Personal Pascal package for the ST, Philon does not let you sell license, or give away any program that has their runtime library included. Obviously, this would be defined as any program compiled with the package.

I find this unacceptable, especially considering this is *Basic*.

I also got a chuckle from one paticular line in the license agreement: "Customer agrees to take reasonable steps to protect the Philon Software from theft or use contrary to this license." Guess I gotta buy a safe now!

Comments folks?

Keith Rolland Weefus%umass.bitnet@wiscvm.arpa
Weefus on GEnie
75056,3447 on CI$

"Money changes everything!" .. Lauper

<

From -7348854157219147117
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 11:23:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format

Message-ID: <283@atari.UUcp>
Date: Mon, 19-May-86 14:23:17 EDT
Article-I.D.: atari.283
Posted: Mon May 19 14:23:17 1986
Date-Received: Fri, 23-May-86 21:46:38 EDT
References: <186@bridge2.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 39
Summary: Atari Corp. BBS... 408-745-5308

In article <186@bridge2.UUCP>, pvf@bridge2.UUCP (Paul V. Fries) writes:
> When I heard about the Atari BBS, I could stand it no
> longer, deciding that I could write a simple terminal emulator
> with ASCII download capability pretty quickly myself. Well,
> Friday night I tried it. On my first attempt, none of the
> downloaded files would run, all giving "TOS Error 34" or
> something like that. Well, it seemed that there was an extra byte
> at the start of every downloaded file that was pushing the
> remainder of the file off. I decided to try simply
> discarding out the extraneous byte. VOILA, working programs!
>
> Anybody know what the garbage character is or why it is there
> (incidentally, the character seemed always to be 0x12)?

I would not be surprised if the BBS tries to send a CTRL Q at the start of
an ASCII transmission. But wouldn't that be a 0x11? Strange... Anyhow,
if it works, don't argue, right?

> Other than that, I am really happy to have a hook into Atari for
> PD software. There are some really cute things available, and
> it was well worth the work. (I am especially pleased as I live
> in Mountain View, the next town over from Sunnyvale, so the phone
> call is cheap.) Thank you Neil!

You're welcome! Now if only someone would come up with a way to get 4 (or
even 8) phone lines into 1 ST, with appropriate BBS software, then we
wouldn't have to do so much work...

By the way, has anyone come up with a uuencode program that runs on the ST
yet? What are you waiting for?

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil
     CIS: 70007,1135
     BIX: neilharris
     GENIE: NHARRIS
     Delphi: Exploreneil
     BBS: 408-745-5308
        {who says it's hard to find me?}

From 7116145800078098154

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc4492ad6f5496bd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 11:29:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Atari Announcements
Message-ID: <284@atari.UUcp>
Date: Mon, 19-May-86 14:29:49 EDT
Article-I.D.: atari.284
Posted: Mon May 19 14:29:49 1986
Date-Received: Fri, 23-May-86 21:46:50 EDT
References: <942@leadsv.UUCP>
Organization: Atari Corp/Mktg
Lines: 30
Keywords: New Products, 20Mbyte Disk, Emulators

In article <942@leadsv.UUCP>, trimble@leadsv.UUCP (Gary Trimble) writes:
> From the San Jose Mercury News (Monday, May 12 1986):
>
>   "Atari Corp. of Sunnyvale has introduced several new products
> for it's ST computers, including a 20-megabyte hard disk drive. In
> addition, it is offering a CPM operating system emulator, an MS-DOS
> operating system emulator, a dot-matrix printer, and an Atari brand
> double-sided 3.5-inch diskette."
>
> Neil, if you're out there, could you comment or elaborate?

The SH204 20-megabyte hard disk is scheduled to ship late in May at a
suggested retail price of $799.

The CP/M emulator is a software product that will be less that $50. It
should be in stores shortly.

The MSDOS emulator is a hardware add-on that is not yet ready to ship (or to
even discuss the firm specs for). We predict availability this Fall.

The SMM804 dot matrix printer is the same one that was discussed in the
April/May 1985 issue of Atari Explorer. It is an 80-cps, 80-column,
parallel interface printer compatible with the Epson graftrax protocol, with
some ST-specific additions. It is selling for $229 and is available now.

The Atari blank disks are certified double sided 3.5 inch diskettes with
Atari labels. A box of 5 sells for $16.95.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From 5874303956383618486
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,5a7eb0197f3c7377
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-19 11:40:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: compression of image files?
Message-ID: <285@atari.UUcp>
Date: Mon, 19-May-86 14:40:33 EDT
Article-I.D.: atari.285
Posted: Mon May 19 14:40:33 1986
Date-Received: Fri, 23-May-86 21:47:04 EDT
References: <752@rclex.UUCP>
Organization: Atari Corp/Mktg
Lines: 18
Keywords: 520st neochrome degas compression
Summary: Squeezer

In article <752@rclex.UUCP>, walt@rclex.UUCP (Walter L. Weber) writes:
> Has anyone ever seen or used an encoding or compression algorithm
> to store image files? I have seen a couple of demos which appear
> to be compressed, as they are all different sizes and come up in
> a "slideshow" style presentation.

On the Atari Corp. BBS (408-745-5308) in SIG #7 (ST Art), you will find two
programs -- a squeezer and an unsqueezer. We squeeze all pictures on the
BBS to help save downloading time (disk space also, but we still have more
than half the 20-meg free -- god I love hard drives!).

> BTW - good JOB! out there in Sunnyvale - an excellent product.

Thanks! I wouldn't be without it myself.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From 1428637362866178769
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 08:42:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <8605121542.AA23293@ohio-state.ARPA>
Date: Mon, 12-May-86 11:42:34 EDT
Article-I.D.: ohio-sta.8605121542.AA23293

Posted: Mon May 12 11:42:34 1986
Date-Received: Wed, 14-May-86 12:29:01 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Dwight,

Thanks for your letter. Alas, I do not have access to Compuserve.
Perhaps you could send me a copy of the source for your desk accessory
when you're finished with it?

Thanks,

Eric Bergman-Terrell (CSNET ADDRESS terrell@ohio-state)

From -8957378152811149553
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,828c81a48e8d7d56
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-05-12 09:57:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!caip!cbmvax!skipper!amiga!bruceb
From: bruceb@amiga.UUCP (Bruce Barrett)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Correction to:An OS for MAC, Amiga, AND ST!
Message-ID: <1141@amiga.amiga.UUCP>
Date: Mon, 12-May-86 12:57:33 EDT
Article-I.D.: amiga.1141
Posted: Mon May 12 12:57:33 1986
Date-Received: Wed, 14-May-86 07:54:24 EDT
References: <959@well.UUCP> <794@ccird2.UUCP> <162@cbmvax.cbmvax.cbm.UUCP>
<1040@cadovax.UUCP> <405@ccird1.UUCP>
Reply-To: bruceb@hunter.UUCP (Bruce Barrett)
Organization: Commodore-Amiga Inc., 983 University Ave #D, Los Gatos CA 95030
Lines: 23
Keywords: correction credit
Xref: linus net.micro.atari16:597 net.micro.amiga:6813

In article <405@ccird1.UUCP> rb@ccird1.UUCP (Rex Ballard) writes:
>In article <1040@cadovax.UUCP> keithd@cadovax.UUCP (Keith Doyle) writes:
>>the MAC OS out. TRIPOS would only have a chance if Amiga would consider
>>selling Intuition (their graphics/windowing software) to go with TRIPOS.
>
     The following statement is FALSE!!!!!!!!!!!!

>I agree in part, actually, Metacompco (sp?) wrote most of the graphics
>package, Amiga had to write the "Graphics BIOS", or drivers.
>

The Metacomco (correect spelling) people are talented, bright, and hard workers but they did NOT write one (1) line of graphics software for the Amiga. They wrote the file system and most of the CLI commands (DIR, LIST, COPY...) They did not write Intuition, Graphics, Layers, Audio, Serial, Workbench,.... Just the file system. We call this AmigaDOS. The 3 AmigaDOS manuals decsribe what they did. They did NOT do anything in the RKM.

OK. Thanks, just wanted to clear that up and give credit where credit is due. While I'm at it there are (Commodore) programers in Westchester, PA who have made significant contributions too.
--Bruce Barrett

From -2389109680851142176
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,cb4d055b774365e,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,cb4d055b774365e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 10:01:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.uucp (Jeff Gortatowsky)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: TDI Software, Inc.
Message-ID: <423@elmgate.uucp>
Date: Mon, 12-May-86 13:01:18 EDT
Article-I.D.: elmgate.423
Posted: Mon May 12 13:01:18 1986
Date-Received: Wed, 14-May-86 20:21:56 EDT
Organization: Eastman Kodak Company, Rochester, NY
Lines: 28
Xref: linus net.micro.atari16:609 net.micro.amiga:6823

>Herb Barad [USC - Signal and Image Processing Institute]
> I wonder if others have had any trouble dealing with TDI Software, Inc.

I've had the Atari ST MODULA-2 (the first release) for a while now. *MY* dealings with TDI have been satisfactory. No hassle, no hype, few delays. They've even offered to help me demo their latest version to a local user's group by sending along some source/object code.

The worse I can say about TDI is that the first release was a bit buggy (aren't they all?) and the compiler shell badly needed paths.

However I've enjoyed the product and have ordered the developer's version of their latest release.

As for advertising a Mac version, well it could be that Pinnacle Ltd., TDI's parent company, made a goof.

Overall I'd recommend TDI.

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company

<Kodak won't be responsible for the above comments, only those below>

From 7668247600239602765
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84a9528b4398a454
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 10:09:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Atari 520ST power supply failure
Message-ID: <361@imagen.UUCP>
Date: Mon, 12-May-86 13:09:24 EDT
Article-I.D.: imagen.361
Posted: Mon May 12 13:09:24 1986
Date-Received: Wed, 14-May-86 21:47:20 EDT
References: <2459@watmath.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 26

> Question: I remember an article a few months back from someone whose old
> power supply failed, and mention of some acknowledgement of the problem
> by Atari. Is there an official line from Atari? (Probably "yes, you
> overheated your power supply with the extra RAM, you lose!")
>
> Question: Has this happened to many of you? What did you do?
>
> "I knew things would start to fail once the warranty expired"
>
> Jan Gray

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
i lost 3 (count them 3) ST's before i got wise and got a new power
supply (both cables at one end) since then no hardware problems
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)

Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6115919230878355980
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,14e5763e3355fd1c
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 142096,828c81a48e8d7d56
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 10:11:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.legal,net.micro.atari16,net.micro.amiga
Subject: Re: Re: Using Apple Macintosh roms on non-Apple machines
Message-ID: <234@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 12-May-86 13:11:37 EDT
Article-I.D.: cbmvax.234
Posted: Mon May 12 13:11:37 1986
Date-Received: Wed, 14-May-86 07:55:22 EDT
References: <959@well.UUCP> <794@ccird2.UUCP> <162@cbmvax.cbmvax.cbm.UUCP>
<1040@cadovax.UUCP> <637@baylor.UUCP>
Reply-To: daveh@cbmvax.UUCP (Dave Haynie)
Organization: Commodore Technology, West Chester, PA
Lines: 11
Xref: linus net.legal:3108 net.micro.atari16:598 net.micro.amiga:6815

You could certainly make Intuition calls from OS/9 just as easily as you
could from AmigaDOS. You'd have to rewrite some of the support functions
(like OpenLibrary()) to look for OS/9 style directories instead of AmigaDOS
logical names, but other than that they'd be little problem, I imagine.
--

Dave Haynie   {caip,inhp4,allegra,seismo}!cbmvax!daveh
"There, beyond the bounds of your weak imagination
 Lie the noble towers of my city, bright and gold"
                          -Genesis

From -8118051325350018837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 157808,e30df742cb8e78e1
X-Google-Attributes: gid157808,public
X-Google-Thread: 12eaa7,e30df742cb8e78e1
X-Google-Attributes: gid12eaa7,public

X-Google-Thread: 140593,acd00330f9d76218,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 150311,e30df742cb8e78e1
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-05-12 11:19:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!unisoft!mtxinu!rtech!
bobm
From: bobm@rtech.UUCP (Bob Mcqueer)
Newsgroups: net.music.synth,net.micro.trs-80,net.micro.6809,net.micro.atari16
Subject: Re: Looking for "USENET guide to MIDI"
Message-ID: <247@rtech.UUCP>
Date: Mon, 12-May-86 14:19:02 EDT
Article-I.D.: rtech.247
Posted: Mon May 12 14:19:02 1986
Date-Received: Wed, 14-May-86 19:49:46 EDT
References: <1008@well.UUCP>
Organization: Relational Technology Inc, Alameda CA
Lines: 11
Xref: linus net.music.synth:1111 net.micro.trs-80:595 net.micro.6809:801
net.micro.atari16:602

> But the USENET Guide ... is gone.
> (I used to have it in my own dir. - strangely disappeared!)

If you send me a request, I will e-mail a copy. I hesitate to send that
long an article around the net a second time. I have added net.micro.atari
to the list on this followup, as there has been a lot of MIDI discussion
in that group apparently (PC clone owner that I am, I haven't been following
it). If I get a whole pile of requests, I might repost it.

Bob McQueer
{amdahl|sun|mtxinu}!rtech!bobm

From 3935701255547484975
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a75760c09c0039be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 11:42:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: 1040s and TV sets and such
Message-ID: <8605121842.AA12175@mitre-bedford.ARPA>
Date: Mon, 12-May-86 14:42:47 EDT
Article-I.D.: mitre-be.8605121842.AA12175
Posted: Mon May 12 14:42:47 1986
Date-Received: Wed, 14-May-86 12:43:58 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA

Lines: 21

I believe that TV modulators are available from places like Radio Shack for under $20.00. If you have a composite output, that plus a TV modulator will drive your TV. I suspect that a composite signal is present inside the 1040 since they originally planned to run a TV modulator with it. If not, it is possible to construct a composite signal from RGB using a "NTSC Encoder" chip like the Signetics TDA2501, but a nontrivial amount of design effort is involved. Also, it may be that the Pin 2 signal you found not to work with your TV set is inverted or has the wrong amplitude or something and could be fixed by a simple amplifier circuit.

Not being an ST owner yet, I must say I find Atari's performance on this issue less than confidence-inspiring. C'mon, you guys at Atari, AT LEAST you could APOLOGIZE for the inconvenience occasioned by your change of plan and perhaps offer a suggested means of dealing with the problem like buying Brand XYZ TV Modulator. Failing that, it might be appropriate to revise the owners' manual, don't you think? Of course after reading about the 1040 Cabinet Meltdown Syndrome, I doubt that I would chose the 1040 over the 520 at this point, anyway.

-John Sangster
jhs@mitre-bedford.arpa

From -4503292605877405775
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,45a209adff13d77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 13:58:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Bicer.ES
From: Bicer.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: MicroEmacs
Message-ID: <860512-135848-3324@Xerox>
Date: Mon, 12-May-86 16:58:43 EDT
Article-I.D.: Xerox.860512-135848-3324
Posted: Mon May 12 16:58:43 1986
Date-Received: Wed, 14-May-86 12:45:32 EDT
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: Bicer.ES@Xerox.COM
Organization: The ARPA Internet
Lines: 7

Could anyone tell me where I can FTP the new MicroEmacs and the documentation?

    Thanks,
    Jack Bicer

Bicer.ES@Xerox.COM

From 6965576416937062011
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 14:21:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP
Newsgroups: net.micro.atari16
Subject: Atari BBS and Download in ASCII format
Message-ID: <186@bridge2.UUCP>
Date: Mon, 12-May-86 17:21:42 EDT
Article-I.D.: bridge2.186
Posted: Mon May 12 17:21:42 1986
Date-Received: Wed, 14-May-86 21:46:53 EDT
Distribution: net
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 31

I had been waiting several weeks for my PD terminal program to arrive. When I heard about the Atari BBS, I could stand it no longer, deciding that I could write a simple terminal emulator with ASCII download capability pretty quickly myself. Well, Friday night I tried it. On my first attempt, none of the downloaded files would run, all giving "TOS Error 34" or something like that. I took out my trusty disk utility program and compared one of the downloaded programs with a program prepared locally. Well, it seemed that there was an extra byte at the start of every downloaded file that was pushing the remainder of the file off. Admittedly, I did not have a great deal of evidence supporting me, but I decided to try simply discarding out the extraneous byte. VOILA, working programs! I was actually so surprised myself that I very carefully looked through the code for my "terminal emulator" (including the compiler's assembly output) and it really seems that the errant character is comming from the BBS.

Anybody know what the garbage character is or why it is there (incidentally, the character seemed always to be 0x12)?

Other than that, I am really happy to have a hook into Atari for PD software. There are some really cute things available, and it was well worth the work. (I am especially pleased as I live in Mountain View, the next town over from Sunnyvale, so the phone call is cheap.)

Thank you Neil!

Paul Fries
Mountain View, CA

From -2823526865690373066
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244a4719be30cb8c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 17:29:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!topaz!ll-xn!mit-amt!mit-eddie!genrad!
decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!burdvax!psuvax1!psuvm.bitnet!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: Power supply
Message-ID: <3407@ukma.UUCP>
Date: Mon, 12-May-86 20:29:20 EDT
Article-I.D.: ukma.3407
Posted: Mon May 12 20:29:20 1986
Date-Received: Thu, 15-May-86 07:53:20 EDT
References: <8605100658.AA12747@ucbvax.Berkeley.EDU>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 12

So, the plot thickens. That explains why my new TOS ROMs blew - perhaps. When I replaced the old 2 chips with 6 new ones, one (or more) of the new ones blew. And everything worked okay again with the old ones.

And at the time I thought logically that increased power drain meant lower voltage, and therefore lower current per chip. The note this note follows explains that actually a higher power drain means more current per device. I hope that this new engineering concept will be explained to novices like myself in due course. How can the MMU be blown by extra chips on the board???

Respectfully, ak.

From 664396041048908332
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84a9528b4398a454
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 19:07:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!topaz!ll-xn!mit-amt!mit-eddie!genrad!
decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!burdvax!psuvax1!psuvm.bitnet!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: Atari 520ST power supply failure
Message-ID: <3408@ukma.UUCP>
Date: Mon, 12-May-86 22:07:45 EDT
Article-I.D.: ukma.3408
Posted: Mon May 12 22:07:45 1986
Date-Received: Thu, 15-May-86 07:54:03 EDT
References: <2459@watmath.UUCP>

Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: net
Organization: U of KY Mathematical Sciences
Lines: 23

Yes, there is an official line. At least, I got a line from an Atari hardware person. He told me that a check had been made and that this showed that the problems were very rare. The story I heard from a non-Atari individual last year was that 50% of supplies before September last year (ie produced before that time) were faulty to the extent of emitting smoke and giving a 15V difference between pins 1 and 7 on the supply instead of 5V. (Also giving a 35 mS pulse on boot-up.) But now the problems seem to be of three kinds:
(1) Too much voltage on the 5V line.
(2) Too much smoke from the "brick".
(3) Blowing the MMU when extra RAM is added.
Now the question may be asked whether these are mutually exlusive, or independent etc. My old supply had (1) but no (2). And I never tried (3).

The hardware person became merely sympathetic when I told him that the warranty had expired. But it was the TOS ROMs that made the problem evident, and they weren't available until it was too late. The thing I don't understand is why it took a week of using the TOS ROMs before one of these chips blew. Yet more mystery! If only this net had an automatic voting capability to indicate whether people had options (1), (2) or (3)!!

So long, Alan Kennington.

From 411978495555522715
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd66f87ed1e0a46c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 19:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!
ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Help me get files
Message-ID: <54600081@iuvax.UUCP>
Date: Mon, 12-May-86 22:16:00 EDT
Article-I.D.: iuvax.54600081
Posted: Mon May 12 22:16:00 1986
Date-Received: Fri, 16-May-86 02:56:25 EDT
References: <15167037@ucbvax.UUCP>
Lines: 22
Nf-ID: #R:ucbvax:-1516703700:iuvax:54600081:000:825
Nf-From: iuvax!franco May 12 21:16:00 1986

If you need some ST software may I suggest sending four disks to the address

below. I will copy the following items plus others onto those disks:

Utilities: Mike's RAMDISK, other RAMDISKS, uuencode/uudecode,
    stsqueeze/unsqueeze, microemacs, CLI, xmodem/vt52 emulator, disk/memory
    editors, disassembler (barely), 410K/820K disk formater etc.

Languages: Bradley's FORTHMACS, XLISP, ASSEMBLER, PROLOG (ontop of XLISP)

FONTS: about 30 (only work with TOS.IMG on a boot disk)

Sources: XLISP and XMODEM C sources

Docs: Disassembler, microemacs, cli, xlisp, forth, assembler + others

Accessories: Clock, RAMSIZE, RAMDISKs, cli, directory print + others

John Franco
2535 Spicewood Lane
Bloomington, IN 47401
USA

Be sure to include a SASE, packing material
and four disks formated SS.

From -3507149621611324498
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ec6ac13f27f64422,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 19:26:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!burdvax!psuvax1!psuvm.bitnet!
ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: NM68, AR68 etc.
Message-ID: <3409@ukma.UUCP>
Date: Mon, 12-May-86 22:26:26 EDT
Article-I.D.: ukma.3409
Posted: Mon May 12 22:26:26 1986
Date-Received: Wed, 14-May-86 02:22:03 EDT
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 16

Now that I've solved the problem of LIBF (the modules are all in the
wrong order), I thought I'd rearrange the modules so that they can reference
each other properly. So I used the command:
AR68 xv libf
with no modules listed after "libf". This is supposed to cause AR68 to
produce copies of all the modules of libf into "the default drive".
The result, however, was a syntax error diagnostic. And this is a

correct diagnosis. The TOS manual (really CP/M-68k) with the dev kit
on page 7-7 specifies a syntax which is illegal.
        So what is the correct way to do it?? Anybody know?

        Secondly, since there is no documentation on NM68 in the manual,
does anybody know where I can find this documentation?
        Thanks in advance, ...Alan Kennington.

From -7987632180891750357
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4cc4dd240da49de,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 19:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!
ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: One Last Missing STarter Kit File
Message-ID: <54600082@iuvax.UUCP>
Date: Mon, 12-May-86 22:37:00 EDT
Article-I.D.: iuvax.54600082
Posted: Mon May 12 22:37:00 1986
Date-Received: Fri, 16-May-86 02:50:33 EDT
Lines: 44
Nf-ID: #N:iuvax:54600082:000:1836
Nf-From: iuvax!franco   May 12 21:37:00 1986

This is, I believe, the last file missing from the earlier versions of
the STarter Kit that I will have to post for people needing it. It is the
documentation for the CLI accessory. It is rather short so I hope no one
thinks this is a serious abuse of the net.

------------------------cut here---------------------------
    A very simple command line interface for the Atari 520ST TOS.

    Syntax is a VERY small subset of the Bourne shell supplied with
    the Unix operating system. Specifically:

     Each command is a seperate line.
     Each command consists of several words separated by white space.
     The first word is the command name.
     If a word matches "name=value" for some name and value, it is
         variable assignment and not considered part of the command
         line.
     A dollar sign followed by a variable name is replaced by the
         value of the variable.
     Single quotes protect characters from all interpretation.
     Double quotes protect characters from all interpretation EXCEPT
         for variable replacement.
     '*' and '?' wild card characters are supported, but only in the

```
        "leaf" part of the filename.
    Input and output redirection is supported to and from disk files.
    The only variables with special meaning are:
        PATH command search path
        SUFFIXES  supported command types
      The elements in the PATH and SUFFIXES list are separated
      by commas.
    The only built-in commands are:
        .         temporarily read commands from file
        cd        change directory
        echo  print arguments on screen
        meminfo   print some memory usage info; mainly for debugging
        pwd       print name of current directory
        set       list defined variables
         -v   print lines as they are read
         -x   print lines as they are executed
        version   print CLI and GEMDOS versions
   Control-D exits from the program.

   Dave Clemans, 2/86


From 1145488337656368038
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d599e0ba774d230,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 20:27:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!utah-cs!sandra
From: sandra@utah-cs.UUCP (Sandra J Loosemore)
Newsgroups: net.micro.atari16
Subject: microemacs v30 on the ST
Message-ID: <3790@utah-cs.UUCP>
Date: Mon, 12-May-86 23:27:11 EDT
Article-I.D.: utah-cs.3790
Posted: Mon May 12 23:27:11 1986
Date-Received: Wed, 14-May-86 20:37:30 EDT
Organization: University of Utah CS Dept
Lines: 12
Keywords: how do you get it to compile?

Has anybody succeeded in getting the MicroEmacs V30 (posted to mod.sources
last month) to run on an Atari ST?  I get warning messages like "pointer
subtraction yields a long result" while compiling display.c, and then the
linker dies with a seek error while trying to load display.o.  This is
with the developer's kit C compiler and using the .bat files supplied
with the microemacs sources.  I see some comments in the code at the
relevant places in display.c referring to "Alcyon C hack", but I'm not
enough of a C wizard to figure out exactly what's wrong or how to fix it.
(Pointer arithmetic?  Blecchhh!)  Can anyone enlighten me?

-Sandra Loosemore
(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)
```

From -1917608210131109626
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6befc02f04cd9a88,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 20:51:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XX.LCS.MIT.EDU!JKR%OZ.AI.MIT.EDU
From: JKR%OZ.AI.MIT.EDU@XX.LCS.MIT.EDU
Newsgroups: net.micro.atari16
Subject: BALLYHOO
Message-ID: <12206253215.67.JKR@OZ.AI.MIT.EDU>
Date: Mon, 12-May-86 23:51:30 EDT
Article-I.D.: OZ.12206253215.67.JKR
Posted: Mon May 12 23:51:30 1986
Date-Received: Wed, 14-May-86 13:06:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Can someone give me a hint on what to do with the elephant in Ballyhoo,
or is the elephant just a dead end?

--glen

From 1520191279285963823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bf567f7f29491d8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 01:59:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!
JULIET.CALTECH.EDU!kegel
From: kegel@JULIET.CALTECH.EDU (Dan R. Kegel)
Newsgroups: net.micro.atari16
Subject: this conference
Message-ID: <860513015947.010@Juliet.Caltech.Edu>
Date: Tue, 13-May-86 04:59:47 EDT
Article-I.D.: Juliet.860513015947.010
Posted: Tue May 13 04:59:47 1986
Date-Received: Wed, 14-May-86 22:38:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

This conference suffers from (1) entries getting submitted in duplicate
or triplicate, sometimes over a period of three weeks; (2) excessive
quoting of previous messages in letters that really don't add much; and
(3) too goddamned many header lines in each message; that "fix your mailer"

line is especially redundant.
The conference info-ibmpc suffers from none of these, probably because it
has a moderator (the job rotates weekly, I believe).
Short of getting a moderator, the best thing that could happen would be for
info-atari16 to get filtered through a program that filtered out old
or empty messages BEFORE they are sent out to us listeners.
--> Do such programs already exist?
- Dan
(kegel@juliet.caltech.edu, kegel@citjulie.bitnet)

From 7822276348112200620
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d76831960464d140,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 02:05:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!
JULIET.CALTECH.EDU!kegel
From: kegel@JULIET.CALTECH.EDU (Dan R. Kegel)
Newsgroups: net.micro.atari16
Subject: CMOS 68000
Message-ID: <860513020514.011@Juliet.Caltech.Edu>
Date: Tue, 13-May-86 05:05:14 EDT
Article-I.D.: Juliet.860513020514.011
Posted: Tue May 13 05:05:14 1986
Date-Received: Wed, 14-May-86 22:38:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Yes, Hitachi is making a CMOS 68000, named the HD68HC000; it sucks less than
35 mA at 12.5 MHz (according to a Preliminary data sheet dated Sept. 1985).
The data sheet looks exactly like the 68000 data sheet, as far as I can see.
The dude I talked to says they've been waiting forever for permission from
Motorola to come out with this part, and finally got it after Motorola got
the 68020 out.
- Dan (kegel@juliet.caltech.edu)

From -8486651016317771166
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,45a209adff13d77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 02:13:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!
JULIET.CALTECH.EDU!kegel
From: kegel@JULIET.CALTECH.EDU (Dan R. Kegel)
Newsgroups: net.micro.atari16
Subject: MicroEmacs
Message-ID: <860513021353.012@Juliet.Caltech.Edu>
Date: Tue, 13-May-86 05:13:53 EDT

Article-I.D.: Juliet.860513021353.012
Posted: Tue May 13 05:13:53 1986
Date-Received: Wed, 14-May-86 22:39:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

The most recent DEC redistribution, as modified at Caltech for blinding
update speed under NANSI.SYS or FANSI, as well as the most recent Daniel
Lawrence redistribution (3.6), are available for remote FTP as follows:
machine: tybalt.caltech.edu
account: anonymous
for DEC version, cd to pub/uemacs36c, mget *.*
for Lawrence version, cd to pub/uemacs36d, mget *   (I meant * above, too)
- Dan
p.s. Lawrence MicroEmacs 3.6 has an impressive list of features, but
     is amusingly slow at handling input when compiled under Large model
     of Microsoft C.

From 5538447214037852574
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35e09ac0a808012a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 05:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!GE-CRD.ARPA!
montnaro%chenengo.tcpip
From: montnaro%chenengo.tcpip@GE-CRD.ARPA
Newsgroups: net.micro.atari16
Subject: when will it end?
Message-ID: <8605131212.AA22340@ucbvax.Berkeley.EDU>
Date: Tue, 13-May-86 08:52:00 EDT
Article-I.D.: ucbvax.8605131212.AA22340
Posted: Tue May 13 08:52:00 1986
Date-Received: Thu, 15-May-86 19:01:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 57

Received: by chenengo.steinmetz (3.0/1.1x Steinmetz)
     id AA05829; Tue, 13 May 86 07:44:40 EDT
Date: Tue, 13 May 86 07:44:40 EDT
From: Skip Montanaro <montnaro%chenengo.tcpip@csbvax>
Posted-Date: Tue, 13 May 86 07:44:40 EDT
Message-Id: <8605131144.AA05829@chenengo.steinmetz>
To: info-atari16@score.stanford.edu, postmaster@ucbvax.berkeley.edu
Subject: when will it end?

This is another repeated mail message from some time ago. Note the
differences between the Date and Received fields. Sounds like Berkeley's
mailer (or perhaps the one on bitnet in the Sender field) has a problem.

==========
Skip Montanaro
ARPA: montanaro@ge-crd.arpa
US Mail: General Electric Company
      Corporate Research and Development
      P.O. Box 8
      Bldg KW, Room C210
      Schenectady, NY 12304
Phone: 518-387-7312
==========

>   Posted-Date: 13 May 86 02:30 EST
>   Date: 13 May 86 02:30 EST
>   From: mail gateway <@csbvax.steinmetz:info-atari16-
request@score.stanford.edu>
>   Subject: Re: ST based lap computers: A query.
>   To: SKIP@BKILL.steinmetz
>
>>>!!!>>Received: from ucbvax.Berkeley.EDU ([128.32.137.3].#Internet) by SU-
SCORE.ARPA with TCP; Mon 12 May 86 15:55:35-PDT
>   Received: by ucbvax.Berkeley.EDU (5.51/1.13)
>   id AA07432; Mon, 12 May 86 14:27:20 PDT
>>>!!!>>Date: 29 Apr 86 07:25:00 GMT
>   From: hpda!hpisoa2!hpitg!cbmvax!daveh@cbmvax@ucbvax.berkeley.edu
>   Subject: Re: ST based lap computers: A query.
>   Message-Id: <161@cbmvax>
>   References: <14187322@ucbvax>
>   Sender: postmast%cornella.bitnet@wiscvm.wisc.edu (fix your mailer)
>   Real-Annoyed-Sender: usenet@ucbvax.Berkeley.EDU
>   Errors-To: <info-atari16-request@score.stanford.edu>
>   To: info-atari16@score.stanford.edu
>
>
>   I think Hitachi makes-or-will-be-making a CMOS 68000, though I hear that
>   Hitachi 68000's in general may be a bit weird in the way they work as
>   compared to everyone else's 68000's.
>   --
>
>   Dave Haynie   {caip,inhp4,allegra,seismo}!cbmvax!daveh
>   "There, beyond the bounds of your weak imagination
>   Lie the noble towers of my city, bright and gold"
>   -Genesis
>
>
>

From -6856769519581837658
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee40e1378995b777,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 06:50:28 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!kodak!elmgate!jdg
From: jdg@elmgate.uucp (Jeff Gortatowsky)
Newsgroups: net.micro.atari16
Subject: Come off it!
Message-ID: <425@elmgate.uucp>
Date: Tue, 13-May-86 09:50:28 EDT
Article-I.D.: elmgate.425
Posted: Tue May 13 09:50:28 1986
Date-Received: Thu, 15-May-86 06:17:37 EDT
Organization: Eastman Kodak Company, Rochester, NY
Lines: 32

>(And before you point out that Commodore isn't the only company doing
>this at our expense, I already know that. It's just that when a
>representative (official or not) of an unmistakably for-profit company
>flames some innocent citizen for "abuse", I get severely annoyed.)
>
> - Joel ({allegra,ihnp4,seismo}!uwvax!uwmacc!oyster)

Oh brother!!! What else will you 'get serverly annoyed at'? Look buddy
CBM paid for their machine. They pay for the phone line that connects it
to the net. Andy (and John) are welcome to voice their opinion. Did it
ever occur to you that in *THIS* case Andy was simply expressing his
opinion. Andy.. always make it clear that it's YOUR opinion not CBM's.

I personally believe Andy is right and welcome ANYONES opinion on ANY
subject that is pertinent to the net or the new groups on the net. Atari
, C-A, MIPS, and 1000's of other employee's of companies have voiced their
'opinions' right here on the net. You figure the guy that posted the
original note did so from his personal U**X machine? Maybe, but odds are
against it.

John, went a bit overboard in his flame (probably a reaction from being
nicer in his personal life 8->). But yours! Well ... I guess you've
never used the net to voice your opinion from a 'for-profit' company or
a for-profit institutional machine. Gee a *REAL* saint! 8^)

--
Jeff Gortatowsky   {allegra,seismo}!rochester!kodak!elmgate!jdg
Eastman Kodak Company

<Kodak won't be responsible for the above comments, only those below>

From 5442548099313011793
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc4492ad6f5496bd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 07:01:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!qantel!hplabs!pesnta!
amd!amdcad!cae780!leadsv!trimble
From: trimble@leadsv.UUCP (Gary Trimble)
Newsgroups: net.micro.atari16
Subject: Atari Announcements
Message-ID: <942@leadsv.UUCP>
Date: Tue, 13-May-86 10:01:06 EDT
Article-I.D.: leadsv.942
Posted: Tue May 13 10:01:06 1986
Date-Received: Thu, 15-May-86 08:01:20 EDT
Organization: LMSC-LEADS, Sunnyvale, Ca.
Lines: 9
Keywords: New Products, 20Mbyte Disk, Emulators

From the San Jose Mercury News (Monday, May 12 1986):

     "Atari Corp. of Sunnyvale has introduced several new products
for it's ST computers, including a 20-megabyte hard disk drive. In
addition, it is offering a CPM operating system emulator, an MS-DOS
operating system emulator, a dot-matrix printer, and an Atari brand
double-sided 3.5-inch diskette."

Neil, if you're out there, could you comment or elaborate?

From 8977224688634820092
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28bc1ea34339783b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 08:52:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!topaz!ll-xn!mit-amt!mit-eddie!genrad!
decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520 Power supply question. (URGENT!)
Message-ID: <362@imagen.UUCP>
Date: Tue, 13-May-86 11:52:08 EDT
Article-I.D.: imagen.362
Posted: Tue May 13 11:52:08 1986
Date-Received: Thu, 15-May-86 07:30:06 EDT
References: <1284@princeton.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 24

>
>   I just got a replacement 520ST from a distributor today. The power
> supply has the two cords on opposite sides of the brick. Is this
> one of the old unreliable supplies?? If so, what was the problem
> and more important, what was the fix?
>
> Thomas Petsche

> {ihnp4, allegra}!princeton!ivy!petsche
> petsche@princeton

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
burn that power supply before it burns you !!!!!
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6917107741635722710
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 09:18:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!sri-spam!nike!styx!lll-crg!lll-lcc!
qantel!hplabs!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 520 vs 1040
Message-ID: <8605131618.AA10686@mitre-bedford.ARPA>
Date: Tue, 13-May-86 12:18:55 EDT
Article-I.D.: mitre-be.8605131618.AA10686
Posted: Tue May 13 12:18:55 1986
Date-Received: Thu, 15-May-86 07:29:13 EDT
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 21

1040s have a heat problem, reported in one case to cause sagging of the
plastic case. They also have a disk drive reliability problem, said to be
possibly due to the heat problem.

520s can be upgraded but the MMU has been alleged to not have enough drive
capability, thus requiring resistor "fixes" to protect it or something. Other
sources say it is the power supply that is the culprit, not having enough
current capacity and thus causing various components to operate at the wrong
voltage.

Sounds to me as though an upgraded 520ST with a better-grade external power
supply might be the way to go. 5-volt DC supplies of good quality are widely
available or can be built at fairly low cost. I think if I were buying right
now it would be this approach.

Down with little black transformers all over the place! The time for REAL power supplies has come! (What voltage/current do the monitor and disk drive require, while we are at it?)

-John Sangster
jhs@mitre-bedford.arpa

From 4046482911739576992
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e1cb33e4ba83c1f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 09:32:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Avantek 1200 Modem
Message-ID: <8605131632.AA11309@mitre-bedford.ARPA>
Date: Tue, 13-May-86 12:32:37 EDT
Article-I.D.: mitre-be.8605131632.AA11309
Posted: Tue May 13 12:32:37 1986
Date-Received: Fri, 16-May-86 02:19:06 EDT
References: <314@vu-vlsi>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

The modem I bought was by Avatex, not Avantek. It sells for under $100.
I paid $80, and others can possibly get that price or better in a group purchase. Call Rick Pommet at Nelson Communications, (617) 738-6000 to strike up a deal. (He is a died-in-the-wool Atari freak, so he is sympathetic rather than greedy!)

-John S,
jhs@mitre-bedford.arpa.usual.disclaimer

From -2961308435758531101
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-13 10:12:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!gould9!ncr-sd!sdcsvax!sdcarl!tre
From: tre@sdcarl.UUCP
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <317@sdcarl.UUCP>

Date: Tue, 13-May-86 13:12:42 EDT
Article-I.D.: sdcarl.317
Posted: Tue May 13 13:12:42 1986
Date-Received: Wed, 14-May-86 17:46:30 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP> <2206@uwmacc.UUCP>
Reply-To: tre@sdcarl.UUCP (Tom Erbe)
Distribution: na
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 24
Summary: Should binaries and sources for non-UNIX machines be on th net?
Xref: decwrl net.micro.atari16:775 net.mail:1623

.
So what is the verdict?? Is the posting of sources and binaries for the ST kosher? Or is the net only around for UNIX and like systems? If it is, how are the following newsgroups justified?

net.sources.mac
mod.amiga.sources
mod.amiga.binaries

I for one, use many machines (IBM,SMI,DEC,Atari,Apple,Motorola,etc.) at work, and most of them are not UNIX machines. I appreciate getting useful programs for these machines from the net. If I have to, I will call a BBS to get certain useful programs, but I prefer not to, when: A) UCSD (my place of employ) should be paying for the acquisition, B) it is annoying to stay up until 1 AM, only to get 20 minutes of access to a busy BBS, and C) my VAX has uucp, which does it all so much better.

I had always suspected the net was around for the exchange of software and related dialogue. I had no idea I would get flamed for suggesting it continue. Please reply with intellegence this time, but if you really have to flame, mail it to me, don't post it.
--
thomas r. erbe
{ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From 289323844161059082
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6bd4ae630111c6e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 10:34:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!hrc63!cd
From: cd@hrc63.UUCP (Colin Denman GECCL)
Newsgroups: net.micro.atari16
Subject: problems with disc/rs232
Message-ID: <351@hrc63.UUCP>
Date: Tue, 13-May-86 13:34:27 EDT
Article-I.D.: hrc63.351
Posted: Tue May 13 13:34:27 1986
Date-Received: Fri, 16-May-86 06:33:09 EDT

Organization: GEC Hirst Research Labs, Wembley, Middlesex.
Lines: 20

I am having some problems with a program designed to read/write the rs232, whilst accessing the floppy disc. I would appreciate any insight, hopefully from people who *know*. The program uses Caux...() calls to access the rs232 line, checking for availability of characters/buffer space etc. & using stdio for disc i/o. The problem arises when transferring data from the disc, whilst receiving from the rs232. This is the only combination that presents problems, the program will happilly receive lots of input from the line, or send lots of data to it, but when trying to do both, it locks up. A logic analyser shows the cpu to be constantly in supervisor mode, with no excursions whatsoever back to my program. As best as I can tell, the code being executed is related to the video sync interrupts, but it is difficult to be sure. I have no idea how it achieves this state, the keyboard & mouse are both locked, and the only recovery is to reboot. The activities are all intended to be synchronised by an evnt_multi(), with the rs232 i/o kicked for each event (a timer event is included just to make sure it happens) and the file access kicked whenever there is nothing better to do (eg when the timer event actually occurs & no rs232 i/o is needed).

From 5585398017511050429
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 10:37:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Unix for 1040ST
Message-ID: <278@brueer.brueer.UUCP>
Date: Tue, 13-May-86 13:37:33 EDT
Article-I.D.: brueer.278
Posted: Tue May 13 13:37:33 1986
Date-Received: Fri, 16-May-86 06:31:41 EDT
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 13

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

I've just heard a rumour that Unix will be available on 1040 ST's by about the end of this year. Can anyone on the net confirm or deny this ??
--
=-=
Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
Uxbridge | JANET: ralph@uk.ac.brunel.ee

UB8 3PH |
UNITED KINGDOM | "Noli illegitemi carborundum"
=-=-=-

4. And Search Rules for the compiler! Do they exist? I hate putting absolute pathnames in my sources, but hate moby folders that take the whole screen even more.

5. If anybody has a Copy.TTP and/or Move.TTP, please post them. Perhaps they exist in some repository which I haven't found. Or I could just write them, but ...

6. It seems that Application Document types are known system-wide, but the application handlers themselves must be in the current folder. Also, I often want one application handler (e.g. micro-emacs) be in effect for multiple document types (e.g. source.c and source.s).

7. Is there an option to save the desktop before an application starts so that exiting the application and returning to the desk wouldn't involve spinning the disk? Perhaps pickey, but it takes a few seconds and happens quite often. Perhaps the Moby RAMDISK is the way out.

8. My friend made me extremely gealous over lunch the other day quoting how his Thinkware C on a MAC+ did a compile-bind-go in 10 seconds. I'm struggeling with a 90 second compile and a 5 minute load using the developers kit. (I guess GEM libraries are big.) I know that both are about 5x faster using RAMDISK, but I need more memory on my 520 to fit everything.

9. My warantee will be up in a month, and I'm going to get the old soldering iron out. Does anybody have any experience with putting in 1M chips? Does the ST's MMU handle them? (it seems to have pins enough, what about refresh? (Neil?)) I believe it would require flying wires on a few address lines, but no piggybacking. The thought of doing compiles and links from a 1.5M RAMDISK really turns me on!

10. I'm looking for a set of graphics primitives that will make porting my pet children's game to other PC's as well as the ST easy. Does GEM foot that bill? How stiff would lisence fees be for customers who didn't already have GEM, given the package wouldn't expose bare GEM functionality to the user. Anybody know of other packages or conventions that work?

11. Boy, would I like to have a copy of Switcher to go quickly between contexts quickly. What I'd really rather have is multiprocess windows like the Sun, but lets be realistic! Two practical questions though: Is it possible to bring up a GEM application on the same desktop as (using MAC terms) the finder? and Does GEM support any sort of multi-tasking? Does any one out there have any hints?

"You can tell a craftsman by his tools",
and
"the men from the boys by the size of their toys".

From 8407508221938248056

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,357445b28b2b6ef1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 13:02:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!sri-spam!nike!styx!lll-crg!lll-lcc!
unisoft!mtxinu!rtech!bobm
From: bobm@rtech.UUCP (Bob Mcqueer)
Newsgroups: net.micro.atari16
Subject: USENET MIDI GUIDE
Message-ID: <255@rtech.UUCP>
Date: Tue, 13-May-86 16:02:37 EDT
Article-I.D.: rtech.255
Posted: Tue May 13 16:02:37 1986
Date-Received: Thu, 15-May-86 06:49:01 EDT
Distribution: net
Organization: Relational Technology Inc, Alameda CA
Lines: 13

I noted this morning that no less than 3 people reposted my article!
So much for saving some net traffic. Oh well, I'm glad its popular,
anyway. I just thought I'd tell you folks over here in atari-land
that one of the repostings was cross-referenced to:

net.music.synth
net.micro.trs-80
net.micro.6809

My mail offer still holds, of course.

Bob McQueer
{amdahl|sun|mtxinu}!rtech!bobm

From 8081383063576582659
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e073e7bbc886f397,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 14:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!CARLETON.BITNET!
GEORGE_FRAJKOR
From: GEORGE_FRAJKOR@CARLETON.BITNET (GEORGE FRAJKOR)
Newsgroups: net.micro.atari16
Subject: ATARI NETWORK, PRINTER DRIVERS
Message-ID: <8605162336.AA23370@ucbvax.Berkeley.EDU>
Date: Tue, 13-May-86 17:37:00 EDT
Article-I.D.: ucbvax.8605162336.AA23370
Posted: Tue May 13 17:37:00 1986
Date-Received: Mon, 19-May-86 01:31:43 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

DOES anybody know if someone is developing a networking or shared-peripheral system for the STs? Seems to me they'd make darn good classroom use computers (better and jsut as cheap as Apple, probably) if Atari would take the education market seriously. Anything that would enable 16 or so STs to share a common printer and hard disk or tap into a mainframe would sure help.

Also, anyone know how to set up a printer driver for the Mannesman-Tally Spirit 80? It is not Epsonable, it seems.

From -2385223473731116921
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 15:05:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format
Message-ID: <363@imagen.UUCP>
Date: Tue, 13-May-86 18:05:33 EDT
Article-I.D.: imagen.363
Posted: Tue May 13 18:05:33 1986
Date-Received: Fri, 16-May-86 02:53:30 EDT
References: <186@bridge2.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 27

>
> Anybody know what the garbage character is or why it is there
> (incidentally, the character seemed always to be 0x12)?
>
> Thank you Neil!
>
> Paul Fries
> Mountain View, CA

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

what you are seeing is a handshaking character called XON (ctrl-Q)
it tells terminals that support XON/XOFF protocal to start
processing incoming characters if a previous XOFF has halted it,
otherwise it is ignored
--

"If only you could see what I've seen with your eyes"
-Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7360221391794365607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8afa8988a9431c20
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 15:24:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
XEROX.COM!Bicer.ES
From: Bicer.ES@XEROX.COM.UUCP
Newsgroups: net.micro.atari16
Subject: Re: UPDATES!
Message-ID: <860513-152443-4462@Xerox>
Date: Tue, 13-May-86 18:24:38 EDT
Article-I.D.: Xerox.860513-152443-4462
Posted: Tue May 13 18:24:38 1986
Date-Received: Fri, 16-May-86 02:19:37 EDT
References: <1078@trwrb.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: Bicer.ES@Xerox.COM
Organization: The ARPA Internet
Lines: 8

Could anyone tell me where I can FTP the new MicroEmacs and the documentation?

        Thanks,
        Jack Bicer

Bicer.ES@Xerox.COM

From -92162208583623823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f49463545fab4b58,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 16:33:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!pyramid!
hplabs!hao!nbires!marasco
From: marasco@nbires.UUCP
Newsgroups: net.micro.atari16
Subject: VT52 PROBLEM
Message-ID: <759@nbires.UUCP>

Date: Tue, 13-May-86 19:33:53 EDT
Article-I.D.: nbires.759
Posted: Tue May 13 19:33:53 1986
Date-Received: Fri, 16-May-86 06:19:47 EDT
Organization: NBI,Inc, Boulder CO
Lines: 14
Keywords: VT52

HELP! I have been experiencing a problem using the VT52 emulator on
my 520ST. While connected via modem to a vax with unix I have problems
while using the vi editor. It seems to have a scrolling problem when
the lines are around 65 or more characters long.

I don't think that it's an emulator bug because the same thing happens
while using CHAT. I have tried using several termcaps that have come
over the net as well. Maybe I need to perform some unix shell command?

Has anybody else had this problem? If so, do you know of any solutions?

Bernie Marasco @ NBI, Inc, Boulder CO
nbires!marasco

From -1786239555551215892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,619b42c683186f77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 17:09:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
ROMEO.CALTECH.EDU!kegel
From: kegel@ROMEO.CALTECH.EDU.UUCP
Newsgroups: net.micro.atari16
Subject: Microemacs again
Message-ID: <860513170940.036@Romeo.Caltech.Edu>
Date: Tue, 13-May-86 20:09:41 EDT
Article-I.D.: Romeo.860513170940.036
Posted: Tue May 13 20:09:41 1986
Date-Received: Fri, 16-May-86 02:26:23 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

  The MicroEmacs files I mentioned at tybalt.caltech.edu are C source files.
  In the DEC version in pub/uemacs36c, the files starting with pc_ are MS-DOS
  specific; those starting with at_ are atari specific.
  The Lawrence version in pub/uemacs36d is fresh out of the box and unmodified;
  its system dependancies are handled with #if preprocessor statements instead
  of separate files.
  - Dan (kegel@juliet.caltech.edu, kegel@citjulie.bitnet)

From -4786505851765849640
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d5f41e925046236,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 18:33:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!utah-cs!sandra
From: sandra@utah-cs.UUCP (Sandra J Loosemore)
Newsgroups: net.micro.atari16
Subject: VT52 emulator dies
Message-ID: <3794@utah-cs.UUCP>
Date: Tue, 13-May-86 21:33:57 EDT
Article-I.D.: utah-cs.3794
Posted: Tue May 13 21:33:57 1986
Date-Received: Thu, 15-May-86 06:25:28 EDT
Organization: University of Utah CS Dept
Lines: 14

I've been experiencing a problem with the desktop VT52 emulator on a
fairly regular basis, and I'm wondering if I'm the only one. What happens
is this: some noise comes over the phone line (like when it hangs up on
the other end), and suddenly the terminal emulator goes dead. Nothing
shows up on the screen, nothing goes out the RS232 port. Going back
to the desktop and then back into the terminal emulator doesn't do a thing
to unwedge it; you have to hit the reset button. My modem (a Signalman)
is admittedly not the most reliable piece of equipment in the world, but
I've never had similar problems using it with my Heathkit terminal. Does
this sound familiar to anybody? Is there some less catastrophic way to
unwedge things?

-Sandra
(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)

From -6888323737822584738
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9a1e03bbc2b8c54
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 20:54:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!
ulysses!mhuxr!mhuxn!ihnp4!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: Reliability.
Message-ID: <3414@ukma.UUCP>
Date: Tue, 13-May-86 23:54:40 EDT
Article-I.D.: ukma.3414
Posted: Tue May 13 23:54:40 1986
Date-Received: Fri, 16-May-86 04:49:03 EDT
References: <1475@cwruecmp.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)

Organization: U of KY Mathematical Sciences
Lines: 12

On the subject of the high frequency noise from the 1040:
Mine HAS a noise from the disk drive (internal). There is no other noise that shouldn't be there (within my normal hearing range). I get a high frequency noise from the intyernal disk drive every time I turn on the external disk drive. It is clearly caused by resonance of soime loose part of the drive mechanism, which is only free to vibrate when the drvie is not actually reading or writing.

A piece of loose metal rings like a bell most times when the external drive just starts up.

So it looks as though there is some variety in the 1040 noises.

So long, Alan Kennington.

From -1302503987844266540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-13 22:17:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!ulysses!mhuxr!mhuxn!ihnp4!alberta!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Re: 520 vs 1040
Message-ID: <241@ubc-cs.UUCP>
Date: Wed, 14-May-86 01:17:07 EDT
Article-I.D.: ubc-cs.241
Posted: Wed May 14 01:17:07 1986
Date-Received: Fri, 16-May-86 05:00:25 EDT
References: <8605131618.AA10686@mitre-bedford.ARPA>
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 7
Summary: 1040 overheats? Not mine!

I've had my 1040 on for hours at a time, and not noticed either the machine overheating or the disk becoming unreliable. Of course, my machine's still under warranty, so I shouldn't expect that sort of problem.

From 4307254264349407055
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2094f664354ca6c3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 05:59:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!jsgray

From: jsgray@watdragon.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Followup to ST Power Supply Problems
Message-ID: <989@watdragon.UUCP>
Date: Wed, 14-May-86 08:59:10 EDT
Article-I.D.: watdrago.989
Posted: Wed May 14 08:59:10 1986
Date-Received: Thu, 15-May-86 19:00:21 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 19

Well, the simple solution was to order a replacement power supply,
which is only $40CDN.

I opened up my old power supply to take a look at the problem, and I
was *not* impressed. About 2/5 of the supply consists of a large
transformer in a sea of wax. The main PC board was held into place
by a foam rubber "stopper". The problem -- two of the large diodes
(part of a bridge rectifier) had exploded, leaving diode bits and
a blackened PC board. I was very lucky it didn't take the ST with it...

I have a feeling quality control consists of "plug it in, if it works, ship it".

Those of you with the old style power supplies might do well to
buy one of the newer supplies (disclaimer -- I haven't been inside
one of the new ones -- it might be just as bad), since they're only
a small fraction of the price of your ST system.

Jan Gray

From -829263752564045632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d5f41e925046236
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 07:19:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: VT52 emulator dies
Message-ID: <4912@ut-sally.UUCP>
Date: Wed, 14-May-86 10:19:03 EDT
Article-I.D.: ut-sally.4912
Posted: Wed May 14 10:19:03 1986
Date-Received: Fri, 16-May-86 06:30:21 EDT
References: <3794@utah-cs.UUCP>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Organization: U. Texas CS Dept., Austin, Texas
Lines: 30
Summary: mine too

In article <3794@utah-cs.UUCP> sandra@utah-cs.UUCP (Sandra J Loosemore) writes:
>I've been experiencing a problem with the desktop VT52 emulator on a
>fairly regular basis, and I'm wondering if I'm the only one. What happens
>is this: some noise comes over the phone line (like when it hangs up on
>the other end), and suddenly the terminal emulator goes dead. Nothing
>shows up on the screen, nothing goes out the RS232 port. Going back
>to the desktop and then back into the terminal emulator doesn't do a thing
>to unwedge it; you have to hit the reset button. My modem (a Signalman)
>is admittedly not the most reliable piece of equipment in the world, but
>I've never had similar problems using it with my Heathkit terminal. Does
>this sound familiar to anybody? Is there some less catastrophic way to
>unwedge things?
>
>-Sandra
>(utah-cs!sandra, loosemore@utah-20, decwrl!esunix!loosemor)

I've had the same problem, and I don't think it is related to the VT52 emulator itself since the same thing has happened while using the xmodem program emulator as well as with the desktop emulator. I'll have finished a call and want to dial another, but the ATDP 1234567 does not echo on the screen. Turning the modem off and on does nothing, so I have to hit the reset. I'm using a Volks 12 and 520ST. Does anybody in net.land know what's going on here??

Maurice T. Franklin
CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

[Disclaimer: The University of Texas at Austin, the Computer Science Dept, nor just about anybody else, is to be held responsible for what I say here.]

From 8666164995935914927
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,490851c6551fe2e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 08:21:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utai.UUCP
Path: utzoo!utcsri!utai!jenkin
From: jenkin@utai.UUCP (Michael Jenkin)
Newsgroups: net.micro.atari16
Subject: recording colour monitor output
Message-ID: <1663@utai.UUCP>
Date: Wed, 14-May-86 11:21:18 EDT
Article-I.D.: utai.1663
Posted: Wed May 14 11:21:18 1986
Date-Received: Fri, 16-May-86 21:51:52 EDT
Distribution: net
Organization: CSRI, University of Toronto
Lines: 18

As part of a Psychology experiment at York University, a subject
will be given an st (running DEGAS) to play with. The session must
be recorded (what functions were used, what was drawn, etc.) for later
study. Ideally a video recorder would be attached to the display and
recorded for later study, or failing this, the keystrokes/mouse actions
might be recorded.   So..

(1) Has anyone attached a vcr to the video-out on the st to record the
    display? Is it possible to convert the video-out signal to
    composite video? (and no, the st does not have a composite out jack).
(2) Is it possible to record all user actions in DEGAS?

--
--
Michael Jenkin   University of Toronto
USENET: {decvax,ihnp4,allegra}!utcsri!utai!jenkin
CSNET: jenkin@Toronto
BELL: 416-978-7321

From 1281128030052522011
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,54d4fc4b3e0f0b64,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 08:31:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: help! writing volume labels
Message-ID: <364@imagen.UUCP>
Date: Wed, 14-May-86 11:31:54 EDT
Article-I.D.: imagen.364
Posted: Wed May 14 11:31:54 1986
Date-Received: Fri, 16-May-86 05:43:24 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 25

~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~

i am trying to write a new volume label using:

```
char volbl[14];
int attr;

attr = 8;
scanf("%s",&volbl);
Fcreate(volbl,attr);
```

the program accesses the disk, but the volume label is unchanged,
can someone help me !
~~~~~~~~~~~~~~~~~~~~

--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -7585809318262856839
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1810ff79ca74ee16,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 12:20:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
CS.UCL.AC.UK!jrm%computer-science.strathclyde.ac.uk
From: jrm%computer-science.strathclyde.ac.uk@CS.UCL.AC.UK.UUCP
Newsgroups: net.micro.atari16
Subject: SID output to disk
Message-ID: <8605141032.AA03709@stracs.cs.strath.ac.uk>
Date: Wed, 14-May-86 15:20:06 EDT
Article-I.D.: stracs.8605141032.AA03709
Posted: Wed May 14 15:20:06 1986
Date-Received: Fri, 16-May-86 05:43:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

This is a mee too. I would like clues as to how to redirect output
from sid (symbol table and the like) to a printer or a file.
Jon R Malone

From -9144687299973677589
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d76831960464d140
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 13:22:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.atari16
Subject: Re: CMOS 68000
Message-ID: <244@cbmvax.cbmvax.cbm.UUCP>
Date: Wed, 14-May-86 16:22:14 EDT
Article-I.D.: cbmvax.244
Posted: Wed May 14 16:22:14 1986

Date-Received: Fri, 16-May-86 05:21:40 EDT
References: <860513020514.011@Juliet.Caltech.Edu>
Reply-To: daveh@cbmvax.UUCP (Dave Haynie)
Organization: Commodore Technology, West Chester, PA
Lines: 12

I'm not sure about the Hitachi parts, that's a rumor that has been going
around. There's no difference in spec, but possibly some internal/timing
differences. Anyway, Motorola itself has just announced a CMOS 68000, and
its coming out at a low price, unlike the usualy Motorola introductions.

--

Dave Haynie   {caip,inhp4,allegra,seismo}!cbmvax!daveh
               "There, beyond the bounds of your weak imagination
                Lie the noble towers of my city, bright and gold"
                                -Genesis

From 3001603114154275630
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3dafa5593b128bb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 14:58:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS and Download in ASCII format
Message-ID: <191@bridge2.UUCP>
Date: Wed, 14-May-86 17:58:43 EDT
Article-I.D.: bridge2.191
Posted: Wed May 14 17:58:43 1986
Date-Received: Sat, 17-May-86 01:43:29 EDT
References: <186@bridge2.UUCP> <363@imagen.UUCP>
Distribution: net
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 26

> >
> > Anybody know what the garbage character is or why it is there
> > (incidentally, the character seemed always to be 0x12)?
> >
> > Thank you Neil!
> >
> > Paul Fries
> > Mountain View, CA
>
> what you are seeing is a handshaking character called XON (ctrl-Q)
> it tells terminals that support XON/XOFF protocal to start
> processing incoming characters if a previous XOFF has halted it,
> otherwise it is ignored

A quick check of an ASCII chart reveals that 0x12 is NOT the XON code.
XON and XOFF are (respectively) 0x11 (^Q) and 0x13 (^S). The 0x12 code
has the name DC2 in the ASCII chart. Regardless, why would the BBS be
telling me XON in the first place? It never told me to stop (XOFF).

If my memory serves me well, the DC1-4 codes were originally intended
to be device-specific control codes, hence "DCx" (Device Control).
Further, I seem to remember (from Teletype days) that two of the DC
functions were "PUNCH ON" and "PUNCH OFF".

Anyway, back to the original question. Why is the BBS sending the
0x12?

From -1079517348370348716
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 16:28:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!micropro!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Re: 520 vs 1040
Message-ID: <1323@ptsfa.UUCP>
Date: Wed, 14-May-86 19:28:29 EDT
Article-I.D.: ptsfa.1323
Posted: Wed May 14 19:28:29 1986
Date-Received: Fri, 16-May-86 03:58:03 EDT
References: <8605131618.AA10686@mitre-bedford.ARPA>
Reply-To: jmc@ptsfa.UUCP (Jerry Carlin)
Organization: Pacific * Bell, San Francisco
Lines: 10

In article <8605131618.AA10686@mitre-bedford.ARPA> jhs@disunix.UUCP writes:
>1040s have a heat problem, reported in one case to cause sagging of the
>plastic case. They also have a disk drive reliability problem, said to be
>possibly due to the heat problem.

Not my 1040. Its run fine for 2 months! I've even left things on top
covering some of the vents for hours with no problems.
--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From 5847163077298726355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,632368a64f907d04
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 16:54:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!reading!sage.cs.reading.Ac.Uk!
gordon
From: gordon@sage.cs.reading.Ac.Uk (Simon Gordon)
Newsgroups: net.micro.atari16
Subject: Re: Unix for 1040ST
Message-ID: <166@sage.cs.reading.Ac.Uk>
Date: Wed, 14-May-86 19:54:54 EDT
Article-I.D.: sage.166
Posted: Wed May 14 19:54:54 1986
Date-Received: Sun, 18-May-86 12:23:08 EDT
References: <278@brueer.brueer.UUCP>
Reply-To: gordon@sage.UUCP (Simon Gordon)
Organization: Comp. Sci. Dept., Reading Univ. UK. (sage)
Lines: 27

In article <278@brueer.brueer.UUCP> ralph@brueer.UUCP (Ralph Mitchell) writes:
>*** REPLACE THIS LINE WITH YOUR MESSAGE ***
>
>I've just heard a rumour that Unix will be available on 1040 ST's by about
>the end of this year. Can anyone on the net confirm or deny this ??
>--
>=-=
>Ralph Mitchell | VOICE: +44 895 74000 Ext 2561
>Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
>Brunel University | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
>Uxbridge | JANET: ralph@uk.ac.brunel.ee
>UB8 3PH |
>UNITED KINGDOM | "Noli illegitemi carborundum"
>=-=

Yes indeed,
     As I understand the situation at the end of this year/start of next
a new machine - the EST - will become available. This has the 68020, a blitter
and a better graphics chip giving 4096 colour pallette.
     It will run all properley written ST software, and proberbly be
supplied with unix as well. (unix would not work well on just the 68000 without
a lot more memory and hard disk)

Simon Gordon
Sibly Hall
Reading University
Reading

From 2490828975186408112
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85ce9a33388dcec0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-14 19:27:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16

Subject: Re: Diagnostic ROMs
Message-ID: <277@atari.UUcp>
Date: Wed, 14-May-86 22:27:55 EDT
Article-I.D.: atari.277
Posted: Wed May 14 22:27:55 1986
Date-Received: Fri, 16-May-86 04:21:50 EDT
References: <180@bridge2.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 18

In article <180@bridge2.UUCP>, pvf@bridge2.UUCP (Paul V. Fries) writes:

> Where/how might i get a set of diagnostics for my 520ST? I have
> heard of cartridge-slot ROMs for this, but never seen anything
> physical. Are they real? Can I get them?

Atari does supply a diagnostic kit, but ONLY to authorized service centers.
The kit includes a module which plugs into the cartridge port of the ST and
which has a separate RS232 port for a terminal or another ST. Diagnostics
are performed through the other computer.

Atari does not officially support or endorse upgrades to the ST.

My personal opinion (and NOT that of Atari Corp) is that if you upgrade
your machine, you'd better be friendly with an authorized service center.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -937490336118327409
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,80d6ab6eaa19f394,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 05:09:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!CZHRZU1A.BITNET!
K538915
From: K538915@CZHRZU1A.BITNET
Newsgroups: net.micro.atari16
Subject: NOTE from K538915
Message-ID: <8605151103.AA05817@ucbvax.Berkeley.EDU>
Date: Thu, 15-May-86 08:09:42 EDT
Article-I.D.: ucbvax.8605151103.AA05817
Posted: Thu May 15 08:09:42 1986
Date-Received: Sat, 17-May-86 02:18:40 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

OPTIONS: ACK   LOG   LONG   NOTEBOOK ALL

Date: 15 May 1986, 12:07:41 GMT
From: Simon Poole K538915 at CZHRZU1A
To: INFO-ATA at SU-SCORE

Please discard this message, I'm just trying this out.
Simon.

From 1899770936968558875
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e55e9415b76b61dc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-15 07:25:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: 1040 relibaility again.
Message-ID: <1479@cwruecmp.UUCP>
Date: Thu, 15-May-86 10:25:17 EDT
Article-I.D.: cwruecmp.1479
Posted: Thu May 15 10:25:17 1986
Date-Received: Sun, 18-May-86 12:12:05 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 19

From the rock'n'roll capital of the world --

Here's the final tally on 1040ST reliability. We took delivery on
twelve machines. ALL twelve 1040's came up with no problems. NONE
of the machines are overheating. A FEW of the machines generate
enough switching supply noise to be annoying. ONE of the monitors
arrived damaged -- the only DOA -- and probably due to mishandling.
(Some glass shards were found at the bottom of the plastic bag and
the tube "looks wierd.")

This is not to say that some folks are hallucinating their problems.
However, the occurrence of the overheat or disk drive problems may
only apply to a statistically small number of units and should not be
overhyped. I am sympathetic to the individuals with these problems
and hope that Atari (or whom ever) will help them out PRONTO!
--

paul drongowski decvax!cwruecmp!pjd
case western reserve university pjd%Case@CSNet-relay

From 1234882851816421692
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 15f443,f644b042e7454baa
X-Google-Attributes: gid15f443,public
X-Google-Thread: 140593,f644b042e7454baa
X-Google-Attributes: gid140593,public
X-Google-Thread: 125017,f644b042e7454baa
X-Google-Attributes: gid125017,public
X-Google-ArrivalTime: 1986-05-07 14:54:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16,net.graphics,net.wanted
Subject: Re: ST Digital Image request
Message-ID: <257@atari.UUcp>
Date: Wed, 7-May-86 17:54:34 EDT
Article-I.D.: atari.257
Posted: Wed May 7 17:54:34 1986
Date-Received: Sat, 10-May-86 14:07:09 EDT
References: <2175@uwmacc.UUCP>
Organization: Atari Corp/Mktg
Lines: 19
Xref: linus net.micro.atari16:567 net.graphics:1579 net.wanted:8025

In article <2175@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:

> I am looking for the name of a company (or individual) that will digitize
> images for me in Atari ST NEOchrome or DEGAS format. (Some idea of their
> cost would be appreciated.)

There is an outfit in San Francisco that can take a disk with NEO files
and make color separations or black and white stats. For color work they
charge about $125, for b/w much less. The quality is excellent -- look at
the screen shots in Atari's recent ads.

The company is called Imageset, and they're in the SF phone book.

By the way, they can do the work in ANY resolution using NEO files created
by the SNAPSHOT utility which is floating around (it's on the Atari BBS
at 408-745-5308 if you can't find it elsewhere).

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -5515652494788381730
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d6624d7756c6030
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 15:54:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!nike!styx!lll-crg!lll-lcc!vecpyr!
atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16

Subject: Re: New Atari BBS Info!
Message-ID: <258@atari.UUcp>
Date: Wed, 7-May-86 18:54:31 EDT
Article-I.D.: atari.258
Posted: Wed May 7 18:54:31 1986
Date-Received: Sat, 10-May-86 14:07:24 EDT
References: <8605030057.AA26717@ohio-state.ARPA>
Organization: Atari Corp/Mktg
Lines: 36

In article <8605030057.AA26717@ohio-state.ARPA>, terrell@OHIO-STATE.ARPA (Eric Terrell) writes:

> In BYTE (May, '86) a bulletin board sponsored by ATARI was announced.
>
> 1-408-745-5308
>
> I tried to download some programs, without success. I could download
> text files with no problem, but programs got screwed up somehow.
>
> I have the PC Intercom program (an early version). This program allows one
> to download files in ascii, raw, modem7 (whatever that is), and
> PC Intercom modes. I tried ascii and raw without success.
>
> Would someone who has been successful downloading programs please let
> me know how it is done? I'm completely stumped.

The best way to download from Atari Base BBS is to use Xmodem, which in PC/Intercomm is called "Modem7". Get to the point on the BBS where you have selected a file to download and it tells you to prepare for Xmodem download. Then go to the PC/Intercomm menu and start the download. It should work fine.

The other download method is DFT, which is a unique format that Michtron uses in their BBS software and in their terminal program, MI-Term.

Raw is the same as ASCII except that control characters are not tampered with. ASCII is useful only for text files (like the news files in the General SIG).

Hope this helps -- if you need me you can reach me by a note to Sysop on the Atari Base BBS.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -5213610442069732425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad7ce758a8235338,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 17:50:15 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!nike!styx!lll-crg!lll-lcc!qantel!
ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: VDI and the vsm_locator() routine
Message-ID: <548@aum.UUCP>
Date: Wed, 7-May-86 20:50:15 EDT
Article-I.D.: aum.548
Posted: Wed May 7 20:50:15 1986
Date-Received: Sun, 11-May-86 00:17:35 EDT
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 15

I have had no end of trouble getting this baby to work. Could someone send me some working code that uses this routine. I must be doing something very wrong! The requester mode works and I am setting vsin_mode() or what ever it is called, to set the sample mode. But the cursor seems to be stuck at one location and cannot be moved.

Also I am getting two responses in the requester mode for both mouse button down and mouse button up. Can any one help me??????
thanks mucho...
--

Erik James Freed
Aurora Systems
San Francisco, CA
{dual,ptsfa}!aum!freed

From 4140487482963752047
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5,start
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-08 02:29:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!ll-xn!caip!lll-crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <779@hoptoad.uucp>
Date: Thu, 8-May-86 05:29:43 EDT
Article-I.D.: hoptoad.779
Posted: Thu May 8 05:29:43 1986
Date-Received: Wed, 14-May-86 04:40:19 EDT
References: <306@sdcarl.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 19
Xref: linus net.micro.atari16:581 net.mail:1506

In article <306@sdcarl.UUCP>, tre@sdcarl.UUCP (Tom Erbe) writes:
> I logged on to the Atari Home Base BBS last night and found many useful
> programs. However, I do not wish to pay for the phone time. Would any
> one at Atari be willing to make these programs available by E-mail???
>   thomas r. erbe
>   {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

Sure, let's let {ucbvax,ihnp4,akgua,hplabs,sdcsvax} pay so this guy can
play with his Atari. After all, he can't afford it, but they
can. In fact, why not just post the entire contents of the BBS to
the net -- then *everybody* can pay for the phone time.

This doesn't even rate a :v} because it's not funny.

Every morning I get up and say "why do I flame so much on the net when
I'm trying to be kinder in my personal life?" Every night I run into these
bozos though...
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

From 1980691229138992901
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,29ccee45cb85173f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 04:19:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!nike!styx!lll-crg!lll-lcc!ucdavis!
ucbvax!MITRE.ARPA!lazear
From: lazear@MITRE.ARPA (Walt Lazear)
Newsgroups: net.micro.atari16
Subject: Micro Illustrator file format
Message-ID: <8605081119.AA03725@mitre.ARPA>
Date: Thu, 8-May-86 07:19:47 EDT
Article-I.D.: mitre.8605081119.AA03725
Posted: Thu May 8 07:19:47 1986
Date-Received: Sun, 11-May-86 04:22:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Washington, D.C.
Lines: 12

My dDad bought Micro Illustrator for his Radio Schachack PC clone, but later
found out the only printers they support are $1600 ink jet ones! This seemed
patently reidiculous to me, since the print fileimaag=age is stored on a file and
the format of the file mis known to some software. Why couldn't it be
sent to ainterpreted by a program and sent to a dot matrix printer. After all,
on a monochrome screen, it's only pixelss.

Can anyone tell me the format of the print file. ? I am assuming that
Micro PIllustrator files are compatible across systems (and that the
same is true of their print files).

Walt (Lazeatr at Mitre.arpa)

From 5328480784996168162
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,24fc7ea46c9ba1c8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 06:39:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Yet Another Fractal Program
Message-ID: <358@imagen.UUCP>
Date: Thu, 8-May-86 09:39:55 EDT
Article-I.D.: imagen.358
Posted: Thu May 8 09:39:55 1986
Date-Received: Sun, 11-May-86 04:33:09 EDT
References: <2077@cbosgd.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 28

> Here is a type of fractal generation program that you've probably not
> seen yet. It generates something like a topographical map of a random
> relief. The relief is divided into 15 altitude zones, each with a different
> color. The resulting maps can be very pretty. This is a TTP application.
> Run the program without parameters and you will get the usage directions.
>
> The algorithm is due to (who else) Benoit Mandelbrot. It is based on
> the "Brownian plane-to-line" function of Paul Levy.
>
> note: This program is public-domain. I put no restrictions on its use.
>   Comments/improvements are welcome.

~~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~~~

the program looks good, how about posting the sources for us poor
hackers still learning about fractals ?
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL
~~~~~~~~~~~~~~~~~~~~~~~~

From 2052246602484082346
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,24fc7ea46c9ba1c8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 06:43:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!sun!
saber!imagen!turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Yet Another Fractal Program
Message-ID: <359@imagen.UUCP>
Date: Thu, 8-May-86 09:43:29 EDT
Article-I.D.: imagen.359
Posted: Thu May 8 09:43:29 1986
Date-Received: Sun, 11-May-86 04:33:35 EDT
References: <2077@cbosgd.UUCP> <2078@cbosgd.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 20

>
> Here is the source code for the uuencoded file 'levy.ttp' posted previously:
> --

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

foot-in-mouth alert, foot-in-mouth alert, please ignore my previous
posting re: posting the sources, i should look before i leap, sorry
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 4981929969046345417
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,16cbea42201ba8a9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 07:21:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!nike!styx!lll-crg!lll-lcc!ucdavis!
ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP

Newsgroups: net.micro.atari16
Subject: ST related info request
Message-ID: <8605081421.AA23425@mitre-bedford.ARPA>
Date: Thu, 8-May-86 10:21:46 EDT
Article-I.D.: mitre-be.8605081421.AA23425
Posted: Thu May 8 10:21:46 1986
Date-Received: Sun, 11-May-86 04:25:19 EDT
Sender: kjd@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 19

What is the status of the IBM-PC Compatibility accessory I have heard rumored
for the ST -- is it now released? If so, what are the specs? What exactly
can it do and not do? Does it use the standard ST disk drives or provide
a new one (am I correct that the ST uses 3.5-inch drives and the PC uses
5.25)? Is there provision for transferring PC data files to Atari disks for
use with Atari programs (e.g. word processors)?

How much does it cost?

How "compatible" is it? How many card slots does it have left for expansion
when reasonably configured?

What other questions should I have asked and what are the answers? (That sort
of covers a lot, doesn't it?!)

Any assistance will be greatly appreciated.

-John Sangster
jhs@mitre-bedford.arpa

From 6068732377601146283
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b889031b9a082f2c,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15517a,b889031b9a082f2c,start
X-Google-Attributes: gid15517a,public
X-Google-ArrivalTime: 1986-05-08 08:42:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!nike!
styx!lll-crg!gymble!umcp-cs!seismo!mcvax!ukc!kcl-cs!daveb
From: daveb@kcl-cs.UUCP (ZNAC063)
Newsgroups: net.micro.pc,net.micro.atari16
Subject: HELP: GEM and drawing text fast
Message-ID: <664@neon.kcl-cs.UUCP>
Date: Thu, 8-May-86 11:42:40 EDT
Article-I.D.: neon.664
Posted: Thu May 8 11:42:40 1986
Date-Received: Tue, 13-May-86 01:27:28 EDT
Reply-To: daveb@kcl-cs.UUCP ()
Organization: Department of Computing, Kings College, University of London.
Lines: 9

Xref: watmath net.micro.pc:8158 net.micro.atari16:690

I notice that sometimes GEM will draw a window full of text (using a
series of calls to vgtext) faster than at other times. Does anybody
know under what conditions this happens? General comments on using
text would also be very welcome.

Thanks in advance.
--

Yours, Dave Bolton   westcsr!daveb

From -8019906185894046868
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,1039c76b4bdec86b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 08:56:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!sri-spam!nike!styx!lll-crg!lll-lcc!
ucdavis!ucbvax!SCORE.STANFORD.EDU!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8605081556.AA19004@ucbvax.Berkeley.EDU>
Date: Thu, 8-May-86 11:56:27 EDT
Article-I.D.: ucbvax.8605081556.AA19004
Posted: Thu May 8 11:56:27 1986
Date-Received: Sun, 11-May-86 03:56:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 6744877188492104215
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 09:06:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!ritcv!cci632!ccird1!rb
From: rb@ccird1.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: Hard disk limitations
Message-ID: <404@ccird1.UUCP>
Date: Thu, 8-May-86 12:06:22 EDT
Article-I.D.: ccird1.404
Posted: Thu May 8 12:06:22 1986
Date-Received: Sun, 11-May-86 04:11:58 EDT
References: <755@minster.UUCP> <209@atari.UUcp>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI Rochester Development, Rochester NY

Lines: 19
Summary: What's up Atari's Sleeve?

In article <209@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:
>
>The number is small and arbitrary. 20 is about the limit -- actually,
>I suggest 16 or so. This covers *all* directories on the hard disk.
>
>> Is this a known problem?
>
>Yes. The production 20-Megabyte hard disk driver will alleviate the
>problem somewhat. Atari is working on a more permanent solution
>(actually, a couple different ones).
>

Any chance of HINTS as to what some of those solutions might be?
Any plans for true multi-tasking? Any plans for true hierarichal
file systems? Any chance of micro-Unix?

Rather than let the imagination wander, I'll let Landon, or some
other Atari person give us facts.

From 3360470514879146787
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e7726b12bc0a1bc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 09:49:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Micro C-shell and CC
Message-ID: <274@brueer.brueer.UUCP>
Date: Thu, 8-May-86 12:49:14 EDT
Article-I.D.: brueer.274
Posted: Thu May 8 12:49:14 1986
Date-Received: Sun, 11-May-86 04:02:29 EDT
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 19

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

About a month bammi@cwruecmp.UUCP posted a set of sources for PROFF, a
troff/nroff look-alike for the ST. In the instructions for building
PROFF he refers to a Micro C-shell and CC that he posted to the net at
some previous time. As I didn't see it go past I assume it expired
before I started taking an interest in the news. So, is there anyone
out there that can let me have a copy ??

Here's hoping...

Ralph Mitchell
--
Ralph Mitchell | VOICE: +44 895 74000 Ext 2849
Computer Centre | ARPA: ralph%ee.brunel.ac.uk@ucl-cs.arpa
Brunel University |
Uxbridge | UUCP: ...!mcvax!ukc!ee.brunel.ac.uk!ralph
UB8 3PH |
UNITED KINGDOM | JANET: mitchell@uk.ac.brunel.ee

From 7332038445314595592
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3fbfc6bc5da27680,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 10:45:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!ukc!warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: RGB to RF modulator enquiry
Message-ID: <499@snow.warwick.UUCP>
Date: Thu, 8-May-86 13:45:16 EDT
Article-I.D.: snow.499
Posted: Thu May 8 13:45:16 1986
Date-Received: Sun, 11-May-86 04:01:40 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 34

[double-sided line-eater? - HA!]

Hi,

There has been some talk on this <net.micro.atari16> newsgroup about RF modulators on 520/1040 STs. I was a bit upset when I got my 1040 here in the UK, as it has no modulator or composite output. In fact, on the box it said 1040STFM, but the Ms had been carefully whited out all round the box. This was a particularly strong problem as, unlike all home computer mono monitors I had met until now, the Atari monitor does not even _try_ to do grey scales. This means that any software that requires a colour monitor will just not work - I still haven't even been able to start up the Neochrome program I got free. Is this really just a sneaky way for Atari to get people to buy their (admittedly good, but expensive) colour monitor, or is there some technical reason?

What I would really like to know is can anyone help me with a circuit or a cheap source for a ST-RGB/PAL-RF modulator. All help appreciated. If anyone else is interested, let me know, and I'll summarise to the net.

Cheers,
Frank.

--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From -1212938624493592732
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,73138dcf6a9fee47,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 10:55:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site alberta.UUCP
Path: utzoo!utcsri!ubc-vision!alberta!bray
From: bray@alberta.UUCP (Brian Bray)
Newsgroups: net.micro.atari16
Subject: 1st word printer driver for DEC letterprinter 100
Message-ID: <902@alberta.UUCP>
Date: Thu, 8-May-86 13:55:55 EDT
Article-I.D.: alberta.902
Posted: Thu May 8 13:55:55 1986
Date-Received: Fri, 9-May-86 12:45:12 EDT
Distribution: net
Organization: U. of Alberta, Edmonton, AB
Lines: 276

Here is a First Word configuration file for the DEC Letterprinter
100 terminal. Other letterprinter users may like to have this
because the printer is quite different from the EPSON standard.

-Brian

```
------------------------------------------------------------------
******************************************************************
*
*    DEC Letterprinter 100 Matrix Printer Driver Configuration Table
*
*
*    This file contains tables defining the code sequences
*    to be sent to the printer to perform various functions
*    and to access the characters from codes in the Atari
*    character set.
*
*    These codes do not initialize the margins, spacing,
*    page length, character set, transmission mode, etc. of
*    the letterprinter.  Also, they assume a standard character
*    set in G0 and the DEC Technical character set in G1. The
```

```
*    special symbols will not print properly without the DEC
*    Technical characters.  Also, note that superscript and
*    subscript work poorly with the tractor feed option.
*
*    This file was created by Brian Bray using the sample files
*    supplied with First Word (86/05/08).
*
*****************************************************************

*
* Name of printer
* ===============
*
DEC LP100

*
* Miscellaneous configurable variables
* ====================================
*
* 1: printer type, 0=dot matrix, 1=daisy wheel
*    Note if printer type is 0 the following 4 variables are never used.
* 2: unit width of one character
* 3: unit height of one line
* 4: Approximate middle of carriage after formfeed
* 5: Carriage shift for bold overstrike
* 6: 1 to pause between pages
*
0, 0, 0, 0, 0, 0

*
* Printer characteristics
* =======================
*
* This table specifies the printer command sequences.
* If the top bit of a code is set, then this indicates the position
* of a parameter passed to the printer. The code whose top bit is set
* in this table is added to the parameter passed before being sent to the
* printer. It is not used in all command sequences, only in those where
* the printer requires  a variable value such as the length of a vertical
* tab.
*
* 0                                 * Character width
1, D, A                             * Linefeed WITH return
* 2                                 * Forward print
* 3                                 * Reverse print
* 4                                 * Vertical tab to line (FX or LX)
* 5                                 * Absolute horizontal tab
6, 1B, 5B, 32, 22, 7A               * Draft bold on
7, 1B, 5B, 31, 22, 7A               * Draft bold off
* 8                                 * NLQ bold on
* 9                                 * NLQ bold off
A, 1B, 5B, 31, 32, 6D, 1B, 5B, 31, 22, 7A  * Draft italic on
B, 1B, 5B, 31, 30, 6D               * Draft italic off
```

```
C, 1B, 5B, 31, 32, 6D, 1B, 5B, 32, 22, 7A  * NLQ italic on
D, 1B, 5B, 31, 30, 6D              * NLQ italic off
* E                                * Draft light on
* F                                * Draft light off
10, 1B, 5B, 31, 22, 7A             * NLQ light on
11, 1B, 5B, 32, 22, 7A             * NLQ light off
12, 1B, 4C, 1B, 5B, 31, 22, 7A     * Draft superscript on
13, 1B, 4B                         * Draft superscript off
14, 1B, 4C, 1B, 5B, 32, 22, 7A     * NLQ superscript on
15, 1B, 4B                         * NLQ superscript off
16, 1B, 4B, 1B, 5B, 31, 22, 7A     * Draft subscript on
17, 1B, 4C                         * Draft subscript off
18, 1B, 4B, 1B, 5B, 32, 22, 7A     * NLQ subscript on
19, 1B, 4C                             * NLQ subscript off
1A, 1B, 5B, 34, 6D, 1B, 5B, 31, 22, 7A     * Draft underline on
1B, 1B, 5B, 30, 6D                     * Draft underline off
1C, 1B, 5B, 34, 6D, 1B, 5B, 32, 22, 7A     * NLQ underline on
1D, 1B, 5B, 30, 6D                     * NLQ underline off
1E, C                              * Formfeed
* 1F, 12                           * Horizontal initialisation
* 20                               * Vertical initialisation
* 21                               * Termination
0                                  * NULL termination byte

*
* Translation Table
* =================
*
* This table provides translation from single Atari input bytes into
* multiple printer codes, and is useful for printing extraneous
* characters such as accented characters etc. All characters are
* subjected to translation, but if there is no entry in the table for
* a particular code, then the original code is sent to the printer.
*
* The entries must be arranged in ascending order of Atari input
* code. The table is NULL terminated.
*

0                       * NULL: print a space
1, E, 7C, F             * Up arrow: USA | backspace USA ^
2, E, 7E, F             * Down arrow: USA | backspace USA v
3, E, 7D, F             * Right arrow
4, E, 7B, F             * Left arrow
5                       * No close box
6                       * No size box
7                       * No full box
8                       * No tick
9                       * No clock
A                       * No bell
B                       * No musical note
C
D
E                       * No LH Atari symbol
```

```
F                       * No RH Atari symbol
10, 30                  * LCD 0
11, 31                  * LCD 1
12, 32                  * LCD 2
13, 33                  * LCD 3
14, 34                  * LCD 4
15, 35                  * LCD 5
16, 36                  * LCD 6
17, 37                  * LCD 7
18, 38                  * LCD 8
19, 39                  * LCD 9
1A
1B
1C
1D
1E
1F
7F, E, 44, F            * Triangle
80, 43, 8, 2C           * Capital C cedilla: C backspace ,
81, 75, 8, 22           * Lower case u umlaut
82, 65, 8, 27           * Lower case e acute
83, 61, 8, 5E           * Lower case a circumflex
84, 61, 8, 22           * Lower case a umlaut
85, 61, 8, 60           * Lower case a grave
86                      * NO Lower case a boll
87, 63, 8, 2C           * Lower case c cedilla
88, 65, 8, 5E           * Lower case e circumflex
89, 65, 8, 22           * Lower case e umlaut
8A, 65, 8, 60           * Lower case e grave
8B, 69, 8, 22           * Lower case i umlaut
8C, 69, 8, 5E           * Lower case i circumflex
8D, 69, 8, 60           * Lower case i grave
8E, 41, 8, 1B, 4C, 22, 1B, 4B    * Capital A umlaut
8F                      * NO Capital A boll
90, 45, 8, 1B, 4C, 27, 1B, 4B    * Capital E acute
91                      * NO Lower case ae dipthong
92                      * NO Capital AE dipthong
93, 6F, 8, 5E           * Lower case o circumflex: o backspace ^
94, 6F, 8, 22           * Lower case o umlaut
95, 6F, 8, 60           * Lower case o grave
96, 75, 8, 5E           * Lower case u circumflex: u backspace ^
97, 75, 8, 60           * Lower case u grave
98, 79, 8, 22           * Lower case y umlaut: y backspace "
99, 4F, 8, 1B, 4C, 22, 1B, 4B    * Capital O umlaut
9A, 55, 8, 1B, 4C, 22, 1B, 4B    * Capital U umlaut
9B, 63, 8, 7C           * c cent: c backspace |
9C                      * NO Pound sterling
9D                      * NO Yen
9E, E, 62, F            * Esszet (Using Beta)
9F, E, 76, F            * Lower case swash f
A0, 61, 8, 27           * Lower case a acute: a backspace '
A1, 69, 8, 27           * Lower case i acute: i backspace '
A2, 6F, 8, 27           * Lower case o acute: o backspace '
```

```
A3, 75, 8, 27            * Lower case u acute: u backspace '
A4, 6E, 8, 7E            * Lower case n tilde
A5, 4E, 8, 1B, 4C, 7E, 1B, 4B    * Capital N tilde from Spanish fount
A6, 61, 8, 5F            * Lower case a underline: a backspace underline
A7, 6F, 8, 5F            * Lower case o underline: o backspace underline
A8                       * NO Inverted
A9, E, 27, F             * Top left corner
AA, E, 29, F             * Top right corner
AB                       * No 1/2 fraction
AC                       * No 1/4 fraction
AD                       * NO Inverted !
AE                       * No <<
AF                       * No >>
B0, 61, 8, 7E            * Lower case a tilde: a backspace USA ~
B1, 6F, 8, 7E            * Lower case o tilde: o backspace USA ~
B2, 4F, 8, 2F            * Capital crossed O from Danish 1 fount
B3, 6F, 8, 2F            * Lower case crossed o from Danish 1 fount
B4                       * No lower case oe dipthong
B5                       * No capital OE dipthong
B6, 41, 8, 1B, 4C, 60, 1B, 4B    * Capital A grave
B7, 41, 8, 1B, 4C, 7E, 1B, 4B    * Capital A tilde
B8, 4F, 8, 1B, 4C, 7E, 1B, 4B    * Capital O tilde
B9, 22                   * Umlaut: Use double quote
BA, 27                   * Acute: print '
BB                       * No dagger
BC                       * No paragraph symbol
BD                       * No copyright symbol
BE                       * No Registered symbol
BF                       * No Trademark symbol
C0                       * NO ij ligature
C1                       * NO Capital IJ ligature
C2        * No Hebrew...
C3
C4
C5
C6
C7
C8
C9
CA
CB
CC
CD
CE
CF
D0
D1
D2
D3
D4
D5
D6
D7
```

```
D8
D9
DA
DB
DC
DD                      * NO Section mark
DE, 1B, 4B, 5E, 1B, 4C  * Dropped circumflex
DF, E, 42, F            * Infinity
E0, E, 61, F            * Alpha
E1, E, 62, F            * Esszet from German fount
E2, E, 47, F            * Gamma
E3, E, 70, F            * Small Pi
E4, E, 53, F            * Big Sigma
E5, E, 73, F            * Small Sigma
E6, 75                  * Micro: Use u
E7, E, 74, F            * Tau
E8, E, 46, F            * Big Phi
E9, E, 4A, F            * Big Theta
EA, E, 57, F            * Big Omega
EB, E, 64, F            * Small Delta
EC                      * NO Integral O
ED, E, 66, F            * Small Phi
EE, E, 65, F            * Sigma
EF, E, 5C, F            * Big N
F0, E, 4F, F            * Equivalence
F1, 2B, 8, 5F           * +-
F2, E, 3E, F            * >=
F3, E, 3C, F            * <=
F4, E, 24, F            * Integral top piece
F5, E, 25, F            * Integral bottom piece
F6, E, 43, F            * Division sign: : backspace -
F7, E, 49, F            * Twiddly = symbol
F8                      * NO Degree symbol
F9                      * No superior bullet
FA                      * No inferior bullet
FB, E, 21, F, 8, 1B, 4C, E, 22, F, 1B, 4B    * Square root sign
FC                      * No superior n
FD                      * No superior 2
FE                      * No superior 3
FF                      * No macron
0

------------------------End of File--------------------------------


From 6134176409000784136
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,caab5e6cdce78424,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 10:57:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site alberta.UUCP
Path: utzoo!utcsri!ubc-vision!alberta!bray
```

From: bray@alberta.UUCP (Brian Bray)
Newsgroups: net.micro.atari16
Subject: 1st word printer driver for Smith-Corona TP-1
Message-ID: <903@alberta.UUCP>
Date: Thu, 8-May-86 13:57:24 EDT
Article-I.D.: alberta.903
Posted: Thu May 8 13:57:24 1986
Date-Received: Fri, 9-May-86 12:46:50 EDT
Distribution: net
Organization: U. of Alberta, Edmonton, AB
Lines: 208

Here a driver for First Word with the Smith-Corona TP-1
daisy wheel printer and the "Presidential" and "Ascii"
type wheels. It took some fiddling to get this to work,
so posting should save others time.

-Brian

```
------------------Start of File---------------------------------
*****************************************************************
*
*    Printer Driver Configuration Table
*
*    for Smith Corona TP-1 printer.
*
*    This file contains tables defining the code sequences
*    to be sent to the printer to perform various functions
*    and to access the characters from codes in the Atari
*    character set.
*
*
*    Usage:
*
*    This printer has been declared as a "dot matrix" because
*    it is too dumb to recognize the codes sent by 1st_prnt
*    for daisy wheels.  In order to access both a dot matrix and this
*    driver, rename the file 1st_prnt.dot to 1st_prnt.dsy after
*    running the configuration program on this file.
*
*    This file was created by Brian Bray from sample files
*    supplied with First Word (86/05/08).
*
*
*****************************************************************

*
* Name of printer
* ===============
*
Smith Corona TP-1
```

```
*
* Miscellaneous configurable variables
* ====================================
*
* 1: printer type, 0=dot matrix, 1=daisy wheel
* Note, if the printer type is 0, the following 4 variables are never used.
* 2: unit width of one character
* 3: unit height of one line
* 4: Approximate middle of carriage after formfeed
* 5: Carriage shift for bold overstrike
* 6: 1 to PAUSE BETWEEN PAGES
*
0, 0, 0, 0, 0, 1
*
* Printer characteristics
* =======================
*
* This table specifies the printer command sequences.
* If the top bit of a code is set, then this indicates the position
* of a parameter passed to the printer. The code whose top bit is set in
* this tabl is added to the parameter passed, before being sent to the
* printer. It is not used in all command sequences, only in those where
* the printer requires  a variable value such as the length of a vertical
* tab.
*

* 0, 1B, 1F, 81  * Set horizontal movement increment (HMI) to (n-1)
1, D             * CR/LF
* 2, 1B, 35      * Forward print
* 3, 1B, 36      * Backwards print
* 4, 1B, B, 81   * Absolute vertical tab to (n-1)
* 5            * Absolute horizontal tab to (n-1)
* 6            * Draft bold on
* 7            * Draft bold off
* 8            * Near Letter Quality (NLQ) bold on
* 9            * NLQ bold off
* A            * Draft italic on
* B            * Draft italic off
* C            * NLQ italic on
* D            * NLQ italic off
* E            * Draft light on
* F            * Draft light off
* 10           * NLQ light on
* 11           * NLQ light off
* 12, 1B, 44     * Draft superscript on
* 13, 1B, 55     * Draft superscript off
* 14, 1B, 44     * NLQ superscript on
* 15, 1B, 55     * NLQ superscript off
* 16, 1B, 55     * Draft subscript on
* 17, 1B, 44     * Draft subscript off
* 18, 1B, 55     * NLQ subscript on
* 19, 1B, 44     * NLQ subscript off
1A, 19           * Draft underline on
```

```
1B, 19          * Draft underline off
1C, 19          * NLQ underline on
1D, 19          * NLQ underline off
1E, C           * Formfeed
* 1F            * Horizontal initialisation: set HMI (n-1), forward print, return
20, 19          * Vertical initialisation: set Underline off.
21, D           * Tidy up: return and printer reset
0
*
* Translation Table
* =================
*
* This table provides translation from single Atari input bytes into
* multiple printer codes, and is useful for printing extraneous
* characters such as accented characters etc. All characters are
* subjected to translation, but if there is no entry in the table for
* a particular code, then the original code is sent to the printer.
*
* The entries must be arranged in ascending order of Atari input
* code. The table is NULL terminated.
*

0               * NULL: print a space
1               * Up arrow
2, 17, 8, 76    * Down arrow
3, 2D, 8, 16    * Right arrow
4, 2D, 8, 15    * Left arrow
5               * No close box
6               * No size box
7               * No full box
8               * No tick
9               * No clock
A               * No Bell
B               * No musical note
E               * No Atari left hand symbol
F               * No Atari right hand symbol
10, 30          * LCD 0
11, 31          * LCD 1
12, 32          * LCD 2
13, 33          * LCD 3
14, 34          * LCD 4
15, 35          * LCD 5
16, 36          * LCD 6
17, 37          * LCD 7
18, 38          * LCD 8
19, 39          * LCD 9
23              * HASH: phantom rubout
3C, 15          * < on Ascii wheel only
3E, 16          * > on Ascii wheel only
5E              * NO ^
60              * NO `
7C, 17          * | on Ascii wheel only
7E              * NO ~
```

```
7F              * No triangle
80, 43, 8, 2C   * Capital C cedilla: C backspace ,
81, 75, 8, 22   * lower case u umlaut
82, 65, 8, 27   * Lower case e acute: e backspace quote
83, 61          * Lower case a circumflex
84, 61, 8, 22   * lower case a umlaut
85, 61          * Lower case a grave
86, 61          * No lower case a boll
87, 63, 8, 2C   * Lower case c cedilla: c backspace ,
88, 65          * Lower case e circumflex
89, 65, 8, 22   * lower case e umlaut
8A, 65          * Lower case e grave
8B, 69, 8, 22   * lower case i umlaut/diaresis
8C, 69          * Lower case i circumflex
8D, 69          * Lower case i grave
8E, 41          * No capital A umlaut
8F, 41          * No capital A boll
90, 45          * No capital E acute
91              * No lower case ae dipthong
92              * No capital AE dipthong
93, 6F          * Lower case o circumflex
94, 6F, 8, 22   * lower case o umlaut
95, 6F          * Lower case o grave
96, 75          * Lower case u circumflex
97, 75          * Lower case u grave
98, 79, 8, 22   * lower case y umlaut
99, 4F          * No capital O umlaut
9A, 55          * No capital U umlaut
9B, 17          * c cent
9C, 23          * Pound Sterling
9D, 59, 8, 2D   * Yen: Y backspace -
9E              * No esszet
9F, 66          * Lower case swash f: print f
A0, 61, 8, 27   * Lower case a acute: a backspace quote
A1, 69, 8, 27   * Lower case i acute: i backspace quote
A2, 6F, 8, 27   * Lower case o acute: o backspace quote
A3, 75, 8, 27   * Lower case u acute: u backspace quote
A4, 6E          * Lower case n tilde
A5, 4E          * No capital N tilde
A6, 61, 8, 5F   * Lower case a underline: a backspace _
A7, 6F, 8, 5F   * Lower case o underline: o backspace _
A8              * No inverted ?
A9              * No top left corner
AA              * No top right corner
AB, 16          * 1/2 fraction
AC, 15          * 1/4 fraction
AD              * No inverted !
AE              * No <<
AF              * No >>
B0, 61          * Lower case a tilde
B1, 6F          * Lower case o tilde
B2, 4F, 8, 2F   * Capital crossed O: O backspace /
B3, 6F, 8, 2F   * Lower case crossed o: o backspace /
```

```
B4              * No lower case oe dipthong
B5              * No capital OE dipthong
B6, 41          * No capital A grave: print A
B7, 41          * No capital A tilde: print A
B8, 4F          * No capital O tilde: print O
B9, 22          * No umlaut: use double quote

----------------End of File--------------------------------
```

```
From 8896587279032039356
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,828c81a48e8d7d56
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-05-08 11:48:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!rochester!ritcv!cci632!ccird1!rb
From: rb@ccird1.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: An OS for MAC, Amiga, AND ST!
Message-ID: <405@ccird1.UUCP>
Date: Thu, 8-May-86 14:48:28 EDT
Article-I.D.: ccird1.405
Posted: Thu May  8 14:48:28 1986
Date-Received: Sun, 11-May-86 02:32:41 EDT
References: <959@well.UUCP> <794@ccird2.UUCP> <162@cbmvax.cbmvax.cbm.UUCP>
<1040@cadovax.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI Rochester Development, Rochester NY
Lines: 213
Keywords: Infringing ROM Copyrights
Xref: linus net.micro.atari16:582 net.micro.amiga:6797
Summary: It isn't so hard!

In article <1040@cadovax.UUCP> keithd@cadovax.UUCP (Keith Doyle) writes:
>In article <162@cbmvax.cbmvax.cbm.UUCP> daveh@cbmvax.UUCP (Dave Haynie) writes:
>>In article <794@ccird2.UUCP> rb@ccird2.UUCP (Rex Ballard) writes:
>>>with translaters to go Atari-> Mac, and Atari -> Amiga.  Another possibility
>>>is that a third party such as DRI, MicroWare, Metacomco or ??? could come up
>>>with operating systems which would provide the best functionality of all
>>>these machines and still be tranparent to application software.  Possible
>>>candidates include Concurrent GEMDOS (is it coming?), OS-9 68K,  Tripos,
>>>GNU with VDI, Windows, UNIX, or ???.  At this point, it looks like OS-9
>>>will be the first contender.
>
>I'm not at all convinced that OS-9 has much chance here.  And, I don't think
>it has anything to do with how good of an OS it is (unfortunately).  I would
>expect that GEM may have the best chance.  Why?  You can get off the
>shelf applications for GEM of the sort that most people are interested in.

Funny, the only GEM-68K stuff I've seen is the stuff written for the ST.
```

I agree that the GEM part of GEMDOS could be a good "upper level" interface, but GEM can be put over a number of other operating systems such as MS-DOS, CP/M-86, CP/M-68K, and GEMDOS, why not OS-9? GEM makes a good supplement to any other OS, but that other OS does not HAVE to be GEMDOS.

Also, I have discovered that Micro-Ware also has a VDI for OS-9, supporting bitmapped systems or CRTC type devices such as the 7220 or 63484. My main reason for suggesting that OS-9 would be the FIRST contender is that it is already available, and people are doing the ports now. Other candidates might be better, but OS-9 is so easy to port.

>Languages are not applications. Spreadsheets, Word processors, painting
>packages, DBMS programs, games, THOSE are applications.

How about things like Tandy's Desk-mate? There are a number of applications which were written for OS-9 (6809/CoCo) that could easily be ported to OS-9 68K. Many of these are even in public domain.

>People want to buy
>PeeCee DOS emulators for their machine, NOT OS-9, and certainly NOT because
>PeeCee DOS is a better OS.

Actually, I'd rather see a PC-DOS -> 68K translator. Even the emulators are painfully slow. Besides, there are no real graphics STANDARDS for PeeCee DOS. Which cards to you emulate, how do you keep the application from "Capturing" a multi-tasking operating system. You don't!

>GEM is not owned by one of the hardware
>manufacturers, who would probably want to keep you locked in to their
>hardware and not let their OS run on other machines.

Neither is OS-9, in fact, the port is also being done by a third party who is doing the port for all three machines.

>This is what will rule
>the MAC OS out. TRIPOS would only have a chance if Amiga would consider
>selling Intuition (their graphics/windowing software) to go with TRIPOS.

I agree in part, actually, Metacompco (sp?) wrote most of the graphics package, Amiga had to write the "Graphics BIOS", or drivers.

>This would actually be in Amiga's best interest, TRIPOS and INTUITION running
>on a ST would sell a lot of Amigas, both by expanding the attractiveness to
>developers of developing Amiga compatible packages, and by magnifying the
>performance and feature differences of Amigas vs STs.

Actually, it would work well for BOTH companies. Those who wanted the extra performance and features, and could afford it, would buy the Amiga. Those who needed a less expensive machine for taking their work home at night, could buy the ST. If both machines could run the same applications, you wouldn't have sheer numbers of ST owners trying to get their companies to go with the lower performance machines. Look at the Apple II vs. C-64 problems in the schools. Most schools have Apple II's, many parents have

C-64's because they are cheap. When teachers start assigning "Apple-only" home-work, parents get upset. The end result, "computer home-work" cannot be assigned. If parents were given a "vote" on the computers that schools purchased, Apple would probably NOT be the winner.

>Otherwise, TRIPOS
>has the same problems as OS-9. GNU might have a chance, because it's free.
>There is no way I am going to BUY an OS for my machine even if it is a great
>OS, if there are no (or almost no) applications that run under it. If it's
>a FREE OS, (public domain or similar) THEN I might be inspired to run it on
>my machine.

You mean you wouldn't pay $60 for an operating system if you knew that you could get several hundred applications off of Compuserve, net.sources, and hundreds of BBS's? You might still want to run Intuition or GEM at certain times, but you COULD run OS-9 to feed data into the other OS.

>If Atari, Amiga, Apple or some Alternate manufacturer produces
>a machine that comes with OS-9 plain vanilla, and developers decide to get
>behind it, then OS-9 has a chance. Until then, OS-9 is at the level of the
>8-bit CP/M systems, because there will be no applications that will use any
>graphics, windows, or other neat stuff that you need to sell applications
>these days. I don't need OS-9 to run 'C', assemblers, Modula, Pascal, Lisp,
>Basic, Forth, etc. on my Amiga, or to be able to print stuff while I'm
>editing or compiling now do I?

No, but if you have a 'C' compiler for OS-9, you will be have access to several hundred "free" programs. When you got them compiled, you could take the SAME FLOPPY, and plug it into the ST, the Amiga, and the MAC. You could even post the uuencoded binary, and we could ALL use the binary. In addition, because the libraries are so similar to UNIX, you could also compile most of what's in net.sources without modification. Again, you could post the binaries, share the floppies, ftp, and distribute, to anyone with any of the three machines, along with any others that might come out in the future. You can't even do THAT with UNIX (which trap/vector is to UNIX?, what are the DEFINES?, which "a.out" format is this?,...).

No, but if your company decides it wants to replace it's 1000 burned out VT-100's with ST's, you won't be able to do work at home either. As it is, your children can't "turn in a floppy" from your Amiga, because the schools only have Apples (which can be upgraded to accept OS-9 68K). If your child learns to use AppleWriter, that knowledge will be hard to practice on MacWrite, AmigaWrite, or even Micro-Emacs.

Appearantly, there is a little confusion here. Any OS is a collection of modules. Typically, you have the "drivers" or "BIOS" which convert hardware dependancies into a uniformly contollable format, usually something very simple, the "Kernal" which manages organization of storage, scheduling of tasks, and semaphores. In addition, there are often upper "layers" such as GEM which can use a graphical BIOS, and the OS. These "Graphical Operating Systems" also come in "layers". There is usually, the BIOS, which determines how to get objects displayed, the "Graphics Kernal" which lets graphics be put on the screen or even to disk for that matter, and

the VDI, which makes "widows, disks, and comm-lines" appear to the application to be "generic, self contained devices".

In other words, if I say circle(fd,x,y,r), to a VDI device, the call will be treated differently depending on which device "fd" describes. To a disk, it might just write tokens, or postscript text, to the disk file. To a window, it might draw what can be described in the window, or draw it off screen, and let another part of the kernal Bit-Blt the off screen image onto the "window". The principles are no different that those of UNIX, MS-DOS, or CP/M, even though the implementations might be quite different.

One of the advantages of MS-DOS or OS-9 over CP/M or UNIX, is that device drivers can be "mounted" rather than having to be linked into the kernal. This means that if I want to add a hard disk, SCSI graphics display, or ethernet, I only need a new driver, not a new BIOS or Kernal. If I don't need a driver any more, it doesn't eat up 20K of memory.

Ideally, if all the "componants" could be "Installed", I could change to a new VDI that had features such as "rotate figure", or a Kernal, that included Bi-directional pipes, or a driver that included "remote file systems".

Before anyone starts flaming about how you would have to give up functionality, look at "Inside Mac", "The GEM programmers guide", and the Amiga Kernal manual. Also, look at books on RT-11, CP/M, MS-DOS, UNIX, and OS-9. When you've gotten past the various different vocabulary differences, you will find that such a "generic system" would actually be better than the "proprietary" ones.

Look at how effectively UNIX hides the "disk format" compared to CP/M. All we are doing when we add graphics to such systems is extending the "stream of objects" to a wider range of objects than chars, words, lines, paragraphs, pages, files, directories, devices. On all of the popular graphics systems, a "picture" is described as a stream of objects or stream of packets of objects. In addition to the above objects, we've added lines, circles, arcs, rectangles, polygons, rounded rectangles, and fonts, many of these could actually be broken down to simpler objects, or extended into more complex ones.

Actually, there may be some real advantages to a generic operating system. As terminology becomes uniform, interchange formats, editors, filters, and applications will be easier to support, and become more general in nature. For example, I might be able to use a DBMS language like prolog, or an associative data base, to produce a graph or structure chart, use and editor similar to "MacProject" to move boxes and their connecting lines to create a more readable chart, use another editor to add additional boxes, feed the output to a compiler, and end up with an updated data base.

The hardware engineer three cubicles down, could use the same tools to feed in his wiring list, edit the schematic, come up with printed circuit board film, or gate-array programming logic, and get a bid over the phone. He might even feed the "compiler output" to the CAD/CAM film plotter on site,

and have a negative by that afternoon. Compare this to hand drawing the circuit, "mousing in" the picture, and "hand analysing" the timing characteristics.

The company president could use the same tools on his organizational chart. The systems analyst could use the same tools on his DFD's. The project planner could use the same tools on his "critical path" charts. The archetect could use the same tools on his pluming blueprints. The civil engineer could use the same tools on his "traffic maps". In fact, anyone who "connects black boxes" could use the same tools.

More importantly, they could use information they already have (compiler source, wiring lists, spreadsheet data, text, data in a DBMS,...) rather than having to manually "mouse in" the information in some abbreviated form. If you think software is an investment, think about the Gigabytes of DATA that currently has to be interpreted in the reader's mind. Don't you think that anyone would JUMP at the ability to "see" things like bibliographies, wiring lists, maps, and even source code that has been "hidden" for years?

On of the common "complaints" about UNIX is that there are not a lot of "vertical market" applications for it. In reality, there are more than anyone could imagine. The biggest problem is that they are also so "trivial" to create, that they are usually found sitting in someone's personal "bin" directory. Often, it is simply a matter of taking an existing shell script, and changing or adding a line or two to produce a DBMS as powerful as DBASE-II. One can do some really perverse things by simply examining the shell portion of tools such as lorder, cflow, tsort, lint, or diff. Many of these tools have useful "byproducts" which can be used by other tools as well.

The Mac/SmallTalk concept of One "super application" which will do "anything you might want to do" to a particular "resource" or "object" is good in theory, but then such a program, if it cannot produce by-products and accept as input, by-products, is quite limited in it's usefulness. You can't even imagine what I might want to do with your "does everything" application.

From 5748188861448380143
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-08 12:43:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!caip!cbmvax!andy
From: andy@cbmvax.cbm.UUCP (Andy Finkel)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <218@cbmvax.cbmvax.cbm.UUCP>
Date: Thu, 8-May-86 15:43:40 EDT

Article-I.D.: cbmvax.218
Posted: Thu May 8 15:43:40 1986
Date-Received: Wed, 14-May-86 04:43:12 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp>
Reply-To: andy@cbmvax.UUCP (Andy Finkel)
Organization: Commodore Technology, West Chester, PA
Lines: 31
Xref: linus net.micro.atari16:582 net.mail:1507

In article <779@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>In article <306@sdcarl.UUCP>, tre@sdcarl.UUCP (Tom Erbe) writes:
>> I logged on to the Atari Home Base BBS last night and found many useful
>> programs. However, I do not wish to pay for the phone time. Would any
>> one at Atari be willing to make these programs available by E-mail???
>> thomas r. erbe
>> {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre
>
>Sure, let's let {ucbvax,ihnp4,akgua,hplabs,sdcsvax} pay so this guy can
>play with his Atari. After all, he can't afford it, but they
>can. In fact, why not just post the entire contents of the BBS to
>the net -- then *everybody* can pay for the phone time.
>
>John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

Please! He didn't say he couldn't afford it; He said he didn't WISH
to pay for the phone time.

Somehow, that makes it worse.

--

andy finkel
Commodore(Amiga)
{ihnp4|seismo|allegra}!cbmvax!andy
or pyramid!amiga!andy

"I disclaim all responsibilities, all shapes, all sizes, all colors."

"Remember, no matter where you grow, there you are." - Buckaroo Bonsai.

From 3017539590557722302
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae7ec25ff12889a2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 14:33:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!sri-spam!nike!styx!lll-crg!lll-lcc!
ucdavis!ucbvax!UCONNVM.BITNET!MOEWS
From: MOEWS@UCONNVM.BITNET
Newsgroups: net.micro.atari16
Subject: VT100 emulation and Yale ASCII

Message-ID: <8605081652.AA19816@ucbvax.Berkeley.EDU>
Date: Thu, 8-May-86 17:33:42 EDT
Article-I.D.: ucbvax.8605081652.AA19816
Posted: Thu May 8 17:33:42 1986
Date-Received: Sun, 11-May-86 03:56:54 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 22

I should like to connect a 1040 ST to a large mainframe computer, an IBM 3084-QX running VM/CMS and MVS/JES. There are 3 ways to connect ASCII terminals to this machine, the way preferred by the operators is to use Yale ASCII. Yale ASCII is a protocol conversion system developed at Yale and supplied by IBM. Yale ASCII software runs on a IBM Series/1 mini and emulates IBM 3270 terminals for a number of ASCII terminals. The mainframe thinks the Series/1 is a 3272 local control unit with a number of 3277 terminals attached to it.

The most desirable (according to the CC) ASCII terminal is a PC or a PC clone running YTerm, another program from Yale. The second best ASCII terminal is a DEC VT100. Some TeleVideo, Data Media, Lear Siegler, and ADDS ASCII terminals are also supported.

A number of postings on this network have suggested that PC/INTERCOMM (Mark of the Unicorn, Inc.; Cambridge, MA) which emulates a VT100 terminal for the ST and a Hayes compatible modem would be a good choice.

Does anyone have an ST connected to Yale ASCII? Any other VT100 emulators which might work or maybe even a version of YTERM for the ST? Any comments about PC/INTERCOMM and Mark of the Unicorn?

If I receive any replies I will summarize and post them.

MOEWS@UCONNVM.BITNET

From -3467470193415966400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 14:59:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Atari BBS programs
Message-ID: <262@atari.UUcp>
Date: Thu, 8-May-86 17:59:36 EDT
Article-I.D.: atari.262
Posted: Thu May 8 17:59:36 1986
Date-Received: Sun, 11-May-86 00:58:56 EDT
References: <306@sdcarl.UUCP>
Organization: Atari Corp/Mktg
Lines: 11

In article <306@sdcarl.UUCP>, tre@sdcarl.UUCP (Tom Erbe) writes:

> I logged on to the Atari Home Base BBS last night and found many useful
> programs. However, I do not wish to pay for the phone time. Would any
> one at Atari be willing to make these programs available by E-mail???

Sorry, but we don't have the resources to provide this service. Many
local user groups have picked up copies of these programs -- perhaps they can
help you.

--->Neil @ Atari
     ...lll-crg!vecpyr!atari!neil

From -1429228608290593499
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 15:08:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!csd2!dimitrov
From: dimitrov@csd2.UUCP (Isaac Dimitrovsky)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <6670002@csd2.UUCP>
Date: Thu, 8-May-86 18:08:00 EDT
Article-I.D.: csd2.6670002
Posted: Thu May 8 18:08:00 1986
Date-Received: Sat, 10-May-86 23:42:56 EDT
References: <820@ihwpt.UUCP>
Organization: New York University
Lines: 19

[]
Some advantages of buying a 520ST (as opposed to the 1040):

The 520 is pretty well field tested. It's been used by a lot
of people with relatively few problems. The 1040 hasn't, so
we don't really know yet if there may be problems with the
internal drive or power supply.

The 520 is slightly more modular. If the power supply or disk
drive breaks, you can buy or borrow another one, and thus not
have much down time. If the 1040 breaks you have no option but
to have it serviced.

Isaac Dimitrovsky   251 Mercer Street, New York NY 10012   (212) 674-8652
allegra!cmcl2!csd2!dimitrov (l in cmcl2 is letter l not number 1)

You know the great thing about tv? If something important happens anywhere
at all in the world, no matter what time of the day or night, you can always
change the channel - Jim Ignatowski

From -8333734857567993100

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1aae84b71ad7ff99,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 18:19:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!ucdavis!ucbvax!SU-SCORE.ARPA!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: [Jim Moore <moore@ncsc>: questions]
Message-ID: <12205176980.9.G.ABRAMS@SU-SCORE.ARPA>
Date: Thu, 8-May-86 21:19:34 EDT
Article-I.D.: SU-SCORE.12205176980.9.G.ABRAMS
Posted: Thu May 8 21:19:34 1986
Date-Received: Sun, 11-May-86 04:50:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 56

forwarded message

Return-Path: <moore@ncsc>
Received: from ncsc by SU-SCORE.ARPA with TCP; Mon 5 May 86 09:09:06-PDT
Date: 5 May 86 10:58 EDT
From: Jim Moore <moore@ncsc>
Subject: questions
To: info-atari-request@su-score

attn: coordinator

can i get you to forward the following note to the 16-bit digest? I get mailer errors from COMSAT@MC when I try to send it. I've just sent you a note asking to join the 16bit, so I'm worried there may be problems. Any comments? Thanks for your help.

jim moore
naval coastal systems center

????
From: Jim Moore <moore@ncsc>
Subject: ST questions
To: info-atari16@su-score

I spent this weekend with my brother-in-law who has a 520ST, and we came up with some questions I hope someone can answer:

1) Are TOS-in-ROM chips available to users?

2) Does protected software cause problems with the disk drives? He has a DSDD drive (314??) that has serious problems copying FINAL WORD (the manual

says to make backup copies). Occasionally he has to try two or three times to copy a disk that is *not* protected (eg backing up ZORK I).

3) Are there any instruction manuals for NEOCHROME available? We got a free copy from the local (Jax, FL) Games 'n Gadgets (I think it's v0.5), but no instructions.

4) Is there a Jax FL user group for 520ST's?

5) Is there a compilation of public-domain or free software for the 520ST?

Thanks for any information. Please mail directly to moore@ncsc, as I'm not on this list (yet!)

Jim Moore
Naval Coastal Systems Center

????

From -5420396740304724533
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-08 19:51:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <360@imagen.UUCP>
Date: Thu, 8-May-86 22:51:27 EDT
Article-I.D.: imagen.360
Posted: Thu May 8 22:51:27 1986
Date-Received: Sun, 11-May-86 16:20:09 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp>
Organization: The Houses of the Holy
Lines: 40
Xref: watmath net.micro.atari16:663 net.mail:1578

> In article <306@sdcarl.UUCP>, tre@sdcarl.UUCP (Tom Erbe) writes:
> > I logged on to the Atari Home Base BBS last night and found many useful
> > programs. However, I do not wish to pay for the phone time. Would any
> > one at Atari be willing to make these programs available by E-mail???
> > thomas r. erbe
> > {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

>
> Sure, let's let {ucbvax,ihnp4,akgua,hplabs,sdcsvax} pay so this guy can
> play with his Atari. After all, he can't afford it, but they
> can. In fact, why not just post the entire contents of the BBS to
> the net -- then *everybody* can pay for the phone time.
>
> This doesn't even rate a :v} because it's not funny.
>
> Every morning I get up and say "why do I flame so much on the net when
> I'm trying to be kinder in my personal life?" Every night I run into these
> bozos though...
> --
> John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

why not indeed ? i am in the process of implementing the recently
posted automatic retrival program for mod.sources and i am
considering included as much of the atari16 sources as i can get my
hands on. since when is the purpose of the net changed from the free
exchange of ideas and information ? i certainly believe that
software falls into that catagory.
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -5662815469270913545
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd66f87ed1e0a46c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 19:52:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Help me get files
Message-ID: <8605101629.AA23352@ucbvax.Berkeley.EDU>
Date: Thu, 8-May-86 22:52:35 EDT
Article-I.D.: ucbvax.8605101629.AA23352
Posted: Thu May 8 22:52:35 1986
Date-Received: Tue, 13-May-86 00:34:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 12

Can anyone tell me how to get files thru arpanet? I can not figure out how to get files mentioned in different letters, nor can I figure how to get archived messages. Please help me. Also, I need to find out how to get uuencode. We have AT&T 3b20s, vax vms4.0, and vm/sp 4.0, what files can I get to help me out? As you can guess, I am new to the network, and I am having a tough time determining how to send for stuff....
Please help, before my brain pops!!!!

From Houston,
Michael Vederman

acs19@uhupvm1

From 9072497420016023455
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,421c4ebea98d6cd8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 21:37:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site ucsfcca.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ucsfcgl!ucsfcca!root
From: root@ucsfcca.UUCP (Computer Center)
Newsgroups: net.micro.atari16
Subject: OS/9 for Atari ST
Message-ID: <512@ucsfcca.UUCP>
Date: Fri, 9-May-86 00:37:21 EDT
Article-I.D.: ucsfcca.512
Posted: Fri May 9 00:37:21 1986
Date-Received: Tue, 13-May-86 01:48:42 EDT
Distribution: net
Organization: UCSF Computer Center
Lines: 49

Quite a few netters have expressed interest in multi-tasking
on the ST's. Others have expressed explicit interest in OS/9.

Well, I have an announcement distributed at Comdex which answers
both of these but since I wasn't there I didn't want to rush in
(Jim O. where are you?) ahead of someone with more information.

The announcement is from

     TLM Systems Inc.
     4704 W. Jennifer, Suite 105
     Fresno, CA 93711
     (209) 276-2345
or
     67 Grandview

Pleasantville, NY 10570
(914) 747-1450

for the
OS/9 68000 Operating System for Atari ST

which is said to feature

Unix-like structure and command vocabulary
Multi-user/Multi-tasking capabilities
Shell oriented command line processing
Sequential and concurrent command execution
I/O redirection
Wildcard matching
Unix-like utility command library
Full screen editor
68000 macro assembler and development tools
Optional languages: BASIC C Pascal Fortran COBOL

selling for (I am told, it is not on the announcement) $299 without the optional languages.

In my opinion, the price will limit its appeal. For a ~$1000 system ~$300 for a second operating system is steep. Power-users with hard disks will love it but how many of them are there? The big question is, of course, how much software development will it attract?

Of course, if the same programs will run on it and on GEMDos that's another story, but I would have expected VERY BOLD presentation of that in the announcement if it were true.

I have seen the flier; that's all I know.

Thos Sumner (...ucbvax!ucsfcgl!ucsfcca.UCSF!thos)

From 5644117183322797172
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d07856daa24c0a89
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 23:25:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!pesnta!hplabs!sdcrdcf!burdvax!psuvax1!
psuvm.bitnet!ukma!knnngt
From: knnngt@ukma.UUCP
Newsgroups: net.micro.atari16
Subject: Re: drive query
Message-ID: <3373@ukma.UUCP>
Date: Fri, 9-May-86 02:25:49 EDT
Article-I.D.: ukma.3373
Posted: Fri May 9 02:25:49 1986
Date-Received: Sun, 11-May-86 10:52:16 EDT
References: <8605021825.AA01513@ucbvax.berkeley.edu>

Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of Kentucky, Mathematical Sciences, Lexington KY
Lines: 14

Organization: U of KY Mathematical Sciences
Keywords:

        {}
My 1040 internal drive gives no problems with inter-readability to
my other disk drives. However, the drive has a piece of metal that
has lately been clanging like a bell whenever the drive is started.
Also, on the subject of dimensional changes, my power supply is on the left
and does not heat up the drive. However, it does heat up the plastic of the
body of the 1040 (the cooling grill) to the extent that the plastic is
sinking into the computer. So the top of my computer is no longer flat!!!
Needless to say, I am not amused!
        Alan Kennington.

From -1541626455390743981
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4f04ba442a1a353,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-08 23:48:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!decwrl!pyramid!pesnta!hplabs!sdcrdcf!burdvax!psuvax1!
psuvm.bitnet!ukma!knnngt
From: knnngt@ukma.UUCP
Newsgroups: net.micro.atari16
Subject: libf
Message-ID: <3376@ukma.UUCP>
Date: Fri, 9-May-86 02:48:32 EDT
Article-I.D.: ukma.3376
Posted: Fri May 9 02:48:32 1986
Date-Received: Sun, 11-May-86 10:51:59 EDT
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 14

        ..
  Good peoples of the net,
now that I have two minutes together to play with my Atari, the inevitable
consequence has followed: the wretched thing has done something
incomprehensible. To wit: linking a trivial C program has resulted in the
following diagnostic: Link68 can not find ffpsub and ffpadd. But there
seems to be no difficulty with all of the fp routines required by the
Alcyon C compiler: eg fpmult, fpdiv etc. Where do I get these
ffp routines? The new version of libf from Compuserve gives the same

problem.
        Merci d'avance,
Alan Kennington.

From 1500269752717775546
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,14e5763e3355fd1c
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 142096,828c81a48e8d7d56
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 06:01:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!husc6!
harvard!seismo!rochester!rocksanne!sunybcs!kitty!baylor!peter
From: peter@baylor.UUCP (Peter da Silva)
Newsgroups: net.legal,net.micro.atari16,net.micro.amiga
Subject: Re: Re: Using Apple Macintosh roms on non-Apple machines
Message-ID: <637@baylor.UUCP>
Date: Fri, 9-May-86 09:01:49 EDT
Article-I.D.: baylor.637
Posted: Fri May 9 09:01:49 1986
Date-Received: Tue, 13-May-86 02:51:13 EDT
References: <959@well.UUCP> <794@ccird2.UUCP> <162@cbmvax.cbmvax.cbm.UUCP>
<1040@cadovax.UUCP>
Organization: The Power Elite, Houston, TX
Lines: 13
Xref: watmath net.legal:3424 net.micro.atari16:697 net.micro.amiga:3050

> I'm not at all convinced that OS-9 has much chance here. And, I don't think
> it has anything to do with how good of an OS it is (unfortunately).
>...
> I don't need OS-9 to run 'C', assemblers, Modula, Pascal, Lisp,
> Basic, Forth, etc. on my Amiga, or to be able to print stuff while I'm
> editing or compiling now do I?

Once again, the good is the enemy of the best. Does anybody know anything about
running GEM or Intuition or even a generic windowing system (with each window
being a virtual terminal, of course) under OS/9? That's what we really need.
--
-- Peter da Silva
-- UUCP: ...!shell!{baylor,graffiti}!peter; MCI: PDASILVA; CIS: 70216,1076

From -7347036793278760645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c04dbf237fdaf9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 07:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!ucdavis!ucbvax!

ua.BITNET!SWHITE
From: SWHITE@ua.BITNET (Craig White)
Newsgroups: net.micro.atari16
Subject: Avatex 1200 bps modem
Message-ID: <8605091614.AA00929@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 10:48:00 EDT
Article-I.D.: ucbvax.8605091614.AA00929
Posted: Fri May 9 10:48:00 1986
Date-Received: Sun, 11-May-86 05:34:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Greetings,

Thumbing through the may issue of BYTE, I noticed an ad for the ever popular Avatex modem for $99.00. I remember seeing a note about a place that had them but the supply was limited. If anyone tried to get one but couldn't here is another tree to bark up.

The ad appears on page 76. It was from:

The Wholesale Outlet
DEPT. BY,
1 Interstate Avenue
Albany, NY 12205

for orders: 1-800-334-4387

I am in no way connected to this people, have no idea about them, could careless, etc, etc.

-craig

From -8312394024552061647
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aec49b686df2d0c9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 08:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ncsc!moore
From: moore@ncsc (Jim Moore)
Newsgroups: net.micro.atari16
Subject: st questions
Message-ID: <8605101633.AA23453@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 11:58:00 EDT
Article-I.D.: ucbvax.8605101633.AA23453

Posted: Fri May 9 11:58:00 1986
Date-Received: Tue, 13-May-86 00:34:53 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

I spent this weekend with my brother-in-law who has a 520ST, and we came up with some questions I hope someone can answer:

1) Are TOS-in-ROM chips available to users?

2) Does protected software cause problems with the disk drives? He has a DSDD drive (314??) that has serious problems copying FINAL WORD (the manual says to make backup copies). Occasionally he has to try two or three times to copy a disk that is *not* protected (eg backing up ZORK I).

3) Are there any instruction manuals for NEOCHROME available? We got a free copy from the local (Jax, FL) Games 'n Gadgets (I think it's v0.5), but no instructions.

4) Is there a Jax FL user group for 520ST's?

5) Is there a compilation of public-domain or free software for the 520ST?

Thanks for any information. Please mail directly to moore@ncsc, as I'm not on this list (yet!)

Jim Moore
Naval Coastal Systems Center

????

From 4031485574653144657
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-09 14:18:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <2205@uwmacc.UUCP>
Date: Fri, 9-May-86 17:18:33 EDT
Article-I.D.: uwmacc.2205
Posted: Fri May 9 17:18:33 1986

Date-Received: Sun, 11-May-86 04:59:05 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 21
Xref: linus net.micro.atari16:590 net.mail:1498

>
>Every morning I get up and say "why do I flame so much on the net when
>I'm trying to be kinder in my personal life?" Every night I run into these
>bozos though...
>--
>John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

Yup...you're a real sweet guy, John...

     ... this doesn't deserve a :-) either....

--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

          "If you can't trust wimp lawyers anymore,
                 who can you trust...?"
                        -- Mildred Krebs

From -5461050815591985174
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-09 14:32:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!uwmacc!oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <2206@uwmacc.UUCP>
Date: Fri, 9-May-86 17:32:14 EDT
Article-I.D.: uwmacc.2206
Posted: Fri May 9 17:32:14 1986
Date-Received: Sun, 11-May-86 05:00:50 EDT
References: <779@hoptoad.uucp> <218@cbmvax.cbmvax.cbm.UUCP>
Reply-To: oyster@uwmacc.UUCP (Vicarious Oyster)
Distribution: na
Organization: UWisconsin-Madison Academic Comp Center
Lines: 33
Xref: linus net.micro.atari16:591 net.mail:1499

In article <218@cbmvax.cbmvax.cbm.UUCP> andy@cbmvax.UUCP (Andy Finkel) writes:
>In article <779@hoptoad.uucp> gnu@hoptoad.uucp (John Gilmore) writes:
>>Sure, let's let {ucbvax,ihnp4,akgua,hplabs,sdcsvax} pay so this guy can
>>play with his Atari. After all, he can't afford it, but they
>>can. In fact, why not just post the entire contents of the BBS to
>>the net -- then *everybody* can pay for the phone time.
>
>Please! He didn't say he couldn't afford it; He said he didn't WISH
>to pay for the phone time.
>
>Somehow, that makes it worse.
>
   Here's the good part...

>   andy finkel
>   Commodore(Amiga)
>   {ihnp4|seismo|allegra}!cbmvax!andy
>   or   pyramid!amiga!andy
>
   Some poor little guy who makes $3.07/hr flipping burgers at the local
snack bar is flamed for "abusing the net", while people like andy finkel
at Commodore feel free to use *my* tax dollars to support the Amiga!
Talk about people in glass houses! Both of you guys should lighten up;
I'm sure there are people at hoptoad who spend money on things which, say,
Greg Woods at hao really doesn't give a flying fumigation about, but
do you see that nice guy with his ST (not Greg, the flamee) complaining?

(And before you point out that Commodore isn't the only company doing
this at our expense, I already know that. It's just that when a
representative (official or not) of an unmistakably for-profit company
flames some innocent citizen for "abuse", I get severely annoyed.)

 - Joel ({allegra,ihnp4,seismo}!uwvax!uwmacc!oyster)

From -8657564750708827598
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,244a4719be30cb8c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 15:04:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!UHUPVM1.BITNET!
ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Power supply
Message-ID: <8605100658.AA12747@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 18:04:44 EDT
Article-I.D.: ucbvax.8605100658.AA12747
Posted: Fri May 9 18:04:44 1986
Date-Received: Tue, 13-May-86 01:55:34 EDT
Sender: daemon@ucbvax.BERKELEY.EDU

Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 8

The problem which many people have been having when they do the one meg upgrade was believed to be a bad MMU. Guess again. We have found that the power supply was in fact the root of the problem. By adding the extra chips, the power drain was more than could be supplied to the chips, and viola, the MMU would heat up and burn out. By increasing the rating of the choke in the power supply, you can allow greater current to pass through. We have had several units not work, but by changing the choke, all was fine. Take note, we have done 1 meg upgrades to Rev. A & B boards without problems.

From 720943878396702155
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,f8c5c3bc148079ce,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 15:08:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!SCORE.STANFORD.EDU!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8605092208.AA03613@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 18:08:30 EDT
Article-I.D.: ucbvax.8605092208.AA03613
Posted: Fri May 9 18:08:30 1986
Date-Received: Tue, 13-May-86 00:36:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 3169216672419590076
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc377b449eb36c1c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 16:01:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: ramdisk, et al.
Message-ID: <8605101402.AA21306@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 19:01:41 EDT
Article-I.D.: ucbvax.8605101402.AA21306
Posted: Fri May 9 19:01:41 1986
Date-Received: Tue, 13-May-86 00:33:10 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 29

>Organization: University of Utah CS Dept
>Subject: RAM disk wanted

>I'm looking for a PD ramdisk. I've seen several mentioned recently; could
>somebody please post (or mail) a copy? Sources preferred, of course.

>Sorry if this is a repeat request -- our archives have been flushed
>recently.

>-Sandra Loosemore (utah-cs!sandra)

I could be persuaded to send the source to my desk accessory ramdisk, of course it is meant to be linked as a desk accessory, using the development package C. If you do not have this, you might have trouble compiling the program.
The only hitch is: I am looking for somewhere to get uuencode, and archived articles/letters/files/programs.
Also, on another note, I received the installment to Tim Oren's GEM tutorial, but when I ran it through the shell on our 3b20, the checksum was not the same. Is it possible that some node along the way is expanding the tabs to spaces, since I looked at the file and found no tabs. Also, is there some way to get the macro define files needed to properly run the file thru roff, and the other files in the tutorial which were sent thru bitnet. If someone could help, I would be glad to reciprocate.

From Houston,
Michael Vederman

acs19@uhupvm1

From -3819403738115665234
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aec49b686df2d0c9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 16:37:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!SUMEX-AIM.ARPA!ROODE%BIONET
From: ROODE%BIONET@SUMEX-AIM.ARPA (David Roode)
Newsgroups: net.micro.atari16
Subject: Re: st questions
Message-ID: <12205420531.54.ROODE@IC2060>
Date: Fri, 9-May-86 19:37:26 EDT
Article-I.D.: IC2060.12205420531.54.ROODE
Posted: Fri May 9 19:37:26 1986
Date-Received: Tue, 13-May-86 00:31:26 EDT
References: <moore@ncsc>

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

I can tell you that TOS in ROM Is definitely available to users--
the various dealers have them or can get them. They cost $25
and installation is extra. (List price only--your price may vary).

By the way, we received 3 copies of your message on the list.
It got through each time. SOme recipient at MIT missed
his copy, but the other 100's of people did get the message.

From -1053125314073013395
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,aec49b686df2d0c9
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 16:37:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!hplabs!hpislx!
From: @hpislx.UUCP
Newsgroups: net.micro.atari16
Subject: Re: st questions
Message-ID: <moore@ncsc>
Date: Fri, 9-May-86 19:37:26 EDT
Article-I.D.: ncsc.moore
Posted: Fri May 9 19:37:26 1986
Date-Received: Tue, 13-May-86 08:49:31 EDT
Lines: 0

From -3397410019804068914
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b895a32d4dd198cd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 17:20:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!aids-unix!fxl
From: fxl@aids-unix (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: Re: hi50 Request
Message-ID: <8605101102.AA17409@ucbvax.Berkeley.EDU>
Date: Fri, 9-May-86 20:20:44 EDT
Article-I.D.: ucbvax.8605101102.AA17409
Posted: Fri May 9 20:20:44 1986
Date-Received: Tue, 13-May-86 00:31:39 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

The hi50 hack is a very small TOS program (256 bytes) written in assembly language. It, and source, is available from the Atari BBS (don't know the numbers off-hand) plus I've seen it on several other Atari 520ST BBS's in this area (Silicon Valley). Try your local BBS. Or wait until I post it, in a week or two, when I have the time.

Franz Lanzinger
ADS
Mountain View CA 94040
(415) 941 3912

P.S. The text is quite small in 50 line mode, but it is readable.
You could even get 66 line mode, if you were really crazy.
Someday someone will do that as well, I imagine.

From -5605742021032171221
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ac2aed1a57f6f18,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-09 19:01:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!bellcore!
ulysses!mhuxr!mhuxn!ihnp4!gargoyle!phenix!neal
From: neal@phenix.UUCP (U of C)
Newsgroups: net.micro.atari16
Subject: General Questions
Message-ID: <13@phenix.UUCP>
Date: Fri, 9-May-86 22:01:45 EDT
Article-I.D.: phenix.13
Posted: Fri May 9 22:01:45 1986
Date-Received: Wed, 14-May-86 19:57:25 EDT
Distribution: net
Organization: U. of Chicago, Computer Science Dept.
Lines: 18

I should start by apologizing for the multiple postings of my previous message. I got stuck in vi (ugh) and had trouble getting back out. I thought that I had killed the messages but apparently not. I'm back in EMACS now and things are better.

Questions:

1) How do you get function keys on the 520 (in C) ?
2) Is there any timer available (again through C) that has better than 2 second resolution.
3) How do you read mouse coordinates and what translation (if any) is needed to find screen coordinates.

My thanks for any help that makes it my way.

Neal McWhorter

From 3291874454274491426
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1866a6e13f010ff1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-10 00:26:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!harvard!think!mit-eddie!bri
From: bri@mit-eddie.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Link68 & Pathnames
Message-ID: <1923@mit-eddie.MIT.EDU>
Date: Sat, 10-May-86 03:26:49 EDT
Article-I.D.: mit-eddi.1923
Posted: Sat May 10 03:26:49 1986
Date-Received: Tue, 13-May-86 03:20:21 EDT
Reply-To: bri@mit-eddie.UUCP (Brian Totty)
Organization: MIT, EE/CS Computer Facilities, Cambridge, MA
Lines: 32

I remember reading somewhere that you can avoid the subdirectory problem in the DRI linker by placing the file names to be linked in a command file. This file can be taken by the linker by saying 'LINK68 output-file-name = [COM[some-file-name]], other-files'. The '[COM[some-file-name]]' takes more commands from the file inside the inner brackets (commonly uses a .INP extension).

The problem comes from the linker thinking backslashes as comment characters when on the command line. I actually haven't tried the command file idea, so it may not work...let me know what happens. In any case, the fix is probably reasonably trivial, and I am not sure why it hasn't been fixed. My guess would be that the ST is not at the top of DRI's "list of importance projects" right now.

--- Bri

UUCP: ...!eddie!bri
ARPA: bri@deep-thought.mit.edu

--

Brian Totty

```
o o                                   450 Memorial Drive
 o                                    Room D113
\_/                                   Cambridge, MA 02139
```

uc.bri@deep-thought.mit.edu
...!eddie!bri

From 476991268838656454
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4ba7ca47041ae2cc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-10 19:16:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site ssc-bee.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!uw-beaver!fluke!
ssc-vax!ssc-bee!ditzel
From: ditzel@ssc-bee.UUCP (Charles L Ditzel)
Newsgroups: net.micro.atari16
Subject: reading a picture onto the screen?
Message-ID: <552@ssc-bee.UUCP>
Date: Sat, 10-May-86 22:16:25 EDT
Article-I.D.: ssc-bee.552
Posted: Sat May 10 22:16:25 1986
Date-Received: Wed, 14-May-86 22:14:30 EDT
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 9

Question:
How do i read a (Degas, EZDraw, or Neochrome) picture into a window or
the screen?

Does anyone have any code that would be helpful in learning how this is done?

Than you.
charles ditzel
...uw-beaver!ssc-vax!ditzel

From 7414322673226009839
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,faa4a46fcdb02f59,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-10 22:12:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!JULIET.CALTECH.EDU!kegel
From: kegel@JULIET.CALTECH.EDU (Dan R. Kegel)
Newsgroups: net.micro.atari16
Subject: DRI C malloc
Message-ID: <860510221202.005@Juliet.Caltech.Edu>
Date: Sun, 11-May-86 01:12:24 EDT
Article-I.D.: Juliet.860510221202.005
Posted: Sun May 11 01:12:24 1986
Date-Received: Tue, 13-May-86 00:43:49 EDT

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 24

Hello, world!
Has anybody run into the following problem with malloc() under DRI C?
The program

```
main()
{
     int  i;
     extern char *malloc();

     appl_init();  /* optional */
     for (i=1; i<16; i++)
          printf("malloc() returns %lx\n", malloc(i));
}
```

produces output whose high word is always 0 or 0xffff- i.e. is getting
sign-extended somewhere- and whose low word looks reasonable- i.e. increments
by 16 with each call. Worse yet, on the eigth or so call, malloc() starts
returning NULL, even though gobs and gobs of memory are available, and
the DOS call Malloc() has no trouble allocating 1K before the loop...
WHAT THE HELL IS GOING ON? Maybe I should just use the DOS malloc, eh?
Thanks in advance.
Daniel Kegel
USMAIL: 1-60 Caltech, Pasadena, California 91126, USA (to June '86)
ARPA: kegel@juliet.caltech.edu (or kegel%juliet@hamlet.caltech.edu)
UUCP: {seismo!} hamlet.caltech.edu!kegel%juliet.caltech.edu {@seismo.css.gov}
BITNET: kegel%juliet@caltech.bitnet

From 6737342359591688484
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5ecce1075b69c88d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-10 22:14:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!mhuxr!mhuxn!ihnp4!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: SID
Message-ID: <3392@ukma.UUCP>
Date: Sun, 11-May-86 01:14:38 EDT
Article-I.D.: ukma.3392
Posted: Sun May 11 01:14:38 1986
Date-Received: Mon, 12-May-86 21:56:18 EDT
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 6

Does anyone know how to get SID to put its output onto a disk file
so that I can print it later?

I've tried using >filename but it just put a couple of lines
of garbage onto the file and terminated.
Merci d'avance. Alan Kennington.

From 9062734103612738731
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3fd81d1c088506b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-11 06:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!pyramid!pesnta!phri!cmcl2!acf4!slavin
From: slavin@acf4.UUCP
Newsgroups: net.micro.atari16
Subject: net.micro.atari16
Message-ID: <7960002@acf4.UUCP>
Date: Sun, 11-May-86 09:46:00 EDT
Article-I.D.: acf4.7960002
Posted: Sun May 11 09:46:00 1986
Date-Received: Tue, 13-May-86 19:23:48 EDT
Organization: New York University
Lines: 4

Does anybody in netland know of any good ST color flight simulators.
Also please let me know of suggestions on software you have
Thanks

From -7155891032370951400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-11 08:18:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA.UUCP
Newsgroups: net.micro.atari16
Subject: Writing Desk Accessories in TDI Modula-2
Message-ID: <8605111518.AA11708@ohio-state.ARPA>
Date: Sun, 11-May-86 11:18:07 EDT
Article-I.D.: ohio-sta.8605111518.AA11708
Posted: Sun May 11 11:18:07 1986
Date-Received: Wed, 14-May-86 19:12:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

I am currently interested in writing a desk accessory in TDI Modula-2 or
OSS Personal Pascal (which should be in the mail soon).

If someone has written a desk accessory in either of these languages,
perhaps they could send me a copy.

I tried just renaming the excutable file of one of my Modula-2 programs
to whatever.acc, and the OS doesn't manage to boot.

Are there any limitations associated with desk accessories? Are they
restricted in the memory they can use?

Thanks in advance,

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From -36711095595938438
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8afa8988a9431c20
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-11 08:49:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
sdcsvax!sdcrdcf!trwrb!sansom
From: sansom@trwrb.UUCP
Newsgroups: net.micro.atari16
Subject: UPDATES!
Message-ID: <1078@trwrb.UUCP>
Date: Sun, 11-May-86 11:49:31 EDT
Article-I.D.: trwrb.1078
Posted: Sun May 11 11:49:31 1986
Date-Received: Wed, 14-May-86 08:26:39 EDT
References: <546@aum.UUCP> <255@atari.UUcp> <547@aum.UUCP>
Reply-To: sansom@trwrb.UUCP (Richard Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 20

In article <547@aum.UUCP> freednp@aum.UUCP (Erik Freed) writes:
>It really is annoying to have a directory structure and be essentially unable
>to use it properly. Us Unix people are used to something that is well thought
>out and highly useable. (not perfect) Is Atari planning to do something about
>problems with its environment? This would include what hearsay sez is a
>number of memory allocation bugs. I guess what I'm trying to say is that
>these are not huge bugs, they seem to be weekend fixes. Are we going to get
>any updates as developers ever? Could we get a forecast of what we can
>expect?

I second the motion!

Richard E. Sansom
TRW Electronics & Defense Sector

{...decvax,ucbvax,ihnp4}!trwrb!sansom
--
Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!sansom

From 4940860626836454709
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79
X-Google-Attributes: gid140593,public
X-Google-Thread: 123782,a748eec4756b94b5
X-Google-Attributes: gid123782,public
X-Google-ArrivalTime: 1986-05-11 10:50:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!husc6!
harvard!seismo!rick
From: rick@seismo.CSS.GOV (Rick Adams)
Newsgroups: net.micro.atari16,net.mail
Subject: Re: abuse of the net
Message-ID: <2210@seismo.CSS.GOV>
Date: Sun, 11-May-86 13:50:00 EDT
Article-I.D.: seismo.2210
Posted: Sun May 11 13:50:00 1986
Date-Received: Tue, 13-May-86 01:40:37 EDT
References: <306@sdcarl.UUCP> <779@hoptoad.uucp> <360@imagen.UUCP>
Organization: Center for Seismic Studies, Arlington, VA
Lines: 33
Xref: watmath net.micro.atari16:699 net.mail:1593
Summary: free exchange often isn't

In article <360@imagen.UUCP>, turner@imagen.UUCP writes:
>
> why not indeed ? i am in the process of implementing the recently
> posted automatic retrival program for mod.sources and i am
> considering included as much of the atari16 sources as i can get my
> hands on. since when is the purpose of the net changed from the free
> exchange of ideas and information ? i certainly believe that
> software falls into that catagory.

It seems to me that if I pay to transmit your free exchange of
ideas is ceases to be free.

You can send whatever you want at your expense, but when you ask
me to pay for it (even implicity) you give me the right
to interfer with it.

I remove an average of 2 full source copies of rogue or hack
from the mail queues on seismo each week.

It takes about $45 worth of phone time to transfer that
free exchange of information. Federal Express and a mag tape would

only be about $40, yet how many people ever think about it. It cost
them nothing to mail it electronically (except for the non-North Americans).

I really wish the US had some sort of recharging scheme like they
do in Europe.

Is there really an extremely high correlation between the belief in the
obligation of free exchange and 1/(number of users your computer supports)
or am I overly sensitive.

---rick

From 5380539249484916227
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6d922ec5dc8c8bd2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-11 15:18:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!bellcore!ulysses!mhuxr!mhuxn!ihnp4!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: libf problems
Message-ID: <3393@ukma.UUCP>
Date: Sun, 11-May-86 18:18:59 EDT
Article-I.D.: ukma.3393
Posted: Sun May 11 18:18:59 1986
Date-Received: Mon, 12-May-86 23:30:30 EDT
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 70

The problem with the linker not being able to find the routines
ffpadd and ffpsub is now solved. And this is what I found:
The linker goes through the library finding undefined symbols,
including only the object code necessary for the undefined symbols
not yet found during the search. Now my program was so simple that
it did not need fpadd or fpsub, which therefore do not need to call
ffpadd and ffpsub. But fplog calls ffplog, which comes AFTER ffpsub
and ffpadd, and therefore calls them unsuccessfully. The order of the
relevant files is:
fpadd.o
fplog.o
fpsub.o
ffpadd.o
ffplog.o
(I think ffpadd.o contains the entry point ffpsub also.)
Thus the problem seems to be simply that the library has the object files
in the wrong order. I tested this conjecture by including a floating
point add and subtract in my program. And ....It worked perfectly!!!
Following is a list of contents of the new libf downloaded from Compuserve:

```
rw-rw-rw- 0/0    552 xdoprtfp.o
rw-rw-rw- 0/0   1736 ftoa.o
rw-rw-rw- 0/0   1708 etoa.o
rw-rw-rw- 0/0   2288 atof.o
rw-rw-rw- 0/0    720 ffptof.o
rw-rw-rw- 0/0    896 ftoffp.o
rw-rw-rw- 0/0    152 fabs.o
rw-rw-rw- 0/0    372 floor.o
rw-rw-rw- 0/0    372 ceil.o
rw-rw-rw- 0/0    632 fmod.o
rw-rw-rw- 0/0    148 fpadd.o
rw-rw-rw- 0/0    144 fpcmp.o
rw-rw-rw- 0/0    148 fpdiv.o
rw-rw-rw- 0/0    140 fpcos.o
rw-rw-rw- 0/0    148 fppwr.o
rw-rw-rw- 0/0    140 fpsin.o
rw-rw-rw- 0/0    140 fpsqrt.o
rw-rw-rw- 0/0    140 fpexp.o
rw-rw-rw- 0/0    140 fplog.o
rw-rw-rw- 0/0    584 ltof.o
rw-rw-rw- 0/0    608 ftol.o
rw-rw-rw- 0/0    176 fpmul.o
rw-rw-rw- 0/0    140 fpneg.o
rw-rw-rw- 0/0    148 fpsub.o
rw-rw-rw- 0/0    132 atan.o
rw-rw-rw- 0/0    132 sinh.o
rw-rw-rw- 0/0    132 cosh.o
rw-rw-rw- 0/0    132 tanh.o
rw-rw-rw- 0/0    558 ffpatan.o
rw-rw-rw- 0/0    610 ffpsinh.o
rw-rw-rw- 0/0    156 ffpcmp.o
rw-rw-rw- 0/0    196 ffppwr.o
rw-rw-rw- 0/0   1344 ffpsin.o
rw-rw-rw- 0/0    548 ffpsqrt.o
rw-rw-rw- 0/0    116 ffpabs.o
rw-rw-rw- 0/0    752 ffpadd.o
rw-rw-rw- 0/0    496 ffpdiv.o
rw-rw-rw- 0/0    848 ffpexp.o
rw-rw-rw- 0/0    740 ffplog.o
rw-rw-rw- 0/0    396 ffpmul2.o
rw-rw-rw- 0/0    260 ffptheta.o
rw-rw-rw- 0/0    208 ffptnorm.o
rw-rw-rw- 0/0    236 ffphthet.o
rw-rw-rw- 0/0    180 ffpcpyrt.o
rw-rw-rw- 0/0    528 atoi.o
```

Thanks for all the answers to my question. (I didn't get any because everyone has gone OS already. Remember to pack your bullet-proof vest, radiation counter and lunch-box.) .....Alan Kennington.

From 68432672413053475572

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa6aad1d77d336a2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 04:41:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!OHIO-STATE.ARPA!
terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Free Exchange of Ideas
Message-ID: <8605121141.AA20942@ohio-state.ARPA>
Date: Mon, 12-May-86 07:41:52 EDT
Article-I.D.: ohio-sta.8605121141.AA20942
Posted: Mon May 12 07:41:52 1986
Date-Received: Tue, 13-May-86 09:01:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Rick,

I do not hear you complaining about receiving (and paying for) files that
happen to interest you. Perhaps if all of us restricted our postings to
subjects in your interest area, we could all pitch in and solve your little
problem.

Just write down a list of the things that you personally would like to
see posted to the net, and all of us will promise not to post anything else!

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From 6673471892232855303
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c50c07b6d51d4112
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 06:53:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!decwrl!ucbvax!
EE.PURDUE.EDU!mckay
From: mckay@EE.PURDUE.EDU.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Writing Desk Accessories in TDI Modula-2
Message-ID: <8605121353.AA07570@ee.purdue.edu>
Date: Mon, 12-May-86 09:53:23 EDT
Article-I.D.: ee.8605121353.AA07570
Posted: Mon May 12 09:53:23 1986
Date-Received: Wed, 14-May-86 08:28:16 EDT
References: <8605111518.AA11708@ohio-state.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 10

Yes. I'm writting a desk accessory in OSS Pascal. The folks who wrote OSS Pascal posted a whole series of helpful hints to CompuServe about a month and a half ago. These included instructions on how the make a desk accessory, set up the serial port, make VDI and AES(?) calls, etc, etc.

I think all the stuff is in DL 3 in the 16 bit Atari SIG...

--Dwight Mckay, ECN Text & Workstation Software Support
[arpanet: mckay@ee.ecn.purdue.edu, usenet: ...ihnp4!pur-ee!mckay]
[Compu-serve: 75776,1521, office: EE 348B, phone: (317) 494-3561]

From 9218640377185582278
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a3974bb489ca1a1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-12 07:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!YUSOL.BITNET!CS112170
From: CS112170@YUSOL.BITNET
Newsgroups: net.micro.atari16
Subject: 520 vs 1040
Message-ID: <8605121419.AA25503@ucbvax.Berkeley.EDU>
Date: Mon, 12-May-86 10:52:00 EDT
Article-I.D.: ucbvax.8605121419.AA25503
Posted: Mon May 12 10:52:00 1986
Date-Received: Wed, 14-May-86 12:27:30 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Hi there.

I'm having some difficulty deciding which ST to purchase. I thought that the 1040 was the machine to buy, but I would prefer to have the power supply and drive external to the system. So I thought, I might as well get a 520 with a double sided drive. But I've been told that upgrading the 520 isn't so easy due to the lack of space inside the case.

Can anyone shed any more light on this subject? I'm particularly interested in the ability to expand the system, especially along the lines of extra RAM, and the graphics co-processor (when it becomes available).

Any help would be appreciated.

Dave
CS112170@YUSOL,
York University

From -5383699955833361168
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,14e5763e3355fd1c
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-25 10:52:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!talcott!
harvard!seismo!rochester!ritcv!cci632!ccird2!rb
From: rb@ccird2.UUCP (Rex Ballard)
Newsgroups: net.legal,net.micro.atari16
Subject: Re: Using Apple Macintosh roms on non-Apple machines
Message-ID: <794@ccird2.UUCP>
Date: Fri, 25-Apr-86 14:52:36 EDT
Article-I.D.: ccird2.794
Posted: Fri Apr 25 14:52:36 1986
Date-Received: Sun, 27-Apr-86 07:26:53 EDT
References: <959@well.UUCP>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Organization: CCI Telephony Systems Group, Roch, NY
Lines: 68
Keywords: Infringing ROM Copyrights
Xref: watmath net.legal:3330 net.micro.atari16:564

In article <959@well.UUCP> tenney@well.UUCP (Glenn S. Tenney) writes:
>What is a line eater?
>
>A company has developed some software and a cartridge for the
>Atari ST computer that allows Apple Macintosh roms to run on the
>Atari ST. They take official Apple roms and plug them into their
>cartridge and then their software lets the ST run Macintosh software.
>
>I hope that net.legal is the proper place for this discussion (it has
>been on net.micro.atari16). Some of the questions are:
>1. Is there any copyright infringement? I believe there is none, but
>   the developer thought Apple might so claim.

This depends on whether Apple is depending solely on copyright protection
or a liscence agreement. If copyright is the only restriction, then
Apple dealers, who have purchased the ROMs legally, may resell them
to anyone who wants to buy them legally. However the upgrade policy
for the Mac to Mac+ upgrade stipulates $$ PLUS the ROM. Apple already
gives service centers ROMs with credit/charge policies. It is quite
possible that Apple Dealers would be perfectly willing and able to
sell you an Apple ROM for $1000 or more.

>2. Can Apple suddenly claim the roms as proprietary? The roms are
>   evidently availble (officially) for somthing like US$195.

They don't have to. They are already covered by well documented copyright
notices. They have probably also registered the copyright.

>3. If Apple tries to restrict this product wouldn't they expose
>   themselves to restraint of trade claims?

This would be a problem ONLY if the "bundling" were a restraint of trade
in that it was impossible to get the same functionality, product, software,
... for the other machine, and that the purpose was to maintian artificially
high prices. Atari's low price may enable customers who buy both Apples
and STs to file such complaints.

Some important cases are the NOVA case, the IBM "bundling" case, and the
Apple vs. Fanklin case. In the latter case, Franklin attempted to prove
"restraint of trade" via the ROMs, and lost.

Personally, I would hope that they could come up with an object code
translator, as Landon did for the Amiga, or maybe Atari will come up
with translaters to go Atari-> Mac, and Atari -> Amiga. Another possibility
is that a third party such as DRI, MicroWare, Metacomco or ??? could come up
with operating systems which would provide the best functionality of all these
machines and still be tranparent to application software. Possible candidates
include Concurrent GEMDOS (is it coming?), OS-9 68K, Tripos, GNU with VDI,
Windows, UNIX, or ???. At this point, it looks like OS-9 will be the first
contender.

There is too big a potential market for "compatibility" between these machines,
and too many new peripherals (CD-ROMs, WORMs,...) which can't be released
in a timely fashion if four separate interfaces and systems must be supported.

The "componant computer system", like the "componant stereo system" will
be an important factor in the future. Manufacturers may produce "compact"
versions, but users will still want to plug in additional "black boxes"
that shouldn't need to know what computer they are connected to. This
also includes software.

Hopefully, by the end of the year, this will have all sorted itself out,
and we will be able to "Mix and Match" componants from a variety of
manufacturers. Mac+ is the first to "Throw the gauntlet" with built-in
SCSI. IBM dealers and users are already beginning to follow suit.

Interestingly enough, Atari, with their "lowball price" and "high power"
stand to gain the most from such a situation.

From 925119106351612752
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,6240d10dfb0f1825,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-25 15:59:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!SCORE.STANFORD.EDU!info-atari16-
request
From: info-atari16-request@SCORE.STANFORD.EDU

Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604260059.AA21704@ucbvax.berkeley.edu>
Date: Fri, 25-Apr-86 19:59:02 EDT
Article-I.D.: ucbvax.8604260059.AA21704
Posted: Fri Apr 25 19:59:02 1986
Date-Received: Sun, 27-Apr-86 06:25:15 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -8987418051594492813
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6dd9884a6d6a6a06
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-25 21:27:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!hao!hplabs!hpda!hpisoa2!hpitg!
atari!neil@atari
From: neil@atari
Newsgroups: net.micro.atari16
Subject: Re: Response to <755@minster.UUCP> <209@atari.UUcp>
Message-ID: <216@atari>
Date: Sat, 26-Apr-86 01:27:00 EDT
Article-I.D.: atari.216
Posted: Sat Apr 26 01:27:00 1986
Date-Received: Wed, 14-May-86 06:37:38 EDT
References: <755@minster>
Lines: 18

In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:

> I have an pre-production Atari 20 Mb hard drive, and am now starting to
> encounter problems. The documentation says to be careful not to copy too
> many files at once (no limit suggested), and to not have more than about 40
> subdirectories across all drives. This slightly worried me. When I created
> my 20th yesterday, I could not run any application, let alone copy files.
> The former generated the error "couldn't find application", and the latter
> "not enough memory to run that application". These I reckon are wide of the
> mark, as GEM is not expecting the underlying operating system to fold up,
> so guesses.

You need the later version of the Hard Disk driver program! It has been
posted to the Atari Developers SIG on CompuServe. Check with the developer
support person at your closest Atari office if you're not on CompuServe.

--->Neil @ Atari
     UUCP: ...lll-crg!vecpyr!atari!neil

From -7115667197832570532

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b9f688d18025e6c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-26 04:19:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!hao!hplabs!hpda!hpisoa2!hpitg!
cbmvax!porter@cbmvax
From: porter@cbmvax
Newsgroups: net.micro.atari16
Subject: Re: ST based lap computers: A query.
Message-ID: <153@cbmvax>
Date: Sat, 26-Apr-86 08:19:00 EDT
Article-I.D.: cbmvax.153
Posted: Sat Apr 26 08:19:00 1986
Date-Received: Wed, 14-May-86 06:24:42 EDT
References: <14187322@ucbvax>
Lines: 54

> In article <8604121914.AA24184@ucbvax.berkeley.edu> RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA writes:
> >
> >Does anyone out there think Atari will ever develop a lap computer based
> >on the ST? I would love to have a 68000 computer that would fit in my
> >backpack.
> >Are there real practical reasons why this cannot be accomplished? The market
> >in PC lap computer seems pretty active, so there's money to be made.
>
> The current "minimums" for a "real computer" seem to be a full travel
> qwerty keyboard, 80 column by 25 line display (640/400 graphics
> preferred), 400K non-volitile storage, and 1/2 to 1 meg volitile
> storage for ram disks, and general program usage. Many would also
> include a hard disk in their "minimums" list as well. Getting all of
> that into a single "box" that is both light-weight, and compact, is no
> easy chore.
>
True. There are some limitations with portable technology.
After having designed a portable for Commodore, here are some
of my thoughts...

1. Motor (in disk drives) and Batteries are mutually exclusive.
   Solid state mass storage is the only way. The entire Commodore
   LCD computer ran on less than 100mA from 4 AA cells. The lowest
   power disk drives today are FIVE times this hungry, just for the
   disk! Here we have the classic case of the tale wagging the dog.
   Hard disks...forget it.

2. LCD displays are still expensive. An 80x25 line display adds about
   $300 to the list price of a computer. It just can't compare to
   a $99 monochrome monitor. Color LCD look terrible. There have
   been recent advances in LCD technology called "SuperTwist" which
   have a much better viewing angle, and a yellow/green background
   with black letters. But the electronics to drive this display
   is still VERY costly. (16 plus 100 pin flat packs)!

3. CMOS memory is always one generation behind NMOS memory (DRAMS).
   How's 64 - 28 pins packages the size of an EPROM hit you for 512K?
   Customers of course don't understand why you can buy a Tandy
   1000 PC clone with monitor for $999, but still you must pay TWICE
   this for a portable PC clone. (Toshiba's got a new one out)

4. Mice. All these new computers have mice. What in the $%&# do
   you do with a mouse on a portable computer? "Excuse me, can
   I borrow your leg to roll my mouse on?" Nice pick up line, eh?
   Or, "Now which pocket did I put that mouse in...hummm...".

5. Does anyone make a CMOS 68000?

Well, there have been alot of manufacturers looking for the magic
formula for portable computers, but NO ONE has found it yet. I am
afraid we must wait for technology.

Jeff Porter
Commodore Engineering

From -3761457862005956976
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8bf23682a2b544e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-26 23:52:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!gargoyle!phenix!neal
From: neal@phenix.UUCP (U of C)
Newsgroups: net.micro.atari16
Subject: Function Keys in TOS (C)
Message-ID: <5@phenix.UUCP>
Date: Sun, 27-Apr-86 03:52:36 EDT
Article-I.D.: phenix.5
Posted: Sun Apr 27 03:52:36 1986
Date-Received: Fri, 2-May-86 08:09:37 EDT
Distribution: net
Organization: U. of Chicago, Computer Science Dept.
Lines: 4

ccccccccccccccccccccc
klk
cq
c

From -300902457808423605
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,be8f4947d74ad8e7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-27 10:35:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!uthub!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: Another First Word (TM) printer driver
Message-ID: <1824@utecfa.UUCP>
Date: Sun, 27-Apr-86 13:35:05 EDT
Article-I.D.: utecfa.1824
Posted: Sun Apr 27 13:35:05 1986
Date-Received: Sun, 27-Apr-86 16:52:53 EDT
References: <860421022431.882244@DOCKMASTER.ARPA>
Organization: Engineering Computing Facility, University of Toronto
Lines: 21

Hello folks,

I have a TEO PX-80 printer which is a lot like the EPSON MX-80 in terms of escape sequences it recognises. Anyway, during the Christmas holidays, I generated a printer driver that does *all* the First Word characters (the greek alphabet and math stuff and all). It does all the standard characters by simply printing them out, and the same goes for bold and underline and other escape sequences which my printer understands, but all the other "funny" characters are done by bit-image printing. It should be quite easy to modify the file for an Epson compatible printer, but if you have a completely different printer, this is the way to make designing the font easy.

The technique I used required Degas (yes!), the manual for the BASIC and a convenient Unix system (optional). First, open the BASIC manual to page E-1, pages E-1 and E-2 show what the 8x8 font looks like on a grid. Next, start up Degas(TM) and chose "Define brush" option. This will present you with an 8x8 grid (!), simply use the mouse to click on and turn on and off the fat-pixels until you get the "up-arrow" (
(say).

From -6139832768838589607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8bf23682a2b544e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-27 14:27:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!gargoyle!phenix!neal
From: neal@phenix.UUCP (U of C)
Newsgroups: net.micro.atari16
Subject: Function Keys in TOS (C)
Message-ID: <7@phenix.UUCP>
Date: Sun, 27-Apr-86 17:27:23 EDT
Article-I.D.: phenix.7
Posted: Sun Apr 27 17:27:23 1986
Date-Received: Fri, 2-May-86 08:10:06 EDT
References: <5@phenix.UUCP>

Distribution: net
Organization: U. of Chicago, Computer Science Dept.
Lines: 20

My apologies if these seemingly simple questions have already been
addressed here on the net.

1) How do you determine if a function key has been hit on the 520?
    I'm interested in doing this through C and I have both the DRI
    and the Lattice Compilers available. I've tried most everything
    I can think of following up on the hints that the Hitchhiker's
    Guide offers about similiarities between the 520's function keys
    and the IBM PC's but no luck.

2) Is there a way of accessing the system clock to do timing other
    than using the 2 second resolution accesses that are documented.
    Again through C.

My thanks in advance for any help.

                        Neal McWhorter

       "When the cat's away... beware the birds of prey"

From -7500549830543828149
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad2278fe63153c0c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-27 17:49:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!gargoyle!phenix!neal
From: neal@phenix.UUCP (U of C)
Newsgroups: net.micro.atari16
Subject: Function Keys in TOS (Using C)
Message-ID: <10@phenix.UUCP>
Date: Sun, 27-Apr-86 20:49:40 EDT
Article-I.D.: phenix.10
Posted: Sun Apr 27 20:49:40 1986
Date-Received: Fri, 2-May-86 08:10:33 EDT
Distribution: net
Organization: U. of Chicago, Computer Science Dept.
Lines: 50

My apologies if these seemingly simple questions have already been
addressed here on the net.

1) How do you determine if a function key has been hit on the 520?
    I'm interested in doing this through C and I have both the DRI
    and the Lattice Compilers available. I've tried most everything
    I can think of following up on the hints that the Hitchhiker's
    Guide offers about similiarities between the 520's function keys

and the IBM PC's but no luck.

2) Is there a way of accessing the system clock to do timing other
than using the 2 second resolution accesses that are documented.
Again through C.

My thanks in advance for any help.

Neal McWhorter

"When the cat's away... beware the birds of prey"

From postnews Sun Apr 27 16:27:21 1986
Subject: Function Keys in TOS (C)
Newsgroups: net.micro.atari16
Distribution: net
References: <5@phenix.UUCP>
Organization: Zacks Investment Research

My apologies if these seemingly simple questions have already been
addressed here on the net.

1) How do you determine if a function key has been hit on the 520?
I'm interested in doing this through C and I have both the DRI
and the Lattice Compilers available. I've tried most everything
I can think of following up on the hints that the Hitchhiker's
Guide offers about similiarities between the 520's function keys
and the IBM PC's but no luck.

2) Is there a way of accessing the system clock to do timing other
than using the 2 second resolution accesses that are documented.
Again through C.

My thanks in advance for any help.

Neal McWhorter

"When the cat's away... beware the birds of prey"

From 4347958968893589556
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad2278fe63153c0c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-27 17:57:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!gargoyle!phenix!neal
From: neal@phenix.UUCP (U of C)
Newsgroups: net.micro.atari16

Subject: Function Keys in TOS (Using C)
Message-ID: <12@phenix.UUCP>
Date: Sun, 27-Apr-86 20:57:30 EDT
Article-I.D.: phenix.12
Posted: Sun Apr 27 20:57:30 1986
Date-Received: Fri, 2-May-86 08:11:03 EDT
Distribution: net
Organization: U. of Chicago, Computer Science Dept.
Lines: 20

My apologies if these seemingly simple questions have already been
addressed here on the net.

1) How do you determine if a function key has been hit on the 520?
   I'm interested in doing this through C and I have both the DRI
   and the Lattice Compilers available. I've tried most everything
   I can think of following up on the hints that the Hitchhiker's
   Guide offers about similiarities between the 520's function keys
   and the IBM PC's but no luck.

2) Is there a way of accessing the system clock to do timing other
   than using the 2 second resolution accesses that are documented.
   Again through C.

My thanks in advance for any help.

Neal McWhorter

"When the cat's away... beware the birds of prey"

From 5487358126928904333
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f9cf2757b735aee6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 06:44:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!qantel!lll-lcc!lll-crg!
seismo!mcvax!botter!ark!boomsma
From: boomsma@ark.UUCP (Raoul Boomsma)
Newsgroups: net.micro.atari16
Subject: ST Sound Chip questions
Message-ID: <731@ark.UUCP>
Date: Mon, 28-Apr-86 09:44:38 EDT
Article-I.D.: ark.731
Posted: Mon Apr 28 09:44:38 1986
Date-Received: Fri, 2-May-86 09:45:50 EDT
Reply-To: boomsma@vu44.UUCP (Raoul Boomsma)
Followup-To: net.micro.atari16
Distribution: net
Organization: VU Informatica, Amsterdam
Lines: 19

Can anybody tell me how to program the AY-*-* sound chip built
in the ST? It looks rather difficult to me to do this via the
Giaccess() call every time, cause it's hard to tell which 16
bit number plays a middle C.
Maybe someone could explain how the xbios-call do_sound() works.
I'm writing on a music application which plays sheet music, but
should also be able to use the simple synthesizer possibilities
of the sound chip, such as attack, hold, continue, vibrato.

Anyone knows about the AMY sound chip that is being developed
(when it's coming out, prize, etc.)? I became very curious
when I heard about it's the great features, which can concur
with professional synthesizers.
--

     Raoul Boomsma
     Vrije Universiteit
     Amsterdam
     ...!mcvax!boomsma@ark.UUCP

From 6103833814794768582
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 12306c,41185236818f5af,start
X-Google-Attributes: gid12306c,public
X-Google-Thread: 140593,41185236818f5af,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 10:30:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!qantel!lll-lcc!lll-crg!
topaz!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16,net.lang.pascal
Subject: MCC PASCAL Mini-Review
Message-ID: <2160@uwmacc.UUCP>
Date: Mon, 28-Apr-86 13:30:43 EDT
Article-I.D.: uwmacc.2160
Posted: Mon Apr 28 13:30:43 1986
Date-Received: Thu, 1-May-86 03:55:21 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 36
Xref: watmath net.micro.atari16:568 net.lang.pascal:543

To those who may be curious:

I finally received my copy of MetaCompco PASCAL for the
Atari ST series. It was written by the folks who brought us Lattice C.
I purchased it through Antic Publishing, and, after a series of wierd
experiences with them, it finally arrived in the mail.

Opinion? I like it quite a bit. It is a full ANSI PASCAL implementation
and then some. It does *not* seem to have the limitations that OSS Personal

PASCAL is said to have. Also, it has full access to the VDI and AES libraries. (As a matter of fact, the calls seem to be directly taken from the Lattice C VDI and AES calls. That's fine with me since I can use the ABACUS books to describe the calls in detail.)

It comes with the MetaCompco full screen editor, which - although it is no EMACS or VI - is quite useful. It also comes with the MetaCompco linker, which is a full function linker that allows you to do all sorts of magical things.

The PASCAL compiler also has a switch to allow you to create an object code that can be linked to object codes created with the C that comes with the Developer's kit.

All in all, it is a very nice package that allows you to do some impressive things. And, of course, the price is right at $79.00.

--

--- Rob DeMillo
Madison Academic Computer Center
...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
who can you trust...?"
-- Mildred Krebs

From 3898010727020012376
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 10:52:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!bnrmtv!fox
From: fox@bnrmtv.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <349@bnrmtv.UUCP>
Date: Mon, 28-Apr-86 13:52:35 EDT
Article-I.D.: bnrmtv.349
Posted: Mon Apr 28 13:52:35 1986
Date-Received: Fri, 2-May-86 06:45:42 EDT
References: <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU> <186@atari.UUcp>
Organization: Bell Northern Research, Mtn. View, CA
Lines: 22

> In article <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>,
> UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>
> > Have the ST hard disks been officially released yet? I hear bits

> > of information about them, but haven't seen advertisements, etc.
> >
> > If they are not released yet, when will they be?
> > If they are released, how much do they cost, how much do they
> > hold, HOW FAST ARE THEY, and where can I get one?
>
> Price: $799 list.
> Capacity: 20 megabytes
> Speed (transfer rate): 7.5 megabits/second
> Availability: sometime in May, probably late in the month. And probably will
> be in short supply for the first while, like any new hardware product that
> EVERYONE wants.
>
> --->Neil @ Atari
>   UUCP: ...lll-crg!vecpyr!atari!neil

Is the hard disk going to be a straight plug like promised or will we need
to supply the cables and plugs?

From 418723512608533059
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 11:15:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!nsc!amdahl!drivax!
alexande
From: alexande@drivax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Hard disk limitations
Message-ID: <466@drivax.UUCP>
Date: Mon, 28-Apr-86 14:15:25 EDT
Article-I.D.: drivax.466
Posted: Mon Apr 28 14:15:25 1986
Date-Received: Thu, 1-May-86 04:13:58 EDT
References: <755@minster.UUCP> <209@atari.UUcp>
Reply-To: alexande@drivax.UUCP (Mark G. Alexander)
Organization: Digital Research, Monterey, CA
Lines: 28

In article <209@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:
>
>> First year students who've just learnt about operating systems might
>> also be wondering what's so difficult.
>
>Tee hee. Talk to DRI.... :-)
>

Tee hee. Talk to Jason ("Born To Code") Loveman, the original author of
GEMDOS (TOS). The "number of subdirectories" limitation is the result
of one of his brilliant ideas on how to make a "better" OS.

Jason no longer works at DRI; he started his own company, Awesome [sic]
Technology, just before the ax was about to fall on him here.

>You're welcome. (You think we /like/ this kind of problem?)

You're welcome. (You think WE like this kind of problem too?)
--
#include "disclaimer.h"
#include "quote.h"
-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande
--
--
#include "disclaimer.h"
#include "quote.h"
-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande

From 1286987302964055586
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,abf29936652e2e67,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 11:35:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!yusol.BITNET!
cs112170
From: cs112170@yusol.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: 520+ ST
Message-ID: <8605041058.AA06900@ucbvax.berkeley.edu>
Date: Mon, 28-Apr-86 14:35:00 EDT
Article-I.D.: ucbvax.8605041058.AA06900
Posted: Mon Apr 28 14:35:00 1986
Date-Received: Tue, 6-May-86 04:57:12 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Hi there.
  This is my first message out to the mailing list. And assuming
this actually goes through (I'm a pioneer at this over here...
no one else seems to know what to do), I have a question which
I wonder if someone would kindly answer either through the
mailing list, or with a private message.

  Namely, could someone please explain to me the differences
between the Atari 520ST and the 520+ ?? I'm writing a small
article and any information would be greatly appreciated.

David Pullara

CS112170@YUSOL (.BITNET i think...)

From 4032651606025873662
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 157808,249e6859127c3652,start
X-Google-Attributes: gid157808,public
X-Google-Thread: 1517c1,249e6859127c3652,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,249e6859127c3652,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 11:57:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!jfb
From: jfb@sun.UUCP
Newsgroups: net.micro.atari,net.micro.atari16,net.music.synth
Subject: Review: Midi Sequencer for Atari ST
Message-ID: <3594@sun.uucp>
Date: Mon, 28-Apr-86 14:57:29 EDT
Article-I.D.: sun.3594
Posted: Mon Apr 28 14:57:29 1986
Date-Received: Thu, 1-May-86 04:08:11 EDT
Distribution: net
Organization: Sun Microsystems, Inc.
Lines: 54
Xref: watmath net.micro.atari:2989 net.micro.atari16:569 net.music.synth:1085

Finally some MIDI software for my ST.

I finally bought a MIDI sequencer for my ST. I shopped around
and decided for 'Midirec-I'. Other contenders were 'Soundwave'
and something else whose name I do not remember.

The interface is simple and menu driven.

The basic features are:

```
     record up to 30,000 notes (less with key-velocity/pressure info)
     playback (with variable speed control)
        Save song to file
     Load song from file
     Built in metronome (really nifty, with beats/measure, tempo control and
             other nice features)
     +  others
```

MInimum requirements are a 520 ST with a disk drive, either monochrome
or color monitor (I have both ;-)).

The system is configured for future expansions such as patch librarians
and programmable sound effects.

I tested it on a Yamaha DX-7 and a Casio CZ-100 and it works without
any problems.

The program is really fast, written in forth, and they say you can
buy the sources to add your own features.

I discovered no bugs, and the price/performance was great.

After I decided to buy Midirec I went to the local music store
and they were all out, so I mailed 29.95 to the MIcroB (weird name)
people and got the program in 3-days (almost immediate gratification).

Microb's address is:

MicroB Software
1016 E. El Camino Real, Suite 392
Sunnyvale, CA. 94087

As usual

I am in no way related, even remotely to MIcroB software, and
all the usual stuff, just a happy customer getting the right
program for the right price.

jfb

P.s. Also, this is all only my opinion, and not that of my Employer (or
my mother).

From 4203527811923196560
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 12:12:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!qantel!lll-lcc!vecpyr!
atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <223@atari.UUcp>
Date: Mon, 28-Apr-86 15:12:11 EDT
Article-I.D.: atari.223
Posted: Mon Apr 28 15:12:11 1986
Date-Received: Fri, 2-May-86 06:42:18 EDT
References: <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP> <809@mtuxn.UUCP>
<2623@mit-hermes.ARPA>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 17

In article <2623@mit-hermes.ARPA>, jpexg@mit-hermes.ARPA (John Purbrick)
writes:
> > As far as we can see 1040's will not support tv! Only monitors.

>
> The store that sold me mine said different--that the rf modulator and
> composite generators would arrive later and be fitted at no charge
> "in a couple of months". I've checked pin 2 (composite monitor) of
> the monitor plug and as far as I can tell without opening the case,
> nothing is wired to it. I hope they'll sell a cable with the 13-pin
> monitor plug at one end and 2 RCA plugs at the other for audio and video.
> Neil? Anyone?

Sorry folks. Retrofitting a modulator is not in the cards. The dealer must
have been misinformed -- but not by Atari.

--->Neil @ Atari
...lll-crg!vecpyr!atari!neil

From -751077774897566021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3903788ab6a68f9b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 12:22:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!qantel!lll-lcc!vecpyr!
atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Where are the ROMs?
Message-ID: <225@atari.UUcp>
Date: Mon, 28-Apr-86 15:22:17 EDT
Article-I.D.: atari.225
Posted: Mon Apr 28 15:22:17 1986
Date-Received: Fri, 2-May-86 06:42:44 EDT
References: <136@jgpvax.UUCP>
Organization: Atari Corp/Mktg
Lines: 21

In article <136@jgpvax.UUCP>, mqh@jgpvax.UUCP (Mike Hojnowski) writes:
>
> I've been on waiting lists for ROMs in both Buffalo and Rochester since
> February. I know that Atari had some delays with a shipment being routed
> through Nicaragua. Did they possibly reroute through Libya? :-) How many
> other folks out there have been (im)patiently waiting?

The ROMs have been in stock again for a couple of weeks. They did not land
in any hostile third world countries. Dealers can order them from us. If
your dealer can't get them, you can order them from us by sending $25 and a
letter which states that you understand that Atari is not responsible for any
damages to your 520ST caused by improper installation by unauthorized
parties.

Send to: Atari Customer Relations
       1196 Borregas Ave.
       Sunnyvale, CA 94086

Attn: TOS ROMs

--->Neil @ Atari
...lll-crg!vecpyr!atari!neil

From 6909189031394439181
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 14:39:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!nsc!amdahl!drivax!
alexande
From: alexande@drivax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Catching ^C and "mushrooms"
Message-ID: <470@drivax.UUCP>
Date: Mon, 28-Apr-86 17:39:38 EDT
Article-I.D.: drivax.470
Posted: Mon Apr 28 17:39:38 1986
Date-Received: Thu, 1-May-86 04:14:47 EDT
References: <860409-150043-1731@Xerox> <3511@sun.uucp> <197@atari.UUcp>
Reply-To: alexande@drivax.UUCP (Mark G. Alexander)
Organization: Digital Research, Monterey, CA
Lines: 25
Keywords: TOS, MS-DOS
Summary: TOS is like MS-DOS

In article <197@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
>You CAN catch ^C (as well as any other terminate). In the grand DRI
                                                    ^^^
>tradition, it is the usual monster kludge:
>   0x102 Terminate (^C) Handler
>   Before a process is actually terminated, GEMDOS
>   calls the terminate vector. If the terminate vector
>   points to an RTS (the default case), the process will
>   be terminated. If the application does not wish to be
>   terminated it should do a longjump (or its equivalent)
>   to an appropriate handler.

This is actually the grand Microsoft tradition. MS-DOS has an almost
identical method for catching ^C, using INT 23H. Jason ("Born to Code")
Loveman put it into GEMDOS (TOS) as part of his plan to be as similar to
MS-DOS as possible. Read IBM's DOS Tech. Ref. if you want deja vu.
--
#include "disclaimer.h"
#include "quote.h"
-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande
--
--
#include "disclaimer.h"
#include "quote.h"

-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande

From 6712076737316951576
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,6f71206f478ba72e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 15:25:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!talcott!panda!genrad!decvax!
bellcore!ulysses!mhuxr!mhuxn!ihnp4!hplabs!Unknown
From: Unknown@hplabs.UUCP
Newsgroups: net.micro.atari16
Subject: Response to <8604121914.AA24184@ucbvax.berkeley.edu> <785@ccird2.UUCP>
<153@cbmvax.cbmvax.cbm.UUCP>
Message-ID: <8604121914.AA24184@ucbvax.berkeley.edu> <785@ccird2.UUCP>
<153@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 28-Apr-86 18:25:27 EDT
Article-I.D.: ucbvax.8604121914.AA24184
Posted: Mon Apr 28 18:25:27 1986
Date-Received: Sun, 4-May-86 09:24:17 EDT
Lines: 0

From 6153667297272880714
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6aaeaf3c3b3554a0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 19:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!hpda!hpisoa2!hpitg!bnrmtv!fox@bnrmtv
From: fox@bnrmtv
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <349@bnrmtv>
Date: Mon, 28-Apr-86 22:52:00 EDT
Article-I.D.: bnrmtv.349
Posted: Mon Apr 28 22:52:00 1986
Date-Received: Tue, 13-May-86 01:26:03 EDT
References: <59840136@DEEP-THOU>
Lines: 22

> In article <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>,
> UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>
> > Have the ST hard disks been officially released yet? I hear bits
> > of information about them, but haven't seen advertisements, etc.
> >
> > If they are not released yet, when will they be?
> > If they are released, how much do they cost, how much do they
> > hold, HOW FAST ARE THEY, and where can I get one?

>
> Price: $799 list.
> Capacity: 20 megabytes
> Speed (transfer rate): 7.5 megabits/second
> Availability: sometime in May, probably late in the month. And probably will
> be in short supply for the first while, like any new hardware product that
> EVERYONE wants.
>
> --->Neil @ Atari
>   UUCP: ...lll-crg!vecpyr!atari!neil

Is the hard disk going to be a straight plug like promised or will we need
to supply the cables and plugs?

From -7333572722459487064
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4fd14e8e8725ee8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-28 23:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!ittatc!dcdwest!
sdcsvax!sdcrdcf!hplabs!hpda!hpisoa2!hpitg!drivax!alexande@drivax
From: alexande@drivax
Newsgroups: net.micro.atari16
Subject: Re: Catching ^C and "mushrooms"
Message-ID: <470@drivax>
Date: Tue, 29-Apr-86 02:39:00 EDT
Article-I.D.: drivax.470
Posted: Tue Apr 29 02:39:00 1986
Date-Received: Wed, 14-May-86 06:08:43 EDT
References: <197@atari>
Lines: 25

In article <197@atari.UUcp> dyer@atari.UUcp (Landon Dyer) writes:
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                                                ^^^
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>   to an appropriate handler.

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--
#include "disclaimer.h"
#include "quote.h"

-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande
--
--
#include "disclaimer.h"
#include "quote.h"
-- Mark Alexander   {ihnp4,mot,ucscc,ucbvax!hplabs!amdahl} !drivax!alexande

From 1568497602050947212
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76984ec9cc93d5b2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 00:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!oliveb!
hplabs!hpda!hpisoa2!hpitg!cbmvax!daveh@cbmvax
From: daveh%cbmvax@cbmvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ST based lap computers: A query.
Message-ID: <161@cbmvax>
Date: Tue, 29-Apr-86 03:25:00 EDT
Article-I.D.: cbmvax.161
Posted: Tue Apr 29 03:25:00 1986
Date-Received: Tue, 13-May-86 08:58:11 EDT
References: <14187322@ucbvax>
Lines: 10

I think Hitachi makes-or-will-be-making a CMOS 68000, though I hear that
Hitachi 68000's in general may be a bit weird in the way they work as
compared to everyone else's 68000's.
--

Dave Haynie   {caip,inhp4,allegra,seismo}!cbmvax!daveh
               "There, beyond the bounds of your weak imagination
                Lie the noble towers of my city, bright and gold"
                                -Genesis

From 6219072079380155218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3903788ab6a68f9b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 07:55:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Steele.Henr
From: Steele.Henr@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Where are the ROMs?
Message-ID: <860429-075601-1110@Xerox>
Date: Tue, 29-Apr-86 10:55:24 EDT
Article-I.D.: Xerox.860429-075601-1110

Posted: Tue Apr 29 10:55:24 1986
Date-Received: Fri, 2-May-86 07:31:47 EDT
References: <225@atari.UUcp>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Neil @Atari Customer Relations
1196 Borregas Ave.
Sunnyvale, CA 94086:

Is a schematic and/or service manual for an Atari 600xl available from Atari Customer Relations? If so, at what cost? And where do I write or call to get one? Is the above address correct?
Any help in this area would be appreciated.

Thanks in advance,
John Steele
Xerox Corp.
Rochester,New York

From -8858705120650678219
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,84a5bd4fea62d548,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,84a5bd4fea62d548,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,84a5bd4fea62d548,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 150311,84a5bd4fea62d548,start
X-Google-Attributes: gid150311,public
X-Google-ArrivalTime: 1986-04-29 08:15:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.6809,net.micro.68k,net.micro.atari16,net.micro.amiga
Subject: BIX OS-9 68K Conference
Message-ID: <1192@lsuc.UUCP>
Date: Tue, 29-Apr-86 11:15:13 EDT
Article-I.D.: lsuc.1192
Posted: Tue Apr 29 11:15:13 1986
Date-Received: Tue, 29-Apr-86 17:53:52 EDT
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 22
Xref: lsuc net.micro.6809:334 net.micro.68k:640 net.micro.atari16:548 net.micro.amiga:2858
Summary: May 9 to May 23 w/Guest Experts

I'm most pleased to announce a Special Conference on OS-9 68K

from May 9 to May 23 on the Byte Information Exchange. Our guest
experts shall be:

     Peter Dibble, columnist and author on OS-9, (whom we all know :-)
     Peter Gallanis of MicroTRENDS who among other things will be
     marketting the Atari ST OS-9 port.
     Peter Beaven of TLM Systems who did the port.
     Brian Lantz, the President of the OS-9 Users' Group
     Frank Hogg, FHL who sell the QT series of OS-9 68K computers.
     Bob Moore of Microware, the creators of OS-9.

ing to have a lively series
of discussions.

                                    Cheers! -- Jim O.
--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -8636084493894026209
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58ea893424366190,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 08:17:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!qantel!lll-lcc!lll-crg!
seismo!brl-adm!brl-smoke!nlm-mcs!garl
From: garl@nlm-mcs.ARPA (Gary Letourneau)
Newsgroups: net.micro.atari16
Subject: runtime error message
Message-ID: <1494@nlm-mcs.ARPA>
Date: Tue, 29-Apr-86 11:17:33 EDT
Article-I.D.: nlm-mcs.1494
Posted: Tue Apr 29 11:17:33 1986
Date-Received: Fri, 2-May-86 09:34:44 EDT
Distribution: net
Organization: NLM/LHNCBC, Bethesda, Md.
Lines: 22

    I am having the following problem with a program I am writing using the
  Personal Pascal language. I keep getting the following runtime error dialog
  message:

         BUS ERROR ACCESSING $FFDC12DA
         ERROR IN *unknown*
         AT PC $00022638

  followed by the dialog message:

NOT YET IMPLEMENTED
ABORT?

After clicking "Yes" to the abort msg, the menu bar no longer responds, and I must reset to continue. Can anyone shed light on what is going on here, and how can I decipher the error messages of the above type?

Thanks,
Gary Letourneau
letourneau@nlm-mcs

From 9027656544404455864
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b9e4ec28e381f01,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 09:19:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: 1040 rf output
Message-ID: <8604291645.AA00207@ucbvax.berkeley.edu>
Date: Tue, 29-Apr-86 12:19:00 EDT
Article-I.D.: ucbvax.8604291645.AA00207
Posted: Tue Apr 29 12:19:00 1986
Date-Received: Fri, 2-May-86 07:32:33 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

The recent letter from neil @ atari confuses me somewhat. He says
that 1040's will not be refit [Dted with rf modulators and that it was
not atari's intent to confound the dealer who reported this. Does
neil @ atari meen [D[D[Dan that 1040's will not support rf output ever? If
this is the case then someone should get in touch with the advertising
people who composed that beautiful two page add in the June issue of Byte
which says that the 1040 can be connected directly to a colour TV. So
what is the scoop guys? Will the 1040 come with an rf modulator or not?

From 6485048886797693447
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a1a4b11d6be0d69a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 09:45:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!XEROX.COM!
Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16

Subject: Megamax C
Message-ID: <860429-094512-123@Xerox>
Date: Tue, 29-Apr-86 12:45:07 EDT
Article-I.D.: Xerox.860429-094512-123
Posted: Tue Apr 29 12:45:07 1986
Date-Received: Fri, 2-May-86 07:33:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Has anyone used the Megamax C compiler?
How about a review.

John

From 3434109787826979618
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2813fd1e6f215c64,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 09:49:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!VERBRUGGEN.HENR
From: VERBRUGGEN.HENR@XEROX.COM
Newsgroups: net.micro.atari16
Subject: 502ST reliability?
Message-ID: <860429-094953-1244@Xerox>
Date: Tue, 29-Apr-86 12:49:49 EDT
Article-I.D.: Xerox.860429-094953-1244
Posted: Tue Apr 29 12:49:49 1986
Date-Received: Fri, 2-May-86 07:32:47 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: VERBRUGGEN.HENR@Xerox.COM
Organization: The ARPA Internet
Lines: 25

I have just bought a copy of a magazine from the U.K. called
Personal Computer World with an article on the 1040ST. This
article is very positive on the ST family with only one 'sour' note:

" After conversations with users and dealers of the 502 ST, its
appears that there is some doubt as to the reliability of the
system. One dealer reported 18 of his 30 Systems being returned
to Atari and, of the users I know, everyone has experienced at
least one hardware fault. The system in the office of Personal
Computer World has gone through one mouse and one monitor in
about four months, and the 1040's disk drive is rather
temperamental."

I would appreciate comments on the above statement as I have

ordered my ST1040 now and I am now considering cancelling this
order if the above is TRUE.

Thanks for any information

Peter Verbruggen

Rank Xerox ,Venray

p.s. the 1040ST cost $1543 overhere !!!

From 6341140867794717935
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,e127e168ae206db6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 09:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
Unknown
From: Unknown@hplabs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: disk drive test program
Message-ID: <1436@nlm-mcs.UUCP>
Date: Tue, 29-Apr-86 12:55:00 EDT
Article-I.D.: nlm-mcs.1436
Posted: Tue Apr 29 12:55:00 1986
Date-Received: Sun, 4-May-86 23:49:19 EDT
Lines: 0

From -1891934030556542229
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e127e168ae206db6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 09:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: disk drive test program
Message-ID: <54600074@iuvax.UUCP>
Date: Tue, 29-Apr-86 12:55:00 EDT
Article-I.D.: iuvax.54600074
Posted: Tue Apr 29 12:55:00 1986
Date-Received: Fri, 2-May-86 22:08:05 EDT
References: <1436@nlm-mcs.UUCP>
Lines: 12
Nf-ID: #R:nlm-mcs:-143600:iuvax:54600074:000:711
Nf-From: iuvax!franco   Apr 29 11:55:00 1986

I believe you can reduce the number of disk swaps during copy to 3 if you copy file F from B to A instead of from A to B.

Another hint: When copying disk A to disk B by dragging the disk A icon to the Disk B icon, dialog boxes which request that you swap disks appear before the copy operation commences. Swapping disks at this point is unnecessary. Simply click on ok two times and proceed with the copy. Similarly, upon termination of the copy process two dialog boxes request two disk swaps. You can ignore these also. If you haven't been doing this already you will appreciate the time savings.

From -9038045469252100961
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8ba9976ea32f13c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 10:38:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihlpm!rpc
From: rpc@ihlpm.UUCP (R P Cagle)
Newsgroups: net.micro.atari16
Subject: Lattice C
Message-ID: <797@ihlpm.UUCP>
Date: Tue, 29-Apr-86 13:38:56 EDT
Article-I.D.: ihlpm.797
Posted: Tue Apr 29 13:38:56 1986
Date-Received: Fri, 2-May-86 06:28:39 EDT
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 20

Has anyone else with Lattice C (3.03) for the ST tried to run LC1.TTP and/or LC2.TTP from within a shell program or a make program? I downloaded a "tiny shell" accessory from a BBS and a PD make program from net.sources and neither of them seem to be able to start LC1.TTP correctly. LC1.TTP comes up and causes an error something like this:

"Your computer doesn't have enough memory to run this application"

This same error occurs each time I try to run it, even after a reboot. Now I know that sizeof (tiny_shell.acc || make.ttp) + sizeof (LC1.TTP) cannot fill up all 1Meg in my 1040ST! (Or can it?) Running LC1.TTP from the GEM desktop with the same parameters works fine. Tiny shell works fine for other programs, including Lattice's editor (ED.TTP).

Am I incorrect in assuming that these programs CAN be started from a shell or a make program? After all, LC.TTP runs them! If anyone knows how this can be done, please let me know.

Robert Cagle.
ihnp4!ihlpm!rpc

From -829467023971288035
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b9e4ec28e381f01
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 13:04:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1040 rf output
Message-ID: <8604292004.AA11797@mitre-bedford.ARPA>
Date: Tue, 29-Apr-86 16:04:33 EDT
Article-I.D.: mitre-be.8604292004.AA11797
Posted: Tue Apr 29 16:04:33 1986
Date-Received: Fri, 2-May-86 07:36:46 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 9

Of course one can always buy a TV modulator and feed it with the composite
output that someone just mentioned in a previous note (or was that only on the
520ST?).

If no composite output is available, it can be cooked up from RGB with an
NTSC modulator chip as noted in an earlier message from me.

-John Sangster
jhs@mitre-bedford.arpa

From -4596320744863160237
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,efc76baf3911ac77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 16:11:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site sdcarl.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcarl!tre
From: tre@sdcarl.UUCP (Tom Erbe)
Newsgroups: net.micro.atari16
Subject: C++
Message-ID: <297@sdcarl.UUCP>
Date: Tue, 29-Apr-86 19:11:19 EDT
Article-I.D.: sdcarl.297
Posted: Tue Apr 29 19:11:19 1986
Date-Received: Fri, 2-May-86 22:24:04 EDT
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 7

Is there a C++ compiler for the ST yet? All news, rumours and reviews are appreciated.

--
thomas r. erbe
{ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From 6040612922412975097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a1a4b11d6be0d69a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 16:15:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site sdcarl.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!sdcarl!tre
From: tre@sdcarl.UUCP (Tom Erbe)
Newsgroups: net.micro.atari16
Subject: Megamax C
Message-ID: <298@sdcarl.UUCP>
Date: Tue, 29-Apr-86 19:15:50 EDT
Article-I.D.: sdcarl.298
Posted: Tue Apr 29 19:15:50 1986
Date-Received: Fri, 2-May-86 22:24:17 EDT
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 9

Forgive me if this has been discussed before. Does anyone have Megamax C? If so, what are it's pluses and minuses? Documentation? Does it come with additional utilities (make,editor,command-shell,etc.)?

Thanks in advance
--
thomas r. erbe
{ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From 3604180553437771801
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e1cb33e4ba83c1f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 18:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!oliveb!hplabs!hpda!hpisoa2!hpitg!vu-vlsi!donaghy@vu-vlsi
From: donaghy%vu-vlsi@vu-vlsi.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Avantek 1200 Modem
Message-ID: <314@vu-vlsi>
Date: Tue, 29-Apr-86 21:51:00 EDT

Article-I.D.: vu-vlsi.314
Posted: Tue Apr 29 21:51:00 1986
Date-Received: Tue, 13-May-86 08:59:23 EDT
References: <289@ucdavis>
Lines: 11

In article <289@ucdavis.UUCP>, ccs026@ucdavis.UUCP (The Doctor) writes:
>
>   I have heard of a 1200 baud modem by Avantek that is selling for as
> low as $99. Does anyone know anything about it, and how it works with
> the Atari 520 (and 800)? Thanks,
>
>   Mike Keihl
>   {ucbvax,dual,lll-crg}!ucdavis!deneb!ccs026
    A few people who have amiga's have gotten this modem.
(theres a special deal $200 modem,software, and cable). They seem to be
satisified with it. I may get one when I get my amiga.

From -4704990553093405682
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,158f2b7486c8c063,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 21:20:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!OHIO-STATE.ARPA!
terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: AUTO Folder and System Initialization
Message-ID: <8604300420.AA12861@ohio-state.ARPA>
Date: Wed, 30-Apr-86 00:20:15 EDT
Article-I.D.: ohio-sta.8604300420.AA12861
Posted: Wed Apr 30 00:20:15 1986
Date-Received: Fri, 2-May-86 07:42:50 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

This evening I wrote a little program to set the system time and date for my
520ST. When I ran the program, it did actually change the time and date as
expected.

Since I wanted this program to be run at boot time, I placed it in a folder
named AUTO. When I booted up, my program was run, but the time and date
were unchanged by my program.

I think what happened is this: my program set the date and time perfectly.
After the program finished, the date and time were given their default
(and strange) values by the system.

THE PUNCH LINE:

Is there a way to get a program in the AUTO folder to run after all system initialization is completed?

Thanks in advance,

Eric Bergman-Terrell

From 8730395869016680922
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d3881f568e0d732c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 22:34:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Sub and Super Scripting with AtariWriter and Panasonic 1091
Message-ID: <8604300534.AA14926@ohio-state.ARPA>
Date: Wed, 30-Apr-86 01:34:01 EDT
Article-I.D.: ohio-sta.8604300534.AA14926
Posted: Wed Apr 30 01:34:01 1986
Date-Received: Fri, 2-May-86 07:45:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

When I use AtariWriter to set either subscripting or superscripting, I can never get out of sub or superscript mode. How does one return to normal printing after sub or superscripting is set?

I really have studied the printer's manual!

Thanks in advance,

Eric Bergman-Terrell

From 1880631906312746221
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95a190683b8541d3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-29 23:01:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!whuxl!whuxlm!akgua!gatech!seismo!mcvax!ukc!warwick!cvaxa!unx1!leilabd
From: leilabd@unx1.UUCP
Newsgroups: net.micro.atari16
Subject: Defining keys on 520ST
Message-ID: <115@unx1.UUCP>

Date: Wed, 30-Apr-86 01:01:32 EST
Article-I.D.: unx1.115
Posted: Wed Apr 30 01:01:32 1986
Date-Received: Mon, 21-Apr-86 03:38:35 EST
Organization: CC University of Sussex
Lines: 15

Having tried the 520ST's built-in VT52 emulator with a Vax, I
find that the function and cursor keys send only nulls, and the
numeric keypad keys send only 0, 1, 2, 3, etc. This makes it
virtually unusable with an editor driven by escape sequences and
the question therefore is: can I program these keys to send
characters, or sequences of characters, of my choice? I don't
have any compilers, etc., only the software that comes with the
machine.

Any advice would be most welcome.
--
Leila Burrell-Davis | JANET: leilabd%unx1.uucp@uk.ac.sussex.cvaxa
University of Sussex | UUCP: ...!mcvax!ukc!cvaxa!unx1!leilabd
Brighton BN1 9QN |
UK |

From -4485841467539708428
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,581866e411610abb
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 08:38:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!pesnta!amd!
amdcad!lll-crg!seismo!utah-cs!sandra
From: sandra@utah-cs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Noisy 1040's
Message-ID: <3770@utah-cs.UUCP>
Date: Wed, 30-Apr-86 11:38:19 EDT
Article-I.D.: utah-cs.3770
Posted: Wed Apr 30 11:38:19 1986
Date-Received: Sat, 3-May-86 18:53:06 EDT
References: <8604221245.AA13135@ucbvax.berkeley.edu>
Organization: University of Utah CS Dept
Lines: 10
Summary: mine doesn't

I've had my 1040 for about 3 weeks now and I have yet to notice *any*
obnoxious noises. I recall that people were complaining about the disk
drive squealing; I think this would indicate a serious problem and that
you should take it back to the dealer for repair and/or replacement. I can
believe that the ST has a bit of a quality control problem, since my machine
came with a bad monitor cable and a bad connection from one of the mouse
buttons -- fortunately both problems were easily fixed.

-Sandra Loosemore
utah-cs!sandra, also known as decwrl!esunix!loosemor

From 7719356046545781995
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1e6f4756fdbd1645,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 11:11:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site ubc-cs.UUCP
Path: utzoo!utcsri!ubc-vision!ubc-cs!manis
From: manis@ubc-cs.UUCP (Vince Manis)
Newsgroups: net.micro.atari16
Subject: Where are the SF314's?
Message-ID: <227@ubc-cs.UUCP>
Date: Wed, 30-Apr-86 14:11:12 EDT
Article-I.D.: ubc-cs.227
Posted: Wed Apr 30 14:11:12 1986
Date-Received: Wed, 30-Apr-86 23:52:20 EDT
Reply-To: manis@ubc-cs.UUCP (Vince Manis)
Organization: UBC Department of Computer Science
Lines: 7

My order for a double-sided disk has been outstanding for a couple of weeks
now, and my dealer has no idea when they'll be able to get it for me. (The
dealer was kind enough to lend me an SF354, but it's just not the same thing.)
Does anyone have any comforting words for me?

From -4544332939187960936
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,14e5763e3355fd1c
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 142096,828c81a48e8d7d56,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,14e5763e3355fd1c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 11:15:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!think!harvard!seismo!lll-
crg!lll-lcc!qantel!hplabs!sdcrdcf!trwrb!trwrba!cadovax!keithd
From: keithd@cadovax.UUCP (Keith Doyle)
Newsgroups: net.legal,net.micro.atari16,net.micro.amiga
Subject: Re: Using Apple Macintosh roms on non-Apple machines
Message-ID: <1040@cadovax.UUCP>
Date: Wed, 30-Apr-86 14:15:42 EDT
Article-I.D.: cadovax.1040
Posted: Wed Apr 30 14:15:42 1986
Date-Received: Sun, 4-May-86 23:59:30 EDT
References: <959@well.UUCP> <794@ccird2.UUCP> <162@cbmvax.cbmvax.cbm.UUCP>
Reply-To: keithd@cadovax.UUCP (Keith Doyle)
Organization: CONTEL CADO Systems, Torrance, CA

Lines: 43
Keywords: Infringing ROM Copyrights
Xref: watmath net.legal:3380 net.micro.atari16:620 net.micro.amiga:2965

In article <162@cbmvax.cbmvax.cbm.UUCP> daveh@cbmvax.UUCP (Dave Haynie) writes:
>In article <794@ccird2.UUCP> rb@ccird2.UUCP (Rex Ballard) writes:
>>with translaters to go Atari-> Mac, and Atari -> Amiga. Another possibility
>>is that a third party such as DRI, MicroWare, Metacomco or ??? could come up
>>with operating systems which would provide the best functionality of all
>>these machines and still be tranparent to application software. Possible
>>candidates include Concurrent GEMDOS (is it coming?), OS-9 68K, Tripos,
>>GNU with VDI, Windows, UNIX, or ???. At this point, it looks like OS-9
>>will be the first contender.

I'm not at all convinced that OS-9 has much chance here. And, I don't think
it has anything to do with how good of an OS it is (unfortunately). I would
expect that GEM may have the best chance. Why? You can get off the
shelf applications for GEM of the sort that most people are interested in.
Languages are not applications. Spreadsheets, Word processors, painting
packages, DBMS programs, games, THOSE are applications. People want to buy
PeeCee DOS emulators for their machine, NOT OS-9, and certainly NOT because
PeeCee DOS is a better OS. GEM is not owned by one of the hardware
manufacturers, who would probably want to keep you locked in to their
hardware and not let their OS run on other machines. This is what will rule
the MAC OS out. TRIPOS would only have a chance if Amiga would consider
selling Intuition (their graphics/windowing software) to go with TRIPOS.
This would actually be in Amiga's best interest, TRIPOS and INTUITION running
on a ST would sell a lot of Amigas, both by expanding the attractiveness to
developers of developing Amiga compatible packages, and by magnifying the
performance and feature differences of Amigas vs STs. Otherwise, TRIPOS
has the same problems as OS-9. GNU might have a chance, because it's free.
There is no way I am going to BUY an OS for my machine even if it is a great
OS, if there are no (or almost no) applications that run under it. If it's
a FREE OS, (public domain or similar) THEN I might be inspired to run it on
my machine. If Atari, Amiga, Apple or some Alternate manufacturer produces
a machine that comes with OS-9 plain vanilla, and developers decide to get
behind it, then OS-9 has a chance. Until then, OS-9 is at the level of the
8-bit CP/M systems, because there will be no applications that will use any
graphics, windows, or other neat stuff that you need to sell applications
these days. I don't need OS-9 to run 'C', assemblers, Modula, Pascal, Lisp,
Basic, Forth, etc. on my Amiga, or to be able to print stuff while I'm
editing or compiling now do I?

Keith Doyle
{ucbvax,ihnp4,decvax}!trwrb!cadovax!keithd
cadovax!keithd@ucla-locus.arpa

From 2566303122966376747
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,98ce350a60630da0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 12:03:36 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site alberta.UUCP
Path: utzoo!utcsri!ubc-vision!alberta!bray
From: bray@alberta.UUCP (Brian Bray)
Newsgroups: net.micro.atari16
Subject: Utility to set date/time on power up.
Message-ID: <889@alberta.UUCP>
Date: Wed, 30-Apr-86 15:03:36 EDT
Article-I.D.: alberta.889
Posted: Wed Apr 30 15:03:36 1986
Date-Received: Thu, 1-May-86 00:11:54 EDT
Distribution: net
Organization: U. of Alberta, Edmonton, AB
Lines: 137

Here is a short utility for the Atari ST that sets the time and date
on power up. It's especially useful to MAKE users. The MAKEFILE
follows the source code.

```
/* SETCLOCK.C

   Routine to set the clock on startup (Atari ST).


        Copyright 1986, Brian Bray

        This software may be freely copied and given away for
   non-commercial use, but sale is prohibited.
   Upgrades and comments should be sent to:

        Brian Bray
        #306, 10135 - Saskatchewan Drive
        Edmonton, Alberta
        Canada  T6E 4Y9

   or on UNIX.

        bray@alberta.UUCP


Usage:

   This program is intended to be placed in the "auto" folder of a
boot disk.  On power up, it asks for the time and date and sets the
clock.  It will not reset the date during a reboot,
only on power up. (Another mystery!).


   86/04/30     Brian Bray      Release
   86/04/25     Brian Bray      Called BIOS getline.
   86/04/24     Brian Bray      Removed scanf to make smaller
   86/04/22     Brian Bray      First version
```

```
*/

#include <osbind.h>
#include <define.h>
#include <stdio.h>

#define isdigit(c) (c>='0' & c<='9')
#define tonum(c) (c-'0')

char *getd(s,var)
char *s;
int *var;
{
        *var = 0;
        while(isdigit(*s))
            *var = *var * 10 + tonum(*s++);
        return(s);
}

main()
{

int time;
int year, month, day, hour, minute, seconds;
char inline[80], *ilp;
int error;
char *getd();


        Cconws("Clock setting program -- Version 1.0, BDB\r\n\n");

        inline[0] = 70;
        error = TRUE;
        while ( error ) {

                Cconws("\r\nEnter date YY/MM/DD (^C to cancel): ");
                Cconrs(inline);
                if (inline[1] == 0) return;

                ilp = &inline[2];
                ilp = getd(ilp,&year);
                if (*ilp++ != '/') continue;

                ilp = getd(ilp,&month);
                if (*ilp++ != '/') continue;

                ilp = getd(ilp,&day);

                if (year<80) year += 100; /*plan ahead!*/

                error = year<86 || month<1 || month>12 || day<1 || day>31;
        }
```

```
        time = (year-80)<<9 | month<<5 | day;
        Tsetdate(time);

        error = TRUE;
        while ( error ) {

                Cconws("\r\nEnter time HH:MM:SS : ");
                Cconrs(inline);

                ilp = &inline[2];
                ilp = getd(ilp,&hour);
                if (*ilp++ != ':') continue;

                ilp = getd(ilp,&minute);
                if (*ilp++ == ':')
                    ilp = getd(ilp,&seconds);
                    else seconds = 0;

                error = hour<0 || hour>24 || minute<0 || minute>59 ||
                    seconds<0 || seconds>59;
        }
        time = hour<<11 | minute<<5 | seconds>>1;
        Tsettime(time);
        Cconws("\r\nThank you.\r\n\n")

}
-----------------------end of program/start of makefile------------------
setclock.prg : setclock.o
        d:\commandp.tos copy setclock.o d:
        +cd a:\clib
        a:\bin\LINK68.prg [u] \
            d:setclock.68k=gemstart.o,d:setclock.o,osbind.o,gemlib,libf
        a:\bin\relmod.prg d:setclock
        d:\commandp.tos rm d:setclock.68k
        +cd a:\setclock
        d:\commandp.tos copy d:setclock.prg a:
        d:\commandp.tos rm d:setclock.prg
*.o : *.c
        d:\commandp.tos d:\bin\c $*

setclock.o : setclock.c

-------------------------------end of makefile--------------------

-Brian


From 7767596177705166823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a03c49bc5b12db9e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 12:17:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
```

Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!alberta!bray
From: bray@alberta.UUCP (Brian Bray)
Newsgroups: net.micro.atari16
Subject: Setting time/date on power up
Message-ID: <890@alberta.UUCP>
Date: Wed, 30-Apr-86 15:17:04 EDT
Article-I.D.: alberta.890
Posted: Wed Apr 30 15:17:04 1986
Date-Received: Fri, 2-May-86 10:23:23 EDT
Distribution: net
Organization: U. of Alberta, Edmonton, AB
Lines: 4

I forgot to mention in my previous article that the SETCLOCK
program doesn't work with TOS in RAM (Agatha rules!).

-Brian

From -3760309250515816382
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,43baf0661e75ef49
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 15:21:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!prls!pyramid!amiga!dale
From: dale@amiga.UUCP (Dale Luck)
Newsgroups: net.micro.atari16
Subject: Re: DMA port information for DSP and other needs.
Message-ID: <1065@amiga.amiga.UUCP>
Date: Wed, 30-Apr-86 18:21:07 EDT
Article-I.D.: amiga.1065
Posted: Wed Apr 30 18:21:07 1986
Date-Received: Sat, 3-May-86 04:29:16 EDT
References: <1815@utecfa.UUCP> <274@apollo.mentor.UUCP>
Reply-To: dale@tooter.UUCP (Dale Luck)
Organization: Commodore-Amiga Inc., 983 University Ave #D, Los Gatos CA 95030
Lines: 31

In article <274@apollo.mentor.UUCP> dclemans@mentor.UUCP (Dave Clemans) writes:
>/* NOTE: */
>/*   The 'asm' command in the 'FIFO_RD()' procedure may be required   */
>/*   if your compiler uses a 'CLR' to zero a memory location. The
        */
>/*   two lines must store a LONG 0 into 'FIFO'. A 'CLR' (what
        */
>/*   Megamax compiles the commented out line to) will NOT WORK.
        */
>VOID
>fifo_rd(count)
>WORD   count;
>{
>

```
>    *fifo = 0x90;
>    *fifo = 0x190;
>    *fifo = 0x90;
>    *diskctl_w = count;
>    *fifo = 0x8a;
>/*  *diskctl_l = 0x0L;    DONT use this -- compiler does it WRONG */
>    asm{
>    move.l   #0x00ff8604,A0
>    move.l   #0x00000000,(A0)
>    }
>}
>        *diskctl_l  = ( (LONG) dma << 21) | (sectno & 0x1f0000) | 0x8a;
```

Whatever you do is a hack to fix the 68000 clr instruction. But for
those that do not have the asm{} feature you might try:

```
{
     long qwe;
     qwe = 0;
     *diskctrl_l = qwe;
}
```

Dale Luck

From -2547509301591961704
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 18:25:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!harvard!think!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Re: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <2630@mit-hermes.ARPA>
Date: Wed, 30-Apr-86 21:25:15 EDT
Article-I.D.: mit-herm.2630
Posted: Wed Apr 30 21:25:15 1986
Date-Received: Sun, 4-May-86 04:40:20 EDT
References: <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP> <809@mtuxn.UUCP>
<2623@mit-hermes.ARPA> <223@atari.UUcp>
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 20

> > > As far as we can see 1040's will not support tv! Only monitors.

> > The store that sold me mine said different--that the rf modulator and
> > composite generators would arrive later and be fitted at no charge
> > "in a couple of months".....

> Sorry folks. Retrofitting a modulator is not in the cards. The dealer must
> have been misinformed -- but not by Atari.

> --->Neil @ Atari

This means that Neochrome, which came with my 1040, is useless and always will be. It means that my user's manual is inaccurate, and that when it tells me about how to connect up the TV set it's talking fantasy.

I do want a color output short of getting the color monitor. I have a TV set with a video (composite) input jack. In my previous posting I said I'd checked pin 2 of the monitor connector and it was dead: in fact this wasn't true, a scope shows an output there, but it wouldn't drive the TV. What exactly is this? Someone else was saying that it is indeed composite video; if I haven't got what the literature promises, then what do I have?

From 3741500602957728633
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f500c4fb2585893,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-30 20:15:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site ucsfcca.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ucsfcgl!ucsfcca!root
From: root@ucsfcca.UUCP (Computer Center)
Newsgroups: net.micro.atari16
Subject: Tramiel Interview
Message-ID: <494@ucsfcca.UUCP>
Date: Wed, 30-Apr-86 23:15:53 EDT
Article-I.D.: ucsfcca.494
Posted: Wed Apr 30 23:15:53 1986
Date-Received: Sat, 3-May-86 19:18:17 EDT
Distribution: net
Organization: UCSF Computer Center
Lines: 30

An interview with Jack Tramiel by David Bright appears in the 28 Apr 86 (or do you like 860428 so you can sort it?) issue of ComputerWorld.

Attributed to Tramiel are assertions that 200,000 ST systems have been sold so far, about 70% outside the USA, and that Atari has gone from losing $10**7 / month to a profit of $9*10**6 / quarter since he took over (actually in the black before the STs started shipping.)

Some market research skepticism was expressed over the total sales figure but if we accept it that's about $200M market value.

Compare this to the DEC (second largest computer company) MicroVax II also introduced last May. Its 1985 sales were reported in the same issue as 12,000 units. At a system price around $25,000 that's a market value around $300M and it's considered a spectacular success.

Tells you something about the motivation of people who are putting down the ST, doesn't it?

Although there has been a prototype of an ST add-on to run IBM-PC
programs, Tramiel is cited as indicating that before that would be
available Atari would have an IBM-PC card to run ST programs.

Sounds like you shouldn't hold your breath.

Larry Samuels of Atari indicated more than 300 software packages
are already available for the ST systems.

Thos Sumner   (...ucbvax!ucsfcgl!ucsfcca.UCSF!thos)

From 2975527234768015872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91b255bb7f4aeee2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-01 01:07:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!philmds!prle1!nvpna1!dorrestn
From: dorrestn@nvpna1.UUCP (Frans Dorrestein)
Newsgroups: net.micro.atari16
Subject: How to determine a ST's rev.level and TOS version
Message-ID: <8@nvpna1.UUCP>
Date: Thu, 1-May-86 04:07:07 EDT
Article-I.D.: nvpna1.8
Posted: Thu May 1 04:07:07 1986
Date-Received: Sun, 4-May-86 04:34:41 EDT
Reply-To: dorrestn@nvpna1.UUCP (Frans Dorrestein (7)42987)
Distribution: net.micro.atari16
Organization: Philips Research Laboratories Eindhoven
Lines: 12

I am at point to buy an Stfamily computer system. Is there a way (eg by reading
one or another memory location or whatever) to find out what the revision level
and the TOS software version are? Could anybody propose a small basic program
to get these figures, that I can use while testing one in a store?

The next question of course is which revision level and which TOS version are
the most recent ones? Please specify your system type as well (ST520, ST520+,
or ST1040). (BTW, Is the 520ST+ (520model with 1Meg memory) only being sold in
Europe?)

Frans Dorrestein, Eindhoven, The Netherlands.

From -2884547049806460577
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-01 05:48:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <2390@watmath.UUCP>
Date: Thu, 1-May-86 08:48:35 EDT
Article-I.D.: watmath.2390
Posted: Thu May 1 08:48:35 1986
Date-Received: Fri, 2-May-86 06:48:16 EDT
References: <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU> <186@atari.UUcp>
Reply-To: csc@watmath.UUCP (Jan Gray)
Organization: U of Waterloo, Ontario
Lines: 13
Summary:

In article <186@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>> hold, HOW FAST ARE THEY, and where can I get one?
>
>Price: $799 list.
>Capacity: 20 megabytes
>Speed (transfer rate): 7.5 megabits/second
>
>--->Neil @ Atari

What is the "Speed (average seek time)"?

Thanks,
Jan Gray

From -6949586408418865250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,158f2b7486c8c063
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-01 08:25:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!prls!pyramid!micropro!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Re: AUTO Folder and System Initialization
Message-ID: <1287@ptsfa.UUCP>
Date: Thu, 1-May-86 11:25:46 EDT
Article-I.D.: ptsfa.1287
Posted: Thu May 1 11:25:46 1986
Date-Received: Sat, 3-May-86 02:24:04 EDT
References: <8604300420.AA12861@ohio-state.ARPA>
Reply-To: jmc@ptsfa.UUCP (Jerry Carlin)
Organization: Pacific * Bell, San Francisco
Lines: 14

In article <8604300420.AA12861@ohio-state.ARPA> terrell@OHIO-STATE.ARPA (Eric
Terrell) writes:

>This evening I wrote a little program to set the system time and date for my
>520ST...

>Since I wanted this program to be run at boot time, I placed it in a folder
>named AUTO. When I booted up, my program was run, but the time and date
>were unchanged by my program.

There is a public-domain date and time program that I am using that works.
I'm not sure what the difference is but it is possible to set the date
and time 'permanently' in spite of when programs in AUTO run.
--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From 2543278675564434597
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-01 14:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!hao!hplabs!hpda!hpisoa2!hpitg!
watmath!csc@watmath
From: csc@watmath
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <2390@watmath>
Date: Thu, 1-May-86 17:48:00 EDT
Article-I.D.: watmath.2390
Posted: Thu May 1 17:48:00 1986
Date-Received: Wed, 14-May-86 06:25:14 EDT
References: <59840136@DEEP-THOU>
Lines: 13

In article <186@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>> hold, HOW FAST ARE THEY, and where can I get one?
>
>Price: $799 list.
>Capacity: 20 megabytes
>Speed (transfer rate): 7.5 megabits/second
>
>--->Neil @ Atari

What is the "Speed (average seek time)"?

Thanks,
Jan Gray

From -791752723606904422
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,45066a74aca671e3,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-05-01 16:13:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!EDDIE.MIT.EDU!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Hard Disk
Message-ID: <12203319094.57.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Thu, 1-May-86 19:13:53 EDT
Article-I.D.: DEEP-THO.12203319094.57.UC.BRI
Posted: Thu May 1 19:13:53 1986
Date-Received: Sat, 3-May-86 18:09:44 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

What about access times for the St Hard Drive? The transfer speed is fine, but what about track to track speeds and such? In any case, is there a firm release date yet? I want one.

--- Bri

Brian Totty
450 Memorial Drive
Room D113
Cambridge, MA 02139

uc.bri@deep-thought.mit.edu
...!eddie!bri

From 8580308435753151523
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f644b042e7454baa,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15f443,f644b042e7454baa,start
X-Google-Attributes: gid15f443,public
X-Google-Thread: 125017,f644b042e7454baa,start
X-Google-Attributes: gid125017,public
X-Google-ArrivalTime: 1986-05-01 17:29:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!husc6!harvard!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16,net.graphics,net.wanted
Subject: ST Digital Image request
Message-ID: <2175@uwmacc.UUCP>
Date: Thu, 1-May-86 20:29:08 EDT
Article-I.D.: uwmacc.2175

Posted: Thu May 1 20:29:08 1986
Date-Received: Sun, 4-May-86 05:40:18 EDT
Organization: UWisconsin-Madison Academic Comp Center
Lines: 23
Xref: watmath net.micro.atari16:614 net.graphics:1622 net.wanted:8725

I believe that one of these requests has come up before, but I
am unable to find it in my archives...so please be patient with me:

I am looking for the name of a company (or individual) that will digitize
images for me in Atari ST NEOchrome or DEGAS format. (Some idea of their
cost would be appreciated.)

My second request is: does anyone out there have a copy of the NEOchrome
or DEGAS file format?

Please e-mail your responses to me...if anyone else would like the same
information: just ask.

Thanks in advance.
--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

          "If you can't trust wimp lawyers anymore,
                who can you trust...?"
                       -- Mildred Krebs

From 6553004793314000373
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9405cbe521f4dda7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 11:33:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: ST Ram Disk Program
Message-ID: <8605021833.AA22562@ohio-state.ARPA>
Date: Fri, 2-May-86 14:33:54 EDT
Article-I.D.: ohio-sta.8605021833.AA22562
Posted: Fri May 2 14:33:54 1986
Date-Received: Sat, 3-May-86 19:27:24 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

I really need to get a RAM disk program. Are there any on the market

that are good? If you have such a program, please send a review to me
or to this net. I am interested in how big a RAM disk you can set up,
whether or not the program is copy-protected, how much RAM is left over
when the RAM program is running, etc.

Also, there was a RAM disk program sent to the net a few weeks ago.
WOULD SOMEONE BE SOOOOO KIND AS TO SEND ME ALL THE ASSOCIATED FILES?

Thanks in advance,

Eric Bergman-Terrell CSNET address terrell@ohio-state

From 7808369033576936120
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,256245c7cc29705d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 13:01:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!stolaf!mmm!rosevax!rose3!
rick
From: rick@rose3.UUCP (Richard R. Sharpe)
Newsgroups: net.micro.atari16
Subject: desktop menu address
Message-ID: <169@rose3.UUCP>
Date: Fri, 2-May-86 16:01:23 EDT
Article-I.D.: rose3.169
Posted: Fri May 2 16:01:23 1986
Date-Received: Wed, 7-May-86 01:34:55 EDT
Distribution: net
Organization: Rosemount Inc., Minneapolis, MN
Lines: 18

*** REPLACE THIS LINE WITH YOUR Answer ***

I'm trying to write a desk accessory that can enable/disable itself
on the desktop menu. If possible, I'd even like to change the text
on the menu. I've tried to use multiple MENU_REGISTER calls but
apparently only the first is used. In order to use the other MENU_
calls, I need the address of the desktop's menu object. I've poored
through the developer's documentation but can't seem to find anything
relevant. Any help/pointers would be appreciated.

My application is a realtime clock cartridge for the ST. It'll
also have EPROMs for about 64K of stuff. Any suggestions (non-obscene)
for what I might put there ?

Rick Sharpe at Rosemount Inc, Burnsville MN
(612)-885-2017   ihnp4!quest!rose3!rick
(612)-423-9096   ihnp4!stolaf!umn-cs!rosevax!rose3!rick

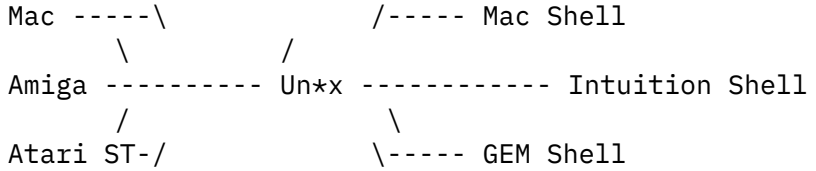
From -6989291247643124745
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a0c866b3e062e3cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 13:55:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!GE-CRD.ARPA!montnaro%chenengo.tcpip
From: montnaro%chenengo.tcpip@GE-CRD.ARPA
Newsgroups: net.micro.atari16
Subject: Standard OS for 68000-based PC's
Message-ID: <8605022009.AA03120@ucbvax.berkeley.edu>
Date: Fri, 2-May-86 16:55:00 EDT
Article-I.D.: ucbvax.8605022009.AA03120
Posted: Fri May 2 16:55:00 1986
Date-Received: Sun, 4-May-86 05:28:05 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 46

Received: by chenengo.steinmetz (3.0/1.1x Steinmetz)
     id AA21539; Fri, 2 May 86 15:47:16 EDT
Date: Fri, 2 May 86 15:47:16 EDT
From: Skip Montanaro <montnaro%chenengo.tcpip@csbvax>
Posted-Date: Fri, 2 May 86 15:47:16 EDT
Message-Id: <8605021947.AA21539@chenengo.steinmetz>
To: nike!caip!cbmvax!daveh@ucbvax.berkeley.edu
Cc: info-atari16@score.stanford.edu
Subject: Standard OS for 68000-based PC's

Dave,

Your idea of one supported OS for the various 68000 machines is not unique. I think the main reason that various workstation vendors (Sun, Silicon Graphics, Masscomp, etc.) went with Unix rather than develop their own operating systems was that they bought into a big software base and saved themselves countless amounts of money developing something that just wouldn't cooperate with anything else. Why Apple, Atari, and Commodore didn't see this light I am not sure. Since they now each have their own (proprietary) operating system, it's unlikely that they will change.

What if you could pick and choose between three pieces of hardware, one unifying operating system (some dialect of Unix jumps to mind), and three (or more!) graphic shells?



It sure would be nice! Perhaps we could all start off with a decent base of

software tools: compilers, SCCS, make, {n,t}roff, etc. Oh well, someday
maybe someone will market a PC with that kind of foresight...

==========
Skip Montanaro
ARPA: montanaro@ge-crd.arpa
US Mail: General Electric Company
      Corporate Research and Development
      P.O. Box 8
      Bldg KW, Room C210
      Schenectady, NY 12304
Phone: 518-387-7312
==========

From 282375106396377490
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d07856daa24c0a89,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 14:05:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!RYERSON.BITNET!FCTY7284
From: FCTY7284@RYERSON.BITNET
Newsgroups: net.micro.atari16
Subject: drive query
Message-ID: <8605021825.AA01513@ucbvax.berkeley.edu>
Date: Fri, 2-May-86 17:05:31 EDT
Article-I.D.: ucbvax.8605021825.AA01513
Posted: Fri May 2 17:05:31 1986
Date-Received: Sat, 3-May-86 19:25:10 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

==========
In the Toronto area, we get mixed reports on the reliability
of the double sided floppy drive (the one in the 1040). One specific
complaint is that a disk written on one drive may well not be
readable on another drive.
A suggestion was made thatthe heat from the internal power supply
on the 1040 might be causing dimensional changes in the drives.
Any comments from netland?
Peter Hiscocks
Ryerson Polytech
Toronto

From 8542713952744894247
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1e6f4756fdbd1645
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 15:30:29 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!pesnta!amd!
amdcad!lll-crg!caip!cbmvax!grr
From: grr@cbmvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Where are the SF314's?
Message-ID: <176@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 2-May-86 18:30:29 EDT
Article-I.D.: cbmvax.176
Posted: Fri May 2 18:30:29 1986
Date-Received: Sun, 4-May-86 23:45:53 EDT
References: <227@ubc-cs.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 18

In article <227@ubc-cs.UUCP> manis@ubc-cs.UUCP (Vince Manis) writes:
>My order for a double-sided disk has been outstanding for a couple of weeks
>now, and my dealer has no idea when they'll be able to get it for me. (The
>dealer was kind enough to lend me an SF354, but it's just not the same thing.)
>Does anyone have any comforting words for me?

Well, if you do get stuck with an SF354, you can easily upgrade it by swapping
the floppy disk drive unit with an EPSON SMD-180 double sided unit. This makes
a reasonable alternative to trying to swap or otherwise get rid of the single-
sided drive, especially if you got stuck with a 'package deal'.

Obvoiously, this would void the warranty on the drive, and you also might
need to make a group purchase on the EPSON drives to get a good price, but
those single-sided drives are pretty worthless....
--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 5200311901989563097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f677f98e4e4c75c0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 16:26:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site mprvaxa.UUCP
Path: utzoo!utcsri!ubc-vision!mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)
Newsgroups: net.micro.atari16
Subject: 520ST termcap
Message-ID: <718@mprvaxa.UUCP>
Date: Fri, 2-May-86 19:26:47 EDT
Article-I.D.: mprvaxa.718
Posted: Fri May 2 19:26:47 1986
Date-Received: Sat, 3-May-86 12:00:46 EDT
Organization: Microtel Pacific Research, Burnaby, B.C., Canada

Lines: 36

I've had a few queries about treplies to my 520ST termcap request.
I'll post it here, rather than mail everyone.

```
atari:\
     :al=\EL:\ :am:\ :as=\Ebc:\
     :ae=\Eba:so=\Ep:se=\Eq:\
     :bl=^G:\ :bs:\
     :cd=\EJ:\ :ce=\EK:\ :cl=\EH\EJ:\
     :cm=\EY%+ %+ :\ :co#79:li#25:\ :cr=^M:\
     :dl=\EM:\ :do=^J:\
     :ho=\EH:\
     :is=\Ev\Ee:\
     :ku=\EA:kd=\EB:kr=\EC:kl=\ED:\
     :le=^H:\
     :nd=\EC:\ :nl=^J:\
     :pt:\
     :sr=\EI:\
     :ta=^I:\
     :up=\EA:


ac|st25|520st emulating vt52, 25 lines, with color for standout :\
     :co#80:li#25:cr=^M:nl=^J:le=^H:ta=^I:bl=^G:bs:pt:\
     :is=\Ev\Ee:am:cd=\EJ:ce=\EK:cl=\EE:\
     :up=\EA:do=\EB:nd=\EC:sr=\EI:\
     :al=\EL:dl=\EM:so=\Ec2\Eb3:se=\Ec0\Eb3:\
     :ku=\EA:kd=\EB:kr=\EC:kl=\ED:\
     :cm=\EY%+ %+ :
au|st50|520st emulating vt52, 50 lines mono, using hi50 hack, amazing:\
     :co#80:li#50:cr=^M:nl=^J:le=^H:ta=^I:bl=^G:bs:pt:\
     :is=\Ev\Ee:am:cd=\EJ:ce=\EK:cl=\EE:\
     :up=\EA:do=\EB:nd=\EC:sr=\EI:\
     :al=\EL:dl=\EM:so=\Ep:se=\Eq:\
     :ku=\EA:kd=\EB:kr=\EC:kl=\ED:\
     :cm=\EY%+ %+ :


From -8191165783593472152
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,158f2b7486c8c063
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 17:17:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!wanginst!ulowell!ci-
dandelion!talcott!husc6!harvard!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: AUTO Folder and System Initialization
Message-ID: <244@atari.UUcp>
Date: Fri, 2-May-86 20:17:39 EDT
```

Article-I.D.: atari.244
Posted: Fri May 2 20:17:39 1986
Date-Received: Tue, 6-May-86 07:29:18 EDT
References: <8604300420.AA12861@ohio-state.ARPA>
Organization: Atari Corp/Mktg
Lines: 37

In article <8604300420.AA12861@ohio-state.ARPA>, terrell@OHIO-STATE.ARPA (Eric Terrell) writes:
>
> This evening I wrote a little program to set the system time and date for my
> 520ST. When I ran the program, it did actually change the time and date as
> expected.
>
> Since I wanted this program to be run at boot time, I placed it in a folder
> named AUTO. When I booted up, my program was run, but the time and date
> were unchanged by my program.
>
> I think what happened is this: my program set the date and time perfectly.
> After the program finished, the date and time were given their default
> (and strange) values by the system.
>
> THE PUNCH LINE:
>
> Is there a way to get a program in the AUTO folder to run after all system
> initialization is completed?

There are 2 different system clocks in the system. You set the wrong one.
I have a PD program that lives in my AUTO folder and sets the clock. It
works perfectly.

GEMDOS $2B is SETDATE
       $2D is SETTIME

XBIOS 22 is settime.

Both these calls are equivalent, and to the WRONG clock.

The correct call is XBIOS call 25, ikbdws, which sends a command to the
intelligent keyboard. You must send ikbd command $1B, set clock time.
This is the clock that determines the system time at bootup.

--->Neil @ Atari
     ... lll-crg!vecpyr!atari!neil

From 3110129020196717554
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1d2cfacde46d211a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 17:52:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!wanginst!ulowell!ci-

dandelion!talcott!husc6!harvard!caip!seismo!rochester!ritcv!cci632!ccird1!rb
From: rb@ccird1.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: SCSI - is it coming? When!!
Message-ID: <396@ccird1.UUCP>
Date: Fri, 2-May-86 20:52:57 EDT
Article-I.D.: ccird1.396
Posted: Fri May 2 20:52:57 1986
Date-Received: Tue, 6-May-86 07:03:16 EDT
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Distribution: net
Organization: CCI Rochester Development, Rochester NY
Lines: 34
Summary: Why should we care? Expandability!!!

I seem to be having some trouble getting this information, and
need to know SOON.

Several magazines have pointed out that the Atari OS will be
using X.3t9 (SCSI) protocol between their drives an the ST.

What I'd like to find out is:
Will REAL SCSI be supported, or will the DMA be Yet Another Proprietary
Interface? Since a few of you have ad a chance to see the new
ST hard drive, I was hoping I could get some more info.

One of the reasons I'd like to find out is that there are some real
good deals on surplus ST-506 drives, and a real cheap (under $150)
SCSI to ST-506 adapter cards/chips coming out.

I know Atari has been holding up the hard drive until the hard drives
could be made real cheap, but what is the hold-up on the interface?

If Atari comes out with nice, low cost SCSI drives, could they
be used on a MacPlus?

If Atari is not going SCSI :-(, will they be coming out with a
good backup system in the near future? Feeding 20+ floppies
for an hour or two, just doesn't sound like fun.

Atari has avoided most of the mistakes that were made with the
800. The printer, serial, and MIDI interfaces are nice and
standardized. The floppy and video interfaces are a little
weird, but not to the point where it is a major drawback.
Let's hope the "DMA" interface is as well thought out.

For the folks who haven't seen it yet, there's a real nice
write-up on SCSI in the May issue of Byte. Ciarcia(sp?) is adding
one to his SB-180.

From -2891343007384926043
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,3d6624d7756c6030,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 17:57:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: New Atari BBS Info!
Message-ID: <8605030057.AA26717@ohio-state.ARPA>
Date: Fri, 2-May-86 20:57:28 EDT
Article-I.D.: ohio-sta.8605030057.AA26717
Posted: Fri May 2 20:57:28 1986
Date-Received: Tue, 6-May-86 05:13:28 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 40

In BYTE (May, '86) a bulletin board sponsored by ATARI was announced.
There are four different lines:

1-408-745-5308
          5970
          2642
          4758

The BBS has 9 different special interest groups (SIGS):

1. General
2. XE
3. User Groups
4. Dealers
5. Service Centers
6. Developers
7. ST Art
8. ST Computer
9. SYSOPS

Set your modem to no parity, 1 stop bit. I managed to log in with my
1200 baud modem. I believe 300 baud is supported also. When I stumbled
around the BBS it looked like there was a lot of interesting software to
download. Files could be downloaded in ascii, xmodem, and some other
format. One can log onto the service for a period of twenty minutes.

I tried to download some programs, without success. I could download
text files with no problem, but programs got screwed up somehow.

I have the PC Intercom program (an early version). This program allows one
to download files in ascii, raw, modem7 (whatever that is), and
PC Intercom modes. I tried ascii and raw without success.

Would someone who has been successful downloading programs please let

me know how it is done? I'm completely stumped.

Thanks in advance,

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From 1213477752594493946
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c3b7e3d6960e5bfe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 19:19:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!well!ptsfa!
aum!freednp
From: freednp@aum.UUCP
Newsgroups: net.micro.atari16
Subject: st cc program
Message-ID: <545@aum.UUCP>
Date: Fri, 2-May-86 22:19:06 EDT
Article-I.D.: aum.545
Posted: Fri May 2 22:19:06 1986
Date-Received: Tue, 6-May-86 04:09:13 EDT
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 9

Could someone please send me the `cc' program for the ST I mistakenly
obliterated. Thanks in advance...

--

                          Erik James Freed
                 Aurora Systems
                 San Francisco, CA
                 {dual,ptsfa}!aum!freed

From -967342464146839348
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2813fd1e6f215c64
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 20:10:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!sri-
spam!nike!styx!lll-crg!seismo!rochester!ritcv!moscom!jgpvax!mqh
From: mqh@jgpvax.UUCP (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: Re: 502ST reliability?
Message-ID: <139@jgpvax.UUCP>
Date: Fri, 2-May-86 23:10:47 EDT
Article-I.D.: jgpvax.139
Posted: Fri May 2 23:10:47 1986

Date-Received: Wed, 7-May-86 01:45:01 EDT
References: <860429-094953-1244@Xerox>
Organization: any unified, consolidated group of elements
Lines: 11

<>
I've had my 520ST for about 5 months now without a bit of trouble. I've done the upgrade (complete with resistors), and installed ROMS's without incident. I leave everything but the monitor on 24 hours a day. I'm not sure if that's supposed to be good or bad for it. Anyone know? The only precautions I've taken with mine are to use a filtered-to-death ISOBAR power supply, and to crate up the beast in it's original boxes if I take it anywhere. All in all, I'm quite impressed by the reliability.
--
Mike Hojnowski   UUCP: ..rochester!moscom!jgpvax!mqh
                        CSNET: "moscom!jgpvax!mqh"@ritcv

From 4841232808674772283
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d95cbba3cada745,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-02 22:42:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM Parts 10-12
Message-ID: <1471@cwruecmp.UUCP>
Date: Sat, 3-May-86 01:42:01 EDT
Article-I.D.: cwruecmp.1471
Posted: Sat May 3 01:42:01 1986
Date-Received: Tue, 6-May-86 04:02:06 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 1381

Here are the next three articles in Tim Orens Professional Gem
seminar. I am also including the updated proff header file that
includes all the parts (tut.prf).
                        enjoy,

#!/bin/sh
This is a shell archive, meaning:
1. Remove everything above the #!/bin/sh line.
2. Save the resulting text in a file.
3. Execute the file with /bin/sh (not csh) to create the files:
tut.prf
wind10.prf
wind11.prf
wind12.prf
apndx9.prf
This archive created: Sat May 3 01:36:35 1986

```
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'tut.prf'" '(1190 characters)'
if test -f 'tut.prf'
then
     echo shar: over-writing existing file "'tut.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'tut.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Tutorial
X.!
X.!*****************************************************************************
X.!
X.!
X.so macros.prf
X.so wind1.prf
X.so wind2.prf
X.so wind3.prf
X.so wind4.prf
X.so wind5.prf
X.so wind6.prf
X.so wind7.prf
X.so wind8.prf
X.so wind10.prf
X.so wind11.prf
X.so wind12.prf
X.!
X.! Add any further Parts Above
X.!
X.cl 0 APPENDICES
X.so apndx1.prf
X.so apndx2.prf
X.so apndx3.prf
X.so apndx4.prf
X.so apndx5.prf
X.so apndx6.prf
X.so apndx7.prf
X.so apndx8.prf
```

```
X.so apndx9.prf
X.!
X.! Add any further Appendicies Above
X.!
X.so toc.prf
X.!
X.!
X.!*************************************************************************
X.!
X.!           End Tutorial
X.!
X.!*************************************************************************
SHAR_EOF
if test 1190 -ne "`wc -c 'tut.prf'`"
then
     echo shar: error transmitting "'tut.prf'" '(should have been 1190
characters)'
fi
echo shar: extracting "'wind10.prf'" '(13162 characters)'
if test -f 'wind10.prf'
then
     echo shar: over-writing existing file "'wind10.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind10.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 10
X.!
X.!*************************************************************************
X.!
X.PART X VDI Graphics: Text Output
X.PP
XThis  issue of ST PRO GEM concludes the two column series  on
XVDI  with a look at simple VDI  text output,  and ways to optimize
Xits  speed.   There is also a Feedback section.   You may find the
Xassociated  download  file under the name GMCL10.C in DL3  of  the
```

XATARI16 SIG (PCS-58).
X.PP
XTo keep the size of this first discussion of text within
Xreason, I am going to restrict it to use of the mono-spaced system
Xfont in its default size and orientation. Discussion of
Xalternate and proportionally spaced fonts, baseline rotation, and
Xcharacter scaling will become a later article in this series.
X.SH DEFINITIONS
XThis article makes use of some terminology
Xwhich may be unfamiliar if you have not used digital typefaces. A
Xmono-spaced font is one in which each character occupies an
Xidentically wide space on the screen. A proportional font has
Xcharacters which occupy different widths. For instance, an 'l'
Xwould probably be narrower than a 'w'.
X.PP
XText may be "justified" right, left, or center. This means
Xthat the right character, left character, or center position of
Xthe text string is constrained to a given location. In common
Xusage, a page of text is "ragged right" if its lines are left
Xjustified only. The text page is "fully justified", "justified"
Xor (ambiguously) "right justified" if BOTH the left and right
Xcharacters are contrained to fixed columns. Full justification is
Xproduced by inserting extra blank characters in the case of a
Xmono-spaced font, or by adding extra pixel columns in the case of
Xproportional output.
X.PP
XA text character (in a monospaced font) is written inside a
Xstandard sized cell or box. Vertically, the cell extends from the
X"top line" down to the "bottom line". If there are one or more
Xblank lines at the top or bottom, they are called "leading" and
Xare used to separate lines of text. The characters themselves
Xalways fall between the "ascent line", which is the highest line
Xreached by characters such as 'd' and 'l', and the "descent line",
Xwhich is the lowest line in characters like 'q' and 'g'. Other
Xlocations of interest are the "half line", which is the top of
Xcharacters like 'a' or 'n', and the "base line", which is the
Xbottom of characters which do not have descenders.
X.PP
XBefore plunging into the Attribute Functions for text, you
Xshould note that the writing mode (vswr_mode) and clipping
Xrectangle (vs_clip) attributes discussed in the last column (#9)
Xalso pertain to text. Since much of the discussion of text
Xoptimization will center on these attributes, you may want to
Xreview them.
X.SH TEXT ATTRIBUTES
XThe writing color for graphics text is set
Xwith the command:
X.FB vst_color()
X   vst_color(vdi_handle, color);
X.FE
XVdi_handle is always the handle returned from graf_handle() at
Xapplication startup. Color is a word value between 0 and 15 which
Xdesignates the output color index. As discussed in previous

Xcolumns, the actual color which appears is dependent on the Xcurrent palette settings. In applications such as word and Xoutline processors it is important that characters and their Xbackground provide good contrast to avoid eyestrain. In these Xsituations, you may want to use the setPalette and/or setColor XXBIOS functions to force the palette to a known state before Xstarting the application.
X.PP
XYou can choose a variety of special output effects for your Xtext with the call:
X.FB vst_effects()
Xvst_effects(vdi_handle, effects);
X.FE
XEffects is a single flag word, with the bits having the following Xsignificance:
X.BO
X0 - Thicken
X.EO
X.BO
X1 - Lighten
X.EO
X.BO
X2 - Skew
X.EO
X.BO
X3 - Underline
X.EO
X.BO
X4 - Outline
X.EO
X.BO
X5 - Shadow
X.EO
X.PP
XIn each case, turning the bit on selects the effect. Otherwise, Xthe effect is off. Any number of multiple effects may be Xselected, but the result may not always be pleasing or legible.
X.PP
XThe "thicken" effect widens the character strokes by one Xpixel, resulting in the appearance of boldface type. The X"lighten" effect superimposes a half-tone dither on the character. XThis mode is useful for indicating non-selectable text items, but Xis not legible enough for other purposes.
X.PP
XThe skew effect shifts the rows of the character the right, Xwith the greatest displacement at the top. This results in the Xappearance of italic text. You should be aware that the VDI does Xnot compensate for this effect. This means that a skewed italic Xcharacter which is immediately followed by a normal blank will be Xoverstruck, and part of the top of the character will disappear. XLikewise, a skewed character written to the left of an existing Xnormal character will overstrike part of it. There is a related Xbug in the VDI clipping logic which may cause some parts of a

Xskewed character not to be redrawn if they fall at the edge of a
Xclipping rectangle, even though they should fall within the
Xregion.
X.PP
XThe outline effect produces output which is a one pixel
X"halo" around the normal character. The shadow effect attempts to
Xcreate a "drop shadow" to the side of the character. These
Xeffects should be used very sparingly with default sized fonts.
XThey often result in illegible output.
X.PP
XWhen graphics text is written, a screen coordinate must be
Xspecified for the output. The relationship of the text to the
Xscreen point is determined by the call:
X.FB bst_alignment()
X   vst_alignment(vdi_handle, hin, vin, &hout, &vout);
X.FE
XHin and vin are each words, with values specifying the desired
Xhorizontal and vertical alignment, respectively. Hout and vout
Xreceive the actual values set by the VDI. If they differ from the
Xrequested values, an error has occurred.
X.PP
XHin may be set to zero for left justification, one for center
Xjustification, or two for right justification. The coordinate
Xgiven when text is written becomes the "anchor point" as described
Xin the definitions above. The default justification is left.
X.PP
XVin determines what reference line of the text is positioned
Xat the output coordinate. The selection values are:
X.bp
X.BO
X0 - baseline (default)
X.EO
X.BO
X1 - half line
X.EO
X.BO
X2 - ascent line
X.EO
X.BO
X3 - bottom line
X.EO
X.BO
X4 - descent line
X.EO
X.BO
X5 - top line
X.EO
X.PP
XA common combination of alignments is left (0) and top line
X(5). This mode guarantees that all text output will lie to the
Xright and below the output coordinate. This corresponds with the
XAES object and GRECT coordinate systems.
X.PP

XFinally, the call to do the actual output is:
X.FB v_gtext()
Xv_gtext(vdi_handle, x, y, string);
X.FE
XX and y define the screen coordinate to be used as the alignment Xpoint. String is a pointer to a null terminated string, which Xmust be total eighty characters or less, exclusive of the null. XThis limit is imposed by the size of the intin[] array in the VDI Xbinding. Be warned that it is NOT checked in the standard Xbinding! Exceeding it may cause memory to be overwritten.
X.PP
XOne Inquire Function is useful with text output. The call
X.FB vqt_attributes()
Xvqt_attributes(vdi_handle, attrib);
X.FE
Xreads back the current attribute settings into the 10 word array Xattrib[]. The main items of interest are attrib[6] through Xattrib[9], which contain the width and height of characters, and Xthe width and height of the character cell in the current font. XYou should rely on this function to obtain size information, Xrather than using the output of the graf_handle() function. On Xthe ST, graf_handle() always returns sizes for the monochrome mode Xsystem font, which will be incorrect in the color screen modes.
X.PP
XAttrib[1] will contain the current graphics text color as set Xby vst_color(). Attrib[3] and [4] contain the horizontal and Xvertical alignment settings, respectively. Attrib[5] contains the Xcurrent writing mode, as set by vswr_mode().
X.SH OPTIMIZATION
XThe most common complaint about using bit maps Xfor character output is lack of speed. This section suggests ways Xto speed things up. By adopting all of these methods, you can Xrealize an improvement of two to three times in speed.
X.SH BYTE ALIGNMENT
XSince writing graphic text is essentially a Xbit-blit operation, characters which have "fringes", that is, do Xnot align evenly with byte boundaries, will suffer performance Xpenalities. The default system fonts in all resolutions of the ST Xare a multiple of eight pixels wide, so the problem reduces to Xassuring that each characters starts at a byte boundary in the Xscreen bit map. This will be true if the horizontal pixel address Xof the left edge of the character is evenly divisible by eight.
X.PP
XObviously, byte alignment is easiest to enforce when the Xhorizontal justification is right or left. Doing so with centered Xtext is possible, but requires adding padding blanks to odd length Xstrings.
X.PP
XWhen writing text within windows, it is helpful to assure Xthat the edges of the window working area are byte aligned. There Xis a section of code in the download which shows a technique for Xconverting a user requested window position and/or size to its Xworking dimensions, byte-aligning the width and horizontal

Xposition, and computing the adjusted external window coordinates.
X.SH WRITING MODE
XThe fastest text output mode is replace. All
Xother modes require reading in the target raster area and merging
Xit with the new information. You may find that you must use
Xtransparent or reverse transparent mode, for instance, to use or
Xpreserve an underlying background color other than white. In this
Xcase, you can still do some optimization by filling in the
Xbackground color for the entire string with a v_bar() call, rather
Xthan doing it one character cell at a time.
X.SH CLIPPING
XVDI output always proceeds faster when the
Xclipping rectangle is turned off, and text output is no exception.
XRemember that you may only do this if you are drawing into a
Xdialog box, or into the interior of a window which you know is on
Xtop. (You can use the WM_TOPPED and WM_NEWTOP messages for
Xkeeping track of the top window, or use the WF_TOP wind_get() call
Xto find the current top.) In both of these cases, you will know
Xthe width of the drawing area, and you can truncate the output
Xstring to fit exactly, rather than setting the clipping rectangle.
XFor this to work, you must have used the byte alignment technique
Xto assure that the width of the writing area is a multiple of
Xeight.
X.SH BINDINGS
XThe normal binding for v_gtext() is inefficient.
XIt copies the string which you supply character-by-character into
Xintin[] before it calls the VDI itself. In many cases, it will be
Xmore efficient for your application to place characters directly
Xinto intin[] and make the VDI trap call directly. To give you a
Xstart, the code for the standard v_gtext() binding has been
Xincluded in the download. When setting up intin[], be sure not to
Xload more than 80 characters, or you will probably crash the
Xsystem!
X.SH MOVING TEXT
XWhen performing text editing on the screen, you
Xshould avoid rewriting the string under edit whenever possible.
XIt is always more efficient to use the raster operations to move a
Xstring to the right or left, assuming that you have obeyed the
Xbyte alignment rule. If you are deleting characters, blit the
Xunchanged part of the screen to the left, and overstrike the last
Xcharacter in the string with a blank. If inserting characters,
Xblit the trailing portion of the string to the right before
Xwriting in the new character.
X.SH THAT'S IT FOR NOW
XThis concludes the two article series on
Xsimple VDI output. Future columns may explore more complex VDI
Xtopics such as proportional text. If there is something you would
Xlike to see, please use the Online Feedback to let me know!
XMeanwhile, the next column will give out the locations of some of
Xthe "hooks" and "trapdoors" built into the AES object structure,
Xincluding how to set up user-defined AES drawing objects.
X.!
X.!

```
X.!*****************************************************************************
X.!*                                                                           *
X.!*               End Part 10                                                 *
X.!*                                                                           *
X.!*****************************************************************************
SHAR_EOF
if test 13162 -ne "`wc -c 'wind10.prf'`"
then
     echo shar: error transmitting "'wind10.prf'" '(should have been 13162
characters)'
fi
echo shar: extracting "'wind11.prf'" '(21298 characters)'
if test -f 'wind11.prf'
then
     echo shar: over-writing existing file "'wind11.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind11.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!
X.!*****************************************************************************
X.!
X.!           Begin Part 11
X.!
X.!*****************************************************************************
X.!
X.PART XI GEM Hooks and Hacks
X.PP
XWelcome  to  the  eleventh episode of ST PRO  GEM,  which  is
Xdevoted to exploring some of the little documented,  but powerful,
Xfeatures  of GEM.   Like the authors of most complex systems,  the
XGEM  programmers left behind a set of "hooks",  powerful  features
Xwhich would aid them in enhancing the system later.  I am going to
Xlay  out  a number of these methods which have served me  well  in
Xmaking  creative use of the AES.   You will find that most of them
Xconcern  the object and form libraries,  since I was most involved
Xin those parts of GEM.  There are probably many more useful tricks
Xwaiting  to be found in other parts of GEM,  so if you happen onto
Xone, please let me know in the Feedback!  Before you begin,be sure
```

Xto pick up the download for this column: GMCL11.C in DL3 of PCS-X57.

X.SH POWERFUL OBJECTS

XThe first four tricks all involve augmenting standard AES Xobjects. This is a powerful technique for two reasons. First, Xyou can take advantage of the regular AES object and form Xlibraries to draw and handle most of your objects, so that your Xprogram need only process the exceptions. Second, you can use the XRCS to copy the special objects into multiple dialogs or Xresources. These four tricks are Extended Object Types, User-Xdefined Objects, TOUCHEXIT, and INDIRECT. Let's look at each of Xthem in turn.

X.SH EXTENDED OBJECT TYPES

XIf you look at the AES Object Library documentation, you will Xnotice that the values for the OB_TYPE field in an object are all X32 or less. This means that a number of bits are unused in this Xfield. In fact, the AES completely ignores the top byte of the XOB_TYPE field. In addition, the RCS ignores the top byte, but it Xalso preserves its value when an object is read, written, or Xcopied.

X.PP

XThis gives you one byte per object to use as you see fit. XSince the processing of an object or dialog is (so far) in the Xhands of the AES, the best uses of Extended Types are in flagging Xmethods for initializing an object or handling its value when the Xdialog completes.

X.PP

XFor example, you might have several dialogs containing Xeditable numeric fields. The Extended Type of each numeric field Xcould be set to the index of the corresponding value in an array. XThen your application's dialog initialization code could scan the Xobject tree for such objects, pick up the appropriate value Xfrom the array and convert it to ASCII, storing the result in the Xresource's string area. When the dialog was finished, another Xpass could be made to reconvert the ASCII to binary and store away Xthe results in the array. (Note that the map_tree() utility from Xcolumn #5 will scan an entire resource tree.)

X.PP

XAnother application is to assign uniform codes to exit Xbuttons in dialogs. If you give every "OK" button an Extended XType of one, and every "Cancel" button an Extended Type of two, Xthen you needn't worry about naming every exit object. Just Xexamine the Extended Type of the object returned by form_do, and Xproceed accordingly.

X.PP

XThe catch, of course, is that you have to find a way to enter Xthe Extended Type code in the first place. Version 1.0 of the XRCS, as shipped with the Atari developer's kit, makes no provision Xfor this. So you have your choice of two methods for creating the Xfirst object with each Extended Type code.

X.PP

XFirst, you can dump out a C source of a resource, insert the Xnew type code by hand, and regenerate the resource with STCREATE.

XAlternately, you could carefully modify the binary resource using XSID. You will probably want to reread the AES object manual, ST XPRO GEM #4 and #5, and use the C source as a guide when doing so. XIn both cases, you should make things easy on yourself by creating Xa one dialog resource with only a single object other than the Xroot. Version 2.0 of the RCS will let you directly enter an XExtended Type, but it has not yet been released for the ST by DRI.
X.PP
XOnce you have created a prototype extended object by either Xmethod, you can use the RCS to propogate it. The safest way is to Xuse the MERGE option to add the modified tree to the resource you Xare building. Then copy the prototype object via the clipboard to Xyour dialog(s), deleting the extra tree when you are done. If you Xare using several different extended objects, you can use MERGE Xand clipboard copies to get them all into one tree which will then Xbecome your own object library.
X.PP
XThe second way of using RCS is easier, but more dangerous. XIf you want to try the following technique, BACK UP YOUR RCS DISK XFIRST! Put simply, the RCS does not care what is in its dialog Xpartbox. It will make copies of anything that it finds there! This Xgives you the option of using the RCS on ITS OWN RESOURCE in order Xto add your customized objects to the partbox.
X.PP
XTo do this, open RCS.RSC from the RCS. Since there is no DEF Xfile, you will get a collection of question mark icons. Use the XNAME option to make TREE5 into a DIALOG. Open it, and you will Xsee the dialog partbox.
X.PP
XNow you can use the MERGE technique described above to insert Xyour customized objects. Then SAVE the modified resource, and Xrerun the RCS. Your new objects should now appear in the partbox. XIf you added several, you may have to stretch the partbox to see Xthem all. You can now make copies of the new objects just like Xany other part. (Note: DO NOT modify the alert or menu partboxes, Xyou will probably crash the RCS.)
X.SH USER-DEFINED OBJECTS
XThe one type of object which was not discussed in the earlier Xarticles on AES objects was G_USERDEF, the programmer defined Xobject. This is the hook for creating objects with other Xappearances beyond those provided by the standard AES. By the Xway, you should note that the G_PROGDEF and APPLBLK mnemonics used Xin the AES documents are incorrect; the actual names as used Xdefined OBDEFS.H are G_USERDEF and USERBLK.
X.PP
XThe RCS does not support the creation of G_USERDEF objects, Xsince it has no idea how they will be drawn by your program. XInstead, you must insert a dummy object into your resource where Xyou want the G_USERDEF to appear, and patch it after your Xapplication performs its resource load.
X.PP
XYou must replace the object's existing OB_TYPE with XG_USERDEF, though you may still use the upper byte as an Extended

XType. You must also change the OB_SPEC field to be a 32-bit Xpointer to a USERBLK structure. An USERBLK is simply two LONG X(32-bit) fields. The first is the address of the drawing code Xassociated with the user defined object. The second is an Xarbitrary 32-bit value assigned to the object by your application.
X.PP
XYou can designate objects for conversion to G_USERDEFs in the Xnormal fashion by assigning them names which are referenced one by Xone in your initialization code. You can also combine two tricks Xby using the Extended Type field as a designator for objects to be Xconverted to G_USERDEF. Each tree can then be scanned for objects Xto be converted. There is a short code segment in the download Xwhich demonstrates this technique.
X.PP
XMy usual convention is to define new drawing objects as Xvariants of existing objects, using the Extended Type field to Xdesignate the particular variation. Thus an Extended Type of one Xmight designate a G_BUTTON with rounded corners, while a value of Xtwo could flag a G_STRING of boldface text. When using this Xtechnique, the RCS can be used to build a rough facsimile of the Xdialog by inserting the basic object type as placeholders. The Xexisting OB_SPEC information can then be copied to the second Xposition in the USERBLK when the object is initialized.
X.PP
XOne final note before moving on: There is no reason that the XUSERBLK cannot be extended beyond two fields. You might want to Xadd extra words to store more information related to drawing the Xobject, such as its original type.
X.PP
XThe AES will call your drawing code whenever the G_USERDEF Xneeds to be drawn. This occurs when you make an objc_draw call Xfor its tree, or when an objc_change occurs for that object. If Xyour user-defined object is in a menu drop-drop, then your drawing Xcode will be called any time the user exposes that menu.
X.PP
XBefore getting into the details of the AES to application Xcalling sequence, some warnings are in order. First, remember Xthat your drawing code will execute in the AES' context, using its Xstack. Therefore, be careful not to overuse the stack with deep Xrecursion, long parameter lists, or large dynamic arrays. Second, Xthe AES is NOT re-entrant, so you may not make ANY calls to it Xfrom within a G_USERDEF procedure. You may, of course, call the XVDI. Finally, realize that drawing code associated with a menu Xobject may be called by the AES at any time. Exercise great care Xin sharing data space between such code and the rest of the Xapplication!
X.PP
XWhen your drawing code is called by the AES, the stack is set Xup as if a normal procedure call had occured. There will be one Xparameter on the stack: a 32-bit pointer to a PARMBLK structure. XThis structure lies in the AES' data space, so do not write beyond Xits end!
X.PP

XThe PARMBLK contains 15 words. The first two are the long
Xaddress of the object tree being drawn, and the third word is the
Xnumber of the G_USERDEF object. You may need these values if the
Xsame drawing code is used for more than one object at a time.
XWords four and five contain the previous and current OB_STATE
Xvalues of the object. If these values are different, your drawing
Xcode is being called in response to an objc_change request.
XOtherwise, the active AES call is an objc_draw.
X.PP
XWords six through nine contain the object's rectangle on the
Xscreen. Remember that you cannot call objc_offset within the
Xdrawing code, so you will need these values! The next four words
Xcontain the clipping rectangle specified in the active objc_change
Xor objc_draw call. You should set the VDI clip rectangle to this
Xvalue before doing any output to the screen.
X.PP
XThe last two words in the PARMBLK contain a copy of the extra
X32-bit parameter from the object's USERBLK. If you have followed
Xthe method of copying an OB_SPEC into this location, these words
Xwill be your pointer to a string, or BITBLK, or whatever.
X.PP
XWhen your drawing routine is done, it should return a zero
Xvalue to the AES. This is a "magic" value; anything else will
Xstop the drawing operation.
X.PP
XThe download contains a sample drawing routine which defines
Xone extended drawing object, a rounded rectangle button. You can
Xuse this procedure as a starting point for your own User Defined
Xobjects.
X.SH PUT ANYTHING YOU WANT ON THE DESKTOP!
XIn ST PRO GEM #2, I described the use of the WF_NEWDESK
Xwind_set call to substitute your own object tree for the normal
Xgreen desktop background. If the tree you supply contains User
XDefined objects, you can draw whatever you want on the desktop!
XSome of the things you might try are free hand drawings imported
Xin metafile format from EasyDraw, or whole screen bit images
Xgenerated by Degas. If you do the latter, you will have to store
Xthe entire image off screen and blit parts of it to the display as
Xrequested.
X.PP
XIn any case, remember that your desktop drawing code can be
Xcalled any time that a window is moved, so exercise the same care
Xas with a menu drawer. Also, be aware that making the WF_NEWDESK
Xcall does not force an immediate redraw of the desktop. To do
Xthat, do a form_dial(3) call for the entire desktop rectangle.
X.SH THE TOUCHEXIT FLAG
XThe TOUCHEXIT attribute is an alternative to the more usual
XEXIT. When the TOUCHEXIT bit is set in an object's OB_FLAG word,
Xthe form_do routine will exit immediately when the mouse button is
Xpressed with the cursor over the object. Your code can
Ximmediately take control of the mouse and display, without waiting
Xfor the release of the button. This method is used for generating
Xeffects such as slider bars within otherwise normal dialogs.

X.PP
XThe easiest way to code a TOUCHEXIT handler is to place a
Xloop around the form_do call. If the object number returned is
XTOUCHEXIT, then the animation procedure is called, followed by a
Xresumption of the form_do (WITHOUT recalling form_dial or
Xobjc_draw!). If the object returned is a normal EXIT, the dialog
Xis complete and control flows to the cleanup code.
X.PP
XThere is one idiosyncrasy of TOUCHEXIT which should be noted.
XWhen the AES "notices" that the mouse button has been pressed over
Xa TOUCHEXIT, it immediately retests the button state. If it has
Xalready been released, it waits to see if a double click is
Xperformed. If so, the object number returned by form_do will have
Xits high bit set. If you don't care about double clicks, your
Xcode should mask off this flag. However, you may want to use the
Xdouble click to denote some enhanced action. For example, the GEM
Xfile selector uses a double click on one of the file name objects
Xto indicate a selection plus immediate exit.
X.SH THE INDIRECT FLAG
XIf the INDIRECT bit is set in an object's OB_STATE word, the
XAES interprets the 32-bit OB_SPEC field as a pointer to the memory
Xlocation in which the ACTUAL OB_SPEC is to be found. Like User
XDefined objects, this capability is not supported by the RCS, so
Xyou have to set up the INDIRECT bit and alter the OB_SPEC at run
Xtime.
X.PP
XThe value of INDIRECT is that you can use it to associate an
XAES object with other data or code. The general technique is to
Xset up a table with a spare 32-bit location at its beginning.
XThen, when initializing the application's resource, you move the
Xtrue OB_SPEC into this location, set the INDIRECT flag, and
Xreplace the OB_SPEC field with a pointer to the table. The object
Xbehaves normally during drawing and form handling. However, if you
Xreceive its number from form_do or objc_find, you have an
Ximmediate pointer to the associated table, without having to go
Xthrough a lookup procedure.
X.PP
XThis technique works well in programs like the GEM Desktop.
XEach G_ICON object is set up with INDIRECT. Its OB_SPEC goes to
Xthe beginning of a data area defining the associated file. The
Xblank location at the beginning of file table is filled up with
Xthe former OB_SPEC, which points to a ICONBLK.
X.PP
XYou can also combine INDIRECT with TOUCHEXIT when creating
Xobjects that must change when they are clicked by a user. For
Xinstance, a color selection box might be linked to a table
Xcontaining the various OB_SPEC values through which the program
Xwill cycle. Each time the user clicked on the box, the TOUCHEXIT
Xroutine would advance the table pointer, copy the next value into
Xthe dummy OB_SPEC location at the front of the table, and redraw
Xthe object in its new appearance.
X.PP
XA programmer who wanted to follow a truly object-oriented

X"Smalltalkish" approach could use the INDIRECT method to bind AES
Xdrawing object to tables of associated procedures or "methods".
XFor instance, one procedure could be flagged for use when the user
Xclicked on the object, one when the object was dragged, one for
Xdouble-click, and so on. If the table structure was capable of
Xindicating that the true method was stored in another table, a
Xrudimentary form of class inheritance could be obtained.
X.SH INSTANT CO-ROUTINES
XWe turn to the AES event and message system for this trick.
XWhile some languages like Modula 2 provide a method for
Ximplementing co-routines, there is no such capability in C.
XHowever, we can effectively fake it by using the AES event
Xlibrary.
X.PP
XAs already seen in an earlier column, an application can
Xwrite a message to its own event queue using the appl_write call.
XUsually, this is a redraw message, but there is nothing to prevent
Xyou from using this facility to send messages from one routine in
Xyour program to another. To set up co-routines using this method,
Xthey would be coded as separate procedures called from the
Xapplication's main event loop.
X.PP
XWhen one of the co-routines wanted to call the other, it
Xwould post a message containing the request and any associated
Xparameters into the application's queue and then return. The main
Xloop would find the message and make the appropriate call to the
Xsecond co-routine. It it was necessary to then re-enter the first
Xco-routine at the calling point, the original message could
Xcontain an imbedded reply message to be sent back when the request
Xwas complete. A simple switch structure could then be used to
Xresume at the appropriate point.
X.PP
XThere are two potential problems in using this method. The
Xfirst is the limited capacity of the application event queue. The
Xqueue contains eight entries. While the AES economizes this
Xspace by merging redraws and multiple events, it cannot merge
Xmessages. Because of this limit, you must be extremely careful
Xwhen one message received has the potential to generate two or
Xmore messages sent. Unless this situation is carefully managed,
Xyou can get a sort of "cancer" which will overflow the queue and
Xprobably crash your application.
X.PP
XThe second danger involves race conditions. Message sent by
Xthe application are posted to the end of the queue. If other
Xevents have occurred, such as mouse clicks or keyboard presses,
Xthey will be seen and processed ahead of the application generated
Xmessage. This implies that you cannot use this method if the
Xprogram must complete its action before a new user generated event
Xcan be processed.
X.SH THAT'S ALL FOR NOW
XHopefully these hints will keep you profitably occupied for a
Xwhile. ST PRO GEM number twelve will return to the topic of user
Xinterfaces. Reaction to the first article on this subject was

```
Xmostly  positive,  but a lot of folks wanted to see real  code  as
Xwell.   In response to your feedback,  there will also be code for
Ximplemented  your  own "mouse sensitive" objects  which  highlight
Xwhen the cursor touches them.   This will be presented as part  of
Xan alternate form manager.
X.SH UPDATE: ATARI ST
XI  have  recently gotten more  information  on  some  topics
Xmentioned in earlier articles.   These notes will bring you up  to
Xdate:
X.PP
XA number of developers reported that they were unable to get
Xthe  self-redraw  technique described in ST PRO GEM  #2  to  work.
XThis is usually due to a bug in the appl_init binding in Alcyon C.
XThe  value  returned from the function,  which would  normally  be
Xassigned  to gl_apid,  is coming back as garbage.   To work around
Xthe problem,  declare EXTERN WORD gl_apid;  in your program and DO
XNOT  assign the value from appl_init.   The binding WILL make  the
Xassignment.  A tip of the hat to Russ Wetmore for this report.
X.PP
XThe   last   column   mentioned   that   turning   off   the   clip
Xrectangle  while drawing graphics text will speed things  up.   It
Xturns  out that the VDI will also run at the non-clipped speed  if
Xthe  ENTIRE  string  to  be written is  within  the  current  clip
Xrectangle.  To compound the problem, there is a one-off bug in the
Xdetection  algorithm  for  the right  edge.   That  is,  the  clip
Xrectangle  has to be one pixel BEYOND the right edge of  the  text
Xfor the fast write to work.
X.PP
XThe Feedback in ST PRO GEM #10 mentioned that there are known
Xbugs  in  the  Alcyon C floating point  library.   In  fact,  this
Xlibrary  has been replaced with a new,  debugged version in recent
Xshipments  of the Toolkit.   If you need to use floating point and
Xhave  run into this bug,  you should be able to get an update from
XAtari.   Also,  check  the  Atari  Developer's SIG (PCS-57) for  a
Xpossible download.
X.PP
XIn addition, it turns out there is an undocumented feature in
XAlcyon  C  which allows you to imbed assembly code  in-line.   Try
Xusing:
X.FB asm()
Xasm(".....");
X.FE
Xwhere the dots are replaced with an assembly instruction.  You get
Xone instruction per asm(),  one asm() per line.  Thanks to Leonard
XTramiel for both of the above tidbits.
X.!
X.!
X.!*****************************************************************************
X.!*                                          *
X.!*              End Part 11                      *
X.!*                                          *
X.!*****************************************************************************
SHAR_EOF
```

```
if test 21298 -ne "`wc -c 'wind11.prf'`"
then
     echo shar: error transmitting "'wind11.prf'" '(should have been 21298
characters)'
fi
echo shar: extracting "'wind12.prf'" '(18067 characters)'
if test -f 'wind12.prf'
then
     echo shar: over-writing existing file "'wind12.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind12.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 12
X.!
X.!*************************************************************************
X.!
X.PART XII GEM Events and Program Structure
X.PP
XSo I fibbed a little.  This issue (#12) of ST PRO GEM started
Xout to be another discussion of interface issues.  But, as Tolkien
Xonce said, the tale grew in the telling, and this is now the first
Xof  a series of three articles.   This part will discuss AES event
Xhandling  and  its implications for GEM  program  structure.   The
Xfollowing  article will contain a "home brew" dialog handler  with
Xsome  new  features,  and  the third will,  finally,  take up  the
Xdiscussion  of  interface design,  using the dialog handler as  an
Xexample.   (There is no download for this article.   The downloads
Xwill return, with a vengeance, in ST PRO GEM #13.)
X
X.SH ALL FOR ONE, AND ONE FOR ALL.
XA quick inspection of the AES
Xdocuments  shows that there are five routines devoted  to  waiting
Xfor individual types of events, and one routine, evnt_multi, which
Xis  used  when more than one type is desired.   This article  will
Xdiscuss  ONLY evnt_multi for two reasons.   First,  it is the most
```

Xfrequently used of the routines. Second, waiting for one type of Xevent is a bad practice. Any event call turns the system over to Xthe AES and suspends the application and its interaction with the Xuser. In such cases, some "escape clause", such as a timer, Xshould be inserted to revive the program and prompt the user if no Xevent is forthcoming. Otherwise, the application may end up Xapparently (or actually) hung, with a resulting reboot, and Xprobably a very annoyed user.
X.SH STARTING AHEAD.
XOne possible type of event is a message.
XMessages are usually sent to the application by the AES, and are Xassociated with windows or the menu. Two previous articles in Xthis series have discussed such messages. ST PRO GEM number two Xconsidered window messages, and number seven handled menu Xmessages. You may want to review these topics before proceeding.
X.PP
XThe actual evnt_multi call is a horrendous thing:
X.FB evnt_multi()
Xev_which = evnt_multi(ev_flags,
X   btn_clicks, btn_mask, btn_state,
X   r1_flags, r1_x, r1_y, r1_w, r1_h,
X   r2_flags, r2_x, r2_y, r2_w, r2_h,
X   &msg_buff,
X   time_lo, time_hi,
X   &mx, &my, &btn, &kbd, &char, &clicks);
X.FE
XEach of the lines in the call relate to a different event, and Xthey will be discussed in the order in which they appear.
X.PP
XNote that a call with this number of parameters causes some Xoverhead stacking and retrieval of the values. In most Xcases, this should be of little concern on a machine as fast as Xthe ST. However, where throughput is a concern, such as in close Xtracking of the mouse cursor, you may want to write a customized Xbinding for evnt_multi which dispenses with the parameter list. XThis can be accomplished by maintaining the values in a static Xarray and moving them as a block into the binding arrays int_in X(for all values but &msg_buff), and addr_in (for &msg_buff). Note Xthat you may NOT simply leave the values in int_in; other AES Xbindings reuse this space.
X.PP
XEv_flags and ev_which are both 16-bit integers composed of Xflag bits. Bits set in ev_flags determine which event(s) the call Xwill wait for; those set in ev_which indicate what event(s) Xactually occurred. Both use the following flag bit mnemonics and Xfunctions:
X.BO
X   0x0001 - MU_KEYBD - Keyboard input
X.EO
X.BO
X   0x0002 - MU_BUTTON - Mouse button(s)
X.EO
X.BO

```
X     0x0004 - MU_M1 - Mouse rectangle #1
X.EO
X.BO
X     0x0008 - MU_M2 - Mouse rectangle #2
X.EO
X.BO
X     0x0010 - MU_MESAG - AES message
X.EO
X.BO
X     0x0020 - MU_TIMER - Timer
X.EO
X.sp 1
XThe  appropriate mnemonics are ORed together to create the  proper
Xev_flags value.
X.PP
XThere  is  one  common pitfall here.   Notice  that  multiple
Xevents  may  be reported from one evnt_multi.   Event  merging  is
Xperformed  by the AES in order to save space on the  application's
Xevent queue.   If events have been merged,  more than one bit will
Xbe  set in the ev_which word.   Your application must check ALL of
Xthe  bits  before  returning to a new  evnt_multi  call.   If  you
Xdon't do this, some events may be effectively lost.
X.PP
XThe  first event to be considered is the mouse button.   This
Xis probably the most difficult event to understand and use, and it
Xhas one major shortcoming.
X.PP
XThe  parameter  btn_clicks tells GEM the  maximum  number  of
Xclicks which you are interested in seeing.   This value is usually
Xtwo,  if your program uses the double-click method, or one if only
Xsingle  clicks  are used.   The AES returns the number  of  clicks
Xwhich caused the event through &clicks, which must be a pointer to
Xa word.
X.PP
XGEM determines the number of clicks by the following  method.
XWhen the first button-down is detected, a time delay is begun.  If
Xanother  complete button-up,  button-down cycle is detected before
Xthe time expires,  then the result is a double click.   Otherwise,
Xthe  event is a single click.    Note that the final state of  the
Xbuttons  is  returned via &btn,  as described below.   By checking
Xthis  final state,  you may determine whether a single click event
Xended with the button up (a full click),  or with the button still
Xdown  (which  may  be  interpreted as  the  beginning  of  a  drag
Xoperation).   Double clicking is meaningless,  and not checked, if
Xthe evnt_multi is waiting on more than one button (see below).
X.PP
XThe double-click detection delay is variable,  and may be set
Xby your program using the call
X.FB ev_dclick()
Xev_dspeed = ev_dclick(ev_dnew, ev_dfunc);
X.FE
XEv_dfunc  is a flag which determines the purpose of the call.   If
Xit  is  zero,  the  current  double click  speed  is  returned  in
```

Xev_dspeed. If ev_dfunc is non-zero, then ev_dnew becomes the new Xdouble-click speed. Both ev_dspeed and ev_dnew are words Xcontaining a "magic number" between zero and four. Zero is the Xslowest (i.e., longest) double-click, and four is the fastest. X(These correspond to the slow-fast range in the Desktop's XPreferences dialog.) In general, you should not reset the click Xspeed unless specifically requested, because such a change can Xthrow off the user's timing and destroy the hand/eye coordination Xinvolved in using the mouse.
X.PP
XGEM was originally designed to work with a single button Xinput device. This allows GEM applications interaction well with Xdevices such as light pens and digitizing tablets. However, some Xfeatures are available for dealing with multi-button mice like the XST's.
X.PP
XThe evnt_multi parameters btn_mask and btn_state are words Xcontaining flag bits corresponding to buttons. The lowest order Xbit corresponds to the left-most button, and so on. A bit is set Xin the btn_mask parameter if the AES is to watch a particular Xbutton. The corresponding bit in btn_state is set to the value Xfor which the program is waiting. The word returned via &btn Xuses the same bit system to show the state of the buttons at Xcompletion. It is important to notice that all of the target Xstates in btn_state must occur SIMULTANEOUSLY for the event to be Xtriggered.
X.PP
XNote the limiting nature of this last statement. It prevents Xa program from waiting for EITHER the left or right button to be Xpressed. Instead, it must wait for BOTH to be pressed, which is a Xdifficult operation at best. As a result, the standard mouse Xbutton procedure is practically useless if you want to take full Xadvantage of both buttons on the ST mouse. In this case, your Xprogram must "poll" the mouse state and determine double-clicks Xitself. (More on polling later.) By the way, many designers X(myself included) believe that using both buttons is inherently Xconfusing and should be avoided anyway.
X.SH MOUSE RECTANGLES.
XOne of GEM's nicer features is its ability
Xto watch the mouse pointer's position for you, and report an event Xonly when it enters or departs a given screen region. Since you Xdon't have to track the mouse pixel by pixel, this eliminates a Xlot of application over. The evnt_multi call gives you the Xability to specify one or two rectangular areas which will be Xwatched. An event can be generated either when the mouse pointer Xenters the rectangle, or when it leaves the rectangle. The "r1_" Xseries of parameters specifies one of the rectangles, and the X"r2_" series specifies the other, as follows:
X.sp 1
X.ti +2
Xr1_flag, r2_flag - zero if waiting to enter rectangle,
X.br
X.ti +2

X   one if waiting to leave rectangle
X.br
X.ti +2
Xr1_x, r2_x - upper left X raster coordinate of wait rectangle
X.br
X.ti +2
Xr1_y, r2_y - upper left Y raster coordinate of wait rectangle
X.br
X.ti +2
Xr1_w, r2_w - width of wait rectangle in pixels
X.br
X.ti +2
Xr1_h, r2_h - height of wait rectangle in pixels
X.br
X.sp 1
XEach rectangle wait will only be active if its associated flag
X(MU_M1 or MU_M2) was set in ev_flags.
X.PP
XThere are two common uses of rectangle waits. The first is
Xused when creating mouse-sensitive regions on the screen. Mouse-
Xsensitive regions, also called "hot spots", are objects which show
Xa visual effect, such as inversion or outlining, when the mouse
Xcursor moves over them. The items in a menu dropdown, or the
Xinversion of Desktop icons during a drag operation, are common
Xexamples.
X.PP
XHot spots are commonly created by grouping the sensitive
Xobjects into one or two areas, and then setting up a mouse
Xrectangle wait for entering the area. When the event is
Xgenerated, the &mx and &my returns may be examined to find the
Xtrue mouse coordinates, and objc_find or some other search will
Xdetermine the affected object. The object is then highlighted,
Xand a new wait for exiting the object rectangle is posted. (ST
XPRO GEM #13 will show how to create more complex effects with
Xrectangle waits.)
X.PP
XThe second common use of rectangle waits is in animating a
Xdrag operation. In many cases, you can use standard AES animation
Xroutines such as graf_dragbox or graf_rubberbox. In other cases,
Xyou may want a figure other than a simple box, or desire to
Xcombine waits for other conditions such as keystrokes or
Xcollision with hotspots. Then you will need to implement the drag
Xoperation yourself, using the mouse rectangles to track the
Xcursor.
X.PP
XIf you want to track the cursor closely, simply wait for exit
Xon a one pixel rectangle at the current position, and perform the
Xanimation routine at each event. If the drag operation only works
Xon a grid, such as character positions, you can specify a larger
Xwait rectangle and only update the display when a legal boundary
Xis crossed.
X.SH MESSAGES.
XThe &msg_buff parameter of evnt_multi gives the

Xaddress of a 16 byte buffer to receive an AES message. As noted
Xabove, I have discussed standard AES messages elsewhere. The last
Xcolumn also mentioned that messages may be used to simulate co-
Xroutines within a single GEM program.
X.PP
XA further possibility which bears examination is the use of
Xmessages to coordinate the activities of multiple programs. In
Xsingle-tasking GEM, at least one of these programs would have to
Xbe a desk accessory. In any such use of the GEM messages, you
Xshould pay careful attention to the possibility of overloading the
Xqueue. Only eight slots are provided per task, and messages,
Xunlike events, cannot be merged by the AES.
X.SH TIMER.
XThe timer event gives you a way of pacing action on
Xthe screen, clocking out messages, or providing a time-out exit
Xfor an operation. Evnt_multi has two 16-bit timer input
Xparameters, time_hi and time_lo, which are the top and bottom
Xhalves, respectively, of a 32-bit millisecond count. However,
Xthis documented time resolution must be taken with a grain of salt
Xon the ST, considering that its internal clock frequency is 200Hz!
X.PP
XThe timer event is also extremely useful for polling the
Xevent queue. A "poll" tests the queue for completed events
Xwithout going into a wait state if none are present. In GEM, this
Xis done by generating a null event which always occurs
Ximmediately. A timer count of zero will do just that.
X.PP
XTherefore, you can poll for any set of events by specifying
Xthem in the evnt_multi parameters. A zero timer wait is then
Xadded to ensure immediate completion. Upon return, if any eveit(s) OTHER than
MU_TIMER are set, a significant event was found
Xon the queue. If only MU_TIMER is set, the poll failed to find an
Xevent.
X.SH KEYBOARD.
XThere are no input parameters for the keyboard
Xevent. The character which is read is returned as a 16-bit
Xquantity through the &char parameter. For historical reasons, the
Xcodes which are returned are compatible with the IBM PC's BIOS
Xlevel scan codes. You can find this character table in Appendix D
Xof the GEM VDI manual. In general, the high byte need only be
Xconsidered if the lower byte is zero. If the low byte is non-
Xzero, it is a valid ASCII character.
X.PP
XEvnt_multi also returns the status of several modifier keys
Xthrough the &kbd parameter. This word contains four significant
Xbits as follows:
X.BO
X   0x0001 - Right hand shift key
X.EO
X.BO
X   0x0002 - Left hand shift key
X.EO
X.BO

X   0x0004 - Control key
X.EO
X.BO
X   0x0008 - ALT key
X.EO
X.sp 1
XIf a bit is one, the key was depressed when the event was
Xgenerated. Otherwise, the key was up. Since the state of these
Xkeys is already taken into account in generating the &char scan
Xcode, the &kbd word is most useful when creating enhanced mouse
Xfunctions, such as shift-click or control-drag.
X.SH RANDOM NOTES ON EVENTS.
XAlthough the &mx, &my, &btn, and
X&kbd returns are nominally associated with particular event types,
Xthey are valid on any return from evnt_multi, and reflect the last
Xevent which was merged into that return by the AES. If you want
Xmore current values, you may use graf_mkstate to resample them.
XWhichever method you choose, be consistent within the application,
Xsince the point of sampling has an effect on mouse and keyboard
Xtiming.
X.PP
XAlthough this and preceding columns have been presented in
Xterms of a GEM application, the event system has many interesting
Ximplications for desk accessories. Since the AES scheduler uses
Xnon-preemptive dispatching, accessories have an event priority
Xeffectively equal to the main application. Though "typical"
Xaccessories wait only for AC_OPEN or AC_CLOSE messages when in
Xtheir quiescent state, this is not a requirement of the system.
XTimer and other events may also be requested by an accessory.
X(Indeed, there is no absolute requirement that an accessory
Xadvertise its presence with a menu_register call.) The aspiring
XGEM hacker might consider how these facts could be used to create
Xaccessories similar to "BUGS" on the Mac, or to the "Crabs"
Xprogram described in the September, 1985 issue of Scientific
XAmerican.
X.SH EVENTS AND GEM PROGRAM STRUCTURE.
XAlthough the evnt_multi
Xcall might seem to be a small part of the entire GEM system, its
Xusage has deep implications for the structure of any application.
XIt is generally true that each use of evnt_multi corresponds to a
Xmode in the program. For instance, form_do contains its own
Xevnt_multi, and its invocation creates a moded dialog. While the
Xdialog is in progress, other features such as windows and menus
Xare unusable. The graf_dragbox, graf_rubberbox, and graf_slidebox
Xroutines also contain evnt_multi calls. They create a mode which
Xis sometimes called "spring-loaded", since the mode vanishes when
Xsome continuing condition (a depressed mouse button) is removed.
X.PP
XIn consequence, a well-designed, non-modal GEM program will
Xcontain only one explicit evnt_multi call. This call is part of a
Xtop-level loop which decodes events as they are received and
Xdispatches control to the appropriate handling routine. The
Xdispatcher must always distinguish between event types. In

```
Xprograms  where  multiple windows are used,  it may also  need  to
Xdetermine which local data structure is associated with the active
Xwindow.
X.PP
XThis  construction  is  sometimes  called  a  "push"  program
Xstructure,  because  it  allows the user to drive the  application
Xby generating events in any order.  This contrasts with the "pull"
Xstructure of traditional command line or menu programs,  where the
Xapplication is in control and demands input at each step before it
Xproceeds.    "Push"  structure  promotes  consistent  use  of  the
Xuser interface and a feeling of control on the part of the user.
X.PP
XThe  next ST PRO GEM column will look more closely at  events
Xand  program  structure in the context of a large piece  of  code.
XThe  code  implements an alternate dialog  handler,  incorporating
Xmouse-sensitive objects as part of the standard interface.   Since
Xthis  code  is  "open",  it may be modified and  merged  with  any
Xapplication's main event loop, resulting in non-modal dialogs.
X.!
X.!
X.!*************************************************************************
X.!*                                          *
X.!*              End Part 1                       *
X.!*                                          *
X.!*************************************************************************
SHAR_EOF
if test 18067 -ne "`wc -c 'wind12.prf'`"
then
     echo shar: error transmitting "'wind12.prf'" '(should have been 18067
characters)'
fi
echo shar: extracting "'apndx9.prf'" '(4655 characters)'
if test -f 'apndx9.prf'
then
     echo shar: over-writing existing file "'apndx9.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx9.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
```

```
X.!           Begin Appendix 9
X.!
X.!*************************************************************************
X.!
X.!
X.AP IX Sample Code for Part XI
X/* >>>>>>>>>>>>>> Sample code for initializing User Objects <<<<<<<<<<<<<<< */
X
XGLOBAL  USERBLK extobjs[MAX_OBJS];  /* APPLBLK defined in OBDEFS.H
     */
XGLOBAL  WORD n_extobjs;         /* Set MAX_OBJS to total user   */
X                       /* objects in resource      */
X
XVOID
Xobj_init()                 /* Scan whole resource for user   */
X{                      /* objects.  Uses map_tree()      */
X    LONG tree, obspec;      /* from GEMCL5.C          */
X    WORD itree, i, obj;
X
X    n_extobjs = 0;              /* Replace TREE0 with your first  */
X    /* tree, TREEN with the last      */
X    for (itree = TREE0; itree <= TREEN; itree++)
X    {
X         rsrc_gaddr(R_TREE, itree, &tree);
X         map_tree(tree, ROOT, NIL, fix_obj);
X    }
X}
X
XWORD
Xfix_obj(tree, obj)              /* Code to check and fix up
     */
XLONG    tree;              /* a user defined object    */
XWORD    obj;
X{
X    WORD hibyte;
X
X    hibyte = LWGET(OB_TYPE(obj)) & 0xff00;         /* check extended */
X    if (!hibyte)                    /* type - if none */
X        return (TRUE);              /* ignore object  */
X    extobjs[n_extobjs].ub_code = dr_code;     /* set drawcode   */
X    extobjs[n_extobjs].ub_parm = LLGET(OB_SPEC(obj)); /* copy obspec  */
X    LLSET(OB_SPEC(obj), ADDR(&extobjs[n_extobjs]));   /* point obspec */
X    LWSET(OB_TYPE(obj), G_USERDEF | hibyte);  /* to userblk &   */
X    n_extobjs++;                    /* patch type     */
X    return (TRUE);
X}
X.bp
X/* >>>>>>>>>>>>>>>>>>>> Sample User Object Drawing Code <<<<<<<<<<<<<<<<<<< */
X/* >>>>>>>>>>>>>>>>>>>> Implements Rounded Box based    <<<<<<<<<<<<<<<<<<< */
X/* >>>>>>>>>>>>>>>>>>>> on G_BOX type                <<<<<<<<<<<<<<<<<<< */
X
XWORD
Xdr_code(pb)                /* Sample user object drawing   */
```

```
XPARMBLK *pb;               /* code.  Caution: NOT portable */
X{                      /* to Intel small data models   */
X    LONG tree, obspec;
X    WORD slct, flip, type, ext_type, flags;
X    WORD pxy[4];
X    WORD bgc, interior, style, bdc, width, chc;
X
X    tree = pb->pb_tree;
X    obspec = LLGET(pb->pb_parm);     /* original obspec from USERBLK  */
X    ext_type = LHIBT(LWGET(OB_TYPE(pb->pb_obj)));
X    slct = SELECTED & pb->pb_currstate;
X    flip = SELECTED & (pb->pb_currstate ^ pb->pb_prevstate);
X    set_clip(TRUE, &pb->pb_xc); /* These two routines in GEMCL9.C */
X    grect_to_array(&pb->pb_x, pxy);
X
X    switch (ext_type) {
X        case 1:             /* Rounded box       */
X         /* Crack color word  */
X         get_colrwd(obspec, &bgc, &style, &interior,
X                &bdc, &width, &chc);
X         /* For select effect, use char color */
X         if (slct) /* In place of background        */
X             bgc = chc;
X         /* Fill in background            */
X         rr_fill(MD_REPLACE, (width? 0: 1), bgc, interior,
X              style, pxy);
X         /* Do perimeter if needed        */
X         /* rr_perim is in GEMCL9.C       */
X         if (width && !flip)
X         {
X              pxy[0] -= width; pxy[2] += width;
X              rr_perim(MD_REPLACE, bdc, FIS_SOLID, width, pxy);
X         }
X         break;
X        default:       /* Add more types here          */
X         break;
X    }
X    return (0);
X}
X
XVOID                   /* Cracks the obspec color word    */
Xget_colrwd(obspec, bgc, style, interior, bdc, width, chc)
XLONG    obspec;
XWORD    *bgc, *style, *interior, *bdc, *width, *chc, *chmode;
X{
X    WORD colorwd;
X
X    colorwd = LLOWD(obspec);
X    *bgc = colorwd & 0xf;
X    *style = (colorwd & 0x70) >> 4;
X    if ( !(*style) )
X        *interior = 0;
X    else if (*style == 7)
```

```
X       *interior = 1;
X    else if (colorwd & 0x80)    /* HACK: Uses character writing mode */
X       *interior = 3;     /* bit to select alternate interior  */
X    else               /* styles!                  */
X       *interior = 2;
X    *bdc = (colorwd & 0xf000) >> 12;
X
X    *width = LHIWD(obspec) & 0xff;
X    if (*width > 127)
X       *width = 256 - *width;
X
X    if (*width && !(*width & 0x1))       /* VDI only renders odd */
X       (*width)--;                 /* widths!         */
X
X    *chc = (colorwd & 0x0f00) >> 8;      /* used for select effect */
X}
X
XVOID                   /* Fill a rounded rectangle */
Xrr_fill(mode, perim, color, interior, style, pxy)
XWORD    mode, perim, color, style, interior, *pxy;
X{
X    vswr_mode(vdi_handle, mode);
X    vsf_color(vdi_handle, color);
X    vsf_style(vdi_handle, style);
X    vsf_interior(vdi_handle, interior);
X    vsf_perimeter(vdi_handle, perim);
X    v_rfbox(vdi_handle, pxy);
X}
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 9
X.!
X.!*****************************************************************************
SHAR_EOF
if test 4655 -ne "`wc -c 'apndx9.prf'`"
then
     echo shar: error transmitting "'apndx9.prf'" '(should have been 4655
characters)'
fi
#    End of shell archive
exit 0
--
                       Jwahar R. Bammi
                   Usenet:  .....!decvax!cwruecmp!bammi
                    CSnet:  bammi@case
                  Arpa:  bammi%case@csnet-relay
               CompuServe:  71515,155


From 7783320383321546032
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,5cd558b514c68dbe,start
```

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 08:15:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Dtate)
Message-ID: <8605040959.AA05920@ucbvax.berkeley.edu>
Date: Sat, 3-May-86 11:15:11 EDT
Article-I.D.: ucbvax.8605040959.AA05920
Posted: Sat May 3 11:15:11 1986
Date-Received: Tue, 6-May-86 05:12:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 0

From 2666091763186853337
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,b4a2b273c3ff35c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 08:17:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: RE: Ramdisks
Message-ID: <8605041004.AA06018@ucbvax.berkeley.edu>
Date: Sat, 3-May-86 11:17:22 EDT
Article-I.D.: ucbvax.8605041004.AA06018
Posted: Sat May 3 11:17:22 1986
Date-Received: Tue, 6-May-86 05:12:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 0

From 6517499194458737216
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb48be4bd2cb5a77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 08:32:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16

Subject: ATARI (ST) BBSs in Central Ohio?
Message-ID: <8605031532.AA01256@ohio-state.ARPA>
Date: Sat, 3-May-86 11:32:46 EDT
Article-I.D.: ohio-sta.8605031532.AA01256
Posted: Sat May 3 11:32:46 1986
Date-Received: Tue, 6-May-86 05:11:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Are there any? It would be nice to be able to download some pd software
without having to call California.

Eric Bergman-Terrell (CSNET Address terrell@ohio-state)

From 4689385191270615884
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b4a2b273c3ff35c4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 08:41:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!
UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET.UUCP
Newsgroups: net.micro.atari16
Subject: Ramdisks
Message-ID: <8605041059.AA06928@ucbvax.berkeley.edu>
Date: Sat, 3-May-86 11:41:55 EDT
Article-I.D.: ucbvax.8605041059.AA06928
Posted: Sat May 3 11:41:55 1986
Date-Received: Tue, 6-May-86 04:57:36 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 55

> Whatever you do, do not buy a ramdisk, unless you are rich... There are
> a few ramdisks available through the public domain which are very good.
>   Here are some, and their features:
> Mike's ramdisk(my own): works with ROM TOS and is reallocatable to the
> extent of the GEMDOS bugs. Uses drive D, and will allow you to change
> resolutions if you do not load in any other desk accessories when you
> change the resolution (including itself). This is version 0.95
> Intersect Ramdisk: From Florida, allows the use of drive c, d, e, but not
> at the same time. Shows free memory (which doesn't work right all the
> time), and allows you to reallocate without losing bytes (per
> GEMDOS bug). I have found this to be nice, but I have had troubles
> with it. Also a desk accesory.
> Various ramdisks labeled RMDK709, RMDK300...: These install themselves as
> Desk accesories, and are there all the time, ie. you boot with it

and it is present. Not deselectable, but they are small programs.
Mike's and Intersect allow you to allocate a ramdisk of any size up to
the extent of your memory. Mine is about 8K, Intersect is 12K with a
2K resource file that must be used with it.

Non-public domain ramdisks include (the first) MDisk (by michtron)
program once and it sets up a ramdisk. You can run it as many tim
run the program once for drive C, twice to add drive D, etc. Use very little
ram space since it does a terminate and stay resident call to protect the
read/write vectors. You can not change the resolution at all.
Duto folder... ok...
When you use copy2.prg, which transfers file to a ramdisk, you can have files
Dmatically into the ramdisk when you boot up, and after you allocate
the ramdisk.
A-ram (from Antic): another from the desk accesories... from what I heard it
is alright...
Solar-Ram: who knows... supposedly the entire solar-pak with all its utilities
is pretty nice (that's what I heard)
So many others, it's not worth commenting on. Depending on what you want to do
you can best decide for yourself what the best ramdisk is for you.

My next version will put the icon onto the desktop for you, assuming I have
found the way to do it (I can do it from SID)...

On another note, are there any execs for the AS/9000N out there that can make
receiving all these reader files easier. They contain so much junk in the
header that it is a pain to receive and edit them. We use
VM/SP 2.1, but will be switching to VM/SP 4.0 very soon, now.

Also, is there a way to transfer files (binary or otherwise) via BITNET?
I would be willing to send my latest version, as binary.
And, where do I get the articles listed in some of the letters, and what
file servers at where have related info? (as you can tell, I'm a nubie...)
Sorry if you got my previous message and it was junked, I am using a primitive
exec for sending mail via BITNET, and it can only be used in the line mode, and
I input all of the text as the 'Subject' (oh boy...).
From Houston,
Michael Vederman

acs19@uhupvm1

From 4682146791921128254
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,158f2b7486c8c063
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 09:16:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!utai!garfield!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: Re: AUTO Folder and System Initialization (setting date)

Message-ID: <1957@dalcs.UUCP>
Date: Sat, 3-May-86 12:16:04 EDT
Article-I.D.: dalcs.1957
Posted: Sat May 3 12:16:04 1986
Date-Received: Sun, 4-May-86 02:43:16 EDT
References: <8604300420.AA12861@ohio-state.ARPA>
Reply-To: silvert@dalcs.UUCP (Bill Silvert)
Organization: Marine Ecology Lab.
Lines: 7
Keywords: date
Summary: Setting the date takes time to become effective.

There have been several complaints that programs that set the time and
date do not work. I hve written some that do, but it takes time for
them to become effective. If you use setdate() and then mouse the
control panel the date and time are not changed, but after about a
minute they jump to their correct values. I have my date program in an
AUTO folder and it works fine. By the way, AUTO is read before the
desktop, so if you have a colour monitor the program will run in low res.

From -5274949635715383679
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-03 17:36:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!ucsfcgl!
ucsfcca!root
From: root@ucsfcca.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <500@ucsfcca.UUCP>
Date: Sat, 3-May-86 20:36:10 EDT
Article-I.D.: ucsfcca.500
Posted: Sat May 3 20:36:10 1986
Date-Received: Tue, 6-May-86 04:58:54 EDT
Organization: UCSF Computer Center
Lines: 21

> In article <186@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
> >> hold, HOW FAST ARE THEY, and where can I get one?
> > >
> > >Price: $799 list.
> > >Capacity: 20 megabytes
> > >Speed (transfer rate): 7.5 megabits/second
> > >
> > >--->Neil @ Atari
> >
> > What is the "Speed (average seek time)"?
> >
> > Thanks,
> > Jan Gray

Avila Associates just got an Atari hard disk so if you have a benchmark
program that you feel appropriate to answer that question please mail
it to me and I will try to get an answer.

If it has to wait for us to write a test it may take a while.

Thos Sumner   (...ucbvax!ucsfcgl!ucsfcca.UCSF!thos)

From -8365236868969375823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,24fc7ea46c9ba1c8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-04 09:05:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!cbosgd!rlp
From: rlp@cbosgd.UUCP (J. Knapp)
Newsgroups: net.micro.atari16
Subject: Re: Yet Another Fractal Program
Message-ID: <2078@cbosgd.UUCP>
Date: Sun, 4-May-86 12:05:43 EDT
Article-I.D.: cbosgd.2078
Posted: Sun May 4 12:05:43 1986
Date-Received: Wed, 7-May-86 01:35:49 EDT
References: <2077@cbosgd.UUCP>
Reply-To: rlp@cbosgd.UUCP (J. Knapp)
Followup-To: net.micro.atari16
Distribution: net
Organization: AT&T Bell Laboratories, Columbus
Lines: 637
Keywords: (but not the Mandelbrot set)

Here is the source code for the uuencoded file 'levy.ttp' posted previously:
```
------------------------------------------------------------------------
/*
 * levy.ttp:  Brownian Relief Fractal Generation Program for the Atari 520ST
 *
 * This program is distributed in the public domain with no restrictions on
 * its use.
 *
 * The algorithm implemented herein is described in B. B. Mandelbrot "Fractals:
 * Form, Chance, and Dimension" (Freeman 1977) p. 207. It was first defined
 * by P. Levy "Processus Stochastiques et Mouvement Brownien" (Paris:
 * Gauthier-Villars 1948).
 *
 * program author: J. M. Knapp  AT&T Bell Labs   Columbus OH  (cbosgd!nscs!jmk)
 *
 * Background (from Mandelbrot):
 *
 * [The Brownian model of the landscape] finally provides us with our
 * long-sought example of a curve that (a) is devoid of self intersections,
```

```
 * (b) is practically devoid of self contacts, (c) has fractal dimension
 * clearly greater than 1, and (d) is isotropic.
 *
 * More precisely, the dimension of these coastlines is 3/2, which is of
 * course much higher than most of Richardson's values [e.g. 1.26 for the
 * coast of Britain]. The Brownian artificial coastline is therefore
 * limited in its applicability. It recalls northern Canada, Indonesian
 * Islands, perhaps western Scotland, and the Aegean. It is applicable to
 * other examples as well, but certainly not to all.
 *
 * It is a pity, because a relief of dimension D=5/2 and coastlines of
 * dimension 3/2 would have been easy to explain. Indeed, the Brown-Levy
 * function is an excellent approximation of the relief that would have
 * been created by superimposing independent rectilinear faults.  The
 * generative model proceeds simply as follows. Starting with a horizontal
 * plateau, break it along a straight line chosen at random to introduce
 * a kind of cliff, a random difference between the levels of the two
 * sides of the break. Then start all over again, ad infinitum. The
 * process merely generalizes the Poisson process. With no need for
 * mathematical or physical details, we can see that the argument seizes
 * at least one aspect of tectonic evolution...
 *
 * From B.B. Mandelbrot "Fractals: Form, Chance, and Dimension"
 *
 */

#include <stdio.h>
#include <math.h>
#include <fcntl.h>

/* PUT YOUR ST HEADER FILES HERE */
/* the following are Lattice C header files */
#include <gemlib.h>
#include <osbind.h>

#define TRUE  1
#define FALSE 0

#define NX     320           /* max number of horizontal pixels */
#define NY     200           /* max number of vertical pixels */
#define NCOLOR  15           /* number of colors excluding background */
#define GRMODE   0           /* graphics mode 0 (320x200) */
#define SAVEFILE "levy.pi1"  /* DEGAS default save-file */
#define FSIZE  32034         /* size of DEGAS save-file */

#define SEED   2211955       /* default pseudorandom seed */

/* help */
#define US0 "TTP parameter usage:\n\n"
#define US1 "number of iterations:\n"
#define US1a "   -n<N> must always be specified\n\n"
#define US2 "optionally [default values in ()]:\n"
#define US3 "-s<int> sets random seed (2211955)\n"
```

```
#define US4 "-x<1-320> # of horizontal pixels (320)\n"
#define US5 "-y<1-200> # of vertical pixels (200)\n"
#define US6 "-u<N> update screen every N iterations\n"
#define US7 "      (default: only update when done)\n"
#define US8 "-f<filename> save-file name (levy.pi1)\n"
#define US9 "-d<file> display previously-stored file\n"
#define US9a "-i to generate island-dominated relief\n\n"
#define US10 "examples:\n"
#define US11 "   -n10000 -i\n"
#define US12 "   -n100 -s9349490390 -fcoast.pi1\n"
#define US13 "   -dcoast.pi1\n\n"
#define US14 "press any key to abort run in progress\n\n"

/* VDI globals */
short contrl[12],
      intin[128],
      intout[128],
      ptsin[128],
      ptsout[128] ;

short oldpalette[16] ;   /* storage for old palette */

/*************/
main(argc,argv)
int argc ;
char *argv[] ;
{

   short *relief ;   /* pointer to 'relief' data structure */
   long ncyc ;       /* number of iterations of generation process */
   long iseed ;      /* pseudorandom seed */
   int xl, yl ;      /* extent of each axis of screen region */
   short handle ;    /* VDI screen handle */
   short update ;    /* screen update every 'update' iterations */
   char fname[80] ;  /* save-file */
   short loadf ;     /* load flag: if true then load & display pic */
   short island ;    /* if true --> generate island-dominated relief */

   /* VDI palette (increasing altitude) */
   static short palette[NCOLOR+1] = { 0x000, 0x003, 0x004, 0x005,
                                      0x660, 0x550, 0x440, 0x340,
                                      0x040, 0x050, 0x432, 0x543,
                                      0x653, 0x444, 0x555, 0x777 } ;

   short xpalette[NCOLOR+1] ;  /* palette xlated to VDI ordering */

   short cginit(), cgopen() ;

   /* begin */
   conflush() ;   /* clear console input buffer */

   /* process argv[] options */
   options(argc,argv,&xl,&yl,&ncyc,&iseed,&update,fname,&loadf,&island) ;
```

```
   if (loadf)  /* load and display DEGAS file */
   {
      handle = cginit(palette,xpalette) ;   /* open screen */
      if (readfrac(fname,palette) < 0)      /* send file data to physbase */
      {
         gemdos(0x1) ;                      /* PAKTC */
         cgclose(handle) ;                  /* file read error */
         exit(1) ;
      }
      Setpallette(palette) ;                /* set new palette */
      gemdos(0x1) ;                         /* PAKTC */
      cgclose(handle) ;                     /* done, restore screen */
      exit(0) ;
   }

   /* generate new relief */

   srand48(iseed) ;  /* randomize */

   /* allocate 'relief' data structure */
   if((relief = (short *)malloc(sizeof(short)*xl*yl)) == 0)
   {
      fprintf(stderr,"Not enough memory\n") ;
      gemdos(0x1) ;  /* PAKTC */
      exit(1) ;
   }

   level(relief,xl,yl) ;  /* initialize to level 'plain' */

   handle = cginit(palette,xpalette) ;  /* initialize graphics device */

   if (cycle(handle,relief,xl,yl,ncyc,update,island))  /* generate relief */
   {
      plotrel(handle,relief,xl,yl,island) ;            /* plot relief */
      gemdos(0x1) ;
   }

   if (writefrac(fname,xpalette) < 0)  /* save screen to DEGAS file */
   {
      gemdos(0x1) ;
      cgclose(handle) ;    /* file write error, clean up & quit */
      exit(1) ;
   }
   cgclose(handle) ;                   /* close graphics device */

   exit(0) ;     /* done */
}

/* fractal generation routine */
int cycle(handle,relief,xl,yl,ncyc,update,island)
short handle ;
short *relief ;
```

```
int xl, yl ;
long ncyc ;
short update ;
short island ;
{
   int icyc ;  /* cycle counter */

   printf("working...\n") ;
   for (icyc = 0 ; icyc < ncyc ; icyc++)
   {
      if (drand48() < .5)            /* either inc or dec half-plane */
         inc_hplane(relief,xl,yl) ;
      else
         dec_hplane(relief,xl,yl) ;

      if (update && icyc && !(icyc % update))
         plotrel(handle,relief,xl,yl,island) ;  /* update screen */

      if (Bconstat(2))
      {
         conflush() ;  /* a key was pressed, flush and abort */
         return(FALSE) ;
      }
   }
   return(TRUE) ;
}

/* increment half-plane */
inc_hplane(relief,xl,yl)
short *relief ;
int xl, yl ;
{
   register short *endcolp, *ap ;  /* end-of-column pointer, array pointer */
   register short iy, ryl ;        /* row index, reg yl holder */
   int m, b ;                      /* slope & intercept of random line */

   ryl = yl ;             /* put yl in register */
   rndmb(xl,yl,&m,&b) ;   /* get random line parameters m & b */

   ap = relief + yl * (xl - 1) ;  /* point to beginning of last column */
   endcolp = ap + yl ;            /* point to end of last column */

   /* increment all elements below  random line */
   while (xl--)  /* for all columns */
   {
      iy = ((m * xl) >> 8) + b ;  /* starting y-value to increment */
      if(iy < 0) iy = 0 ;         /* can't start before 0th element! */
      if (iy < yl)                /* no action if past last element in col */
      {
         ap += iy ;                  /* point to 1st value to inc */
         while(ap < endcolp)         /* increment rest of column */
            (*(ap++))++ ;
         endcolp -= ryl ;            /* point to end of previous column */
```

```
         ap -= (ryl << 1) ;          /* point to beginning of previous column */
      }
      else
      {
         ap -= ryl ;          /* point to end of previous column */
         endcolp -= ryl ;     /* point to beginning of previous column */
      }
   }
}

/* decrement half-plane */
dec_hplane(relief,xl,yl)
short *relief ;
int xl, yl ;
{
   register short *endcolp, *ap ;  /* end-of-column pointer, array pointer */
   register short iy, ryl ;        /* row index, reg yl holder */
   int m, b ;                      /* slope & intercept of random line */

   ryl = yl ;             /* put yl in register */
   rndmb(xl,yl,&m,&b) ;   /* get random line parameters m & b */

   ap = relief + yl * (xl - 1) ;  /* point to beginning of last column */
   endcolp = ap + yl ;            /* point to end of last column */

   /* decrement all elements to right of random line */
   while (xl--)  /* for all columns */
   {
      iy = ((m * xl) >> 8) + b ;  /* starting y-value to decrement */
      if(iy < 0) iy = 0 ;         /* can't start before 0th element! */
      if (iy < yl)                /* no action if past last element in col */
      {
         ap += iy ;                  /* point to 1st value to dec */
         while(ap < endcolp)         /* decrement rest of column */
            (*(ap++))-- ;
         endcolp -= ryl ;            /* point to end of previous column */
         ap -= (ryl << 1) ;          /* point to beginning of previous column */
      }
      else
      {
         ap -= ryl ;          /* point to end of previous column */
         endcolp -= ryl ;     /* point to beginning of previous column */
      }
   }
}

/* set all elements to 0 (level plane) */
level(relief,xl,yl)
short *relief ;
int xl, yl ;
{
   register short *ap, *endp ;   /* array pointer, end pointer */
```

```
   ap = relief ;
   endp = relief + xl*yl ;
   while (ap < endp)
      *(ap++) = 0 ;
}

/* return slope (m) and intercept (b) of random line through plane */
/* (slope is scaled by 256) */
rndmb(xl,yl,m,b)
int xl, yl ;
int *m, *b ;
{
   float dx, dy ;  /* delta-x, delta-y */
   int x0, y0 ;  /* random point on plane */
   double drand48() ;

   dx = 0 ; dy = 0 ;
   while((dx = 2.0*drand48() - 1.0) == 0) ; /* prevent division by 0 */
   dy = drand48() ;
   x0 = xl*drand48() ;
   y0 = yl*drand48() ;       /* (x0,y0) random point */

   *m = (256.0*dy)/dx ;
   *b =  y0 - (*m*x0)/256 ;     /* calculate y-intercept */
}

/* initialize screen device */
short cginit(palette,xpalette)
short *palette, *xpalette ;
{
   /* translation from color index to palette index  PI = ctrans[CI] */
   static short ctrans[NCOLOR+1] =
      { 0, 2, 3, 6, 4, 7, 5, 8, 9, 10, 11, 14, 12, 15, 13, 1 } ;
   short colind ;     /* color index */
   short handle ;     /* screen handle */
   short cgopen() ;

   handle = cgopen() ;

   /* save old palette */
   for (colind = 0 ; colind < NCOLOR+1 ; colind++)
      oldpalette[colind] = Setcolor(colind,-1) ;

   /* initialize color look-up table */
   for (colind = 0 ; colind < NCOLOR+1 ; colind++)
      xpalette[colind] = palette[ctrans[colind]] ;
   Setpallette(xpalette) ;

   return(handle) ;
}

/* plot relief */
plotrel(handle,relief,xl,yl,island)
```

```
short handle ;
short *relief ;
int xl, yl ;
short island ;
{
   int iy, ix, icol ;   /* row index, column index, color index */
   short minval, maxval ;  /* min, max altitude */
   register short *ap ;    /* array pointer */

   /* extents of color regions (increasing altitude): */

   /* continental relief */
   static float cext_con[NCOLOR+1] = { 0, .15, .25, .35,
                                       .40, .45, .50,
                                       .55, .65, .70,
                                       .75, .80, .85,
                                       .90, .95, 1.00 } ;

   /* island relief */
   static float cext_ile[NCOLOR+1] = { 0, .30, .55,  .65,
                                       .68, .71,  .74,
                                       .77, .85,  .88,
                                       .91, .93,  .95,
                                       .97, .99, 1.00 } ;

   float *cext ;

   /* integer (absolute altitude) extents of color regions */
   short icext[NCOLOR+1] ;

   /* set extents pointer */
   if (island)
      cext = cext_ile ;
   else
      cext = cext_con ;

   minmax(relief,xl,yl,&maxval,&minval) ;  /* find max and min altitude */

   /* calculate integer extents */
   for (icol = 0 ; icol < NCOLOR+1 ; icol++)
      icext[icol] = minval + cext[icol] * (maxval - minval) ;

   icext[NCOLOR]++ ;  /* tricky: bump last value by one */

   ap = relief ;  /* point to beginning */
   for (ix= 0 ; ix < xl ; ix++)  /* for all columns */
   {
      register short colm[NY] ;  /* color indices for screen column */
      for (iy = 0 ; iy < yl ; iy++)   /* for all rows */
      {
         register short *cp, colind ;  /* color pointer, color index */
         cp = icext ;                  /* point to color region 0 */
         colind = 0 ;
```

```
         while(*ap >= *(cp++)) colind++ ;
         colm[iy] = colind ;
         ap++ ;
      }
      column(handle,colm,ix,yl) ;  /* plot column */
   }
}

/* find maximum & minimum values of altitude */
minmax(relief,xl,yl,maxval,minval)
short *relief ;
int xl, yl ;
short *maxval, *minval ;
{
   register short *ap, *endp ;   /* array pointer, end pointer */

   *maxval = *relief ; *minval = *relief ;
   ap = relief ;
   endp = ap + xl*yl ;
   while (ap < endp)
   {
      if (*ap > *maxval) *maxval = *ap ;
      if (*ap < *minval) *minval = *ap ;
      ap++ ;
   }
}

/* flush any characters in console input buffer */
conflush()
{
   char ch ;
   while(Bconstat(2))
      ch = Bconin(2) ;
}

/* process argv options */
options(argc,argv,xl,yl,ncyc,iseed,update,fname,loadf,island)
int argc ;
char *argv[] ;
int *xl, *yl ;
long *ncyc ;
long *iseed ;
short *update ;
char *fname ;
short *loadf ;
short *island ;
{
   int help ;
   int optind ;

   /* set defaults */
   help = FALSE ;
   *iseed = SEED ;
```

```
*ncyc = 0 ;
*xl = NX ;
*yl = NY ;
*update = 0 ;
sprintf(fname,"%s",SAVEFILE) ;
*loadf = FALSE ;
*island = FALSE ;

optind = 1 ;
while ((optind < argc) && (*argv[optind] == '-'))
{
   switch(*(argv[optind]+1))
   {
      case 's':
      case 'S':
        *iseed = atol(argv[optind]+2);
        break;

      case 'n':
      case 'N':
        *ncyc = atol(argv[optind]+2);
        break;

      case 'u':
      case 'U':
         *update = atoi(argv[optind]+2) ;
         break ;

      case 'f':
      case 'F':
         sprintf(fname,"%s",argv[optind]+2) ;
         break ;

      case 'd':
      case 'D':
         sprintf(fname,"%s",argv[optind]+2) ;
         *loadf = TRUE ;
         break ;

      case 'y':
      case 'Y':
        *yl = atoi(argv[optind]+2) ;
        break ;

      case 'x':
      case 'X':
        *xl = atoi(argv[optind]+2) ;
        break ;

      case 'i':
      case 'I':
         *island = TRUE ;
         break ;
```

```
         default:
           help = TRUE ;
           break ;
      }
      optind += 1 ;
   }

   if((optind != argc) || (argc == 1 )) help = TRUE ;

   if( help )
   {
      fprintf(stderr,"%s", US0);
      fprintf(stderr,"%s", US1);
      fprintf(stderr,"%s", US1a) ;
      fprintf(stderr,"%s", US2);
      fprintf(stderr,"%s", US3);
      fprintf(stderr,"%s", US4);
      fprintf(stderr,"%s", US5);
      fprintf(stderr,"%s", US6);
      fprintf(stderr,"%s", US7);
      fprintf(stderr,"%s", US8);
      fprintf(stderr,"%s", US9);
      fprintf(stderr,"%s", US9a) ;
      fprintf(stderr,"%s", US10);
      fprintf(stderr,"%s", US11);
      fprintf(stderr,"%s", US12);
      fprintf(stderr,"%s", US13);
      fprintf(stderr,"%s", US14) ;
      fprintf(stderr,"press any key to continue") ;
      gemdos(0x1) ;
      exit(1);
   }
}

/* close graphics screen and enable cursors */
cgclose(handle)
short handle ;
{
   v_show_c(handle) ;
   Cursconf(1,0) ;
   Setpallette(oldpalette) ;
   v_clsvwk(handle) ;
   appl_exit() ;
}

/* open graphics screen and disable cursors */
short cgopen()
{
   short handle ;
   short work_in[12],
         work_out[57] ;
   int iwk, set_type ;
```

```
   appl_init() ;

   for (iwk = 0 ; iwk < 10 ; work_in[iwk++] = 1) ;
   work_in[10] = 2 ; /* raster coordinates */

   v_opnvwk(work_in,&handle,work_out) ;
   v_hide_c(handle) ;  /* bye mouse */
   Cursconf(0,0) ;     /* bye cursor */
   v_clrwk(handle) ;   /* clear screen */
   set_type = vsm_type(handle,1) ;  /* marker type = point */
   return(handle) ;
}

/* plot column on graphics screen */
column(handle,colm,ix,npoints)
short handle ;
register short *colm ;
int ix ;
int npoints ;
{
   register short pxy[2] ;

   *pxy = ix ;
   *(pxy+1) = npoints ;
   while((*(pxy+1))--)
   {
      vsm_color(handle,colm[*(pxy+1)]) ;
      v_pmarker(handle,1,pxy) ;
   }
}

/* save screen data to disk in DEGAS format */
int writefrac(fname,palette)
char *fname ;
short *palette ;
{
   char *scrnp ;
   int fd, n ;
   short gmode[1] ;

   scrnp = (char *)Physbase() ;  /* get pointer to display frame */
   *gmode = GRMODE ;

   if ((fd = open(fname, O_RAW | O_CREAT | O_WRONLY)) < 0) {
      fprintf(stderr,"open of '%s' failed\n",fname) ;
      return(-1) ;
      }

   n = write(fd, gmode, 2) ;      /* write graphics mode */
   n += write(fd, palette, 32) ;  /* write palette */
   if ((n += write(fd, scrnp, 32000)) != FSIZE)  /* write screen */
   {
```

```
      fprintf(stderr,"file write error: only %d bytes written\n",n) ;
      close(fd) ;
      return(-1) ;
   }
   close(fd) ;
   return(0) ;
}

/* read file (DEGAS format) */
int readfrac(fname,palette)
char *fname ;
short *palette ;
{
   int fd, n ;
   short gmode[1] ;
   char *scrnp ;

   if ((fd = open(fname, O_RAW | O_RDONLY)) < 0) {
      fprintf(stderr,"open of '%s' failed\n",fname) ;
      return(-1) ;
      }

   scrnp = (char *)Physbase() ;
   n = read(fd, gmode, 2) ;      /* read graphics mode */
   n += read(fd, palette, 32) ;  /* read palette */
   if ((n += read(fd, scrnp, 32000)) != FSIZE)  /* read screen */
   {
      fprintf(stderr,"file write error: only %d bytes read\n",n) ;
      close(fd) ;
      return(-1) ;
   }
   close(fd) ;
   return(0) ;
}
```

```
From 5359733919424082728
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb48be4bd2cb5a77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-04 14:24:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!AFIT-AB.ARPA!rswem
From: rswem@AFIT-AB.ARPA (Robert E. Swem)
Newsgroups: net.micro.atari16
Subject: Re:  ATARI (ST) BBSs in Central Ohio?
Message-ID: <8605042159.AA16471@ucbvax.berkeley.edu>
Date: Sun, 4-May-86 17:24:20 EDT
Article-I.D.: ucbvax.8605042159.AA16471
Posted: Sun May  4 17:24:20 1986
Date-Received: Tue, 6-May-86 05:21:03 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
```

Organization: The ARPA Internet
Lines: 7

Is Dayton close enough? Try the Webbed Sphere at (513)299-3665, or there's always The Underground, (513)433-3232. Both are 300/1200 baud, 24hrs.

If there's anything in particular you are looking for I would be willing to transfer it to you. It's your dime.

Rob Swem (AKA The Vaxrat) (rswem@afit-ab.arpa)

From 3946476027378179025
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4d5283e03e815a9f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-04 18:06:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!sri-spam!nike!styx!lll-crg!seismo!cmcl2!csd2!dimitrov
From: dimitrov@csd2.UUCP (Isaac Dimitrovsky)
Newsgroups: net.micro.atari16
Subject: 520ST Beginner Questions
Message-ID: <6670001@csd2.UUCP>
Date: Sun, 4-May-86 21:06:00 EDT
Article-I.D.: csd2.6670001
Posted: Sun May 4 21:06:00 1986
Date-Received: Wed, 7-May-86 01:45:38 EDT
Organization: New York University
Lines: 29

[]
Well, I just got the 520ST and so far I'm very impressed. I've been mostly using the vt52 emulator to work on a VAX at the office, and the text display is absolutely gorgeous (I have the monochrome system) - razor sharp and steady as a rock. I don't think Atari emphasizes this enough in their ads - I'd say this is the easiest display on the eyes short of a sun. Anyway, I have a few questions -

Could someone who has a good termcap entry for the vt52 emulator built in to the ST email it to me?

Is kermit, or some package that supports the kermit file transfer protocol, available for the ST?

I'm looking for a good C compiler for the ST so I can start hacking! I'd like any comments and/or minireviews from people who are using compilers. I guess the obvious choice is to order the development system from Atari. Is there any glaring reason not to do this? Things that would prevent me from ordering it include:
It does not support the full C language.
It has serious bugs.
It has stupid limits, i.e. 52 cases per switch, 634 characters per macro, etc.

Isaac Dimitrovsky   251 Mercer Street, New York NY 10012   (212) 674-8652
allegra!cmcl2!csd2!dimitrov (l in cmcl2 is letter l not number 1)

You know the great thing about tv? If something important happens anywhere
at all in the world, no matter what time of the day or night, you can always
change the channel - Jim Ignatowski

From -4039674346069291722
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-04 19:10:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site sunybcs.UUCP
Path: utzoo!watmath!sunybcs!leo
From: leo@sunybcs.UUCP (Leo Wilson)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <3120@sunybcs.UUCP>
Date: Sun, 4-May-86 22:10:16 EDT
Article-I.D.: sunybcs.3120
Posted: Sun May 4 22:10:16 1986
Date-Received: Tue, 6-May-86 04:24:34 EDT
References: <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP> <809@mtuxn.UUCP>
<2630@mit-hermes.ARPA>
Distribution: net
Organization: SUNY/Buffalo Computer Science
Lines: 22
Summary: new ST's have rf out

In article <2630@mit-hermes.ARPA>, jpexg@mit-hermes.ARPA (John Purbrick) writes:
>
> > > The store that sold me mine said different--that the rf modulator and
> > > composite generators would arrive later and be fitted at no charge
> > > "in a couple of months".....
>
> > Sorry folks. Retrofitting a modulator is not in the cards. The dealer must
> > have been misinformed -- but not by Atari.
> > --->Neil @ Atari
>
> I do want a color output short of getting the color monitor. I have a TV set
> with a video (composite) input jack. In my previous posting I said I'd
> checked pin 2 of the monitor connector and it was dead: in fact this
> wasn't true, a scope shows an output there, but it wouldn't drive the TV.
> What exactly is this? Someone else was saying that it is indeed composite
> video; if I haven't got what the literature promises, then what do I have?

My new ST520 has a composite video out. I haven't tried it yet, but I'm sure
it must work. I got my ST wednesday, April 30. I'm sure someone will come
out with a mod for prior rev owners. Maybe Jerry Ciarcia or one of the
look-alike authors will put it out, or perhaps some concerned soul at

Atari could *unoffically* post upgrade instructions.

From -630925652650885264
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,21008c61099d180b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 05:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ncsc!moore
From: moore@ncsc (Jim Moore)
Newsgroups: net.micro.atari16
Subject: ST questions
Message-ID: <8605052144.AA00777@ucbvax.berkeley.edu>
Date: Mon, 5-May-86 08:01:00 EDT
Article-I.D.: ucbvax.8605052144.AA00777
Posted: Mon May 5 08:01:00 1986
Date-Received: Wed, 7-May-86 01:54:37 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

I spent this weekend with my brother-in-law who has a 520ST, and we came up
with some questions I hope someone can answer:

1) Are TOS-in-ROM chips available to users?

2) Does protected software cause problems with the disk drives? He has a
   DSDD drive (314??) that has serious problems copying FINAL WORD (the manual
   says to make backup copies). Occasionally he has to try two or three times
   to copy a disk that is *not* protected (eg backing up ZORK I).

3) Are there any instruction manuals for NEOCHROME available? We got a free
   copy from the local (Jax, FL) Games 'n Gadgets (I think it's v0.5), but
   no instructions.

4) Is there a Jax FL user group for 520ST's?

5) Is there a compilation of public-domain or free software for the 520ST?

Thanks for any information. Please mail directly to moore@ncsc, as I'm not
on this list (yet!)

Jim Moore
Naval Coastal Systems Center

From 7770873823328505463
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,2da55a79dc283b72,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 07:14:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!vecpyr!amd!amdcad!
decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: asm code in alycon C
Message-ID: <356@imagen.UUCP>
Date: Mon, 5-May-86 10:14:56 EDT
Article-I.D.: imagen.356
Posted: Mon May 5 10:14:56 1986
Date-Received: Thu, 8-May-86 20:30:18 EDT
Distribution: net
Organization: The Houses of the Holy
Lines: 24

~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~

a while back someone asked if you could use asm code in DRI C, the
answer is yes, but referencing variables is a pain, the only way i've
found is to declare the variables extern as in

```
extern int fred;
.
.
asm("    pea  ~fred");
```

anyone know of a better way ?????
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 6008898585661524196
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d1b41b5376982b9f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 09:40:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!brl-adm!brl-smoke!nlm-mcs!garl
From: garl@nlm-mcs.ARPA (Gary Letourneau)
Newsgroups: net.micro.atari16
~~~~~~~~~~~~~~~~~~~

Subject: coordinate systems
Message-ID: <1541@nlm-mcs.ARPA>
Date: Mon, 5-May-86 12:40:31 EDT
Article-I.D.: nlm-mcs.1541
Posted: Mon May 5 12:40:31 1986
Date-Received: Thu, 8-May-86 04:43:08 EDT
Distribution: net
Organization: NLM/LHNCBC, Bethesda, Md.
Lines: 9

If one does not want to use the default coordinate system used to plot into a window (upper left is 0,0), is there a way of changing this coordinate system. For example, I want to use a cartesian coordinate system with the center "midwindow". Any information describing how to do this would be much appreciated.

Gary Letourneau
letourneau@nlm-mcs

From 3547151313342467390
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a0c866b3e062e3cf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 10:19:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!cbmvax!daveh
From: daveh@cbmvax.cbm.UUCP (Dave Haynie)
Newsgroups: net.micro.atari16
Subject: Re: Standard OS for 68000-based PC's
Message-ID: <193@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 5-May-86 13:19:43 EDT
Article-I.D.: cbmvax.193
Posted: Mon May 5 13:19:43 1986
Date-Received: Thu, 8-May-86 06:57:34 EDT
References: <8605022009.AA03120@ucbvax.berkeley.edu>
Reply-To: daveh@cbmvax.UUCP (Dave Haynie)
Organization: Commodore Technology, West Chester, PA
Lines: 49

In article <8605022009.AA03120@ucbvax.berkeley.edu> montnaro%chenengo.tcpip@GE-CRD.ARPA writes:
>Why Apple, Atari, and Commodore didn't see this light I am not sure. Since
>they now each have their own (proprietary) operating system, it's unlikely
>that they will change.
>
>What if you could pick and choose between three pieces of hardware, one
>unifying operating system (some dialect of Unix jumps to mind), and three
>(or more!) graphic shells?
>
>Mac -----\   /----- Mac Shell
>   \   /

>Amiga ---------- Un*x ------------ Intuition Shell
>   /   \
>Atari ST-/   \----- GEM Shell
>
>It sure would be nice! Perhaps we could all start off with a decent base of
>software tools: compilers, SCCS, make, {n,t}roff, etc. Oh well, someday
>maybe someone will market a PC with that kind of foresight...

I think the main reason is twofold -- firstoff, a machine like the MAC was apparently conceived as more of a closed appliance computer, and as such didn't require a REAL operating system; it only has the MAC graphics environment to work with. As for there being no accepted standard 68000 operating system (which today seem a logical thing, especially considering there are people using MACs for development who could really benefit from a conventional CLI), that's mainly why none of the current big 3 used any one system (MAC didn't have one, and the Amiga and ST were developed concurrently. Though why the ST couldn't stick to standard CP/M-68K I don't know). Anyway, UN*X would have been nice on all machines, and as well my perference, but it wouldn't lend itself well to a basic 68000 based machine -- its too big to run completely from floppies, it like demand paged virtual memory, etc. Now if we had a minimal system with 10 Meg hard drive, 68010, and some MMU or other, then we'd be talking UN*X (or we'd be fools if we weren't).

As for these machines being locked into their current OSs, that's probably true from the point of view of machine specific support; not that you couldn't write an OS-9 graphics shell that made Intuition calls, I just don't think its likely to be commercially supported. But like the workstation market, I think that the current manufacturers might decide sooner or later to support a standard OS (if an acceptable one emerges), just like Apollo has decided to also offer UN*X in addition to its propriatary Ageis OS.
--

Dave Haynie   {caip,inhp4,allegra,seismo}!cbmvax!daveh
"There, beyond the bounds of your weak imagination
 Lie the noble towers of my city, bright and gold"
                              -Genesis

From -7625825867141782645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 11:02:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!ritcv!cci632!ccird1!rb
From: rb@ccird1.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <398@ccird1.UUCP>
Date: Mon, 5-May-86 14:02:26 EDT
Article-I.D.: ccird1.398

Posted: Mon May 5 14:02:26 1986
Date-Received: Thu, 8-May-86 06:46:15 EDT
References: <572@mordred.purdue.UUCP> <820@ihwpt.UUCP> <185@anasazi.UUCP>
Reply-To: rb@ccird1.UUCP (Rex Ballard)
Organization: CCI Rochester Development, Rochester NY
Lines: 60
Summary: Using 1 meg chips.

In article <185@anasazi.UUCP> john@anasazi.UUCP (John Moore) writes:
>In article <820@ihwpt.UUCP> knudsen@ihwpt.UUCP (mike knudsen) writes:
>>> I read an article in this newsgroup suggesting that it was cheaper by
>>> ~$200 to upgrade a 520 to 1Meg than to buy a 1040. My question is,
>>(5) If you piggyback a 1040, you can put in 32 chips
>>and go clear to 2 Meg. Don't ask whether the MMU chip
>>can handle that much. In case you missed the Byte 1040ST
>>article, the "extra" RAM chips are end-to-end with the "original"
>>ones on the board. You could add just 512K the first time.
>The RAM controller will NOT handle 2 Meg using 256K chips. To try to
>modify the system to do that looks quite hairy to me. On the other
>hand, the Byte article stated that your could upgrate the 1040
>to 4 Meg when the 1 Meg chips become affordable - just replace
>the 256K chips and add an address line. The RAM controller will
>handle that. It appears to me that you can to exactly the same
>trick with a 520 - there is room on the board, and you would
>just piggy back the same way as with the 1 Meg upgrade.

You could convert either the 520 or the 1040 to up to 4 meg using
1 meg chips or 1 meg hybrid chips (about $30 each now). IF there
were 18 pins in the RAM sockets, OR there were a header near the
MMU, OR there were an adapter to get the necessary lines out of
the MMU between the chip and the socket, OR ...

BUT, you will have to pull out ALL of the old RAM and replace with
1 meg chips. When they mentioned how trivial it would be to upgrade
the 1040 to 2 or even 4 meg, they were talking about how trivial it
would be for ATARI to create a NEW IMPROVED PRODUCT.

From the information I have been able to get, it looks like there is
practically NO DIFFERENCE between the two, except that the 1040 has
more memory and the internal drive and power supply. If having the
internal drive (and fewer cables, power supplies,...) sounds desirable,
or having the 1Meg right from the start without losing your warranty
sounds good, then get the 1040. If you want to save a few dollars, get
the 520.

There is also the question of whether you should USE the extra
memory, and how.

If you want a RAM DISK, you could put one on the DMA interface. In
fact, if Atari comes up with an SCSI interface, there are several such
"drives" ranging from 1MB to 65MB. A RAM CACHE could also be installed
externally. Putting "memory resident accessories" in ram is just
a Kludge for real multi-tasking which could be better served by

a real multi-tasking OS. A "does everything" application such as
a "1-2-3" type package is yet another kludge which could be better
served in other ways. An extra-large program that REQUIRES 1 Meg,
such as GNU emacs or some equally large monster, won't run on the
smaller machines.

It would be nice if Atari could come up with an upgrade "MMU" chip
that could realy do "memory management" such as demand paging,
relocation, and protection, or maybe use the 68070 chip with it's
built in MMU. Of course one could always make a "hot rod" computer
using any of these techniques :-). Maybe they will AT LEAST put
a SOCKET under the 68K chip so that the MMU and CPU could be upgraded
later on.

At least the ST is relatively easy to upgrade :-).

From -1200666757054425430
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,371b904901d57abb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 13:22:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: Lattice C: a mini-review
Message-ID: <133@druxu.UUCP>
Date: Mon, 5-May-86 16:22:47 EDT
Article-I.D.: druxu.133
Posted: Mon May 5 16:22:47 1986
Date-Received: Wed, 7-May-86 06:21:59 EDT
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 77
Keywords: 520ST, C language

I've had the Lattice C compiler for the 520ST (from METACOMCO for $150
U.S., list) for several weeks and have a few impressions to report.

1) though the supplied editor appears useful, it is different enough
from common editors (vi, emacs, or wordstar) that I haven't used it.

2) Lattice C does appear to follow K&R very closely, but I have found a
few things it doesn't like that other C compilers do. Fortunately, it
was easy to program around those things.

3) METACOMCO expended a lot of effort in creating a package that runs on a
"small" computer system. That is, I was able to compile all of the
PCHACK sources with 1 single sided drive on a 512K ST (TOS in ROM) with a RAM
disk sized to hold just the compiler and standard header files (because
PCHACK is so large and the compiler generates large intermediate files,
I had to place the sources on 5 disks). The compiler is broken into two
programs (passes), each around 88K in size, which communicate via a file

of intermediate code (quadruples). Combined with the separate compilation facilities of C, this makes it possible (though inconvenient) to compile some large programs.

4) the package is not integrated into a command interpreter (as is Personal Pascal or Hippo C), so you can run the compiler from the desktop or any other command interpreter you desire. It is arguable if this is a benefit or not, but I have the freedom to chose my own shell. The tradeoff is that the integrated packages make it easy to go from a syntax error to editing.

5) the supplied libraries provide enough of the UNIX(tm) Operating System feeling to be familiar (i.e. stdio.h, math.h, setjmp.h, etc.) and they allow stdin and stdout to be redirected (but no pipes).

6) the documentation will not teach the C language or how to program in a GEM environment, but are adequate for an experienced C programmer. There is very little on how to access GEM, the BIOS, or XBIOS, so other guides are mandatory to take full advantage of the 520.

7) the linker is very powerful, operating in interactive or batch mode. In the latter, one can generate a very long list of files and libraries to link, longer than one's memory will permit.

8) finally, there is error handling by both the compiler and linker. Only the first pass of the compiler does a decent job of error handling. It tells you the error and the source line it was found on, so you have an idea of where to look (the first pass does the preprocessing and most of the compilation, generating intermediate code in the form of quadruples). The second pass (which does code selection on the quadruples, generating a relocatable code) and the linker (which pulls all the relocatable code into an executable image), do not seem to know about source lines and only report that files have errors. They don't give any indication of where in the file the problem is. One might accept this if the first pass caught all the errors, but it doesn't. In compiling PCHACK, the second pass found one error and the linker found a relocation error in about one out of every five files. I was able to guess on the pass 2 problem and fix it, but am out of luck on the linker problems. Needless to say, I am less than pleased with the Lattice package and am not recommending that anyone buy it until METACOMCO gets some things fixed (I should also note that I have compiled and linked several small programs successfully, so the package works some of the time). Since the Lattice C compiler is the compiler in the Amiga developer's kit, I expected these kinds of bugs to have been resolved.

9) compilation speed was nothing to cheer about, but can be improved by using a RAM disk for the compiler and source files (i.e. a 1Meg system with half Meg of RAM disk). The generated code was comparable in size to that of the Personal Pascal compiler (about half as big as the Hippo C). I have not performed any timing tests.

In summary, this product has potential, but save your money until it is fixed. I don't know what METACOMCO's update policy is, but expect

to soon find out. I also welcome responses from others who have had
other experiences with this product than I have.

Rodney Black
AT&T Information Systems (usual disclaimers about the company disavowing any
approval of my opinions)
..!ihnp4!druxu!rwb

From -7577773744878312925
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8afa8988a9431c20,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 13:29:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!well!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: loading libraries from different dir
Message-ID: <546@aum.UUCP>
Date: Mon, 5-May-86 16:29:27 EDT
Article-I.D.: aum.546
Posted: Mon May 5 16:29:27 1986
Date-Received: Thu, 8-May-86 20:03:32 EDT
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 13

Here is the set up:
I have set up \include and \bin directories and have all temp files
in a ram disk. Works great except for one thing; Can anyone tell me how
you get the linker to look in \lib for gemstart, vdibind, aesbind etc...
It does not seem to like path names on the command line!
       Thanks in advance...

--

                           Erik James Freed
                  Aurora Systems
                  San Francisco, CA
                  {dual,ptsfa}!aum!freed

From 6671295390346705025
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb48be4bd2cb5a77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 14:48:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16

Subject: Re: ATARI (ST) BBSs in Central Ohio?
Message-ID: <8605052148.AA19377@ohio-state.ARPA>
Date: Mon, 5-May-86 17:48:24 EDT
Article-I.D.: ohio-sta.8605052148.AA19377
Posted: Mon May 5 17:48:24 1986
Date-Received: Wed, 7-May-86 02:04:27 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

Dear Vaxrat,

Thanks for your letter,

I am looking for a RAM disk program. Perhaps you could send me one
(uuencoded?).

Terrell

From 5896203357026232486
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a9870f4ded9de763,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-05 16:38:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!RYERSON.BITNET!FCTY7284
From: FCTY7284@RYERSON.BITNET
Newsgroups: net.micro.atari16
Subject: drive question
Message-ID: <8605052337.AA02647@ucbvax.berkeley.edu>
Date: Mon, 5-May-86 19:38:24 EDT
Article-I.D.: ucbvax.8605052337.AA02647
Posted: Mon May 5 19:38:24 1986
Date-Received: Wed, 7-May-86 01:59:55 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

==========
In the Toronto area, we get mixed reports on the reliability
of the double sided floppy drive (the one in the 1040). One specific
complaint is that a disk written on one drive may well not be
readable on another drive.
A suggestion was made thatthe heat from the internal power supply
on the 1040 might be causing dimensional changes in the drives.
Any comments from netland?
Peter Hiscocks
Ryerson Polytech
Toronto

From -7891735625540934324
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,25b51ad534ae8e39,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 05:01:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: queries about GEM and Lattice C
Message-ID: <490@snow.warwick.UUCP>
Date: Tue, 6-May-86 08:01:15 EDT
Article-I.D.: snow.490
Posted: Tue May 6 08:01:15 1986
Date-Received: Wed, 14-May-86 01:32:58 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 97

Hi,

I hope there are some peole out there with experience of ROM TOS and C. I have a 1040stf and have just bought Metacomco-Lattice C.

I have a few questions that are bothering me:

1. Why, in all the examples I have seen (C manual, "Gem on the Atari ST", "Anatomy of Atari ST" ..) do they use 'forward slashes' (a la UNIX) as directory separators. I have tried in vain to use these, but my computer will only accept 'back slashes' (a la MSDOS).

2. In the linker section of the Lattice C manual, and the supplied C.LNK file, there is a line of the form

```
    INPUT *
```

which is supposed to read in the .BIN file specified on the command line. I wish to keep the source files and compiler/linker in separate directories, and so have changed that to read

```
    INPUT \src\*
```

but this ignores the command line. It will load in the alphabetically first .BIN file in the \src\ directory. Is this a bug? Does anyone have a work-around for it?

3. I have been trying to get to grips with window handling. As a first attempt I typed in the AESC01.C example from "GEM on the Atari ST". This crashed with two bombs as written. I had already copied the supplied "gemlib.h" to "gemdefs.h" as required, and used short (16 bit) integers for all the parameters. After some playing with it, and reading the "Professional GEM" article posted here a few months ago, I have now got it to compile, link, and run. But it steadfastly refuses to put a name on the move bar. The current state of my program is given below.

If anyone can help with these problems, I would appreciate news or mail.

Cheers,
Frank.

```
---------------------cut here---------------------------------------
/*
 * "AESC01.c" AES Window example from
 *   "GEM on the Atari ST", First Publishing, pp388-390
 *
 * Implemented into lattice C by F K Carver, 4 May 1986
 * Refused to run (2 bombs) as written. mods started 5 May 1986
 * Now compiles and runs but doesn't show a window name.
*/

#include "gemdefs.h"
typedef short INT; /* Lattice C uses 16 bit shorts and 32 bit ints */

INT contrl[12], intin[128], ptsin[128], intout[128], ptsout[128];
INT work_in[12], work_out[57];
INT handle, wi_handle;
INT gl_hhbox, gl_hwbox, gl_hhchar, gl_hwchar;
INT xdesk, ydesk, wdesk, hdesk;

open_work()
{    INT i;

     appl_init();
     handle = graf_handle(&gl_hwchar, &gl_hhchar, &gl_hwbox, &gl=hhbox);
     for (i=0; i<10; work_in[i++]=1);
     work_in[10] = 2;
     v_opnvwk(work_in, &handle, work_out);
}

close_work()
{    gemdos(0x1);
     v_clsvwk(handle);
     appl_exit();
}

open_window();
{    INT parts = NAME| MOVER| FULLER| SIZER| CLOSER;

     wind_get(0, WF_WORKXYWH, &xdesk, &ydesk, &wdesk, &hdesk);
     wi_handle = wind_create(parts, xdesk, ydesk, wdesk, hdesk);
     wind_set(wi_handle, WF_NAME, "Untitled", 0,0);
     wind_open(wi_handle, xdesk, ydesk, wdesk, hdesk);
}

main()
{    open_work();
     open_window();
     close_work();
}
```

/*---------------------------cut here---------------------------------
--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From 837222325422736316
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bca403561e162bb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 05:08:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!ukc!warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: Wanted: details of "save desktop" format.
Message-ID: <491@snow.warwick.UUCP>
Date: Tue, 6-May-86 08:08:12 EDT
Article-I.D.: snow.491
Posted: Tue May 6 08:08:12 1986
Date-Received: Wed, 14-May-86 01:33:12 EDT
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 22

Hi,

Does anybody have any details of the desktop save format?

I have looked at it and played around to the extent of renaming the
dustbin, and would like to know more. For example, it seems that
setting up the colour map has no effect if the CONTROL.ACC accessory is
not loaded, but it must be stored in there somewhere. What about using
it from user programs?

Any help appreciated.
Cheers,
Frank.
--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From -9187715484536861752
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c97a10370501300d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 07:14:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!ittatc!dcdwest!
sdcsvax!sdcrdcf!trwrb!trwrba!mdf
From: mdf@trwrba.UUCP (Mark D. Falleroni)
Newsgroups: net.micro.atari16
Subject: Universe II
Message-ID: <2026@trwrba.UUCP>
Date: Tue, 6-May-86 10:14:09 EDT
Article-I.D.: trwrba.2026
Posted: Tue May 6 10:14:09 1986
Date-Received: Sat, 10-May-86 13:47:02 EDT
Organization: TRW EDS, Redondo Beach, CA
Lines: 16

I just bought Universe II from Omnitrend. I've played it for about
10 hours total and I think I've found a bug in the parser on disk C.
Whenever I try to talk to a game character, the parser responds with
"Huh?" a few times, than an alert box appears and informs me of a random
access error! This has happened twice now. Has anyone else experienced
the same thing?
By the way, my copy is Version 1.0 and I'm running it on a 520 ST with
the 1 meg upgrade, TOS in ROM.

Mark Falleroni
Ogden Engineering Office
TRW Defense Systems
Ogden, Utah 84403
<mdf>

From 5957740476660106668
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,150d9fdca264fcab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 07:26:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: hi50 Request
Message-ID: <4076@pur-ee.UUCP>
Date: Tue, 6-May-86 10:26:06 EDT
Article-I.D.: pur-ee.4076
Posted: Tue May 6 10:26:06 1986

Date-Received: Thu, 8-May-86 21:29:53 EDT
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 8

<< >>

  This morning I saw a posting for a termcap using a 'hi50 hack' that I assume, gets 50 lines on a mono system. I would really appreciate ANY pointers and/or the hack itself. As always, thanks in advance for any help.

                    Bob Beaty

From 4155246456913552297
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb48be4bd2cb5a77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 10:36:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!AFIT-AB.ARPA!rswem
From: rswem@AFIT-AB.ARPA (Robert E. Swem)
Newsgroups: net.micro.atari16
Subject: Re: ATARI (ST) BBSs in Central Ohio?
Message-ID: <8605061807.AA17273@ucbvax.berkeley.edu>
Date: Tue, 6-May-86 13:36:38 EDT
Article-I.D.: ucbvax.8605061807.AA17273
Posted: Tue May 6 13:36:38 1986
Date-Received: Thu, 8-May-86 21:52:52 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

I am new on the net, and I don't have the tools needed (whatever they are) to uuencode. There's some on Compuserve, adn the Atari BBS in Sunnyvale hase/ them, too. Maybe I could uuence/ode them If I Knew How... is there a doc file or something on it?

By the way, my mailer daemon is giving me fits over messages to you, so I presume you are getting these from the net instead of personally. Why does it do that?

Or it could just be that this darned UNIX system just doesn't like me. I'm going back to VMS.

From 45900943798013892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8afa8988a9431c20
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 11:11:23 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: loading libraries from different dir
Message-ID: <255@atari.UUcp>
Date: Tue, 6-May-86 14:11:23 EDT
Article-I.D.: atari.255
Posted: Tue May 6 14:11:23 1986
Date-Received: Thu, 8-May-86 08:36:20 EDT
References: <546@aum.UUCP>
Distribution: net
Organization: Atari Corp., Sunnyvale CA
Lines: 15
Summary: Linker doesn't handle paths.

In article <546@aum.UUCP>, freed@aum.UUCP (Erik Freed) writes:
> Can anyone tell me how
> you get the linker to look in \lib for gemstart, vdibind, aesbind etc...
> It does not seem to like path names on the command line!

That's right -- LINK68 does not like path names, and thinks backslash
is a comment or something in command files. We put libraries in the
root directory of a hard disk partition (usually C:, along with all
the executables). You /could/ do the same with a floppy.

--

Landon Dyer   "If Business is War, then
Atari Corp.   I'm a Prisoner of Business!"
... {hoptoad,lll-crg!vecpyr}!atari!dyer   "Quantity is Quality!"

From -4698342313444223308
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84a9528b4398a454,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 14:25:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watmath.UUCP
Path: utzoo!watmath!csc
From: csc@watmath.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Atari 520ST power supply failure
Message-ID: <2459@watmath.UUCP>
Date: Tue, 6-May-86 17:25:49 EDT
Article-I.D.: watmath.2459
Posted: Tue May 6 17:25:49 1986
Date-Received: Wed, 7-May-86 02:11:03 EDT
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 17

I've had my ST for five months, been running with a homebrew 1 Mbyte upgrade for four, ROMs for one. On Sunday morning my power supply smelled burnt, and the ST was dead when I turned it on. Fortunately, when I tried a new power supply the machine was fine.

It was an old, black, tall power supply (with cables running out of both ends).

Question: I remember an article a few months back from someone whose old power supply failed, and mention of some acknowledgement of the problem by Atari. Is there an official line from Atari? (Probably "yes, you overheated your power supply with the extra RAM, you lose!")

Question: Has this happened to many of you? What did you do?

"I knew things would start to fail once the warranty expired"

Jan Gray

From 3216770287954108301
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,567582f2a5878a79,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 14:35:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!ittatc!dcdwest!sdcsvax!sdcarl!tre
From: tre@sdcarl.UUCP (Tom Erbe)
Newsgroups: net.micro.atari16
Subject: Atari BBS programs
Message-ID: <306@sdcarl.UUCP>
Date: Tue, 6-May-86 17:35:32 EDT
Article-I.D.: sdcarl.306
Posted: Tue May 6 17:35:32 1986
Date-Received: Sat, 10-May-86 13:47:50 EDT
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 7

I logged on to the Atari Home Base BBS last night and found many useful programs. However, I do not wish to pay for the phone time. Would any one at Atari be willing to make these programs available by E-mail???

--
     thomas r. erbe
     {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From -5029279868153465004
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28bc1ea34339783b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-06 23:26:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 9/18/84; site princeton.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!petsche
From: petsche@princeton.UUCP (Thomas Petsche)
Newsgroups: net.micro.atari16
Subject: 520 Power supply question. (URGENT!)
Message-ID: <1284@princeton.UUCP>
Date: Wed, 7-May-86 02:26:01 EDT
Article-I.D.: princeto.1284
Posted: Wed May 7 02:26:01 1986
Date-Received: Thu, 8-May-86 21:53:51 EDT
Distribution: net
Organization: Princeton University EECS Dept
Lines: 9

  I just got a replacement 520ST from a distributor today. The power
supply has the two cords on opposite sides of the brick. Is this
one of the old unreliable supplies?? If so, what was the problem
and more important, what was the fix?

Thomas Petsche
{ihnp4, allegra}!princeton!ivy!petsche
petsche@princeton

From 2601422887468468808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 06:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
harvard!cmcl2!acf4!slavin
From: slavin@acf4.UUCP (Scott Slavin)
Newsgroups: net.micro.atari16
Subject: Re: Response to <755@minster.UUCP> <209@atari.UUcp>
Message-ID: <7960001@acf4.UUCP>
Date: Wed, 7-May-86 09:15:00 EDT
Article-I.D.: acf4.7960001
Posted: Wed May 7 09:15:00 1986
Date-Received: Fri, 9-May-86 10:33:14 EDT
References: <755@minster.UUCP> <209@atari.UUcp>
Organization: New York University
Lines: 1

testing

From -7475283086371207947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b830231884e94dae,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 06:51:11 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!lll-crg!lll-lcc!ucdavis!ucbvax!
disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: parallel CPU bus connection for 520ST
Message-ID: <8605071351.AA18191@mitre-bedford.ARPA>
Date: Wed, 7-May-86 09:51:11 EDT
Article-I.D.: mitre-be.8605071351.AA18191
Posted: Wed May 7 09:51:11 1986
Date-Received: Sat, 10-May-86 13:44:23 EDT
Sender: kjd@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 18

In discussions with Paul Swanson of Nite Lite Systems (an Atari 520ST sales
and service -- and 1M upgrade) dealer, I became convinced that it would not be
very difficult to modify the 520ST to have a full CPU bus extension port
like the 8-bit 800XL has. All it would take would be to replace the existing
cartridge port connector with a larger one and add a small piggyback board
above it (or a "smart" connector on the cable) which provided buffers for the
extra address lines -- maybe for all address lines, which would make it
easier to do on the cable side of the connector. Because of the high speed of
the processor, one would of course have to be careful of cable length,
shielding, termination and such things, but I see no reason that it couldn't
be done.

This mod looks easy enough that I no longer consider the absence of a CPU bus
connection a telling blow in the 520ST versus AMIGA battle. The mod would
open the way, for example, to large memory expansions and other nifty things.

-John Sangster
jhs@mitre-bedford.arpa

From -2456094032068869409
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85ce9a33388dcec0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 08:08:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP
Newsgroups: net.micro.atari16
Subject: Diagnostic ROMs
Message-ID: <180@bridge2.UUCP>
Date: Wed, 7-May-86 11:08:51 EDT
Article-I.D.: bridge2.180
Posted: Wed May 7 11:08:51 1986
Date-Received: Sat, 10-May-86 07:43:19 EDT
Distribution: net
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 10

This is posted to all, but I really hope somebody from Atari
will respond.

Where/how might i get a set of diagnostics for my 520ST? I have
heard of cartridge-slot ROMs for this, but never seen anything
physical. Are they real? Can I get them?

(I am considering doing a 1 meg upgrade, but would like to have
an "official" diagnostic capability to determine that it has all
come up AOK.)

From 6429893528410455623
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8afa8988a9431c20
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 08:26:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!well!ptsfa!aum!freednp
From: freednp@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: loading libraries from different dir
Message-ID: <547@aum.UUCP>
Date: Wed, 7-May-86 11:26:35 EDT
Article-I.D.: aum.547
Posted: Wed May 7 11:26:35 1986
Date-Received: Wed, 14-May-86 04:43:33 EDT
References: <546@aum.UUCP> <255@atari.UUcp>
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 27

> In article <546@aum.UUCP>, freed@aum.UUCP (Erik Freed) writes:
> > Can anyone tell me how
> > you get the linker to look in \lib for gemstart, vdibind, aesbind etc...
> > It does not seem to like path names on the command line!
>
> That's right -- LINK68 does not like path names, and thinks backslash
> is a comment or something in command files. We put libraries in the
> root directory of a hard disk partition (usually C:, along with all
> the executables). You /could/ do the same with a floppy.
>
> Landon Dyer   "If Business is War, then
> Atari Corp.   I'm a Prisoner of Business!"

I guess it would be nice if Atari or DRI or someone would fix bugs like that.
It really is annoying to have a directory structure and be essentially unable
to use it properly. Us Unix people are used to something that is well thought
out and highly useable. (not perfect) Is Atari planning to do something about
problems with its environment? This would include what hearsay sez is a number
of memory allocation bugs. I guess what I'm trying to say is that these are
not huge bugs, they seem to be weekend fixes. Are we going to get any updates

as developers ever? Could we get a forecast of what we can expect?
--

Erik James Freed
Aurora Systems
San Francisco, CA
{dual,ptsfa}!aum!freed

From -2377267146327634649
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9a1e03bbc2b8c54,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 08:45:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: Reliability.
Message-ID: <1475@cwruecmp.UUCP>
Date: Wed, 7-May-86 11:45:45 EDT
Article-I.D.: cwruecmp.1475
Posted: Wed May 7 11:45:45 1986
Date-Received: Sat, 10-May-86 19:55:38 EDT
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 42

I'd like to offer the following statistics/info on 520 and 1040
reliability based on our experiences.

  520ST: We took delivery on twelve 520ST's last Fall. One (1)
  keyboard/computer unit was VERY DOA. Our dealer (and on up the
  chain!) couldn't figure out how to fix it so they replaced the
  whole PC board. One (1) monitor was flaky -- probably a thermal
  problem. This was fixed.

  1040ST: We just took delivery on twelve (12!) 1040ST's last
  week. Six out of six work fine so far. We are about to unpack
  and test the other six, but I would anticipate only one failure
  based upon our earlier experience.

A few side comments are in order.

  1040ST availability. Units are out there. Finding them,
  ordering from a reliable dealer and getting them is another
  matter. Frankly Atari (Neil?), distibution in Ohio is a disaster.
  I can only encourage you to look into this situation as a large
  market is currently going unsatisfied. If a big advertising
  push is in the works, this will only frustrate Midwestern
  customers. (We ordered ours through a dealer on the other coast.)

  The high frequency 1040 noise reported in an earlier message is
  NOT from the floppy disk drive. It is caused by the switching
  power supply. I'm going to find some way to damp the sound as
  it is driving me CRAZY! I am particularly sensitive to high
  frequency sounds [audiophile comments to /dev/null :-)] and
  some of our machines are worse than others.

  I've been living with a 1040 and 20Mb developer's hard drive.
  This is a SUPER combination with Micro C Shell, microEmacs,
  DEGAS, etc. Can't wait now for OSS Prolog and eventually a
  68020 product (prod, prod....)

--

paul drongowski   decvax!cwruecmp!pjd
case western reserve university   pjd%Case@CSNet-relay

From 9157979245132828169
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,efa96f2bada03ca0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 08:54:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!caip!sri-spam!nike!styx!lll-crg!lll-lcc!
ucdavis!ucbvax!UHUPVM1.BITNET!ACS19
From: ACS19@UHUPVM1.BITNET
Newsgroups: net.micro.atari16
Subject: Destop menu bars
Message-ID: <8605081706.AA20053@ucbvax.Berkeley.EDU>
Date: Wed, 7-May-86 11:54:51 EDT
Article-I.D.: ucbvax.8605081706.AA20053
Posted: Wed May 7 11:54:51 1986
Date-Received: Sun, 11-May-86 03:57:21 EDT
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: ACS19%UHUPVM1.BITNET@WISCVM.WISC.EDU
Organization: The ARPA Internet
Lines: 33

FYI (for your information)

>rick@ucbvax.berkeley.edu (Richard R.Sharpe)
>Organization: Rosemount Inc., Minneapolis, MN
>Subject: desktop menu address

>I'm trying to write a desk accessory that can enable/disable itself
>on the desktop menu. If possible, I'd even like to change the text
>on the menu. I've tried to use multiple MENU_REGISTER calls but
>apparently only the first is used.
>Rick Sharpe at Rosemount Inc, Burnsville MN

The menu_register call only installs the desktop applications name when the

system boots up, or when the resolution is changed. To locate the desktop menu, I would suggest that you look at memory, using SID or a similar dis-assembler that can display memory without disassembling. You can find all sorts of nice places in RAM, including all the menu names, and options under them. I have done this to find the location of the DESKTOP.INF files which is kept in memory by TOS. I do not know the exact locations off hand, but you will be able to recognize them immediately.
If your program has its own menu bar, you can place your names/titles in strings, point to the strings, and change the string pointer, or actually change the text within the string. But as far as changing GEM desktop menu bars, this can not be done with sytem calls, you must hack it out.
I have fooled around with installing an icon onto the desktop from SID, and have had success putting additional drives, windows, and trashcans there.
These things can not be done through system calls, since the desktop is 'proprietary' and nothing about its location, or altering it are documented.

From Houston,
Michael Vederman

acs19@uhupvm1

From -5177262976369584766
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2584b2138612fd9c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 10:28:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!utah-cs!sandra
From: sandra@utah-cs.UUCP (Sandra J Loosemore)
Newsgroups: net.micro.atari16
Subject: RAM disk wanted
Message-ID: <3779@utah-cs.UUCP>
Date: Wed, 7-May-86 13:28:22 EDT
Article-I.D.: utah-cs.3779
Posted: Wed May 7 13:28:22 1986
Date-Received: Sun, 11-May-86 00:23:51 EDT
Organization: University of Utah CS Dept
Lines: 7
Keywords: please post or mail

I'm looking for a PD ramdisk. I've seen several mentioned recently; could somebody please post (or mail) a copy? Sources preferred, of course.

Sorry if this is a repeat request -- our archives have been flushed recently.

-Sandra Loosemore (utah-cs!sandra)

From 8686388564981553036
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1727c0dd7769a61,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-05-07 11:01:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!lll-crg!lll-lcc!ucdavis!ucbvax!
UMass.BITNET!Flash
From: Flash@UMass.BITNET (Rick Flashman)
Newsgroups: net.micro.atari16
Subject: Reply to "VT100 emulation and Yale ASCII".
Message-ID: <860507140150.00000D01.ADRR.AA@UMass>
Date: Wed, 7-May-86 14:01:50 EDT
Article-I.D.: UMass.860507140150.00000D01.ADRR.AA
Posted: Wed May 7 14:01:50 1986
Date-Received: Sun, 11-May-86 04:03:27 EDT
Sender: jason@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Hello,
   In reply to Moews, let me clear up a little here. Every terminal
talks to other computer/mainframes/terminals in ASCII. If not, you
would not be able to to them. Then some nifty programmer came up
with the idea of EMULATIONS. A certain sequence of control or escape
characters that allow the host machine to send to the terminal so
it can tell it to clearscreen/home/position-curson and other such
nifty things. Well, since there are so many programmers out there,
and computer companies. Everyone sort of came up with their own
emulation. VT100 follows ANSI emulation which is Digital's favorite.
IBM has their own too. But it seems that your mainframe, to be nice,
offers several emulations, VT100 being one of them. So, the answer
is yes. Your ST equiped with a decent VT100 emulator should be able
to do the job more than fine. The other emulation is not as popular
so you will have a hard time finding it, I would be most glad that
VT100 came out so soon for the ST, other machines wait years. But,
it should work fine.
                                    Terminaly yours,
                                    Rick Flashman
Flash%UMass.Bitnet@WISCVM.ARPA

From 9038290334536476260
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,429c97c65ee41f32
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 13:07:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Logbase/Physbase and Screen Dumps
Message-ID: <860421-131940-1755@Xerox>
Date: Mon, 21-Apr-86 16:07:55 EST
Article-I.D.: Xerox.860421-131940-1755

Posted: Mon Apr 21 16:07:55 1986
Date-Received: Wed, 23-Apr-86 22:04:18 EST
References: <157@bridge2.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

This is an addition to the message I sent about "Logbase" and
"Physbase". I realize now that the incorrect screen dump may have been a
result of using the GEM desk top screen dump function and not a call
from the current application. If this were the case then it does
indicate a bug. This bug is not in TOS however. The GEM desktop is
itself an application and should set "Logbase" to "Physbase" before
performing the screen dump. "Logbase" should then be restored to its
original value after the dump. You can avoid this problem by making sure
that your application sets "Logbase" to "Physbase" when it is done
updating the screen.

John

From -7453416129882382562
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e90a6e342218f605
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 13:43:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!mordor!ut-sally!franklin
From: franklin@ut-sally.UUCP (Maurice T. Franklin)
Newsgroups: net.micro.atari16
Subject: Re: Graphics escapes in ROM VT52?
Message-ID: <4756@ut-sally.UUCP>
Date: Mon, 21-Apr-86 16:43:43 EST
Article-I.D.: ut-sally.4756
Posted: Mon Apr 21 16:43:43 1986
Date-Received: Wed, 23-Apr-86 22:25:31 EST
References: <736@isrnix.UUCP>
Reply-To: franklin@sally.UUCP (Maurice T. Franklin)
Organization: U. Texas CS Dept., Austin, Texas
Lines: 27

In article <736@isrnix.UUCP> apratt@isrnix.UUCP (Allan Pratt) writes:
>I read in a recent posting about The Club that there were escape codes you
>could send to the built-in VT52 emulator to get graphics on the ST. I already
>figured out the foreground/background codes, but are there more? The poster
>said he'd started referring to the emulator as an ST52. Can anybody post
>a list of escape codes on the ST52? If this is included with the Developer's
>Kit, could somebody like Landon Dyer post it, so we know it's not proprietary?
>.....

>Thanks all..
>   -- Allan Pratt

I too would like to see a list of the escape sequences for the ST's VT52
emulator (aka ST52). It may not be exactly a VT52, but it may have a lot
of advantages over a straight VT52 after all (color graphics?!).
I might mention that I found out about these escape sequences accidentily.
I log on to a Unix VAX that has an imperfect command completion shell. Once
in a while, when I hit the Esc key to get command completion, I also have my
background/foreground/cursor colors change. The only way I can fix it is
to reboot. Anybody else had this or similar problems?

                  Maurice T. Franklin
                  CS Dept University of Texas at Austin
UUCP: {ihnp4,seismo,harvard,gatech}!ut-sally!franklin
ARPA Internet and CSNET: franklin@sally.utexas.edu

[Disclaimer: The University of Texas at Austin, the Computer Science Dept, nor
just about anybody else, is to be held responsible for what I say here.]

From 5366330409959816373
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e90a6e342218f605
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 14:35:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Graphics escapes in ROM VT52?
Message-ID: <121@cbmvax.cbmvax.cbm.UUCP>
Date: Mon, 21-Apr-86 17:35:59 EST
Article-I.D.: cbmvax.121
Posted: Mon Apr 21 17:35:59 1986
Date-Received: Wed, 23-Apr-86 22:28:09 EST
References: <736@isrnix.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 72

In article <736@isrnix.UUCP> apratt@isrnix.UUCP (Allan Pratt) writes:
>I read in a recent posting about The Club that there were escape codes you
>could send to the built-in VT52 emulator to get graphics on the ST. I already
>figured out the foreground/background codes, but are there more? The poster
>said he'd started referring to the emulator as an ST52. Can anybody post
>a list of escape codes on the ST52? If this is included with the Developer's
>Kit, could somebody like Landon Dyer post it, so we know it's not proprietary?
>
>   -- Allan Pratt   ...ihnp4!inuxc!iubugs!isrnix!apratt

The Abacus Atari ST Internals book lists the following codes:

```
ESC A -  Cursor UP
ESC B -  Cursor Down
ESC C -  Cursor Right
ESC D - Cursor Left
ESC E -  Clear/Home
ESC H -  Cursor Home
ESC I -  Reverse Line Feed
ESC J -  Clear to End of Screen
ESC K -  Clear to End of Line
ESC L -  Insert Line (really H19 - not implemented on VT52)
ESC M -  Delete Line          "              "
ESC Y -  Direct Cursor Addressing

I'm not sure which of the following are from the VT52, which are from the H19
and which are out of the blue...

ESC b -  Select Character Color
ESC c -  Select Background Color
ESC d - Clear Screen to Cursor position
ESC e -  Enable Cursor
ESC f -  Disable Cursor
ESC j - Save cursor position
ESC k -  Restore Cursor Position
ESC l -  Clear Line
ESC o - Clear Line to Cursor position
ESC p - Set Reverse Video Mode
ESC q -  Reset Reverse Video Mode
ESC v - Enable Auto Line Feed (power up default - opposite of VT52!)
ESC w -  Disable Auto Line Feed

The following are not mentioned, and don't seem to work, but are standard
VT52 fare:

ESC F -  Select Graphics Character Set (for line drawing, etc)
ESC G - Select Ascii Character Set
ESC = - Select Keypad Applications mode (keypad sends escape sequences)
ESC > -  Select Ascii Keypad Mode
ESC [ - Enable Hold Screen Mode (a turkey for sure...)
ESC / - Disable Hold Screen Mode
ESC Z - Identify Terminal Type
..... -  A few others for printer control (pretty rare option on VT52's)

-------------------------------------------------------------------------

As has been pointed out before, there is no emulation of the arrow keys and
functions keys on the VT52 keypad, keypad applications mode isn't implemented,
and the default setting of Auto Line feed is backwards.  Since this code
has been burned into the ROM's, it isn't likely to be corrected.

If you want more complete terminal emulation, you will have to get one of
the third party terminal emulators.  Since the keyboard is derived from the
DEC VT220 layout, a VT100 emulator shoud have fewer strange key mappings.
```

Somebody just posted a rumor about a cartridge providing BLIT terminal
emulation - now that *would* be fun - maybe there's a tie-in to the story
about AT&T buying ST's for use as terminals... Anybody got any facts?
--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 1568271075658633894
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,531416ce106e259f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 16:31:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site mprvaxa.UUCP
Path: utzoo!utcsri!ubc-vision!mprvaxa!jackson
From: jackson@mprvaxa.UUCP (Taylor Jackson)
Newsgroups: net.micro.atari16
Subject: 520ST termcap wanted
Message-ID: <715@mprvaxa.UUCP>
Date: Mon, 21-Apr-86 19:31:48 EST
Article-I.D.: mprvaxa.715
Posted: Mon Apr 21 19:31:48 1986
Date-Received: Tue, 22-Apr-86 10:21:22 EST
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 4

I'm looking for a termcap for the 520. If you have a good one, could you mail
me a copy.
Thanks
Taylor

From 6307411070641388586
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdf2d69d41423f80
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 18:18:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: 5620 (blit) cartridge for the ST ?
Message-ID: <721@hoptoad.uucp>
Date: Mon, 21-Apr-86 21:18:08 EST
Article-I.D.: hoptoad.721
Posted: Mon Apr 21 21:18:08 1986
Date-Received: Wed, 23-Apr-86 22:30:14 EST
References: <787@ihlpm.UUCP>
Organization: Nebula Consultants in San Francisco

Lines: 22

In article <787@ihlpm.UUCP>, rtb@ihlpm.UUCP (Todd) writes:
> I just read on att.blit that the University of Toronto has developed
> and is currently using a 5620(blit) terminal emulator in a ROM
> cartridge for the 520ST (mono). Does anyone know if this is true?

Unfortunately AT&T does not sell the BLIT. They sell the 5620.
The BLIT had a 68000, the 5620 for political reasons has an AT&T custom
processor chip. (It's probably more expensive for them to build it
than to buy the 68000 from Motorola for $10.)

The ST cartridge in question makes the ST emulate a BLIT. In fact,
once a few changes have been made to the BLIT sources, it can run
the same binaries that a BLIT runs. (The changes make things like
the screen size a parameter rather than hardwired in.) All the BLITs
in the world are inside Bell Labs and a few universities.

I guess this might benefit people inside Bell but it's useless to the
rest of us, unless AT&T releases BLIT (not 5620) software to everybody.
Hmm, AT&T could probably sell the 520ST cartridge and the BLIT source code
as a package deal...
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

From 5304274501995298336
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e90a6e342218f605
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 18:26:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Graphics escapes in ROM VT52?
Message-ID: <202@atari.UUcp>
Date: Mon, 21-Apr-86 21:26:09 EST
Article-I.D.: atari.202
Posted: Mon Apr 21 21:26:09 1986
Date-Received: Wed, 23-Apr-86 22:33:34 EST
References: <736@isrnix.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 49

In article <736@isrnix.UUCP>, apratt@isrnix.UUCP (Allan Pratt) writes:
> I read in a recent posting about The Club that there were escape codes you
> could send to the built-in VT52 emulator to get graphics on the ST. I already
> figured out the foreground/background codes, but are there more? The poster
> said he'd started referring to the emulator as an ST52. Can anybody post
> a list of escape codes on the ST52? If this is included with the Developer's
> Kit, could somebody post it, so we know it's not proprietary?

Here are the ST's VT-52 (ok, ST52) emulator escapes. Feel free to
give it to anybody.

```
ESC A    cursor up, no effect at top of screen
ESC B    cursor down, no effect at bottom of screen
ESC C    cursor forward, no effect in rightmost column
ESC D    cursor backward, no effect in leftmost column
ESC E    clear screen, home cursor
ESC H    home cursor
ESC I    reverse line-feed (reverse scroll at top of screen)
ESC J    erase to end of screen
ESC K    erase to end of line
ESC L    insert line (current line moves down, cursor positioned at
       beginning of new, blank line)
ESC M    delete line (add blank line at bottom, place
       cursor at beginning of line)
ESC Y    address cursor by <row> <column> biased by 0x20
       (ESC Y 0x20 0x21 is same as ESC H ESC C)
ESC b    set foreground color (lower 4 bits of next character specify
       the color number assigned to the foreground)
ESC c    similarly, for background color
ESC d    erase from beginning of screen to cursor (inclusive)
ESC e    enable cursor (make it visible)
ESC f    disable cursor (make it invisible)
ESC j    save cursor position
ESC k    restore cursor position; if no previous corresponding
       save was made, then home the cursor
ESC l    erase entire line, move cursor to first column of it
ESC o    erase from beginning of line to cursor position, inclusive
ESC p    enter reverse-video mode (foreground <---> background mode)
ESC q    exit reverse-video mode (foreground = foreground again)
ESC v    enable wrap at end of line (auto-LF)
ESC w    disable wrap at end of line
```

("You should have done it THIS way" flames to /dev/null, please).

--

-Landon   "If Business is War, then I'm a Prisoner of Business!"
... {hoptoad, lll-crg!vecpyr}!atari!dyer   "Quantity is Quality"

From 1968054504495308411
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 19:00:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site anasazi.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!hplabs!hao!noao!terak!anasazi!john

From: john@anasazi.UUCP (John Moore)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <185@anasazi.UUCP>
Date: Mon, 21-Apr-86 22:00:07 EST
Article-I.D.: anasazi.185
Posted: Mon Apr 21 22:00:07 1986
Date-Received: Sat, 26-Apr-86 03:46:04 EST
References: <572@mordred.purdue.UUCP> <820@ihwpt.UUCP>
Reply-To: john@anasazi.UUCP (John Moore)
Organization: Anasazi, Phoenix Az.
Lines: 26

In article <820@ihwpt.UUCP> knudsen@ihwpt.UUCP (mike knudsen) writes:
>> I read an article in this newsgroup suggesting that it was cheaper by
>> ~$200 to upgrade a 520 to 1Meg than to buy a 1040. My question is,
>(5) If you piggyback a 1040, you can put in 32 chips
>and go clear to 2 Meg. Don't ask whether the MMU chip
>can handle that much. In case you missed the Byte 1040ST
>article, the "extra" RAM chips are end-to-end with the "original"
>ones on the board. You could add just 512K the first time.
The RAM controller will NOT handle 2 Meg using 256K chips. To try to
modify the system to do that looks quite hairy to me. On the other
hand, the Byte article stated that your could upgrate the 1040
to 4 Meg when the 1 Meg chips become affordable - just replace
the 256K chips and add an address line. The RAM controller will
handle that. It appears to me that you can to exactly the same
trick with a 520 - there is room on the board, and you would
just piggy back the same way as with the 1 Meg upgrade.
--
John Moore (NJ7E/XE1HDO)
{decvax|ihnp4|hao}!noao!terak!anasazi!john
{hao!noao|decvax|ihnp4|seismo}!terak!anasazi!john
terak!anasazi!john@SEISMO.CSS.GOV
(602) 861-7607 (day or evening)
7525 Clearwater Pkwy, Paradise Valley, AZ, 85253 (Home Address)

The opinions expressed here are obviously not mine, so they must be
someone else's.

From -899652014421432250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b311ace8d772723f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 19:12:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watdragon.UUCP
Path: utzoo!watmath!watnot!watdragon!cdshaw
From: cdshaw@watdragon.UUCP (Chris Shaw)
Newsgroups: net.micro.atari16
Subject: Re: writing to Apple about MacCartridge (copyright)
Message-ID: <904@watdragon.UUCP>

Date: Mon, 21-Apr-86 22:12:07 EST
Article-I.D.: watdrago.904
Posted: Mon Apr 21 22:12:07 1986
Date-Received: Wed, 23-Apr-86 12:21:59 EST
Reply-To: cdshaw@watdragon.UUCP (Chris Shaw)
Organization: U of Waterloo, Ontario
Lines: 35

In article <230@dmsd.UUCP> bass@dmsd.UUCP (John Bass) writes:
>
>The clones go one step over of the mark ... If I produced a "Star Wars"
>movie "clone" with a similar script, plot, names, and ending the courts would
>knock it down in a flash -- even though it was "original" work BASED OR NOT
>on the real movie.
>
>There are dozens of ways to re-write "Return of the Jedi" most would not fly
>in the face of a copyright suit .... I don't know why computer jocks are
>so dam fire sure they are immune to REAL copyright infringment proceedings.
>Rewriting/coding some ones program (bios, application, utility or OS) is
>the same is rewriting a movie --- if not legally corrupt, it is clearly morally
>corrupt.
>--
>John Bass (DBA: Fastime, DBA:DMS Design)

Yes the clones go over the mark (perhaps).. but total rewrites of software
with the same functionality don't. Here's why:

The example given about Star Wars superficially holds water, until you make
the fundamental distinction between Star Wars and (say) Visicalc:

Star Wars is a work of art, and any duplication is both a duplication of
material and of "functionality", as it were. Visicalc "duplicates" such as
Supercalc is only a duplication of functionality. Much like building a better
mouse trap. Copyright (in my LAYMAN'S understanding) only applies if you
steal paragraphs from books, and so on. If you express the same thought better,
(or worse) nobody can touch you.

Copyright suit are only successful if the plaintiff can prove that you stole
his idea. Merely looking the same is not good enough grounds. Nor should it be.

Chris Shaw   watmath!watrose!cdshaw or cdshaw@watmath
University of Waterloo
Bogus as HELL !!!

From -4912917023522221514
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2b5d6c3d1255bfe,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 19:25:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.PCS 1/10/84; site mtgzy.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!mtuxo!mtgzy!ker

From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: joystick port trouble
Message-ID: <1741@mtgzy.UUCP>
Date: Mon, 21-Apr-86 22:25:35 EST
Article-I.D.: mtgzy.1741
Posted: Mon Apr 21 22:25:35 1986
Date-Received: Wed, 23-Apr-86 21:50:36 EST
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 17

This is my second request for help!
When using a joystick in my second joystick port (the one not used
for the mouse), the system at times believes that keys on the keyboard
are being depressed. This renders the port useless for games that
have keyboard control as joystick movements are misinterpreted as
keypushes.

This can be duplicated by placing a joystick in port 2 and rapidly moving
it in random directions. You will here keyclicks echoed from the monitor.
Is this caused by the keyboard controller IC on the keyboard?

This problem affects many computers. It is not just my machine!!
The local repair shop can only suggest replacing the WHOLE keyboard
for a price estimated between 50 and 100 dollars plus labor.

Ken Roser (mtgzy!ker)

From 3054285277335261655
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,5fe508b5e7f8cae0
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,cb838f2f3c18d9a0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 02:55:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!philmds!prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: Amig* to ST conversion source
Message-ID: <7@prle2.UUCP>
Date: Tue, 22-Apr-86 05:55:53 EST
Article-I.D.: prle2.7
Posted: Tue Apr 22 05:55:53 1986
Date-Received: Thu, 24-Apr-86 00:08:49 EST
References: <175@atari.UUcp> <761@ccird2.UUCP>
Reply-To: slavenbg@prle2.UUCP (Gert Slavenburg)
Organization: Philips Research Laboratories Eindhoven
Lines: 31
Keywords: Atari ST, Amig*

Xref: watmath net.micro.amiga:2853 net.micro.atari16:528
Summary: THANKS Landon !

We where very happy to receive Landon's conversion utility from Atari binaries to Amiga binaries, since we were dying to get as good a local development environment on our Amiga as the Atari people allready have for quite a while ! Our experiences with the conversion of major ST packages is described below :

We received Landons package with a 3 day delay (on the 4'th of April). It took us some time to get the uuencoded version to work, but after a day or 2 we found it sufficiently reliable for our purpose : to get TOS converted to the Amiga.
We used the 11/20/85 release (the Atari ROM release of TOS), and converted it to a slightly larger objectfile on the Amiga, which took about 1 hour (!). The first tests of TOS seemed to work reliable, though file I/O was slower than expected. Encouraged by this succes, we proceeded on converting the hard-disk driver (version 0.11, the most recent European release).

At first glance the combination seemed to be working allright, however once we started using TOS on harddisk for serious development, we found the following unexplainable problems :

+ The system dies horribly if we visit more than some 10 nodes in our directory hierarchy. It complains about not enough memory, though we still seem to have 700 k available. We cannot do any filecopy (e.g. from RAMdisk to harddisk) anymore.
+ hard disk reading is VERY fast, however we have to still do all our compiles on a RAMdisk since writing on a more than 30 % utilised harddisk becomes slower than writing on a floppy.

Landon, I hope these problems with your conversion utility will be solved soon.
  Gert Slavenburg -:)

From -1277028269818689645
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b13ff35078b5a906,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 03:42:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!ucdavis!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: copyright
Message-ID: <8604221142.AA12131@ucbvax.berkeley.edu>
Date: Tue, 22-Apr-86 06:42:44 EST
Article-I.D.: ucbvax.8604221142.AA12131
Posted: Tue Apr 22 06:42:44 1986
Date-Received: Wed, 23-Apr-86 23:58:46 EST
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 8

If you look into a public domain program with SID you might sometimes
find a copyright entry of DRI or other companies. This doesn't always
imply that this software is a black copy. Keep in mind that the
librarys of the development kit for instance got also copyright entries.
So if you write software under C you'll find a DRI copyright somewhere.
I just tell this, because I stumbled over such things when looking
into new bought software. Feel free to add your opinions.
Johann Zuschlag (I6191008@DBSTU1.BITNET)

From 1020204640207270021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c4976dda042e467,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 04:11:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!ucdavis!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: open reply to letter (TribeWars)
Message-ID: <8604221210.AA12895@ucbvax.berkeley.edu>
Date: Tue, 22-Apr-86 07:11:16 EST
Article-I.D.: ucbvax.8604221210.AA12895
Posted: Tue Apr 22 07:11:16 1986
Date-Received: Wed, 23-Apr-86 23:59:22 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 44

In the Message from 16 Apr 86 15:45 Keith Nemitz writes:
(excerpt, Keith's replys headed by '>>>', NO FLAMING)
.....
Let's look at the ST features:

>1. Standard 3 1/2" 80 track drives (you can also use 5 1/4" drives)
>   360K single side, 720K double side.
>   >>>your DS can't read your SS.

Sorry Keith, but the ST CAN read SS with DS drive. I do it regularly.
You can even read other formats, if you change the controler registers.

>2. Standard Parallel port that uses IBM printer cables.
>   >>>my friend tried to use his $700 IBM color printer with it and faied.

Don't know what he did. It should work. I know somebody who did it.

>3. Standard RS232 port that uses any modem
>   >>>fine (I have 2 serial ports up to 1meg-bit transfer rate).

Sorry RS232 is a STANDARD. There is a newer standard if you want higher baudrates (RS443?). With your non standard 1meg-bit you can not go farther then 1-2 meters (more?). With RS232 probably 50-200 meters.

>4. Choice of Color or Mono
>   >>>your color screen is incompatable with your mono screen.

Ok, here you got a point. But does the Mac use 640 x 400 with color?

>5. Midi interface
>   >>>nice feature since you can't used digitized sound like mac.

The Midi interface is NOT meant to make music. It is meant to program /control syntesizers etc. That's is a much more sophisticated job then programming dumb soundchips. Modern bands can not live without Midi.

This is not flaming. I won't argue about which computer is better. I like my ST+ (european version comes with 1mbyte) even I think that some features could be added (e.g. bus extension). Keith likes to work with his Mac, because he likes the features of the Mac. So what? We should rather look for a way to transfer software from the Mac to the ST and vice versa then to argue about which is the better computer. Anyway, in 10 years people will laugh about the ST and the Mac.
Johann Zuschlag (I6191008@DBSTU1.BITNET)

From 4845259394765736300
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8e2218449095ac5a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 04:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: PD software info
Message-ID: <54600067@iuvax.UUCP>
Date: Tue, 22-Apr-86 07:25:00 EST
Article-I.D.: iuvax.54600067
Posted: Tue Apr 22 07:25:00 1986
Date-Received: Thu, 24-Apr-86 07:34:44 EST
Lines: 19
Nf-ID: #N:iuvax:54600067:000:1072
Nf-From: iuvax!franco   Apr 22 07:25:00 1986

I am the one who is copying three/four disks of ST software for people who request it. The delay, due to my waiting for Bradley's FORTHMACS, is now over. Disks have been mailed today to Bell (of ATT), Franklin, Bovet, Katz, Mestel. Europeans should now send $3.25 for postage (I underestimated the amount earlier). Some people have been sending too much postage. I am holding that money waiting for instructions: those people may decide to send

some more disks (in which case I will use the cash for postage) or they may direct me to send it back. (All who have sent me disks are invited to send at least one more for FORTHMACS and/or special requests for utilities.)

Just in: an 82 track, 10 sector per track formater. Works great. You get 410K diskspace (SS) (but double sided accomodated too) and otherwise notice no difference (that I have detected). It will be added to the three disks I send out.

From now on, so I won't have to type a long sentence introducing myself as the one who is copying software, I will refer to the software as the Starter Kit.

From -6105288491345729828
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,581866e411610abb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 04:32:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!ucdavis!ucbvax!ALMSA-1.ARPA!gaspar
From: gaspar@ALMSA-1.ARPA (Al Gaspar)
Newsgroups: net.micro.atari16
Subject: Noisy 1040's
Message-ID: <8604221245.AA13135@ucbvax.berkeley.edu>
Date: Tue, 22-Apr-86 07:32:11 EST
Article-I.D.: ucbvax.8604221245.AA13135
Posted: Tue Apr 22 07:32:11 1986
Date-Received: Wed, 23-Apr-86 23:59:56 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

A week or two ago, there were some postings complaining of an obnoxious noise being made by the 1040ST. Is this a problem with all 1040STs? Can it be corrected? I would appreciate hearing any new information.

Al Gaspar <gaspar@almsa-1.arpa>
USAMC ALMSA, ATTN: AMXAL-OW, Box 1578, St. Louis, MO 63188-1578
COMMERCIAL: (314) 263-5118 AUTOVON: 693-5118
seismo!gaspar@almsa-1.arpa

From 8898411069133701 82
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 06:49:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site mtuxn.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!mtuxo!mtuxn!rb
From: rb@mtuxn.UUCP (R.BOTWIN)

Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <809@mtuxn.UUCP>
Date: Tue, 22-Apr-86 09:49:35 EST
Article-I.D.: mtuxn.809
Posted: Tue Apr 22 09:49:35 1986
Date-Received: Wed, 23-Apr-86 23:29:03 EST
References: <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP>
Reply-To: rb@mtuxn.UUCP (01161-R.BOTWIN)
Distribution: net
Organization: AT&T Information Systems, Holmdel NJ
Lines: 2
Keywords: cheaper? better?

[]
As far as we can see 1040's will not support tv! Only monitors.

From -5699876766795855759
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ace24e3cc8d37a5b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 06:58:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site mtuxn.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!mtuxo!mtuxn!rb
From: rb@mtuxn.UUCP (R.BOTWIN)
Newsgroups: net.micro.atari16
Subject: Re: Defining keys on 520ST
Message-ID: <810@mtuxn.UUCP>
Date: Tue, 22-Apr-86 09:58:33 EST
Article-I.D.: mtuxn.810
Posted: Tue Apr 22 09:58:33 1986
Date-Received: Wed, 23-Apr-86 23:30:18 EST
References: <115@unx1.UUCP>
Reply-To: rb@mtuxn.UUCP (01161-R.BOTWIN)
Organization: AT&T Information Systems, Holmdel NJ
Lines: 16

In article <115@unx1.UUCP> leilabd@unx1.UUCP writes:
>......
>the question therefore is: can I program these keys to send
>characters, or sequences of characters, of my choice? I don't
>have any compilers, etc., only the software that comes with the
>machine.
>
>Any advice would be most welcome.
>--
[]

A product called STKEY allows user programmability of the ST function keys.
It runs as an accessory, and will run with most other programs that
leave start-up accesories intact.

Available from CSC Hightstown, NJ 08520 (609) 448-8889 $29.95 postpaid

From -7282650630642856963
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2427b31e4826cc01,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 07:02:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: STSQUEEZER for the UNSQUEEZER
Message-ID: <256@brueer.brueer.UUCP>
Date: Tue, 22-Apr-86 10:02:30 EST
Article-I.D.: brueer.256
Posted: Tue Apr 22 10:02:30 1986
Date-Received: Sat, 26-Apr-86 06:24:15 EST
References: <54600058@iuvax.UUCP>
Reply-To: ralph@brueer.UUCP (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 9

Sorry to be a nuisance, but I don't seem to remember seeing the UNSQUEEZER
go past... It may be that it was lost during the break in communications
between mcvax and ukc from 10 April - 13 April. If this is the case, could
someone re-post it, please ??

Thanks in advance...

Ralph Mitchell

From 6276777328694144345
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,1bf7103b3331619b
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,d7df1389e688d0a5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 08:20:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!glacier!hplabs!sdcrdcf!trwrb!trwrba!sansom
From: sansom@trwrba.UUCP
Newsgroups: net.micro.atari,net.micro.atari16
Subject: Re: Need MIDI port info for 520ST
Message-ID: <2007@trwrba.UUCP>

Date: Tue, 22-Apr-86 11:20:42 EST
Article-I.D.: trwrba.2007
Posted: Tue Apr 22 11:20:42 1986
Date-Received: Thu, 24-Apr-86 06:44:23 EST
References: <9000001@ima>
Reply-To: sansom@trwrba.UUCP (Richard E. Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 196
Xref: watmath net.micro.atari:2987 net.micro.atari16:537

In article <9000001@ima> peterb@ima writes:
>
>Help... I bought my 520ST to use to drive my MIDI keyboards, and don't find
>any documentation on how to access them. And since I understand assembler,
>could some kind soul give me a quick hack of a routine that can read and write
>to the MIDI ports. Also if there is any other documentation on them, please
>point me to it. It would be nice to get some C code to go with the stubs...
>

The following program will give a rudimentary introduction to the ST's
MIDI capabilities. I pulled this from the net a couple of months ago.

Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!trwrba!sansom

```
/* mr.c */
/* Nigel Roles 1986 */

#include "osbind.h"

#define MIDI 3
#define CON 2
#define GM (Bconin(MIDI)&0xff)

struct event {
     int delay;
     char cmd[3];
};

struct event *buffer;

int empty=1;
long bc;
long memsize;
long bmax;

long hz200()
{
     register long save_ssp=Super(0L);
     register long uhz200= *(long *)0x4ba;
```

```
     Super(save_ssp);
     return uhz200;
}

record()
{
     register struct event *bp;
     long now,then;
     printf("Recording (any key to stop):\n");
     while (Bconstat(MIDI))
          Bconin(MIDI);
     then=0;
     bp=buffer;
     bc=0;
     for (;;) {
          if (Bconstat(CON)) {
               Bconin(CON);
               bp->delay= -1;
               bc++;
               break;
          }
          if (Bconstat(MIDI)) {
               int b=GM;
               if (b==0xfe)
                    continue; /* Ignore active sensing */
               if (b==0x90) {
                    now=hz200();
                    if (then==0)
                         bp->delay=0;
                    else
                         bp->delay=now-then;
                    then=now;
                    bp->cmd[0]=b;
                    bp->cmd[1]=GM;
                    bp++->cmd[2]=GM;
                    if (++bc==bmax) {
                         printf("Buffer full\n");
                         break;
                    }
               }
          }
     }
}

play()
{
     register struct event *bp=buffer;
     long target;
     printf("Playing:\n");
     while (bp->delay!= -1) {
          if (Bconstat(CON)) {
               Bconin(CON);
               break;
```

```
          }
          target=hz200()+bp->delay;
          while (hz200()<target) ;
          Midiws(2,bp->cmd);
          bp++;
     }
}

#define FNSIZE 20
struct filename {
     char lin,lout;
     char name[FNSIZE+1];
} fn;

int h;

getfn()
{
     printf("Filename: ");
     fn.lin=FNSIZE;
     Cconrs((char *)&fn);
     printf("\n");
     fn.name[fn.lout]='\0';
}

load()
{
     getfn();
     if ((h=Fopen(fn.name,0))<0) {
          printf("Can't open %s for reading (error %d)\n",fn.name,h);
          return;
     }
     if (Fread(h,memsize,buffer)<0)
          printf("Read error\n");
     else
          empty=0;
     Fclose(h);
}

save()
{
     getfn();
     Fdelete(fn.name);
     if ((h=Fcreate(fn.name,0))<0) {
          printf("Can't create %s (error %d)\n",fn.name,h);
          return;
     }
     if (Fwrite(h,sizeof(struct event)*(long)bc,buffer)<0)
          printf("Write error\n");
     Fclose(h);
}

main()
```

```
{
     char c;
     char *malloc();
     memsize=(long)malloc(-1L);
     if ((buffer=(struct event *)malloc(memsize))==(struct event *)0L) {
          printf("malloc failure\n");
          exit(1);
     }
     bmax=memsize/sizeof(struct event);
     printf("\033EMidi Recorder Version 1.0 (definitely)\n");
     printf("(C) N. G. Roles 1985\n\n");
     printf("Capacity: %D events\n",bmax);
     for (;;) {
          printf("MR> ");
          c=Bconin(CON);
          printf("%c\n",c);
          switch (c) {
          case 'q':
               break;
          case 'r':
               record();
               continue;
          case 'p':
               if (empty)
                    printf("Nothing to play!\n");
               else
                    play();
               continue;
          case 's':
               if (empty)
                    printf("Nothing to save!\n");
               else
                    save();
               continue;
          case 'l':
               load();
               continue;
          default:
               printf("???\n");
               continue;
          }
          break;
     }
}
--
Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!trwrba!sansom


From 5078222805770800721
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2a0553b51963bb8a
```

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 09:16:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP
Newsgroups: net.micro.atari16
Subject: Re: KERMIT, HELP!
Message-ID: <349@imagen.UUCP>
Date: Tue, 22-Apr-86 12:16:50 EST
Article-I.D.: imagen.349
Posted: Tue Apr 22 12:16:50 1986
Date-Received: Thu, 24-Apr-86 05:41:53 EST
References: <14226845@ucbvax.UUCP> <54600062@iuvax.UUCP>
Organization: The Houses of the Holy
Lines: 24

>
> Forget the Kermit - it is slow and unappealing in several other ways. You
> should be using xmodem like everyone else. Email me if you want it.
> franco@indiana.csnet

~~~~~~~~~~~~~~~~~~\ lineater,\~~~~~~

awww john, such snobbery ! ;-) kermit has a major advantage over
xmodem for those of us who wander thru bbs's from mainframes, the
connect mode which allows us to login into other systems and set up
the xfer, you just can't do that in xmodem. if someone has a version
of tip modified to use xmodem i'd sure like a copy.
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 4782559055506117912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b9f688d18025e6c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 10:08:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!mhuxm!mhuxf!mhuxi!mhuhk!mhuxt!
houxm!whuxl!whuxlm!akgua!gatech!seismo!rochester!ritcv!cci632!ccird2!rb
From: rb@ccird2.UUCP
Newsgroups: net.micro.atari16
~~~~~~~~~~~~~~~~~~

Subject: Re: ST based lap computers: A query.
Message-ID: <785@ccird2.UUCP>
Date: Tue, 22-Apr-86 13:08:15 EST
Article-I.D.: ccird2.785
Posted: Tue Apr 22 13:08:15 1986
Date-Received: Sat, 26-Apr-86 05:48:14 EST
References: <8604121914.AA24184@ucbvax.berkeley.edu>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Organization: CCI Telephony Systems Group, Roch, NY
Lines: 84
Summary: How Portable?

In article <8604121914.AA24184@ucbvax.berkeley.edu> RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA writes:
>
>Does anyone out there think Atari will ever develop a lap computer based
>on the ST? I would love to have a 68000 computer that would fit in my
>backpack.
>Are there real practical reasons why this cannot be accomplished? The market
>in PC lap computer seems pretty active, so there's money to be made.

The current "minimums" for a "real computer" seem to be a full travel qwerty keyboard, 80 column by 25 line display (640/400 graphics preferred), 400K non-volitile storage, and 1/2 to 1 meg volitile storage for ram disks, and general program usage. Many would also include a hard disk in their "minimums" list as well. Getting all of that into a single "box" that is both light-weight, and compact, is no easy chore.

Actually, the 1040 *almost* qualifies. The biggest problem is getting some form of high resolution display that won't make you squint like crazy, for a price that isn't rediculously high.

Currently, there are 4 approaches:

LCD's are almost high enough resolution, but a 640x400 mono display can be very expensive, and requires some extra driver electronics. Back lighting has been found to improve immunity to glare, but still, a fairly dark room is reccomended :-).

Flat plasma displays are light and easy to carry, but again, they are not cheap. They are also a little power hungry for battery use.

You could use a "squint screen" such as a 4" b/w tv/monitor. There are a few available for reasonable prices (DAC has some for about $50), but unless you are fond of getting your nose about 12" from the screen (ideal viewing distance is 3xwidth of screen), the fatigue can get quite uncomfortable. I suppose you could mount it on a small tripod :-).

Last option would be a "viewfinder" such as those used on VCR cameras. In this case, there are two problems, one being the ability to "mount" the device near the eye (a "helmet" has been suggested :-). The second

is the eye fatigue of having the finder on one eye for several hours at a time.

There is a market for a "lap computer", or more acurately a "coat pocket computer", which can have the keyboard, monitor, and drive "plugged in", but as the price of computers goes down, especially to the level where the individual rather than the company can make the "home" purchase, the trend seems to be to "communicate instead of commute" the computers.

When you stop to think about it, the bulkiest, and most expensive parts of the computer are not the CPU/RAM but the peripherals. The keyboard, monitor, disk drive, and mouse are the expensive and bulky parts of the package, the "main board" of the ST could fit in a coat pocket (let alone your back-pack).

There are "compromise systems" with features such as "chicklet keyboards", extra small displays, limited memory, slow mass storage. These are acceptable to a small market of "traveling salesmen" type people who just want to "dial in" for some quick figures, but not for heavy, regular use.

Two novel keyboard approaches have also been used. In one case, a dvorak layout makes a "chicklet keyboard" 8"x3" very useful. In another case a "one handed" keyboard unit was squashed into something about 4"x5"x2". Notes taken "in the field" could be downloaded via RS-232 or modem lines. It also had a 5x1 character diplay. At $500, it was an "expensive toy", at $50 (what it would cost to make today), it might be a "useful tool".

One alternative to mass storage is very high speed communications. Perhaps when "digital lines" become more readily available, portable computers will use a "host" as the "disk drive".

As to the original question, "will Atari make a 'lap-top'?", I don't suppose they will. The possibility of someone makeing an electronic notepad which can "feed" the Atari? The probability is very good.

In the long term, my guess is that Atari will drop the direct floppy and printer interface, expand the DMA interface to full SCSI, and run the one cable out of the "keyboard/console" box. One rumor has it that the TT (Thirtytwo Thirtytwo) will connect to the ST, which will work as a "Very Intellegent Terminal/Workstation" as well as a stand-alone computer.

From 539710458320697962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5bcba9a988fe01f7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 13:24:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!disunix.UUCP!jhs
From: jhs@disunix.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Question on Composite Output
Message-ID: <8604222124.AA08626@mitre-bedford.ARPA>
Date: Tue, 22-Apr-86 16:24:34 EST
Article-I.D.: mitre-be.8604222124.AA08626
Posted: Tue Apr 22 16:24:34 1986
Date-Received: Thu, 24-Apr-86 05:35:55 EST
References: <1453@homxb.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

This may help (if you don't soldering): The TV modulator takes as inputs the
composite video signal and the audio signal. If you can figure out which is
which (e.g. by trying both), you may be able to get a picture on your monitor
by just bringing this signal out. However, the level may be wrong so you may
get less contrast than you want. If so, you may have to add some
amplification or pick the signal off at a better spot.

Good luck and hope it turns out to be simple.

-John Sangster
jhs@mitre-bedford.arpa

From 5238266540118885934
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,429c97c65ee41f32
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 14:04:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Logbase/Physbase and Screen Dumps
Message-ID: <176@bridge2.UUCP>
Date: Tue, 22-Apr-86 18:04:33 EDT
Article-I.D.: bridge2.176
Posted: Tue Apr 22 18:04:33 1986
Date-Received: Fri, 2-May-86 23:11:46 EDT
References: <157@bridge2.UUCP> <860421-105316-1612@Xerox>
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 52

>
>
> >I believe that the screen dump routine should be using the
> >physbase pointer, as all I have read implies that the screen
> >dump capability should give you a printout of what is visible
> >on the actual screen
>

> >Have I found a bug? Is there any way to fix it?
>
>   No. You haven't found a bug. If you think about the reasoning behind
> having two locations "logbase" and "physbase" you will see that it is
> working properly. The ideas is to allow the programmer to perform page
> flipping while using the system routines for writing to the screen. In
> order for this to work you must display one screen but have the system
> routines use another. Thus, there are two pointer, one points to the
> memory which is to be displayed on the screen (physbase) the other to
> the memory which is to be used by the system routines (logbase). If you
> want the system routines to work on the currently displayed memeory then
> you must set "logbase" to "physbase". If you started having system
> routine use physbase then you would loose flexability (Printing one
> screen while viewing another for example). To solve your problem simply
> set "logbase" to "physbase" before calling the screen dump routine and
> restore it after you return.
>
>
> John

You COMPLETELY missed the point of the question. I KNOW how logbase
and physbase work. My program uses them and the result is that I get
nice crisp screen transitions despite the fact that the program needs
several seconds to prepare the next image. OK, now back to the question.

Let me clarify, I did not issue a system call to print the screen. The
manual says that I can hit ALT/HELP (or whatever the key combo is as per
the documentation) to get hardcopy OF THE SCREEN. I hit ALT/HELP and
DID NOT GET HARD COPY OF THE SCREEN. I got hard copy of the image that
was partially built. Had I issued the call, you can be sure that I would
have had the pointers pointing at what I wanted them to point at.

I AM suggesting that the ALT/HELP routine use physbase instead of logbase.
I suppose this implies that the screen dump system should take a parameter
indicating the area of memory to be printed, while the parameter passed in
the case of the ALT/HELP key be physbase.

he use of a the keyboard to get screen dumps is to take care of the
case where the program does not have the capability or desire to provide
the function itself. Instead, it printed the confusing half-built
image that the program was preparing.

I am trying to point out to ATARI that the capability could be made to
operate in a more useful fashion.
Perhaps someone from ATARI would care to comment.

From -8021743413715751578
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 14:28:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!reading!minster!nigel
From: nigel@minster.UUCP (nigel)
Newsgroups: net.micro.atari16
Subject: Hard disk limitations
Message-ID: <755@minster.UUCP>
Date: Tue, 22-Apr-86 17:28:40 EST
Article-I.D.: minster.755
Posted: Tue Apr 22 17:28:40 1986
Date-Received: Sat, 26-Apr-86 06:24:02 EST
Organization: University of York, England
Lines: 47

References:
Sender:
Reply-To: nigel@minster.UUCP (nigel)
Followup-To:
Distribution:
Organization: University of York, England
Keywords:

I have an pre-production Atari 20 Mb hard drive, and am now starting to encounter problems. The documentation says to be careful not to copy too many files at once (no limit suggested), and to not have more than about 40 subdirectories across all drives. This slightly worried me. When I created my 20th yesterday, I could not run any application, let alone copy files. The former generated the error "couldn't find application", and the latter "not enough memory to run that application". These I reckon are wide of the mark, as GEM is not expecting the underlying operating system to fold up, so guesses. When I tried to copy files using the command interpreter, I got two bombs (bus error), but the interpreter survived to accept another command. When I removed the 20th directory, everything worked again. Conclusion - GEMDOS is broken. According to show info, I have only 1 Meg of the disk used. According to show (using command.tos), I have used about 4Meg, which is more believable. Without subdirectories, I couldn't find my way about more than about 1 Meg anyway. I need subdirectories. I might also mention that this problem has been rumbling away, because about 3 directory creations ago, the ISV assembler stopped working. It either couldn't find the irritating AS68SYMB.DAT, or created as many temporary files as it could before running out of directory entries.....

Arrggghhh. Thinks - "this is ludicrous - I wish I had time to write my own operating system, which doesn't pale at the the task of handling directories." First year students who've just learnt about operating systems might also be wondering what's so difficult.

My system is a 1 meg upgraded 520st with OS roms, 1 floppy, and one hard drive.

Why has this happened at 20 and not 40 subdirectories?
Why is 40 a limitation anyway?
Is this a known problem?
Have I really got to have huge directories?
Any suggestions?

Please!

Nigel Roles
Department of Computer Science
University of York

..!ukc!minster!nigel

From -7359983888648273415
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-22 16:13:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site ucsfcca.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ucsfcgl!ucsfcca!root
From: root@ucsfcca.UUCP (Computer Center)
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040???
Message-ID: <487@ucsfcca.UUCP>
Date: Tue, 22-Apr-86 19:13:14 EST
Article-I.D.: ucsfcca.487
Posted: Tue Apr 22 19:13:14 1986
Date-Received: Sat, 26-Apr-86 04:20:13 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu> <3180@ukma.UUCP>
Organization: UCSF Computer Center
Lines: 5

> Some 1040s made it to Louisville a couple of days ago.
>   Alan Kennington.

There were lots of 1040's both demoing and for sale at the
West Coast Computer Faire earlier this month.

From -1948125380458932694
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdf2d69d41423f80
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 00:10:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site utcsri.UUCP
Path: utzoo!utcsri!drb
From: drb@utcsri.UUCP (David R. Blythe)
Newsgroups: net.micro.atari16
Subject: Re: 5620 (blit) cartridge for the ST ?
Message-ID: <2622@utcsri.UUCP>
Date: Wed, 23-Apr-86 03:10:52 EST
Article-I.D.: utcsri.2622
Posted: Wed Apr 23 03:10:52 1986
Date-Received: Wed, 23-Apr-86 03:43:22 EST
References: <787@ihlpm.UUCP>

Distribution: net
Organization: CSRI, University of Toronto
Lines: 55

>
>
> I just read on att.blit that the University of Toronto has developed
> and is currently using a 5620(blit) terminal emulator in a ROM
> cartridge for the 520ST (mono). Does anyone know if this is true?
> If this is cartridge exists I would like to buy one and I'm sure a
> lot of other people would too. Can anybody out there confirm or deny
> this??? I think a product like this would be a great boost to ST
> sales, I hope it makes it to the market place.
>
>   R.T. Bradstrum

Subject: Re: 5620 (blit) cartridge for the ST

    Yes, Dave Galloway and myself have ported the original 68000 Blit software to the 520st. The software, for the most part, is the same as that in the Blit's commercial successor, the 5620. For those of you unfamiliar with the Blit software, this gives you a multi-tasking multi-window smart terminal interface to Unix similar to the facilities offered on the Sun workstation (plus and minus some features).
[For those interested in more details about the Blit, see Rob Pike's article in the April 1983 issue of the ACM Transactions on Graphics, or the SIGGRAPH 83 conference proceedings].

    It was our hope to be able to use these converted atari's as cheap terminals at the university. While the software was quite successfully ported*, the project was somewhat of a failure for two reasons. The most important is that the st keyboard is terrible (ATARI ARE YOU LISTENING?). The second reason is that the screen is a bit small, particularly for multi-window use (although it still beats the hell out of a dumb ascii terminal). On the other hand, I must give credit to atari for the 70hz non-interlaced b/w screen, it is beautiful compared to the 30hz interlaced green screen on the Blit and 5620!

    Anyway, we have a half dozen of these terminals in use by people at the university (mostly me) under BSD 4.2 (impatiently waiting for 4.3 and its accompanying OS window support) and we will live with them until somebody comes out with some better hardware (or we build it ourselves). Unfortunately, all of the software was derived from proprietary Bell software so we are not allowed to distribute it to anybody unless you are appropriately licensed :-(.

*
In conclusion, for those of you already possessing Blit or 5620 software interested in trying to get our software, I must also point out that it is not just a matter of getting the ROMs. We have modified most of the Blit terminal programs to remove the machine dependencies making them binary compatible across both the atari and Blit (except for the main terminal multiplexor). Therefore a complete 10 Meg (or so) distribution would be necessary.
              :-(... :-(

David Blythe
Computer Systems Research Institute University of Toronto
Usenet: {linus, ihnp4, allegra, decvax, floyd, utzoo}!utcsri!drb
CSNET: drb@Toronto
ARPA: drb%Toronto@CSNet-Relay

From 6161497948067738810
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,369cb438ec3a2f68,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 02:01:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!RYERSON.BITNET!FCTY7284
From: FCTY7284@RYERSON.BITNET
Newsgroups: net.micro.atari16
Subject: Blit Terminal
Message-ID: <8604230718.AA01165@ucbvax.berkeley.edu>
Date: Wed, 23-Apr-86 05:01:40 EST
Article-I.D.: ucbvax.8604230718.AA01165
Posted: Wed Apr 23 05:01:40 1986
Date-Received: Thu, 24-Apr-86 06:27:11 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 19

==========

>I just read on att.blit that the University of Toronto has developed
>and is currently using a 5620(blit) terminal emulator in a ROM
>cartridge for the 520ST (mono). Does anyone know if this is true?
>If this is cartridge exists I would like to buy one and I'm sure a
>lot of other people would too. Can anybody out there confirm or deny
>this??? I think a product like this would be a great boost to ST
>sales, I hope it makes it to the market place.

R.T. Bradstrum

This is true: Dave Galloway at the U of Toronto Computer Science
Research Centre is the person to talk to. I saw a demo of the
BLIT emulation: the ST was hooked up to a VAX system by a 9600
baud line and was running a number of windows in a multiplexed
manner. It looked like a small SUN worksation, very smooth.
The snag in marketing this thing is that AT&T would have to licence
it, since it was a port of existing software. The original BLIT
was $10,000 (!) so don't get your hopes up.
Peter Hiscocks

From -3312704419080701387
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-04-23 07:51:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!ll-xn!adelie!rclex!walt
From: walt@rclex.UUCP (Walter L. Weber)
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040? I'm typing on mine!
Message-ID: <746@rclex.UUCP>
Date: Wed, 23-Apr-86 10:51:20 EST
Article-I.D.: rclex.746
Posted: Wed Apr 23 10:51:20 1986
Date-Received: Sat, 26-Apr-86 06:26:31 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu> <185@atari.UUcp> <2610@mit-
hermes.ARPA>
Organization: Ridge Computers (Eastern Region), Lexington, MA
Lines: 23
Summary: correction to New England dealers assertion...

In article <2610@mit-hermes.ARPA>, jpexg@mit-hermes.ARPA (John Purbrick) writes:
>
> ..... Apparently the owner of The Bit Bucket in
> Newton, Mass., which claims to be the only dealer in New England, is friendly
> with Mr Tramiel, so they get reasonable supplies.

According to people I know who have worked for Jack Tramiel at Commodore, the
owner may have the impression that he is friendly with Tramiel, but Tramiel
in all likelihood does not share the illusion.

Also, in four visits to The Bit Bucket I found their people to be conceited and
more interested in talking about how good they are than in demonstrating how
good they are. I finally found an incredibly helpful operation located in
Framingham, Mass. called CompuClub (617-879-5232 or 1-800-MY-ATARI) - the
owner is Tom Graziano, he has been around for a while, and I have found the
staff to be very knowledgeable and willing to help. Hours are 11AM - 7PM
Eastern.

Prices are also MUCH better than Bit Bucket's, and as of today they had
a half-dozen 1040's in stock waiting to be adopted.
--
Walt Weber   UUCP: {harvard,ll-xn}!rclex!walt
Ridge Computers
Lexington, Mass.

From -5191666957424716942
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8730af2ed9f3b2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 08:55:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DBNUAMA1.BITNET!HSTL
From: HSTL@DBNUAMA1.BITNET

Newsgroups: net.micro.atari16
Subject: 1040 availability
Message-ID: <8604231654.AA11260@ucbvax.berkeley.edu>
Date: Wed, 23-Apr-86 11:55:53 EST
Article-I.D.: ucbvax.8604231654.AA11260
Posted: Wed Apr 23 11:55:53 1986
Date-Received: Sat, 26-Apr-86 04:20:41 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

1040 STf's are in stock in Germany in department stores as well as

at Atari dealers - at the same price (I understand the 'f' stands for

the integrated floppy - ?). But believe it or not, they are

delivered without TOS in ROM, although the documentation has been

changed as to omit all references to the 'system disk'. My dealer

says the ROMs will be available about this week.

Horst Stenzel - Univ. Bonn

From 5507897537467255900
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,941318083809a1c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 12:22:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Version 1.0 Netnews CMS/BITNET 5/19/85; site PSUVM.BITNET
Path: utzoo!watmath!clyde!cbosgd!ukma!psuvm.bitnet!giz
From: GIZ@PSUVM.BITNET
Newsgroups: net.micro.atari16
Subject: Desk Access. Sholes/DSK Swapper
Message-ID: <5192GIZ@PSUVM>
Date: Wed, 23-Apr-86 15:22:49 EST
Article-I.D.: PSUVM.5192GIZ
Posted: Wed Apr 23 15:22:49 1986
Date-Received: Fri, 25-Apr-86 04:42:28 EST
Expires: Thu, 8-May-86 01:00:00 EST
Lines: 12

I am looking for a PD accessory for swapping the
Sholes (QWERTY) keymap to DSK.

+ :--> Jeff Ganaposki <--:   (814) 863-0422 ----------------+
| _____   GIZ@PSUVM.BITNET |
| <o o>   ganaposk@gondor.UUCP |
| " " /   JEFFG@PSUECL.BITNET |

| vvvvv |
| :::::   "I don't disclaim anything!" |
+--+

From -5318694153433556910
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b2662d15e2979577,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 17:14:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site oscvax.UUCP
Path: utzoo!utcs!oscvax!ron
From: ron@oscvax.UUCP (Ron Janzen)
Newsgroups: net.micro.atari16
Subject: How do you get the cursor position?
Message-ID: <403@oscvax.UUCP>
Date: Wed, 23-Apr-86 20:14:48 EST
Article-I.D.: oscvax.403
Posted: Wed Apr 23 20:14:48 1986
Date-Received: Thu, 24-Apr-86 01:32:04 EST
Reply-To: ron@oscvax.UUCP (Ron Janzen)
Organization: Ontario Science Centre, Toronto
Lines: 19

In the March '86 Question and Answer Bulletin from Atari there was the
following question:

Are there any variables around so I can get the position of the cursor?

The answer stated that the cursor position was kept in a couple of words
at negative offsets from the line A variables base address. Specifically
it said that the cursor x position was at -14 words and the cursor y position
was at -13 words from the line A base address. Well I tried this and
those two words didn't change no matter how much I moved the mouse.
Has anybody else had any success using these two magic memory locations?
Or could somebody tell me the correct procedure to go thru to get the
current mouse position (without using VDI). I know I could intercept the
mouse packets from the keyboard but I would rather not do that if I don't
have to.
--
Ron Janzen
Ontario Science Centre, Toronto
...!{allegra,ihnp4,decvax,pyramid}!utzoo!oscvax!ron

From -8010400981523227137
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15eac6,d6d218ae596a585a
X-Google-Attributes: gid15eac6,public
X-Google-Thread: 140593,d6d218ae596a585a
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-04-23 17:33:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!decvax!ittatc!
dcdwest!sdcsvax!sdcc6!sdcc13!ma71scp
From: ma71scp@sdcc13.UUCP (NEAL KATZ)
Newsgroups: net.micro.atari16,net.info-terms
Subject: Re: 520ST termcap entry?
Message-ID: <522@sdcc13.UUCP>
Date: Wed, 23-Apr-86 20:33:51 EST
Article-I.D.: sdcc13.522
Posted: Wed Apr 23 20:33:51 1986
Date-Received: Sat, 26-Apr-86 05:55:23 EST
References: <2126@uwmacc.UUCP>
Distribution: net
Organization: U.C. San Diego, Academic Computer Center
Lines: 7
Xref: watmath net.micro.atari16:547 net.info-terms:891
Summary: Please bear with me question on termcap

I can't get vi to work w/ my ST no matter what, I tried installing
the 520ST termcap (which seemed to work w/ tset). But VI still goes crazy
. symptoms: tilde(~) in upper left, and everything I type shows up in
lower right.
any ideas
#include <i.dont.know.nothing.h>
                                    Neal 'NAK' Katz

From 8743365849782732980
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3b2ac97a08155670,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 18:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Starter Kits mailed
Message-ID: <54600070@iuvax.UUCP>
Date: Wed, 23-Apr-86 22:04:00 EDT
Article-I.D.: iuvax.54600070
Posted: Wed Apr 23 22:04:00 1986
Date-Received: Sun, 27-Apr-86 06:30:54 EDT
Lines: 7
Nf-ID: #N:iuvax:54600070:000:287
Nf-From: iuvax!franco   Apr 23 22:04:00 1986

Starter kits have been mailed to Bruyne,pase@dockmaster.arpa,Purbrick,
Langeveld,Latta,Streeper,Hiscocks,Siegel. I would like to respond to
you individually but lately I have been getting lots of requests and I
am trying to be as economical with time as I can be.

franco@indiana.csnet

From 5736856766820981838
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5bcba9a988fe01f7
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-23 22:03:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Question on Composite Output
Message-ID: <1466@cwruecmp.UUCP>
Date: Thu, 24-Apr-86 01:03:10 EST
Article-I.D.: cwruecmp.1466
Posted: Thu Apr 24 01:03:10 1986
Date-Received: Sat, 26-Apr-86 03:47:42 EST
References: <1453@homxb.UUCP> <8604222124.AA08626@mitre-bedford.ARPA>
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 31

> This may help (if you don't soldering): The TV modulator takes as inputs the
> composite video signal and the audio signal. If you can figure out which is
> which (e.g. by trying both), you may be able to get a picture on your monitor
> by just bringing this signal out. However, the level may be wrong so you may
> get less contrast than you want. If so, you may have to add some
> amplification or pick the signal off at a better spot.
>
> Good luck and hope it turns out to be simple.
>
> -John Sangster
> jhs@mitre-bedford.arpa

Interestingly enough, one of the "undocumented features" on the new STs
that have the modulator built in is that pin 2 (two) is composite
video out. The documentation says its Reserved. You can pick up
the ground from either Pin 8 or 13. The problem of course is getting
hold of the connector. If you noticed that the pins (or rather the
holes) are at 0.1" spacing. I took a perf board with 0.1 centers and
stuck wirewrap pins in them, and it fit beautifully into the video
post. You may try molex pins instead that are rounded, but i did'nt
have them handy.

--
Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case

Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 9018198844995991407
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,24aa6d3849d50c51,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 02:19:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!ucdavis!ucbvax!DBNUAMA1.BITNET!HSTL
From: HSTL@DBNUAMA1.BITNET
Newsgroups: net.micro.atari16
Subject: Starter Kit for Europe
Message-ID: <8604241019.AA11073@ucbvax.berkeley.edu>
Date: Thu, 24-Apr-86 05:19:57 EST
Article-I.D.: ucbvax.8604241019.AA11073
Posted: Thu Apr 24 05:19:57 1986
Date-Received: Sat, 26-Apr-86 05:23:32 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 5

Is there a gentle person in Europe, or preferably the EG, or even better
Germany, who could be so kind to pass on the four disks of ST software ?
That way we 'over here' could save time, postage, and, worst of all,
possible complications with customs, having to explain why free software
has no mercantile value ?-)

From 3642655526786288075
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,5fe508b5e7f8cae0
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,cb838f2f3c18d9a0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 04:51:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!decvax!ittatc!
dcdwest!sdcsvax!sdcc6!sdcc7!ln63soi
From: ln63soi@sdcc7.UUCP (ANTHONY INTRIERI)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: Amiga to ST conversion source
Message-ID: <339@sdcc7.UUCP>
Date: Thu, 24-Apr-86 08:51:55 EDT
Article-I.D.: sdcc7.339
Posted: Thu Apr 24 08:51:55 1986
Date-Received: Sun, 27-Apr-86 05:00:22 EDT
References: <175@atari.UUcp> <761@ccird2.UUCP> <7@prle2.UUCP>
Reply-To: ln63soi@sdcc7.UUCP (ANTHONY INTRIERI)
Organization: U.C. San Diego, Academic Computer Center
Lines: 16

Keywords: Atari ST, Amig*
Xref: watmath net.micro.amiga:2888 net.micro.atari16:556

In article <7@prle2.UUCP> slavenbg@prle2.UUCP (Gert Slavenburg) writes:
>
>We used the 11/20/85 release (the Atari ROM release of TOS), and converted
>it to a slightly larger objectfile on the Amiga, which took about 1 hour (!).
>The first tests of TOS seemed to work reliable, though file I/O was slower
>than expected. Encouraged by this succes, we proceeded on converting the
>hard-disk driver (version 0.11, the most recent European release).

I sincerely hope Gert is joking. There are these nasty little things called
copywrite laws, often used to protect developers of software which Gert
himself professes to be. I hope Atari isn't foolish enough to encourage
wholesale piracy of their software with their own tools.

Power Without the Price: Steal It!

Paul van de Graaf U. C. San Diego

From 7834542144986573089
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-Thread: 11f2eb,dea74020e1f76b5e
X-Google-Attributes: gid11f2eb,public
X-Google-ArrivalTime: 1986-04-24 06:08:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!rochester!ritcv!cci632!ccird2!rb
From: rb@ccird2.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16,net.legal
Subject: Re: Is Public Domain subject to national boundaries?
Message-ID: <789@ccird2.UUCP>
Date: Thu, 24-Apr-86 10:08:01 EDT
Article-I.D.: ccird2.789
Posted: Thu Apr 24 10:08:01 1986
Date-Received: Sun, 27-Apr-86 05:34:21 EDT
References: <8604022259.AA00201@ucbvax.berkeley.edu> <377@drivax.UUCP>
<665@hoptoad.uucp> <294@hope.UUCP>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Organization: CCI Telephony Systems Group, Roch, NY
Lines: 18
Xref: watmath net.micro.atari16:561 net.legal:3326
Summary: U.S. laws have changed, International laws haven't.

In article <294@hope.UUCP> corwin@hope.UUCP (John Kempf) writes:
>> I just couldn't let that one go by. "Not public domain in the United States"?
>> Supposed I get a public domain copy in Germany and bring it here?
>> Does it cease to be public domain?
>> --
>Hong Kong does not honor US copyright laws,...

International copyright agreements, and copyright laws of most countries
are patterned after the 1919 copyright laws. The U.S. passed a revised
act in 1978 which improved protection of Broadcast, music, film, video,
and software. Prior laws covered little more than works in "human readable
form". Current laws cover almost anything that "can be captured long enough
to be reproduced".

If the copyright was registered in the United States, it would be protected
here, no matter how you got it. If the copyright notice was removed in Germany
(because it's "public domain") and the software showed up in the U.S.,
you might be able to plead ignorance, but I doubt it would help.

From 4664124814472652480
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dba2152f268e588d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 07:07:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!mtuxo!mtune!mtunf!mtung!mtunh!akguc!
akgua!gatech!seismo!harvard!talcott!panda!genrad!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!trwrb!trwrba!cadovax!keithd
From: keithd@cadovax.UUCP
Newsgroups: net.micro.atari16
Subject: Atari Midi Keyboard?
Message-ID: <1037@cadovax.UUCP>
Date: Thu, 24-Apr-86 11:07:20 EDT
Article-I.D.: cadovax.1037
Posted: Thu Apr 24 11:07:20 1986
Date-Received: Tue, 13-May-86 02:36:55 EDT
Reply-To: keithd@cadovax.UUCP (Keith Doyle)
Distribution: net
Organization: CONTEL CADO Systems, Torrance, CA
Lines: 20

if so,
I'll wait until next week).

Please respond via mail if possible, I don't always have lots of time
to peruse this group (though I'll try just in case it was too much trouble
to mail).

Keith Doyle
{ucbvax,ihnp4,decvax}!trwrb!cadovax!keithd
cadovax!keithd@ucla-locus.arpa

From 7122571955114491907
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 09:39:11 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Hard disk limitations
Message-ID: <209@atari.UUcp>
Date: Thu, 24-Apr-86 13:39:11 EDT
Article-I.D.: atari.209
Posted: Thu Apr 24 13:39:11 1986
Date-Received: Sun, 27-Apr-86 06:32:12 EDT
References: <755@minster.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 45

In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:

> I have an pre-production Atari 20 Mb hard drive, and am now starting
> to encounter problems.

Aha! Please contact Richard Frick or John Feagans, at Atari, or
Robert Katz, at Atari in Britain, for a new hard disk driver. You
need it. Right now.

> First year students who've just learnt about operating systems might
> also be wondering what's so difficult.

Tee hee. Talk to DRI.... :-)

> Why has this happened at 20 and not 40 subdirectories?

The number is small and arbitrary. 20 is about the limit -- actually,
I suggest 16 or so. This covers *all* directories on the hard disk.

> Why is 40 a limitation anyway?

The DOS that DRI wrote uses a form of static allocation. It
permanently allocates structures that describe the disk hierarchy; if
you have a lot of directories, GEMDOS runs out of memory -- with
potentially disasterous results.

> Is this a known problem?

Yes. The production 20-Megabyte hard disk driver will alleviate the
problem somewhat. Atari is working on a more permanent solution
(actually, a couple different ones).

> Have I really got to have huge directories?

Yup. 16 of them, until you get the new driver. Then it's 40 or 50.

> Please!

You're welcome. (You think we /like/ this kind of problem?)

--

Landon Dyer   "If Business is War, then I'm a Prisoner of Business!"
Atari Corp.   "Gee, 20 mushrooms? That's a record!"
... {hoptoad, lll-crg!vecpyr}!atari!dyer   "Quantity is Quality."

From 1946682597797464607
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa574cde4a1ddc7c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 11:19:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!vecpyr!atari!jwt
From: jwt@atari.UUcp (Jim Tittsler)
Newsgroups: net.micro.atari16
Subject: ST Calendar Desk Accessory (SOURCE)
Message-ID: <210@atari.UUcp>
Date: Thu, 24-Apr-86 15:19:24 EDT
Article-I.D.: atari.210
Posted: Thu Apr 24 15:19:24 1986
Date-Received: Sun, 27-Apr-86 06:32:48 EDT
Organization: Atari Corp., Sunnyvale, CA
Lines: 547
Keywords: ST Accessory

Here is a shar file containing the source for a simple "sort of
perpetual" calendar desk accessory.

```
#! /bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #! /bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    cal.c string.c
echo x cal.c
sed 's/^X//' > cal.c << 'xEOF'
X/*
X * cal.c -- simple TOS desktop calendar accessory
X *
X *  provides a "perpetual" (well, really 1980-2009) calendar page display
X *  uses vertical scroll bar:  arrows move by month, shaded area by year
X *
X *  link68 cal.68k=accstart,cal,string,osbind,vdibind,aesbind
X *  relmod cal
X *  ren cal.prg cal.acc (must be DESKN.ACC in early TOS)
X *
X *  - a further experiment into the realm of writing a desk accessory
X *  This was a personal experiment to learn more about desk accessories.
X *  It may be freely distributed, on an "as-is" basis.  Comments and
```

```
X *  suggestions are welcome.  This is NOT an official, supported,
X *  Atari product.
X *  Jim Tittsler, Atari Corp.
X *
X *  15Oct85  jwt  v0.01    hacked from WATCH accessory
X *  17Jan86  jwt  v0.02    set first displayed page at OPEN time,
X *                  not init time
X *               added Day of Week string
X *  21Jan86  jwt  v0.03    use reverse video to highlight current date
X *  30Jan86  jwt  v0.04    reduce height & width of highlight in high res
X *  18Apr86  jwt  v0.05    "reopen" at same place as last close
X *  24Apr86  jwt  v1.00    distribute
X */
X
Xstatic char id[] = "@(#)CAL.ACC V1.00  jwt@atari";
X
X/* #define   DEBUG 1       */
X/* #define   DDEVICE 2*/
X#define  REVHIGHLIGHT 1
X
X#include "obdefs.h"
X#include "define.h"
X#include "gemdefs.h"
X#include "osbind.h"
X
X#define WI_KIND       (MOVER|CLOSER|NAME|UPARROW|DNARROW|VSLIDE)
X
X#define NO_WINDOW (-1)
X
X#define  AR_UPPG       0
X#define  AR_DNPG       1
X#define  AR_UPLN       2
X#define  AR_DNLN       3
X
X#define  STRINGWIDTH   22
X#define  BLANKSTRING   "                      "
X#define  CALLINES 8
X#define  DAYOFWEEKSTRING    " Sn  M Tu  W Th  F Sa "
X#define LENDOWS       STRINGWIDTH
X
X#define  YEAROFFSET    1980
X#define  BASEYEAR 1980
X#define  CALLEN        30
X#define  LASTYEAR (BASEYEAR+CALLEN-1)
X
X#define MIN_WIDTH  (STRINGWIDTH*gl_wchar)
X#define MIN_HEIGHT (CALLINES*gl_hchar+1)
X
X#define  INIT_X        100
X#define  INIT_Y        50
X#define  INIT_WIDTH    MIN_WIDTH
X#define  INIT_HEIGHT   MIN_HEIGHT
X
```

```
Xextern int   gl_apid;
X
Xint year,month,day;
Xint curyr,curmo,curday;
X
Xint initx = INIT_X;
Xint inity = INIT_Y;
X
Xint lastdate = -1;     /* last DOS date */
Xint washighlighted;
Xint hires;        /* 1 if in high resolution */
Xchar    dtoabuf[10];
Xchar    calstring[CALLINES][(STRINGWIDTH+1)];
Xchar    *months[]= {"January", "February", "March", "April",
X        "May", "June", "July", "August",
X        "September", "October", "November", "December"};
Xint daypermon[]= {31, 28, 31, 30,
X        31, 30, 31, 31,
X        30, 31, 30, 31};
X
Xint gl_hchar;
Xint gl_wchar;
Xint gl_wbox;
Xint gl_hbox; /* system sizes */
X
Xint menu_id ;/* our menu id */
X
Xint     phys_handle;  /* physical workstation handle */
Xint     handle;       /* virtual workstation handle */
Xint wi_handle;    /* window handle */
Xint top_window;   /* handle of topped window */
X
Xint xwork,ywork,hwork,wwork;    /* work area */
X
Xint msgbuff[8];   /* event message buffer */
Xint keycode; /* keycode returned by event-keyboard */
Xint mx,my;        /* mouse x and y pos. */
Xint ret;     /* dummy return variable */
X
Xint hidden;       /* current state of cursor */
X
Xint contrl[12];
Xint intin[128];
Xint ptsin[128];
Xint intout[128];
Xint ptsout[128];  /* storage wasted for idiotic bindings */
X
Xint work_in[11];  /* Input to GSX parameter array */
Xint work_out[57]; /* Output from GSX parameter array */
Xint pxyarray[10]; /* input point array */
X
X/*page
*/
```

```
Xchar *dtoa( i, fwidth ) register int i,fwidth; {
Xregister char *ptr,*lptr;
Xregister int cnt;
Xchar tbuf[6];
X
X    ptr = dtoabuf;
X
X    if (i < 0) {
X         *ptr++ = '-';
X         --fwidth;
X         i = -i;
X    }
X
X    lptr = tbuf;
X    cnt = 0;
X
X    do {
X         *lptr++ = (i % 10)+0x30;
X         ++cnt;
X    } while ( (i /= 10) && (cnt<fwidth) );
X
X    if (i)   /* did we exceed the field width? */
X         for(cnt=0; cnt<fwidth; ++cnt) *ptr++ = '*';
X    else {
X         for(i=0; i<(fwidth-cnt); ++i) *ptr++ = ' ';
X         while(cnt--) *ptr++ = *--lptr;
X    }
X
X    *ptr='\0';    /* null terminate the string */
X
X    return dtoabuf;
X}
X
X/*page
*/
Xhide_mouse()
X{
X    if(! hidden){
X         graf_mouse(M_OFF,0x0L);
X         hidden=TRUE;
X    }
X}
X
Xshow_mouse()
X{
X    if(hidden){
X         graf_mouse(M_ON,0x0L);
X         hidden=FALSE;
X    }
X}
X
Xopen_vwork() {
Xint i;
```

```
X    for(i=0;i<10;work_in[i++]=1);
X    work_in[10]=2;          /* use device coordinates */
X    handle=phys_handle;
X    v_opnvwk(work_in,&handle,work_out);
X}
X
Xset_clip(x,y,w,h) int x,y,w,h; {
Xint clip[4];
X    clip[0]=x;
X    clip[1]=y;
X    clip[2]=x+w-1;
X    clip[3]=y+h-1;
X    vs_clip(handle,1,clip);
X}
X
Xopen_window() {
Xint xbord,ybord,wbord,hbord;
X
X    wind_calc(WC_BORDER,WI_KIND,     /* WC_BORDER */
X         initx,inity,INIT_WIDTH,INIT_HEIGHT,
X         &xbord, &ybord, &wbord, &hbord);
X    wi_handle=wind_create(WI_KIND,xbord,ybord,
X         wbord,hbord);
X    wind_set(wi_handle, WF_NAME," CALENDAR ",0,0);
X    wind_set(wi_handle, WF_VSLSIZE, -1, 0, 0, 0);
X    wind_set(wi_handle, WF_VSLIDE,
X         (int)((1000L*((year-BASEYEAR)*12L+month))/(CALLEN*12)),0,0,0);
X    graf_growbox(0,0,gl_wbox,gl_hbox,
X         xbord,ybord,wbord,hbord);
X    wind_open(wi_handle,xbord,ybord,
X         wbord,hbord);
X    wind_get(wi_handle,WF_WORKXYWH,&xwork,&ywork,&wwork,&hwork);
X}
X
Xdo_redraw(complete,xc,yc,wc,hc)
Xint complete;
Xint xc,yc,wc,hc;
X{
XGRECT t1,t2;
X
X    hide_mouse();
X    wind_update(TRUE);
X    t2.g_x=xc;
X    t2.g_y=yc;
X    t2.g_w=wc;
X    t2.g_h=hc;
X    wind_get(wi_handle,WF_FIRSTXYWH,&t1.g_x,&t1.g_y,&t1.g_w,&t1.g_h);
X    while (t1.g_w && t1.g_h) {
X      if (rc_intersect(&t2,&t1)) {
X        set_clip(t1.g_x,t1.g_y,t1.g_w,t1.g_h);
X        draw_calendar(complete);
X      }
X      wind_get(wi_handle,WF_NEXTXYWH,&t1.g_x,&t1.g_y,&t1.g_w,&t1.g_h);
```

```
X    }
X    wind_update(FALSE);
X    show_mouse();
X}
X
X/*page
*/
Xmain() {
Xlong ikbdtime;
X
X    appl_init();
X    phys_handle=graf_handle(&gl_wchar,&gl_hchar,&gl_wbox,&gl_hbox);
X    gl_hchar++;
X    menu_id=menu_register(gl_apid,"  Calendar");
X
X    /* use the ikbd's version of time if it looks valid */
X    /* i.e., month is nonzero */
X    if((ikbdtime = Gettime()) &0x01E00000L) {
X         Tsetdate((int)(ikbdtime>>16));
X         Tsettime((int)(ikbdtime&0xFFFFL));
X    }
X    wi_handle=NO_WINDOW;
X    hidden=FALSE;
X
X    hires = (Getrez() == 2);    /* hires = 1 if in high res */
X    multi();
X}
X
X/*page
*/
Xmulti()
X{
Xint event;
X#ifdef DEBUG
Xint idebug;
X#endif
X
X      while (TRUE) {
X    event = evnt_multi(MU_MESAG | MU_KEYBD | MU_TIMER,
X              1,1,0,
X              0,0,0,0,0,
X              0,0,0,0,0,
X              msgbuff,10000,0,&mx,&my,&ret,&ret,&keycode,&ret);
X
X    if((lastdate != Tgetdate()) && (wi_handle != NO_WINDOW)){
X         lastdate = Tgetdate();
X         curday = lastdate & 0x1F;
X         curmo = (lastdate >> 5) & 0xF;
X         curyr = (lastdate >> 9)+YEAROFFSET;
X         if(((year==curyr)&&(month==curmo)) || washighlighted)
X              do_redraw(FALSE,xwork,ywork,wwork,hwork);
X    }
X
```

```
X    wind_update(TRUE);
X    wind_get(wi_handle,WF_TOP,&top_window,&ret,&ret,&ret);
X
X    if (event & MU_MESAG) {
X#ifdef DEBUG
X      putsaux("Message: ");
X      for (idebug=0; idebug<8; ++idebug) {
X         putdaux(msgbuff[idebug]);
X         putcaux(' ');
X      }
X      putcaux(0x0D); putcaux(0x0A);
X#endif
X
X      switch (msgbuff[0]) {
X
X      case WM_REDRAW:
X        if (msgbuff[3] == wi_handle)
X          do_redraw(TRUE,msgbuff[4],msgbuff[5],msgbuff[6],msgbuff[7]);
X        break;
X
X      case WM_NEWTOP:
X      case WM_TOPPED:
X        if (msgbuff[3] == wi_handle){
X          wind_set(wi_handle,WF_TOP,0,0,0,0);}
X        break;
X
X      case AC_CLOSE:
X        if((msgbuff[3] == menu_id)&&(wi_handle != NO_WINDOW)){
X          v_clsvwk(handle);
X          wi_handle = NO_WINDOW;
X        }
X        break;
X
X      case WM_CLOSED:
X        if(msgbuff[3] == wi_handle){
X          wind_close(wi_handle);
X          graf_shrinkbox(0,0,gl_wbox,gl_hbox,xwork,ywork,wwork,hwork);
X          wind_delete(wi_handle);
X          v_clsvwk(handle);
X          wi_handle = NO_WINDOW;
X        }
X        break;
X
X      case WM_MOVED:
X        if(msgbuff[3] == wi_handle){
X         wind_set(wi_handle,WF_CURRXYWH,
X              msgbuff[4],msgbuff[5],msgbuff[6],msgbuff[7]);
X         wind_get(wi_handle,WF_WORKXYWH,&xwork,&ywork,&wwork,&hwork);
X         initx = xwork;  inity = ywork;
X        }
X        break;
X
X      case AC_OPEN:
```

```
X       if (msgbuff[4] == menu_id){
X         if(wi_handle == NO_WINDOW){
X
X        if (lastdate != Tgetdate()){
X          lastdate = Tgetdate();
X          curday = day = lastdate & 0x1F;
X          curmo = month = (lastdate >> 5) & 0xF;
X          curyr = year = (lastdate >> 9)+YEAROFFSET;
X          makecalpage(year, month, day);
X        }
X        open_vwork();
X           open_window();
X         }
X         else    /* if already opened, for user convenience */
X           wind_set(wi_handle,WF_TOP,0,0,0,0);
X       }
X       break;
X
X     case WM_ARROWED:
X       switch(msgbuff[4]){
X        case AR_UPLN:  if(--month) break;
X                 month=12;
X                 if(--year<BASEYEAR) {
X                      year = BASEYEAR;
X                      month = 1;
X                 }
X                 break;
X        case AR_UPPG:  if(--year<BASEYEAR) year = BASEYEAR; break;
X        case AR_DNLN:  if(++month<13) break;
X                 month=1;
X                 if(++year>LASTYEAR) {
X                      year = LASTYEAR;
X                      month = 12;
X                 }
X                 break;
X        case AR_DNPG:  if(++year>LASTYEAR) year = LASTYEAR; break;
X       } /* switch(msgbuff[4]) */
X       makecalpage(year,month,-1);
X       do_redraw(FALSE,xwork,ywork,wwork,hwork);
X       wind_set(wi_handle, WF_VSLIDE,
X        (int)((1000L*((year-BASEYEAR)*12L+month))/(CALLEN*12)),0,0,0);
X       break;
X
X     case WM_VSLID:
X       wind_set(wi_handle, WF_VSLIDE, msgbuff[4], 0, 0, 0);
X       month = (int)(((long)msgbuff[4]*(CALLEN*12-1))/1000L);
X       year = (month/12)+BASEYEAR;
X       month = (month % 12)+1;
X       makecalpage(year,month,-1);
X       do_redraw(FALSE,xwork,ywork,wwork,hwork);
X       break;
X
X     } /* switch (msgbuff[0]) */
```

```
X    }
X
X    wind_update(FALSE);
X
X      } /* while (TRUE) */
X
X}
X
Xdraw_calendar(complete) int complete; {
Xint temp[4];
Xint i;
X
X    if (complete || washighlighted){
X         vsf_interior(handle,1);     /* solid */
X         vsf_color(handle,0);
X         temp[0]=xwork;
X         temp[1]=ywork;
X         temp[2]=xwork+wwork-1;
X         temp[3]=ywork+hwork-1;
X         v_bar(handle,temp);         /* blank the interior */
X    }
X
X    vst_color(handle, 1);
X
X    for(i=0; i<CALLINES; ++i)
X         v_gtext(handle, xwork, ywork+(i+1)*gl_hchar-1,
X              calstring[i]);
X
X    if((year==curyr)&&(month==curmo)){
X         i = dow(curyr,curmo,1)+curday-1;
X#ifdef REVHIGHLIGHT
X         vsf_color(handle,1);
X         temp[0]=xwork+((i%7)*3+1)*gl_wchar-2;
X         temp[1]=ywork+((i/7)+2)*gl_hchar+1+hires;
X         temp[2]=temp[0]+2*gl_wchar+3-hires;
X         temp[3]=temp[1]+gl_hchar-1-hires;
X         v_bar(handle,temp);
X         vst_color(handle, 0);
X         vswr_mode(handle, 2);
X#else /* not REVHIGHLIGHT */
X         vst_color(handle, 3);
X#endif /* REVHIGHLIGHT */
X         v_gtext(handle,xwork+((i%7)*3+1)*gl_wchar,
X              ywork+((i/7)+3)*gl_hchar-1,
X              dtoa(curday,2));
X#ifdef REVHIGHLIGHT
X         vswr_mode(handle, 1);
X#endif /* REVHIGHLIGHT */
X         washighlighted = 1;
X    } else    washighlighted = 0;
X}
X
X/*page
```

```
*/
X/*
X * dow -- find the day of the week
X *  for a given yr,mon,day between Mar1900 and Dec2099
X */
Xint dow(yr, mon, day) int yr, mon, day; {
X    register int d,i;
X
X    /* find day of week of jan1 of the year of interest */
X    d = (yr+((yr+3)/4)+5) % 7;
X
X    /* find day of week for first of month */
X    for(i=1; i<mon; ++i) d += daypermon[i-1];
X
X    /* and for the given day */
X    d += day-1;
X
X    return d % 7;
X}
X
Xmakecalpage(yr, mon, day) int yr, mon, day; {
X    register int i,monlen,xpos;
X
X    daypermon[1] = (yr%4) ? 28 : 29;
X
X    --mon;    /* create index into months array */
X
X    for(i=0; i<CALLINES; ++i)
X         strcpy(calstring[i], BLANKSTRING);
X
X    monlen = strlen(months[mon]);
X
X    xpos = (STRINGWIDTH/2) - (monlen+5)/2;
X
X    strncpy(&calstring[0][xpos],months[mon],monlen);
X    strncpy(&calstring[0][xpos+monlen+1],dtoa(year,4),4);
X
X    strncpy(calstring[1], DAYOFWEEKSTRING, LENDOWS);
X
X    xpos = dow(yr, mon+1, 1);
X    for(i=1; i<=daypermon[mon]; ++i,++xpos)
X         strncpy(&calstring[xpos/7+2][3*(xpos%7)+1],
X              dtoa(i,2),2);
X}
X
X/*page
*/
X#ifdef DEBUG
Xputsaux( s ) char *s; {
Xchar c;
X
X    while(c = *s++) putcaux(c);
X}
```

```
X
Xputdaux( i ) int i; {
X    int pot, leading, d;
X
X    if (i < 0) {
X         putcaux('-');
X         i = -i;
X    }
X
X    leading = 0;
X    for(pot = 10000; pot >= 1; pot /= 10) {
X         d = i/pot; i -= d*pot;
X         if (d || leading || (pot == 1)) {
X              putcaux(d+0x30);
X              leading = 1;
X         } else putcaux(' ');
X    }
X}
X
Xputcaux( c ) char c; {
X    Bconout(DDEVICE, c);
X}
X#endif
xEOF
echo x string.c
sed 's/^X//' > string.c << 'xEOF'
Xstrcpy(s1,s2) register char *s1,*s2; {
X
X    while (*s1++ = *s2++);
X
X}
X
Xstrncpy(s1, s2, n) register char *s1,*s2; register int n; {
X    register char c;
X
X    while((c = *s2++) && n--) *s1++ = c;
X
X    while(n--) *s1++ = '\0';    /* NULL fill */
X}
X
Xint strlen(s1) register char *s1; {
X    register int length;
X
X    length = 0;
X
X    while(*s1++) ++length;
X
X    return length;
X}
xEOF
----
Jim Tittsler, Atari Corp  lll-crg!vecpyr!atari!jwt
```

From -2860226583615807048
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,369cb438ec3a2f68
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 11:37:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
unirot!halloran
From: halloran@unirot.UUCP (Bob Halloran)
Newsgroups: net.micro.atari16
Subject: Re: Blit Terminal
Message-ID: <537@unirot.UUCP>
Date: Thu, 24-Apr-86 14:37:32 EST
Article-I.D.: unirot.537
Posted: Thu Apr 24 14:37:32 1986
Date-Received: Sat, 26-Apr-86 04:50:53 EST
References: <8604230718.AA01165@ucbvax.berkeley.edu>
Organization: Public Access Un*x, Piscataway NJ (The Soup Kitchen)
Lines: 30

In article <8604230718.AA01165@ucbvax.berkeley.edu> FCTY7284@RYERSON.BITNET
writes:
>==
>>I just read on att.blit that the University of Toronto has developed
>>and is currently using a 5620(blit) terminal emulator in a ROM
>>cartridge for the 520ST (mono). Does anyone know if this is true?
>>
>>   R.T. Bradstrum
>This is true: Dave Galloway at the U of Toronto Computer Science
>Research Centre is the person to talk to. I saw a demo of the
>BLIT emulation: the ST was hooked up to a VAX system by a 9600
>baud line and was running a number of windows in a multiplexed
>manner. It looked like a small SUN worksation, very smooth.
>The snag in marketing this thing is that AT&T would have to licence
>it, since it was a port of existing software. The original BLIT
>was $10,000 (!) so don't get your hopes up.
>Peter Hiscocks

The advantage may be this: the BLIT was a 68K-based bitmap tube built
for Bell Labs internal use. The Teletype 5620, the commercially
available unit, is NOT a 68K-based system (WE32000?). So the BLIT
support software may be seen as having so little commercial value that
AT&T may well license it for some reasonable fee. Anyone at Guilford
Center listening? (please?)

                        Robert Halloran, Consultant
==
UUCP: ..topaz!caip!unirot!halloran   ATTMail: RHALLORAN
USPS: 19 Culver Ct, Old Bridge NJ 08857   Ph: (201) 251-7514
Disclaimer: Any opinions are due solely to line noise.
Quote: "When the going gets weird, the weird turn pro..." -- Hunter Thompson

From -5430539935001930947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59234b5553a6ea6b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 13:01:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!mtuxo!mtune!mtunf!mtung!mtunh!akguc!
akgua!gatech!seismo!harvard!talcott!panda!genrad!decvax!ittatc!dcdwest!sdcsvax!
sdcarl!tre
From: tre@sdcarl.UUCP
Newsgroups: net.micro.atari16
Subject: MC68901 timers
Message-ID: <292@sdcarl.UUCP>
Date: Thu, 24-Apr-86 17:01:35 EDT
Article-I.D.: sdcarl.292
Posted: Thu Apr 24 17:01:35 1986
Date-Received: Tue, 13-May-86 02:34:38 EDT
Organization: Computer Audio Research Lab, UCSD, San Diego, Calif.
Lines: 7

    What timers are available for the user? In particular, to use with
the MIDI ACIA. I would like to get a little finer resolution than 200Hz.

--
    thomas r. erbe
    {ucbvax,ihnp4,akgua,hplabs,sdcsvax}!sdcarl!tre

From 5861751952289115391
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 16:32:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!astroatc!nicmad!luscher
From: luscher@nicmad.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040???
Message-ID: <658@nicmad.UUCP>
Date: Thu, 24-Apr-86 19:32:24 EST
Article-I.D.: nicmad.658
Posted: Thu Apr 24 19:32:24 1986
Date-Received: Sat, 26-Apr-86 06:22:51 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu> <185@atari.UUcp>
Reply-To: luscher@nicmad.UUCP (Jim {4thNIC} Luscher)
Organization: Nicolet Instrument Corp. Madison WI
Lines: 63

In article <185@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>In article <8604120324.AA05497@ucbvax.berkeley.edu>, franceus@TYCHO.ARPA (Paul

>Franceus) writes:
>>   I have had a 1040 on order at my local computer store for ~3 weeks, and
>> the dealer doesn't know when they are going to arrive.
>> question 1: Does anyone know why the 1040's are so long in coming? (neil??)
>
>If there weren't so many people like you, it would be easy to get 1040ST's!
>What I mean by that is there is such an AMAZING demand for them that we can't
>nearly supply them fast enough.
>
>Try to be a little patient and I'm sure a machine will turn up for you.

    Another possible explanation is that Atari is REALLY screwed up!
    I have been selling 520STs locally since last October, and naturally was eager to sell the 1040 when it was anounced. I spent the first two months trying to get my distributor to sell me one - the answer was always just wait a bit longer. Finally Neil@Atari gave me the name of another distributor, since Atari had changed their distribution channels and the old distributor got cut off.
    The new distributor said fine, send your money. Two weeks later I hadn't heard ANYTHING, and called them. They said to call Atari. Atari said that there was a packet of paperwork to file to become a 1040 dealer. Naturally no one had the time to tell ME that, even though I had ordered several thousand dollars worth of machines.
    Another week went by while I waited for the application they were going to send the next day. I sent it back and waited a couple days before calling them since I had been told it would just take one day to approve the application and then the hold on my order could be released.
    I have called Atari 12 times between 8 April and 22 April and every time the story was 'we are evaluating the applications this morning call back this afternoon', or 'we didn't get to it today, but you can get our answer if you call back tomorrow afternoon', or 'she is in a meeting, give me your number and she will call you back (guess if she ever did!)', or 'he is out of town today, call back on Friday.'
    In summary after having Atari pull arbitrary switches on me that I wasn't told about, after filling out their paperwork, after sending them thousands of dollars at the beginning of March, after repeatedly being lied to by them on the telephone, I ended up still not knowing if they would CONSIDER sending me 1040STs, let alone having them send me any! I pulled the plug and have asked for the money back, let someone else have the headache! A company that treats dealers as badly as Atari does will be in big trouble financially even if they have a decent product.
    Now I wonder how long it will take them to get their act together and return my cash so I can look for a product which I can actually GET, and thus have a real chance to make money on?
    As for Atari, well they lose out on the half dozen individuals that wanted their equipment and the two companies that wanted to place multiple unit orders with me. But I would rather pass on that business than ruin my reputation by repeating to others the untruths that Atari was feeding me about how long things would take. They aparently don't operate in a world of deadlines, or else they assume that their customers don't. Bad assumption.

Jim Luscher / Tardis Computers / 5228 Langlois St. / Madison, Wis 53705

--

    ihnp4------\   Jim Luscher
  harvard-\   \   Nicolet Instruments / Test Instrument Div
     seismo!uwvax!nicmad!luscher 5225 Verona Rd. Bldg-2
    topaz-/   /   Madison, Wi 53711-0288
   decvax------/   (608) 271-3333 x 2274

From -5193322426365310747
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6dd9884a6d6a6a06,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 17:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!tektronix!
hplabs!hpda!hpisoa2!hpitg!atari!dyer@atari

From: dyer@atari

Newsgroups: net.micro.atari16
Subject: Re: Response to <755@minster.UUCP> <209@atari.UUcp>
Message-ID: <209@atari>
Date: Thu, 24-Apr-86 21:39:00 EDT
Article-I.D.: atari.209
Posted: Thu Apr 24 21:39:00 1986
Date-Received: Wed, 14-May-86 06:55:27 EDT
References: <755@minster>
Lines: 45

In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:

> I have an pre-production Atari 20 Mb hard drive, and am now starting
> to encounter problems.

Aha! Please contact Richard Frick or John Feagans, at Atari, or
Robert Katz, at Atari in Britain, for a new hard disk driver. You
need it. Right now.

> First year students who've just learnt about operating systems might
> also be wondering what's so difficult.

Tee hee. Talk to DRI.... :-)

> Why has this happened at 20 and not 40 subdirectories?

The number is small and arbitrary. 20 is about the limit -- actually,
I suggest 16 or so. This covers *all* directories on the hard disk.

> Why is 40 a limitation anyway?

The DOS that DRI wrote uses a form of static allocation. It
permanently allocates structures that describe the disk hierarchy; if
you have a lot of directories, GEMDOS runs out of memory -- with

potentially disasterous results.

> Is this a known problem?

Yes. The production 20-Megabyte hard disk driver will alleviate the
problem somewhat. Atari is working on a more permanent solution
(actually, a couple different ones).

> Have I really got to have huge directories?

Yup. 16 of them, until you get the new driver. Then it's 40 or 50.

> Please!

You're welcome. (You think we /like/ this kind of problem?)

--

Landon Dyer   "If Business is War, then I'm a Prisoner of Business!"
Atari Corp.   "Gee, 20 mushrooms? That's a record!"
... {hoptoad, lll-crg!vecpyr}!atari!dyer   "Quantity is Quality."

From -4174385889350611462
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6dd9884a6d6a6a06
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 19:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!tektronix!
hplabs!hpda!hpisoa2!hpitg!sdcc13!ma71scp@sdcc13
From: ma71scp@sdcc13
Newsgroups: net.micro.atari16
Subject: Re: Response to <755@minster.UUCP> <209@atari.UUcp>
Message-ID: <523@sdcc13>
Date: Thu, 24-Apr-86 23:47:00 EDT
Article-I.D.: sdcc13.523
Posted: Thu Apr 24 23:47:00 1986
Date-Received: Wed, 14-May-86 06:54:01 EDT
References: <755@minster>
Lines: 49

In article <755@minster.UUCP>, nigel@minster.UUCP (nigel) writes:
>
> I have an pre-production Atari 20 Mb hard drive, and am now starting to
> encounter problems. The documentation says to be careful not to copy too
> many files at once (no limit suggested), and to not have more than about 40
> subdirectories across all drives. This slightly worried me. When I created
> my 20th yesterday, I could not run any application, let alone copy files.
> The former generated the error "couldn't find application", and the latter
> "not enough memory to run that application". These I reckon are wide of the
> mark, as GEM is not expecting the underlying operating system to fold up,
> so guesses. When I tried to copy files using the command interpreter, I got

> two bombs (bus error), but the interpreter survived to accept another command.
> When I removed the 20th directory, everything worked again. Conclusion -
> GEMDOS is broken. According to show info, I have only 1 Meg of the disk used.
> According to show (using command.tos), I have used about 4Meg, which is more
> believable. Without subdirectories, I couldn't find my way about more than
> about 1 Meg anyway. I need subdirectories. I might also mention that this
> problem has been rumbling away, because about 3 directory creations ago,
> the ISV assembler stopped working. It either couldn't find the irritating
> AS68SYMB.DAT, or created as many temporary files as it could before running
> out of directory entries.....
>
> Arrggghhh. Thinks - "this is ludicrous - I wish I had time to write my own
> operating system, which doesn't pale at the the task of handling directories."
> First year students who've just learnt about operating systems might also be
> wondering what's so difficult.
>
> My system is a 1 meg upgraded 520st with OS roms, 1 floppy, and one hard drive.
>
> Why has this happened at 20 and not 40 subdirectories?
> Why is 40 a limitation anyway?
> Is this a known problem?
> Have I really got to have huge directories?
> Any suggestions?
> Please!
The problem is one of memory, your version of AHDI doesn't allocate enough
memory for more than twenty subdirectories. A new version of AHDI has been
available for a few months that solves this problem, contact ATARI-UK for
a copy. If they don't have it, its available on the ATARIDEV section of
compuserve, but you need to be an authorized developer to download it
                  This should do it
                       Neal 'NAK' Katz
#include <I.dont.know.nothing.h>
>
> Nigel Roles
> Department of Computer Science
> University of York
>
> ..!ukc!minster!nigel

From 7114981871415764514
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 20:33:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
harvard!think!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <2623@mit-hermes.ARPA>
Date: Fri, 25-Apr-86 00:33:39 EDT

Article-I.D.: mit-herm.2623
Posted: Fri Apr 25 00:33:39 1986
Date-Received: Sun, 27-Apr-86 05:43:10 EDT
References: <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP> <809@mtuxn.UUCP>
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 12

>
>
> []
> As far as we can see 1040's will not support tv! Only monitors.

The store that sold me mine said different--that the rf modulator and
composite generators would arrive later and be fitted at no charge
"in a couple of months". I've checked pin 2 (composite monitor) of
the monitor plug and as far as I can tell without opening the case,
nothing is wired to it. I hope they'll sell a cable with the 13-pin
monitor plug at one end and 2 RCA plugs at the other for audio and video.
Neil? Anyone?

From -5974173910366407941
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b64e2818e7ec7a46,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 21:48:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: Has anyone else had this problem with the 520ST?
Message-ID: <8604250548.AA25641@ohio-state.ARPA>
Date: Fri, 25-Apr-86 00:48:54 EST
Article-I.D.: ohio-sta.8604250548.AA25641
Posted: Fri Apr 25 00:48:54 1986
Date-Received: Sat, 26-Apr-86 05:39:55 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Sometimes when I first turn my 520ST on, after one or two seconds
the screen goes blank (i.e. black) for just a moment. It looks like
the power is turned off for just an instant. Then the boot-up procedes
normally.

I have the 520ST. I installed the OS roms a couple of weeks ago. I have a
monocrome monitor. If anyone knows anything about this problem, I'd
appreciate knowing about it!

Eric Bergman-Terrell (CSNET address: terrell@ohio-state)

Thanks in advance.

From -7542292723646454916
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7954dd62b85e4f25
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 22:18:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!case.CSNET!bammi
From: bammi@case.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Hard disk limitations
Message-ID: <8604250848.AA08544@ucbvax.berkeley.edu>
Date: Fri, 25-Apr-86 01:18:02 EST
Article-I.D.: ucbvax.8604250848.AA08544
Posted: Fri Apr 25 01:18:02 1986
Date-Received: Sat, 26-Apr-86 05:41:52 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

There is a new version of the hard disk driver (ahdi.prg) that is in the
auto folder, which relieves some of these problems. It may be downloaded
from CompuServe (ataridev) or your favorite BBS. If you have any problem
getting a hold of it, i can mail you a uuencoded version.

                        Jwahar R. Bammi
                    Usenet: .....!decvax!cwruecmp!bammi
                     CSnet: bammi@case
                   Arpa: bammi%case@csnet-relay
                CompuServe: 71515,155

From -6405023983279480289
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-24 23:32:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!tektronix!
hplabs!hpda!hpisoa2!hpitg!nicmad!luscher@nicmad
From: luscher@nicmad
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040???
Message-ID: <658@nicmad>
Date: Fri, 25-Apr-86 03:32:00 EDT
Article-I.D.: nicmad.658
Posted: Fri Apr 25 03:32:00 1986
Date-Received: Wed, 14-May-86 06:59:15 EDT
References: <14185732@ucbvax>
Lines: 63

In article <185@atari.UUcp> neil@atari.UUcp (Neil Harris) writes:
>In article <8604120324.AA05497@ucbvax.berkeley.edu>, franceus@TYCHO.ARPA (Paul
>Franceus) writes:
>>   I have had a 1040 on order at my local computer store for ~3 weeks, and
>> the dealer does'nt know when they are going to arrive.
>> question 1: Does anyone know why the 1040's are so long in coming? (neil??)
>
>If there weren't so many people like you, it would be easy to get 1040ST's!
>What I mean by that is there is such an AMAZING demand for them that we can't
>nearly supply them fast enough.
>
>Try to be a little patient and I'm sure a machine will turn up for you.

    Another possible explanation is that Atari is REALLY screwed up!
    I have been selling 520STs locally since last October, and naturally was eager to sell the 1040 when it was anounced. I spent the first two months trying to get my distributor to sell me one - the answer was always just wait a bit longer. Finally Neil@Atari gave me the name of another distributor, since Atari had changed their distribution channels and the old distributor got cut off.
    The new distributor said fine, send your money. Two weeks later I hadn't heard ANYTHING, and called them. They said to call Atari. Atari said that there was a packet of paperwork to file to become a 1040 dealer. Naturally no one had the time to tell ME that, even though I had ordered several thousand dollars worth of machines.
    Another week went by while I waited for the application they were going to send the next day. I sent it back and waited a couple days before calling them since I had been told it would just take one day to approve the application and then the hold on my order could be released.
    I have called Atari 12 times between 8 April and 22 April and every time the story was 'we are evaluating the applications this morning call back this afternoon', or 'we didn't get to it today, but you can get our answer if you call back tomorrow afternoon', or 'she is in a meeting, give me your number and she will call you back (guess if she ever did!)', or 'he is out of town today, call back on Friday.'
    In summary after having Atari pull arbitrary switches on me that I wasn't told about, after filling out their paperwork, after sending them thousands of dollars at the beginning of March, after repeatedly being lied to by them on the telephone, I ended up still not knowing if they would CONSIDER sending me 1040STs, let alone having them send me any! I pulled the plug and have asked for the money back, let someone else have the headache! A company that treats dealers as badly as Atari does will be in big trouble financially even if they have a decent product.
    Now I wonder how long it will take them to get their act together and return my cash so I can look for a product which I can actually GET, and thus have a real chance to make money on?
    As for Atari, well they lose out on the half dozen individuals that wanted their equipment and the two companies that wanted to place multiple unit orders with me. But I would rather pass on that business than ruin my reputation by repeating to others the untruths that Atari was feeding me about how long things would take. They aparently don't operate in a world of deadlines, or else they assume that their customers don't. Bad assumption.

Jim Luscher / Tardis Computers / 5228 Langlois St. / Madison, Wis 53705

--


```
    ihnp4------\                  Jim Luscher
  harvard-\     \                 Nicolet Instruments / Test Instrument Div
     seismo!uwvax!nicmad!luscher  5225 Verona Rd. Bldg-2
    topaz-/     /                 Madison, Wi  53711-0288
   decvax------/                  (608) 271-3333 x 2274
```


From 8853023951536720616
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e6d3e34f75e77cee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-25 04:33:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!tektronix!
hplabs!hpda!hpisoa2!hpitg!mit-herme!jpexg@mit-herme
From: jpexg@mit-herme
Newsgroups: net.micro.atari16
Subject: Re: Response to <572@mordred.purdue.UUCP> <2031@cbosgd.UUCP>
<809@mtuxn.UUCP> <2623@mit-hermes.ARPA>
Message-ID: <2623@mit-herme>
Date: Fri, 25-Apr-86 08:33:00 EDT
Article-I.D.: mit-herm.2623
Posted: Fri Apr 25 08:33:00 1986
Date-Received: Wed, 14-May-86 06:57:44 EDT
References: <572@mordred>
Lines: 12

>
>
> []
> As far as we can see 1040's will not support tv! Only monitors.

The store that sold me mine said different--that the rf modulator and
composite generators would arrive later and be fitted at no charge
"in a couple of months". I've checked pin 2 (composite monitor) of
the monitor plug and as far as I can tell without opening the case,
nothing is wired to it. I hope they'll sell a cable with the 13-pin
monitor plug at one end and 2 RCA plugs at the other for audio and video.
Neil? Anyone?

From 1304078025783681661
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6dd9884a6d6a6a06
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-25 05:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!linus!philabs!cmcl2!harvard!husc6!panda!genrad!decvax!tektronix!
hplabs!hpda!hpisoa2!hpitg!ucbvax!bammi@ucbvax
From: bammi@ucbvax
Newsgroups: net.micro.atari16
Subject: Re: Response to <755@minster.UUCP> <209@atari.UUcp>
Message-ID: <14316256@ucbvax>
Date: Fri, 25-Apr-86 09:18:00 EDT
Article-I.D.: ucbvax.14316256
Posted: Fri Apr 25 09:18:00 1986
Date-Received: Wed, 14-May-86 06:57:13 EDT
References: <755@minster>
Lines: 9

There is a new version of the hard disk driver (ahdi.prg) that is in the
auto folder, which relieves some of these problems. It may be downloaded
from CompuServe (ataridev) or your favorite BBS. If you have any problem
getting a hold of it, i can mail you a uuencoded version.

                        Jwahar R. Bammi
                    Usenet: .....!decvax!cwruecmp!bammi
                     CSnet: bammi@case
                   Arpa: bammi%case@csnet-relay
                CompuServe: 71515,155

From 6632587226253114274
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 12:28:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040???
Message-ID: <185@atari.UUcp>
Date: Tue, 15-Apr-86 15:28:39 EST
Article-I.D.: atari.185
Posted: Tue Apr 15 15:28:39 1986
Date-Received: Sun, 20-Apr-86 05:40:54 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu>
Organization: Atari Corp/Mktg
Lines: 17
Summary: A high class problem... too much demand

In article <8604120324.AA05497@ucbvax.berkeley.edu>, franceus@TYCHO.ARPA (Paul
Franceus) writes:
>   I have had a 1040 on order at my local computer store for ~3 weeks, and
> the dealer does'nt know when they are going to arrive.
> question 1: Does anyone know why the 1040's are so long in coming? (neil??)

If there weren't so many people like you, it would be easy to get 1040ST's!
What I mean by that is there is such an AMAZING demand for them that we can't

nearly supply them fast enough.

This is an example of what's known in the business world as a "high class problem".

Try to be a little patient and I'm sure a machine will turn up for you.

---> Neil @ Atari
     UUCP: ...lll-crg!vecpyr!atari!neil

From 7162704997824873461
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 12:33:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <186@atari.UUcp>
Date: Tue, 15-Apr-86 15:33:57 EST
Article-I.D.: atari.186
Posted: Tue Apr 15 15:33:57 1986
Date-Received: Sun, 20-Apr-86 05:41:16 EST
References: <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Organization: Atari Corp/Mktg
Lines: 19
Summary: Real Soon Now

In article <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>,
 UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:

>   Have the ST hard disks been officially released yet? I hear bits
> of information about them, but haven't seen advertisements, etc.
>
>   If they are not released yet, when will they be?
>   If they are released, how much do they cost, how much do they
> hold, HOW FAST ARE THEY, and where can I get one?

Price: $799 list.
Capacity: 20 megabytes
Speed (transfer rate): 7.5 megabits/second
Availability: sometime in May, probably late in the month. And probably will be in short supply for the first while, like any new hardware product that EVERYONE wants.

--->Neil @ Atari
     UUCP: ...lll-crg!vecpyr!atari!neil

From 7434939074896355764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 13:17:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site molihp.UUCP
Path: utzoo!utcsri!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: Intersect RAM Disk (was Re: ST FONTS and FONTLOADER - PART I)
Message-ID: <151@molihp.UUCP>
Date: Tue, 15-Apr-86 16:17:38 EST
Article-I.D.: molihp.151
Posted: Tue Apr 15 16:17:38 1986
Date-Received: Thu, 17-Apr-86 11:36:11 EST
References: <54600010@iuvax.UUCP> <1988@brl-smoke.ARPA> <149@molihp.UUCP>
<4003@pur-ee.UUCP>
Reply-To: robt@HP-UX.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 27
Summary:

<>

In article <149@molihp.UUCP> I wrote:
>>The Intersect ramdisk ... cannot allocate a ramdisk with TOS in ROM ...

In article <4003@pur-ee.UUCP> beatyr@pur-ee.UUCP (Robert Beaty) writes:
> I don't know if I am the exception, or if I have misread the above text;
>but I daily set up a 350K Intersect RAM disk and run OSS Pascal off of it.
>I don't have any problems with the combination. I am NOT flaming, more
>like questioning if I should look out for some mysterious bug?

I went back and tried the Intersect RAM Disk, and it does work - as long as I don't have Mike's Ramdisk on disk at boot-up. This is not too surprising since each is going to try some initialization when loaded, but I thought I tried dropping Mike's Ramdisk before when it didn't work with TOS in ROM. That combination did seem to work with TOS.IMG in RAM, though. I now use the ramdisk from Landon Dyer at Atari, which doesn't suck up accessory slots and installs itself.

Something else I noticed was that the first demo in the Abacus GEM Reference fails for me if I have the BICALC.ACC Desk calculator on disk at boot-up. This is a pain, because I like the calculator. I have to wonder why accessories fight so much with each other and with applications.

UUCP : ...!ubc_vision!molihp!robt Robert Thurlow
  #
<DISCLAIMER : my thoughts are my own, and are void where prohibited by law.>

From -4174099873800574808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2e3db1d352d7dce,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 13:43:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site molihp.UUCP
Path: utzoo!utcsri!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: North American 520ST in Italy?
Message-ID: <152@molihp.UUCP>
Date: Tue, 15-Apr-86 16:43:57 EST
Article-I.D.: molihp.152
Posted: Tue Apr 15 16:43:57 1986
Date-Received: Thu, 17-Apr-86 11:34:52 EST
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 15

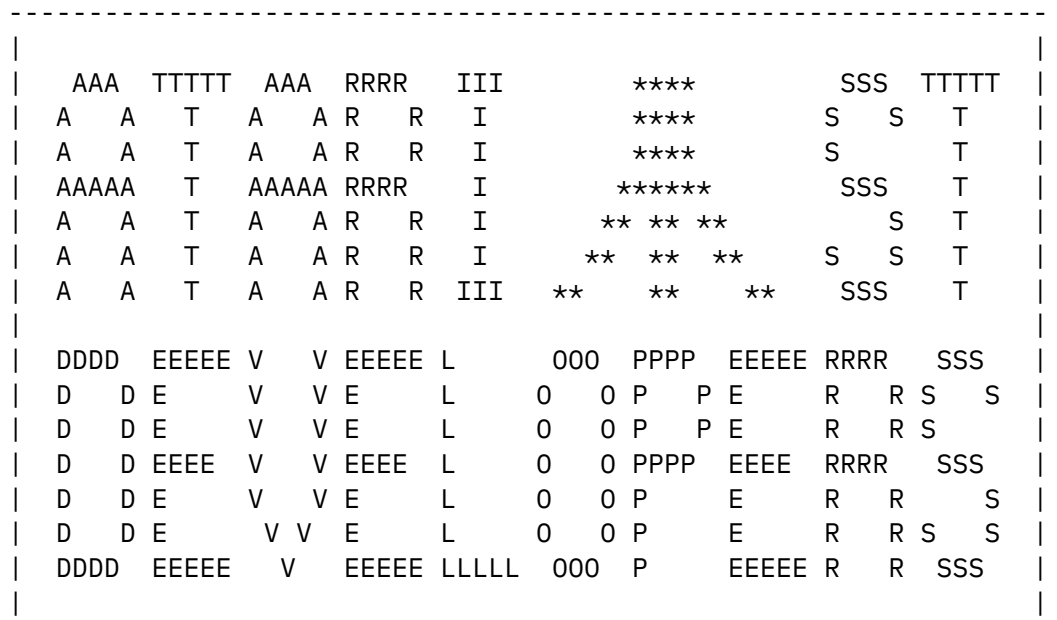
<>

A fellow I met yesterday is moving to Italy in about a month. He has a 520 ST he bought here in Vancouver, and is wondering about the best course to take. He has a stock 520ST, a single-sided drive, a color monitor, and a Panasonic 1092 printer. What will 50Hz power from a step-down transformer do to the power bricks on the computer and drive? Will the colour monitor get upset? Will the printer get upset? Seems to me that it should all like 50Hz power, but sometimes things get warm, and sometimes they die. If there is anyone with any practical experience out there, advice would be appreciated. Please send mail; I will summarize to the net if there is any interest.

UUCP : ...!ubc_vision!molihp!robt Robert Thurlow
#
<DISCLAIMER : my thoughts are my own, and are void where prohibited by law.>

From 3164272060073590550
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f743d35d1e2d6810,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 14:23:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Atari ST Q/A #3
Message-ID: <187@atari.UUcp>
Date: Tue, 15-Apr-86 17:23:17 EST
Article-I.D.: atari.187
Posted: Tue Apr 15 17:23:17 1986

Date-Received: Sun, 20-Apr-86 05:42:33 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 262
Keywords: Atari ST, Developers


AAA TTTTT AAA RRRR III
A A T A A R R I
A A T A A R R I
AAAAA T AAAAA RRRR I
A A T A A R R I
A A T A A R R I
A A T A A R R III
DDDD EEEEE V V EEEEE L
D D E V V E L
D D E V V E L
D D EEEE V V EEEE L
D D E V V E L
D D E V V E L
DDDD EEEEE V EEEEE LLLLL
OOO PPPP EEEEE RRRR SSS
O O P P E R R S S
O O P P E R R S
O O PPPP EEEE RRRR SSS
O O P E R R S
O O P E R R S S
OOO P EEEEE R R SSS
**** SSS TTTTT
**** S S T
**** S T
****** SSS T
** ** ** S T
** ** ** S S T
** ** ** SSS T

Question and Answer Bulletin April 1986
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1196 Borregas Ave., Sunnyvale, Ca. 94086

Here are the latest questions from the Atari developers mailbag as answered by John Feagans, Director of Software Technology. Leave questions on Compuserve for PIN 70007,1072 or GO PCS57 for Atari developer SIG information.

This months contents

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numeric pad that it has and the VT-220 style that the ST has is that the cursor keys are located in the positions of the *, -, +, and Enter key on the numeric pad. The enter key itself is split into two smaller keys.

---

11 New On Compuserve.....4

---

1. Corrections

In the March 1986 issue I mis-stated a description of the real VT-52 keyboard. This device actually does have a numeric pad and cursor keys. The difference between the your new and bigger buffer. Be sure to restore things when you exit your program for the benefit of the application that follows yours.

---

3. DOS

*

Q: How do I get the address of the DTA buffer for use with the Fsfirst() command?

A: There are two ways that you can do this: 1) Allocate a buffer yourself and use the Fsetdta(ptr) to tell the system about it, or 2) ptr=Fgetdta to use the one already defined.

*

Q: I am running out of stack space when I link with apstart.o. Where do I edit to increase the size?

2. BIOS

*

Q: How do I make the buffer larger for communication over the MIDI port?

A: Use the xbios call Iorec(MIDI) to get the address of a structure which contains a pointer to the existing buffer. Change it to point to

Question and Answer Bulletin

A: You need to construct a mono-plane mask with zeros where the image in memory will be transparent and ones where the image in memory will occupy space. Use the copy raster transparent (vrt_cpyfm) with transparent mode to cut a hole into the screen. Second use vro_cpyfm with "or" mode 7 to move the color image to the screen. See section 6 of the VDI manual for further details.

---

5. AES

*

Q: How do I hide and show the mouse?

A: Use the graf_mouse call. A useful thing to include in a header file are the following definitions:

```
#define HIDE_MOUSE
```

A: Look for the label ustk in apstart.s. Directly preceding it you will find a statement ".ds.l 256". This statement allocates 256 * 4 words, or about 1k of stack. To increase the stack to 8k, make it ".ds.l 2048". Remember that declaring local arrays in C will eat more stack space--allocate accordingly. To make the apstart.o you must assemble your new source by as68 -l -u apstart.s.

---

4. VDI

*

Q: How do I transfer a color image from memory to the screen without copying the background around the image?

```
        graf_mouse(256,0x0L)

  #define SHOW_MOUSE
        graf_mouse(257,0x0L)
```

*

Q: In the mentst.c example program, why are so many parameters in the evnt_multi call zeroed out?

A: The reason for this is that in this example program we are only interested in returning if there was mouse event. We are not interested in keyboard, timer, or button events, hence we have a dummy pointer as place holders in those parameter positions of the evnt_multi.

---

6. Desktop

*

Q: How does the AUTO folder work?

A: If you create a folder named AUTO, the system looks for it on power-up boot and will execute any programs it finds inside. If there is more than one program, the programs will be executed in the order that they were created in the folder. These programs are named *.prg but

7. Accessories

---

8. BASIC

*

Q: The accountants in my 50 million dollar company do not like my basic programs as large numbers will end up with a few pennies added to the end. What can I do?

A: You are seeing the effect of a single precision

it is not possible to have an auto-starting GEM application. However, the programs may use the VDI, DOS, and BIOS. A good example to try is to place STWriter inside an AUTO folder and it will start running on power-up. When you exit STWriter, initialization resumes and execution brings up the desktop. AUTO folders are generally used for drivers such as those for the hard-disk and printers.

Q: How can you get the name of the data file that initiated a program with an installed document type?

A: For programs that have undergone the install application option at the desktop, it is easy to get the name of the document. The desktop program places the file name string in the command tail. The command tail starts 80 hex into the base page. You can get this information by accessing the base page directly, or by main(argv,argc) from a C program that uses gemstart.o.

---

scientific math package. The maximum number of significant digits that can be stored is 6 to 7. Decimal fractions cannot be accurately represented by a binary floating point structure. To overcome the latter limitation, you can store all numbers as pennies, only inserting the decimal point when inputting or outputting them. To gain extra significant digits you can save each number as an integer whole and fractional part. To really gain significant digits you might consider writing some math routines which operate and store numbers in strings.

---

9. LOGO

*

Q: I keep getting an edit buffer full error. I have tried turning off buffered graphics and not loading desk accessories to get more space. Will getting ROMs help me?

A: The edit buffer is a fixed size. You need to break up your program into smaller

segments and load them in. Getting the ROMs would only give you more program storage and would not increase the

option specifies the drive on which temporary files are created. The variable d: is the drive designation. For

size of the edit buffer.

---

10. Development Tools

*

Q: How do I get the C-Compiler to make a listing of my program with line numbers

A: The Alcyon C currently supplied in the developers kit does not have an option for generating a listing. Errors that are reported can be found by using the editor to step to that line in your source. I hope that someone out there will write a print/header and line number generating program to share with us in the data libraries in the developers SIG.

*

Q: I am including stdio.h and linking with gemlib and libf, but I still have undefined symbols etoa and ftoa in the link step when I use printf.

A: The order of the library files in the link are important. Make sure that libf is listed after gemlib. If you have any doubts you can also list it as libf gemlib libf.

*

Q: I have a RAM disk program. I would like to speed up my links by putting all the linker created temporary files on the RAM disk. How do I command the linker to do this?

A: For LO68, -F d: The -F LINK68 TEM[d:].

---

11. New On Compuserve

In data library 7 (for registered Atari Developers only) in the Atari Developers SIG on Compuserve, the following files are new this month:

WRITE.O	C RTL fix
LSTOUT.O	" "
CC.BAT	" "
GEMDOS.DOC	New improved.
BCD.DOC	Math package.
GETDOB.C	" "
MATH.OBJ	" "
PRINTD.C	" "
RELMOD.C	New improved.
SLDSET.PRG	Image service.
SLIDE.DOC	" "
SNPSHT.TOS	" "
SNPSVE.PRG	" "
TEMPLA.C	GEM skeleton.
FED.PRG	font editor.
FEDFIX.TTP	" "
FEDFIX.C	" "
FED.DOC	" "
FRDME.DOC	" "
FONTUSE.DOC	" "
FONTUSE.S	" "
STHDW.DOC	New document.
LARGE.S	Porting aids.
QA2.DOC	Previous Q/A.

From -2104452158694834446
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,dea74020e1f76b5e
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 15:08:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site hope.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!hplabs!qantel!
lll-lcc!ucdavis!ucrmath!hope!corwin
From: corwin@hope.UUCP (John Kempf)
Newsgroups: net.micro.atari16,net.legal
Subject: Re: Is Public Domain subject to national boundaries?
Message-ID: <294@hope.UUCP>
Date: Tue, 15-Apr-86 18:08:48 EST
Article-I.D.: hope.294
Posted: Tue Apr 15 18:08:48 1986
Date-Received: Sun, 20-Apr-86 17:01:30 EST
References: <8604022259.AA00201@ucbvax.berkeley.edu> <377@drivax.UUCP>
<665@hoptoad.uucp>
Organization: University of California, Riverside
Lines: 9
Xref: watmath net.micro.atari16:488 net.legal:3288

> I just couldn't let that one go by. "Not public domain in the United States"?
> Supposed I get a public domain copy in Germany and bring it here?
> Does it cease to be public domain? How can its US copyright be retained
> when it is freely available to "the public"?
> --
Hong Kong does not honor US copyright laws, so just about anything published
there has stamped on it 'not for import to the US' or something similar.
this may be a similar case.
-cory

From -798880587156698784
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db8c1f0cddcb9ba6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 16:48:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site oscvax.UUCP
Path: utzoo!utcs!oscvax!ron
From: ron@oscvax.UUCP (Ron Janzen)
Newsgroups: net.micro.atari16
Subject: problem with C modulo operator using Developers Kit
Message-ID: <402@oscvax.UUCP>
Date: Tue, 15-Apr-86 19:48:18 EST

Article-I.D.: oscvax.402
Posted: Tue Apr 15 19:48:18 1986
Date-Received: Tue, 15-Apr-86 20:11:56 EST
Reply-To: ron@oscvax.UUCP (Ron Janzen)
Organization: Ontario Science Centre, Toronto
Lines: 30

There is a problem in the Atari Developer's Kit when using the
C modulo operator (%) when both operands are longs. The problem
appears in the following way. Consider this short program,

```
#include <stdio.h>

main()
{
    long i;

    for ( i = 0; i < 10; i++ )
     printf( "i = %ld, i %% 3 = %ld\n", i, i % 3L );
}
```

If you compile this and link it with gemlib it will work as expected.
However if you link it with vdibind and gemlib (as you would in a
program that uses VDI routines) in that order, the result of the i % 3L
operation is garbage. We traced it down to the fact that both vdibind
and gemlib contain the lrem function which is used when finding the
modulo of two longs. Evidently the one in vdibind is buggy whereas the
one in gemlib works. Therefore when we linked with vdibind before
gemlib the buggy version was linked in. It seems to me that vdibind
shouldn't even contain this routine (it also contains lmul.o and
ldiv.o). These routines should be (and are) in the C runtime library
(gemlib). We just took them out of vdibind and everything works OK now.
Is there some reason these routines were in vdibind?
--
Ron Janzen
Ontario Science Centre, Toronto
...!{allegra,ihnp4,linus,decvax}!utzoo!oscvax!ron

From -6263987669137219112
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 18:42:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sun.uucp
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!sun!wmb
From: wmb@sun.uucp (Mitch Bradley)
Newsgroups: net.micro.atari16
Subject: Re: Arrow Keys & VT52 Terminal Mode
Message-ID: <3511@sun.uucp>
Date: Tue, 15-Apr-86 21:42:28 EST

Article-I.D.: sun.3511
Posted: Tue Apr 15 21:42:28 1986
Date-Received: Thu, 17-Apr-86 05:05:30 EST
References: <860409-150043-1731@Xerox>
Organization: Sun Microsystems, Inc.
Lines: 47

> I have noticed that the arrow keys don't seem to work in the VT52 Terminal
> Mode. Also the function keys, as well as the cursor keys, don't seem to
> produce unique or distinguishible codes. Has anyone else noticed this?

The ST keyboard outputs "scan codes" which are numbers that identify the key that was depressed but which bear no relation to ASCII. The keyboard handling code in TOS has some translation tables which map the scan codes into ASCII characters.

The trouble is, the default translation tables translate all the special keys, including the arrow keys, into the same ASCII code which happens to be NULL (ASCII code 0). Unless a program explicitly requests to change these translation tables, it gets the same ASCII code for each of these special keys.

I suspect that the VT52 emulator just uses the default tables. It is somewhat of a pain to try to look at the scan codes for the special keys and map them into something sensible. The definition of "sensible" is also somewhat difficult in the context of a VT52 emulation (VT52's don't have arrow keys, so what ASCII sequence do you transmit for these keys?). They should have emulated a VT100 or something a little more modern instead. On the other hand, the VT52 command set is somewhat less baroque than the VT100's.

The keyboard code in TOS is pretty screwed up in general. Here is one gotcha with changing the translation tables: If you change them, you must make a system call to put back the default ones before you exit, otherwise the system will lock up (because you have presumably put the new tables in your program's address space, which TOS clears to all zeroes when a program exits). So far, no problem. Your program should be careful to restore the translation tables. But what if TOS kills your program without giving it a chance to fix up the keyboard? Here's how this can happen: If your program is not presently asking to read the keyboard, and you happen to type a control C, TOS will kill your process. If a conin() request is pending when you type the ^C, your program gets to see the ^C and handle it itself. If no conin() is pending, the program gets killed.

Does anybody know how to get control of the ^C handling? I would like to find some way to prevent my program from getting killed without giving it a chance to clean up. (It doesn't seem possible to keep a conin() request pending all the time, because, for instance, when you are in the middle of a long write() to a file you are sensitive to being killed). Clearly one should just not type ^C, but I would like to make my software "idiot proof".

Mitch

From -1883894609457661221
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 23:34:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!whuxl!whuxlm!akgua!
gatech!seismo!mcvax!unido!infbs!loerke
From: loerke@infbs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <12100001@infbs.UUCP>
Date: Wed, 16-Apr-86 02:34:00 EST
Article-I.D.: infbs.12100001
Posted: Wed Apr 16 02:34:00 1986
Date-Received: Sat, 19-Apr-86 13:43:41 EST
References: <598401@DEEP-THO.UUCP>
Sender: notes@unido.UUCP
Lines: 26
Nf-ID: #R:DEEP-THO:-59840136:infbs:12100001:000:954
Nf-From: infbs!loerke   Apr 16 08:34:00 1986

> Have the ST hard disks been officially released yet? I hear bits
> of information about them, but haven't seen advertisements, etc.

Have talked to Atari at the Hannover fair and to my dealer, and
they told me..

> If they are not released yet, when will they be?
> If they are released, how much do they cost, how much do they
> hold, HOW FAST ARE THEY, and where can I get one?

for Germany: the hard disk (~20 MB) will be delivered in June
(his year, i hope :-)), it will cost ~2000 DM (~830 US$). I have
been told that the drive is very fast, but I couldn't check it
myself.

> Any information at all would be great! Also, how about other
> companies' ST hard disks? Any good ones? Is there a tape backup system
> for the ST? (There are lots for the IBM & IBM mutations)

I have seen some at Hannover. There were drives from ~20MB up to
~80MB, pricing from ~2300DM to ~4500 DM, but I can't remember
the company.

-Achim <loerke@infbs.uucp>

From -2626678399147249852

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c54403effe96e3f3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 23:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!whuxl!whuxlm!akgua!
gatech!seismo!mcvax!unido!infbs!loerke
From: loerke@infbs.UUCP
Newsgroups: net.micro.atari16
Subject: Re: No ms-dos emulation yet.
Message-ID: <12100002@infbs.UUCP>
Date: Wed, 16-Apr-86 02:39:00 EST
Article-I.D.: infbs.12100002
Posted: Wed Apr 16 02:39:00 1986
Date-Received: Sat, 19-Apr-86 13:43:26 EST
References: <160@duvel.UUCP>
Sender: notes@unido.UUCP
Lines: 8
Nf-ID: #R:duvel:-16000:infbs:12100002:000:268
Nf-From: infbs!loerke   Apr 16 08:39:00 1986

Not quite true, they have shown a prototype of a MSDOS-Emulator
(not PCDOS). It comes with an 8MHz 808[86], 512KB ram (useable
as RAM-Disk from TOS) and MSDOS 2.11 (not sure about this).

The emulator should be ready for delivery fall '86.

Achim <loerke@infbs.uucp>

From 2857843024534444609
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a41935e03cc45c56,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 04:56:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site decwrl.DEC.COM
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!dec-rhea!dec-eccles!
farrant
From: farrant@eccles.DEC
Newsgroups: net.micro.atari16
Subject: KERMIT FOR ST
Message-ID: <2386@decwrl.DEC.COM>
Date: Wed, 16-Apr-86 07:56:44 EST
Article-I.D.: decwrl.2386
Posted: Wed Apr 16 07:56:44 1986
Date-Received: Fri, 18-Apr-86 04:06:55 EST
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 17

From: ECCLES::FARRANT   16-APR-1986 09:19

To: ROLL::USENET_DISTRIBUTOR,FARRANT
Subj: KERMIT FOR 'ST'

HI ALL YOU ATARI LOVERS,
I'M WONDERING IF ANYONE CAN HELP ME.I'M AFTER KERMIT FOR MY 520ST AND I DON'T KNOW WHERE TO BEGIN TO LOOK.

ANY HELP WOULD BE GREAT APRETIATED

LEE

UK

From 7706409957739116844
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e7820549205be336,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 06:39:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: PANASONIC config for 1st Word
Message-ID: <2114@uwmacc.UUCP>
Date: Wed, 16-Apr-86 09:39:24 EST
Article-I.D.: uwmacc.2114
Posted: Wed Apr 16 09:39:24 1986
Date-Received: Fri, 18-Apr-86 05:23:55 EST
Organization: UWisconsin-Madison Academic Comp Center
Lines: 18

Hi there ---
   A relatively short time back, a kind and gentle person implied that he/she would be posting a printer condiguration file for the PANASONIC series printers that can be used with "1st Word." Where is this driver, and can I have a copy? (I have looked in net.sources for it, but, alas, it was not to be found....)
  Thanks in advance....

--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

          "If you can't trust wimp lawyers anymore,
                 who can you trust...?"
                        -- Mildred Krebs

From -3759990902882034881
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,43baf0661e75ef49,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 07:35:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 beta 3/9/83; site utecfa.UUCP
Path: utzoo!utcsri!utai!uthub!utecfa!mugc
From: mugc@utecfa.UUCP (ModemUserGroupChairman)
Newsgroups: net.micro.atari16
Subject: DMA port information for DSP and other needs.
Message-ID: <1815@utecfa.UUCP>
Date: Wed, 16-Apr-86 10:35:21 EST
Article-I.D.: utecfa.1815
Posted: Wed Apr 16 10:35:21 1986
Date-Received: Wed, 16-Apr-86 14:43:25 EST
Organization: Engineering Computing Facility, University of Toronto
Lines: 45

{(*/* Pure-E-net Line (eater) Chow */*)}

Hello!

For my undergraduate thesis, I'm doing work in the area of speech recognition (isolated word). In order to do the high speed data acquisition and analysis that is needed, I was thinking of putting a TMS320 series signal processor, and some other support chips on the high-speed DMA port on the ST. Now, I don't have any hardware documentation for the ST, other than a book published by Abacus Software called "ST Internals". Unfortunately, this book has only one page on the DMA interface which does not have much meat in it. However, it does say the following:

> "Since most of the external devices will use a Controller IC, the signal CS, Chip Select on pin9, must also be available. The signal A1 is also to be seen in connection with this, because it is then important if the controller has more than one register. This signal can distinguish between two registers."

This seems (to me) to imply that the DMA port can address only two registers. Is this true, or are they missing something (am I missing something?)?. I found this surprising because a while ago, from a SASI/SCSI discussion on this net (net.micro.atari) there was talk about this port being able to address 256 external devices or something like that. How?

Would somebody please shed some light on this? Has anyone done any interfacing with this port, could they please tell us what their experiences were like, any pitfalls etc. I'm sure there are others on the net who are interested in this as well, so email or post to the net. Also, if there is sufficient interest in this, I'll summarize the replies I get via email.

Thank you for your time,

Anees Munshi

--

Anees Munshi
@ University of Toronto Engineering Comp. Facility :A
{allegra,ihnp4,linus,decvax}!utzoo!utcsri!utecfa!mugc
{ihnp4|decvax|utzoo|utcsri}!utecfa!utecfb!munshi

From 2004748238968367972
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7da6f794f4211c32
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 09:27:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!rochester!ritcv!cci632!ccird2!rb
From: rb@ccird2.UUCP (Rex Ballard)
Newsgroups: net.micro.atari16
Subject: Re: disk drive compatibility
Message-ID: <765@ccird2.UUCP>
Date: Wed, 16-Apr-86 12:27:41 EST
Article-I.D.: ccird2.765
Posted: Wed Apr 16 12:27:41 1986
Date-Received: Fri, 18-Apr-86 08:39:12 EST
References: <1315@unc.unc.UUCP>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Distribution: net
Organization: CCI Telephony Systems Group, Roch, NY
Lines: 23
Summary: Mac or Mac+

In article <1315@unc.unc.UUCP> hultquis@unc.UUCP (Jeffrey P. Hultquist) writes:
>
>   Is there some way to convince a 1040 to read a MacIntosh disk,
>   and vice-versa?

On the regular Macs, which use the "Incredible Woz Machine" drive,
the chances are very slim, each ten or so tracks, the density changes.
This was originally done to improve reliability on inner tracks and
improve density on outer tracks. Appearantly, the Mac Plus drives
are a little more "conventional" and may be easier to use under some
sort of standard interchange mode. You might be able to hack up the
Mac OS to write ST format disks.

The best way to get bytes between the two machines is to use a
serial link or modem and kermit or xmodem. Perhaps, when Atari
comes out with their SCSI interface, you will be able to transfer
disks between those drives. Other problems such as directory

formats, "resource" (file) formats, and meanings of data would
have to be handled via software. It probably wouldn't be too
hard to write a program that enables the mac to read ST disks.
Going the other way might not be so easy.

Hope that helps a little.

From -1802608399077228878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2a0553b51963bb8a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 09:54:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: KERMIT, HELP!
Message-ID: <8604161437.AA03386@ucbvax.berkeley.edu>
Date: Wed, 16-Apr-86 12:54:39 EST
Article-I.D.: ucbvax.8604161437.AA03386
Posted: Wed Apr 16 12:54:39 1986
Date-Received: Fri, 18-Apr-86 05:34:31 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Does anybody work with KERMIT of the development kit? I still
get hangups with it. Help]
Johann Zuschlag (I6191008@DBSTU1.BITNET)

From 3731418873078585144
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee75e5c39d860d5d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 14:24:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: VT52 on ST
Message-ID: <193@atari.UUcp>
Date: Wed, 16-Apr-86 17:24:33 EST
Article-I.D.: atari.193
Posted: Wed Apr 16 17:24:33 1986
Date-Received: Sun, 20-Apr-86 16:37:52 EST
Organization: Atari Corp/Mktg
Lines: 13

In a prior message I said that the reason our VT52 emulator does not support

the numeric keypad and the cursor keys was that a VT52 doesn't have such keys.

Our own engineers quickly pointed me to the VT52 in our office, where, big as life, the keys can be found.

My only defense is to remove the offending keycaps, but they restrained me.

--->Neil @ Atari
     UUCP: ...lll-crg!vecpyr!atari!neil

"Not so quick to open mouth next time"

From 3177770528426715452
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-16 19:23:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!philmds!duvel!frans
From: frans@duvel.UUCP (Frans Meulenbroeks)
Newsgroups: net.micro.atari16
Subject: Re: ST Hard Disk questions
Message-ID: <162@duvel.UUCP>
Date: Wed, 16-Apr-86 22:23:28 EST
Article-I.D.: duvel.162
Posted: Wed Apr 16 22:23:28 1986
Date-Received: Fri, 18-Apr-86 08:41:31 EST
References: <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Reply-To: frans@duvel.UUCP (Frans Meulenbroeks)
Organization: Philips I&E DTS Eindhoven
Lines: 16

In a 1040 brochure, I picked up the other day, they mention the SH 324.
This is a hard disk, 20 MB formatted, with controller, interface, and
power supply in one box. Connection with the ST is through the DMA interface.

On another page, they say something about a data transfer rate of 1.33 MB/sec
However, I've not yet seen this thing in a shop.

I've heard that the Haba disk is indeed available around here. A price of
fl. 3000,-- was mentioned, so it should be available in the US somewhere
around 1000 dollar.
--
Frans Meulenbroeks
     until May 1, 1986: Philips Microprocessor Development Systems
                 ...!{seismo|philabs|decvax}!mcvax!philmds!frans
     after May 1, 1986: Philips Distributed Realtime Multiprocessor System
                 uucp: to be established soon; phildrm!frans?

From 5749468966149219235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,30b713f1ba489196,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 05:34:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!think!ima!spastic!applicon-ma!maggot!
barada
From: barada@maggot.UUCP
Newsgroups: net.micro.atari16
Subject: Need MIDI port info on 520ST
Message-ID: <24200001@maggot>
Date: Thu, 17-Apr-86 09:34:00 EDT
Article-I.D.: maggot.24200001
Posted: Thu Apr 17 09:34:00 1986
Date-Received: Sun, 4-May-86 09:00:27 EDT
Lines: 19
Nf-ID: #N:maggot:24200001:000:830
Nf-From: maggot.UUCP!barada   Apr 17 10:34:00 1986

Help folks. I bought my ST recently for the purpose of driving my MIDI keyboards. Being a Computer Engineer, I decided to roll my own instead of paying for the commercial programs. However after tearing through the documentation, I don;t see anything that describes the MIDI interface.

I.E. How do I get data to and from the MIDI ports? Does anybody have any C code that does this??? I would like to get something that works already, however I would be glad to get just the address of the ports and the transition rules that apply to them. If anybody has pointers to any documentation, please include that also. I have a tight schedule in writing this stuff since I want to get it working for my Ensonic first (VES for 399$) Hah! I'll write my own.

Thanx in advance...

Peter Barada
{decvax|ihnp4|harvard}!ima!spastic!peterb

From -2098569685073189012
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bdf2d69d41423f80,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 07:39:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpm.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihlpm!rtb
From: rtb@ihlpm.UUCP (Todd)
Newsgroups: net.micro.atari16
Subject: 5620 (blit) cartridge for the ST ?
Message-ID: <787@ihlpm.UUCP>

Date: Thu, 17-Apr-86 10:39:12 EST
Article-I.D.: ihlpm.787
Posted: Thu Apr 17 10:39:12 1986
Date-Received: Fri, 18-Apr-86 09:55:57 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 11

I just read on att.blit that the University of Toronto has developed
and is currently using a 5620(blit) terminal emulator in a ROM
cartridge for the 520ST (mono). Does anyone know if this is true?
If this is cartridge exists I would like to buy one and I'm sure a
lot of other people would too. Can anybody out there confirm or deny
this??? I think a product like this would be a great boost to ST
sales, I hope it makes it to the market place.

R.T. Bradstrum

From 266084301543251968
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1134423a420d2f1f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 08:55:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpg.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.atari16
Subject: Re: --- VT52 keypads ---
Message-ID: <1821@ihlpg.UUCP>
Date: Thu, 17-Apr-86 11:55:04 EST
Article-I.D.: ihlpg.1821
Posted: Thu Apr 17 11:55:04 1986
Date-Received: Fri, 18-Apr-86 10:02:36 EST
References: <8604150504.AA10357@ucbvax.berkeley.edu>
Organization: AT&T Bell Laboratories
Lines: 17

> When the discussion about the lack of
> vt52 keypad sequences on the ST first
> came up, the Atari reps replied that
> there WAS no vt52 keypad. I sent one
> of them transcriptions of the appro-
> priate pages from the vt-100 & DEC EDT
> manuals, explaining both the codes
> produced and the physical layout of the
> vt52 keypad. I presume they never
> have seen a real, live, vt52 (I know
> I havn't).
>   -Richard Hartman

>   nep.pgelhausen@ames-vmsb
I have worked with real honest to gott vt52 terminals and they do have a keypad.
In fact, the best editor for RSTS (Really Silly Timesharing System) is KED.
KED stands for Keypad Editor for you fortunates who never used this system.
--j.a.tainter

From -6129462736830686269
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34cca7de62ef26fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 09:03:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!hplabs!qantel!
lll-lcc!lll-crg!styx!lognet2!seismo!rochester!ritcv!cci632!ccird2!rb
From: rb@ccird2.UUCP
Newsgroups: net.micro.atari16
Subject: Amiga software for the atari.
Message-ID: <769@ccird2.UUCP>
Date: Thu, 17-Apr-86 12:03:38 EST
Article-I.D.: ccird2.769
Posted: Thu Apr 17 12:03:38 1986
Date-Received: Mon, 21-Apr-86 04:32:36 EST
References: <529@ssc-bee.UUCP>
Reply-To: rb@ccird2.UUCP (Rex Ballard)
Distribution: net
Organization: CCI Telephony Systems Group, Roch, NY
Lines: 6
Summary: Object code converter posted to net.amiga

Landon @ Atari just posted an Amiga object code to Atari ST translator.
If you have any friends with Amigas, and you've seen binary for it
that you cant get for the Atari (yet), this little utility might help.

Again, thanks Landon.
Any chance of getting something to go the other way?

From -3333908774604869878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 09:26:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040???
Message-ID: <3180@ukma.UUCP>
Date: Thu, 17-Apr-86 12:26:09 EST
Article-I.D.: ukma.3180
Posted: Thu Apr 17 12:26:09 1986

Date-Received: Mon, 21-Apr-86 03:00:25 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 2

Some 1040s made it to Louisville a couple of days ago.
    Alan Kennington.

From -959223257021888178
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e0968dc28d0669,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 09:27:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: MicroEmacs 3.5
Message-ID: <344@imagen.UUCP>
Date: Thu, 17-Apr-86 12:27:17 EST
Article-I.D.: imagen.344
Posted: Thu Apr 17 12:27:17 1986
Date-Received: Sat, 19-Apr-86 08:27:19 EST
Distribution: net
Organization: The Houses of the Holy
Lines: 19

~~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~

HELP! i am trying to compile microemacs 3.5 and i am having no end
of trouble, basic.c dies in c168 with "early termination of link
file", bind.c dies simularly. I am running a 512k 520 with tos in
rom, the compiler (alcyon) is on the a: disk and the program is the
only thing on the b: disk. is anyone out there having any sucess ???
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From 1994661454832759923
~~~~~~~~~~~~~~~~~~~~~~~~

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d42447427c7dc5c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 10:15:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!
braun
From: braun@drivax.UUCP (Karl Braun)
Newsgroups: net.micro.atari16
Subject: Re: How close to ALCYON C is TOS?
Message-ID: <434@drivax.UUCP>
Date: Thu, 17-Apr-86 13:15:41 EST
Article-I.D.: drivax.434
Posted: Thu Apr 17 13:15:41 1986
Date-Received: Sat, 19-Apr-86 08:27:42 EST
References: <8604121902.AA24030@ucbvax.berkeley.edu>
Reply-To: braun@drivax.UUCP (Karl Braun)
Organization: Digital Research, Monterey, CA
Lines: 64

In article <8604121902.AA24030@ucbvax.berkeley.edu> RDROYA01%ULKYVX.BITNET@SU-
Forsythe.ARPA writes:
>
>I have received a lot of buzzing about an entry I had on the net.
>RUMORS was the name. In it I asked if TOS was really cp/m68k. No
>it is not everyone said. But I'll bet it's written in ALCYON C
>because the file header format and the exception format are too close
>for coincidence...
...
>
>David Betz writes about developing xlisp for the Atari using MicroEmacs
>under CP/M-68K. This was said to be in the _BYTE_ section of *Compuserve*.
>So, has anyone used the crippled cp/m-68k *and* TOS who can explain why
>header format is the same and so forth and yet TOS was to have been designed
>from the ground up?
>
>RDROYA01@ULKYVX.BITNET

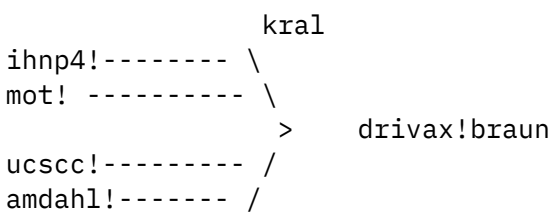
I don't quite follow your line of questioning, so I will just throw this out
and see if it helps:

GEM was written for the PC. Atari had this new machine (the 520) and liked
the GEM environment, and asked us to provide such an environment on the 68k.
Original plans were for some sort of crude DOS emulator on top of CPM/68K.
But one of our (former) engineers, Jason (born to code) Loveman had a "Dos
Jr." prototype running (this is the infamous JasonDos written about in
Inforworld (I think)). It was a better alternative to bring this prototype
to production than coerce CPM/68K to do the same, so GEMDOS was born. It
was developed under CPM/68K, and so the Alcyon compiler was used. So:

GEMDOS uses the Alcyon compiler, and I presume Atari does too (we hand code
over to them for their mods); thus the familiar object format. It is not, nor

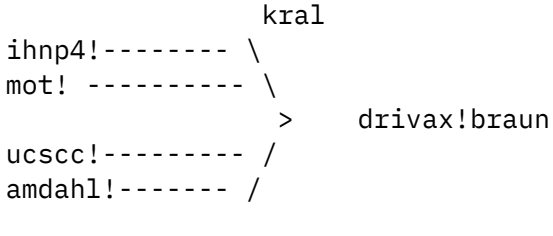
has it ever been CPM/68K.

--



--

--



The opinions expressed here are my own, and do not necessarily reflect the opinions of my employers, my country, the minor deities from the Halls of Asgaard, or the great Prophet Zarquon.

From 2155510158239005253
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e90a6e342218f605,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 10:42:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site isrnix.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!isrnix!
apratt
From: apratt@isrnix.UUCP (Allan Pratt)
Newsgroups: net.micro.atari16
Subject: Graphics escapes in ROM VT52?
Message-ID: <736@isrnix.UUCP>
Date: Thu, 17-Apr-86 13:42:05 EST
Article-I.D.: isrnix.736
Posted: Thu Apr 17 13:42:05 1986
Date-Received: Sun, 20-Apr-86 17:19:11 EST
Organization: Institute for Social Research (Indiana University, Bloomington)

Lines: 16

I read in a recent posting about The Club that there were escape codes you could send to the built-in VT52 emulator to get graphics on the ST. I already figured out the foreground/background codes, but are there more? The poster said he'd started referring to the emulator as an ST52. Can anybody post a list of escape codes on the ST52? If this is included with the Developer's Kit, could somebody like Landon Dyer post it, so we know it's not proprietary?

By the way, I called the number given for The Club II, and got a human who knew nothing about it. The number I called was (313) 334-8877. Did I get it wrong?

Thanks all..

-- Allan Pratt
...ihnp4!inuxc!iubugs!isrnix!apratt

From -2898660296128776143
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d42447427c7dc5c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 10:48:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!nsc!amdahl!
drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: How close to ALCYON C is TOS?
Message-ID: <435@drivax.UUCP>
Date: Thu, 17-Apr-86 13:48:33 EST
Article-I.D.: drivax.435
Posted: Thu Apr 17 13:48:33 1986
Date-Received: Sat, 19-Apr-86 13:06:24 EST
References: <8604121902.AA24030@ucbvax.berkeley.edu>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 23

In article <8604121902.AA24030@ucbvax.berkeley.edu> RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA writes:
>
>THE FOLLOWING IS HEARSAY FROM A TRUSTED SOURCE
>
>David Betz writes about developing xlisp for the Atari using MicroEmacs
>under CP/M-68K. This was said to be in the _BYTE_ section of *Compuserve*.
>So, has anyone used the crippled cp/m-68k *and* TOS who can explain why
>header format is the same and so forth and yet TOS was to have been designed
>from the ground up?

Why do you think?

The load file format for TOS programs is identical to that for CP/M-68K
programs, except that the relocation information has been compressed.

The header at the beginning is the same because the load files are at least
that similar.

--
"Pitiful Earthlings.... who will save you now?"

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -8357127285074271300
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d42447427c7dc5c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 10:53:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!nsc!amdahl!
drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: How close to ALCYON C is TOS?
Message-ID: <436@drivax.UUCP>
Date: Thu, 17-Apr-86 13:53:18 EST
Article-I.D.: drivax.436
Posted: Thu Apr 17 13:53:18 1986
Date-Received: Sat, 19-Apr-86 13:06:59 EST
References: <8604121902.AA24030@ucbvax.berkeley.edu> <434@drivax.UUCP>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 22

In article <434@drivax.UUCP> braun@drivax.UUCP (Karl Braun) writes:
>
>I don't quite follow your line of questioning, so I will just throw this out
>and see if it helps:
>
>GEMDOS uses the Alcyon compiler, and I presume Atari does too (we hand code
>over to them for their mods); thus the familiar object format. It is not, nor
>has it ever been CPM/68K.

Let's get our stories straight, Karl. I think he was referring to the load
format, which is essentially the same.
>
>The opinions expressed here are my own, and do not necessarily reflect the
>opinions of my employers, my country, the minor deities from the Halls of
>Asgaard, or the great Prophet Zarquon.

However, mine do.
--
"Pitiful Earthlings.... who will save you now?"

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -7064548159292198678
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5944840f7f0b8763
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 11:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: Mushrooms and the analyzer
Message-ID: <54600061@iuvax.UUCP>
Date: Thu, 17-Apr-86 14:04:00 EST
Article-I.D.: iuvax.54600061
Posted: Thu Apr 17 14:04:00 1986
Date-Received: Sun, 20-Apr-86 17:19:23 EST
References: <860415@Xerox.UUCP>
Lines: 14
Nf-ID: #R:Xerox:-86041500:iuvax:54600061:000:521
Nf-From: iuvax!franco   Apr 17 14:04:00 1986

Certain memory locations, for example the data and address registers and
user and supervisor stacks, do not get erased when the rest button is hit.
Therefore, one can reboot after a crash and those locations will have
precisely the numbers they contained at the point the crash occurred. The
mushroom analyzer simply displays the contents of each of those locations.

You can get a mushroom analyzer by sending a blank floppy disk, SASE and
packing material to

John Franco
2535 Spicewood Lane
Bloomington, IN 47401
USA

From -5127605579630991710
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 11:33:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!dyer

From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Catching ^C and "mushrooms"
Message-ID: <197@atari.UUcp>
Date: Thu, 17-Apr-86 14:33:45 EST
Article-I.D.: atari.197
Posted: Thu Apr 17 14:33:45 1986
Date-Received: Sun, 20-Apr-86 16:38:31 EST
References: <860409-150043-1731@Xerox> <3511@sun.uucp>
Organization: Atari Corp., Sunnyvale CA
Lines: 41

> Does anybody know how to get control of the ^C handling? I would
> like to find some way to prevent my program from getting killed
> without giving it a chance to clean up. (It doesn't seem possible
> to keep a conin() request pending all the time, because, for
> instance, when you are in the middle of a long write() to a file
> you are sensitive to being killed). Clearly one should just not type
> ^C, but I would like to make my software "idiot proof".

You CAN catch ^C (as well as any other terminate). In the grand DRI
tradition, it is the usual monster kludge:

---------------- (excerpt)

     0x102 Terminate (^C) Handler
               Before a process is actually terminated, GEMDOS
          calls the terminate vector. If the terminate vector
          points to an RTS (the default case), the process will
          be terminated. If the application does not wish to be
          terminated it should do a longjump (or its equivalent)
          to an appropriate handler.

This is extended vector 0x102, located at 0x408 in protected RAM.

The vector is called on ANY terminate (including function 0x00, Pterm0()).
It also catches the "mushroom" exceptions (bus errors, etc.). In actual
practice, about all you can do after a bus error is to clean up any
hanging data structures (vblank handlers, keyboard tables, RS232
buffers, etc.), RTS, and hope for the best.

One of the things you have to restore is the vector itself ....

^C is only checked for on cooked console input OR output. So if you
use purely BIOS calls, or just GEMDOS file I/O, you are safe. Also, raw
input from the console ignores ^C.

--

-Landon   "If Business is War, then I'm a Prisoner of Business!"
... {hoptoad, lll-crg!vecpyr}!atari!dyer   "Quantity is Quality"

From 1730546837929577165
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 16:23:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!SUCASE.BITNET!DAHBURA
From: DAHBURA@SUCASE.BITNET (Tony S. Dahbura)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604172221.AA04845@ucbvax.berkeley.edu>
Date: Thu, 17-Apr-86 19:23:09 EST
Article-I.D.: ucbvax.8604172221.AA04845
Posted: Thu Apr 17 19:23:09 1986
Date-Received: Sun, 20-Apr-86 01:04:32 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

Please add me to your distribution list.
                            Thanks,
                            Tony

From 8143004002864905294
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa309d5cbabb413a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 18:42:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site riccb.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!hropus!riccb!djb
From: djb@riccb.UUCP (Dave J. Burris)
Newsgroups: net.micro.atari16
Subject: Re: UPGRADE!
Message-ID: <666@riccb.UUCP>
Date: Thu, 17-Apr-86 21:42:13 EST
Article-I.D.: riccb.666
Posted: Thu Apr 17 21:42:13 1986
Date-Received: Sat, 19-Apr-86 08:13:39 EST
References: <2585@brl-smoke.ARPA>
Distribution: net
Organization: Rockwell Telecommunications, Downers Grove,Il.
Lines: 37

> foo!
> Well I did it. I attempted the fatal up grade. The good news is that I
> did not fry my ST. She boots-up all right along with the 5 or six
> accessories on the desk top [fonts,ramdisk,etc...]. The ramdisk says
> ~690+K byte available! Looks good right!?

>
> However a little after after boot-up,vertical lines appear up and down
> across the whole screen!!! Sometimes the lines shift color as I move the
> mouse. I can still run programs, copy files to and from the RAM disk,
> but invariably, after a short time it crashes, lines and all. My
> thinking is that one of the RAM chips is flakey. WHy?
>
>   A. the vertical lines appear on every 8th pixel
>   ---------
>   B. When pressing memory to its limit by coping whole disks into
>   the RAM disk, I can see the patterns of these vertical lines
>   change in exact sequence with the "clicks" of the floppy disk.
>
> Questions: 1. Any suggestions on what else it might be?
>   2. How does one test for a bad RAM chip?
>
>   All comments will be MOST welcome. Thanks - Geoff
>   ****

When I had this problem it was simply shorted address lines. With the upgrade
the screen memory ends up in high memory, thus the wierd display. I located
the address lines in question by using SID to write to a large zero filled
array one byte at a time and observing which locations caused more than one
location to change.

If you are unlucky the shorted lines will have to be located visually because
you won't be able to keep the system up long enough.

--
Dave Burris
..!ihnp4!ihopa!riccb!djb
Rockwell Switching Systems, Downers Grove, Il.

From 5581286019875652575
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-17 23:13:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/15/85; site mordred.purdue.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!pur-ee!pucc-j!
purdue!sjc
From: sjc@purdue.UUCP (Steve J Chapin)
Newsgroups: net.micro.atari16
Subject: 1040 ST vs. 520 ST w/upgrade
Message-ID: <572@mordred.purdue.UUCP>
Date: Fri, 18-Apr-86 02:13:01 EST
Article-I.D.: mordred.572
Posted: Fri Apr 18 02:13:01 1986
Date-Received: Sat, 19-Apr-86 13:44:10 EST
Organization: Department of Computer Science, Purdue University
Lines: 17

Keywords: cheaper? better?

I read an article in this newsgroup suggesting that it was cheaper by
~$200 to upgrade a 520 to 1Meg than to buy a 1040. My question is,
is there any reason to buy a 1040? Aren't there some advantages to
the layout, or ports, or something that make the price difference
worthwhile? Or should I just laugh all the way to the bank (heh)
and get a 520?

Your expert comments appreciated...

--

Steve Chapin | Chapin's Law of Motion:
ARPA: sjc@purdue.edu | You can get anywhere in 10 minutes
UUCP: ...!purdue!sjc | if you drive fast enough.

From -7931705121198693331
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2a0553b51963bb8a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 06:11:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: KERMIT, HELP!
Message-ID: <54600062@iuvax.UUCP>
Date: Fri, 18-Apr-86 09:11:00 EST
Article-I.D.: iuvax.54600062
Posted: Fri Apr 18 09:11:00 1986
Date-Received: Mon, 21-Apr-86 03:27:18 EST
References: <14226845@ucbvax.UUCP>
Lines: 4
Nf-ID: #R:ucbvax:-1422684500:iuvax:54600062:000:167
Nf-From: iuvax!franco   Apr 18 09:11:00 1986

Forget the Kermit - it is slow and unappealing in several other ways. You
should be using xmodem like everyone else. Email me if you want it.
franco@indiana.csnet

From -8671057910398338484
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 08:08:40 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!YALE.ARPA!fischer
From: fischer@YALE.ARPA (Michael Fischer)
Newsgroups: net.micro.atari16
Subject: Re: Arrow Keys & VT52 Terminal Mode
Message-ID: <8604181608.AA18480@Yale-Bulldog.YALE.ARPA>
Date: Fri, 18-Apr-86 11:08:40 EST
Article-I.D.: Yale-Bul.8604181608.AA18480
Posted: Fri Apr 18 11:08:40 1986
Date-Received: Sun, 20-Apr-86 05:19:07 EST
Sender: parhi@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

> Does anybody know how to get control of the ^C handling? I
> would like to find some way to prevent my program from getting
> killed without giving it a chance to clean up. (It doesn't
> seem possible to keep a conin() request pending all the time,
> because, for instance, when you are in the middle of a long
> write() to a file you are sensitive to being killed). Clearly
> one should just not type ^C, but I would like to make my software
> "idiot proof".

I had a similar problem with ^Q/^S when I wrote a terminal emulator
-- sometimes they would be passed through to my program and sometimes
they would be interpreted by TOS. My advice from Atari was to avoid
the GEMDOS conin()/conout() calls altogether and to use the BIOS
calls directly. I did that and the problem went away. But even
though the problem was only with keyboard input, it seemed to be
necessary to avoid conout() as well, for it interacts in mysterious
ways with conin().

--Mike Fischer

From 6127355397864577710
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 08:36:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site druhi.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <338@druhi.UUCP>
Date: Fri, 18-Apr-86 11:36:37 EST
Article-I.D.: druhi.338
Posted: Fri Apr 18 11:36:37 1986

Date-Received: Sun, 20-Apr-86 17:21:18 EST
References: <572@mordred.purdue.UUCP>
Organization: AT&T Information System Labs, Denver, Co
Lines: 29
Keywords: cheaper? better?

In article <572@mordred.purdue.UUCP>, sjc@purdue.UUCP (Steve J Chapin) writes:
>
> I read an article in this newsgroup suggesting that it was cheaper by
> ~$200 to upgrade a 520 to 1Meg than to buy a 1040. My question is,
> is there any reason to buy a 1040? Aren't there some advantages to
> the layout, or ports, or something that make the price difference
> worthwhile? Or should I just laugh all the way to the bank (heh)
> and get a 520?
>
> Steve Chapin
>

There are 3 reasons that I would rather have a 1040ST:

1) It comes with a double sided disk drive instead of a single sided one
2) There aren't nearly as many cables to deal with. This is more of a
   hassle than you might think.
3) It already has the 1 Meg of RAM in it. This means that I wouldn't have
   to hassle with the upgrade and any chance that I might screw something up.

By the way, I have a 520ST that I upgraded with 1 Meg. I am not
at all sorry that I bought it when I did, but if I were buying an Atari today
I would get a 1040 for the reasons given above.

Barry Locklear
AT&T Information Systems Labs
Denver, CO
(303) 538-4954
ihnp4!druhi!lbl

From -2941027204710363630
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa309d5cbabb413a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 09:05:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihwpt.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.atari16
Subject: Re: UPGRADE!
Message-ID: <819@ihwpt.UUCP>
Date: Fri, 18-Apr-86 12:05:32 EST
Article-I.D.: ihwpt.819
Posted: Fri Apr 18 12:05:32 1986
Date-Received: Sun, 20-Apr-86 17:21:43 EST

References: <2585@brl-smoke.ARPA> <666@riccb.UUCP>
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 24

> When I had this problem it was simply shorted address lines. With the upgrade
> ....
> If you are unlucky the shorted lines will have to be located visually because
                                        ^^^^^^^
> you won't be able to keep the system up long enough.
> Dave Burris
> ..!ihnp4!ihopa!riccb!djb

Don't hunt for it visually at first -- that takes forever and may never
find the short. Instead, use a modern digital VOM (Volt-Ohm-Meter),
preferably one with a "beeper" continuity check feature,
to measure between each address line and all the others.
Takes only a few minutes.
     Once you've found the guilty pair, then go visual, or
even rip those two out and re-do them.
Don't use an old non-electronic VOM, as they may feed
high enough currents thru your chips to damage them.
Also make sure your instrument won't indicate continuity (short)
thru forward-biased solid state junctions (as in chips), thus
giving false short indications. Test it on a diode, both directions,
to be sure.
     If you can't borrow such a VOM, Radio Shack sells them
for $40 (sale price, tho). Worth every cent if you hack hardware.
     Best of luck, mike k

From -1936383843094971344
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15eac6,d6d218ae596a585a,start
X-Google-Attributes: gid15eac6,public
X-Google-Thread: 140593,d6d218ae596a585a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 10:56:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!mit-eddie!genrad!panda!talcott!
harvard!uwvax!uwmacc!oyster
From: oyster@uwmacc.UUCP (Vicarious Oyster)
Newsgroups: net.micro.atari16,net.info-terms
Subject: 520ST termcap entry?
Message-ID: <2126@uwmacc.UUCP>
Date: Fri, 18-Apr-86 13:56:59 EST
Article-I.D.: uwmacc.2126
Posted: Fri Apr 18 13:56:59 1986
Date-Received: Sun, 20-Apr-86 17:04:42 EST
Distribution: net
Organization: UWisconsin-Madison Academic Comp Center
Lines: 22
Xref: watmath net.micro.atari16:489 net.info-terms:888

*** ***

The following is what I found somewhere as a termcap entry for the ST. Is
this correct (or does somebody have something better)? This isn't (yet)
in our local termcap file, and the standard vt52 entry doesn't seem to work
quite right.

```
A5|520st|atari|atari 520st vt52 emulation:\
        :co#80:li#24:nd=\EC:\
        :am:bs:pt:xt:\
        :cd=\EJ:ce=\EK:cl=\EE:\
        :do=\EB:up=\EA:cm=\EY%+ %+ :\
        :dl=\EM:al=\EL:\
        :dc=\Em:ic=\El:im=:ei=:\
        :ku=\EA:kl=\ED:kd=\EB:kr=\EC:kh=\EH:\
        :kb=^H:\
        :so=\Ep:se=\Eq:
```
--

 - Joel Plutchak
   uucp: {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster
   ARPA: uwvax!uwmacc!oyster@rsch.wisc.edu


```
From -6011107422702993573
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,79a99102c9f5f8ba,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 14:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!HI-MULTICS.ARPA!JEllsworth
From: JEllsworth@HI-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: add me
Message-ID: <860418220152.951079@HI-MULTICS.ARPA>
Date: Fri, 18-Apr-86 17:01:00 EST
Article-I.D.: HI-MULTI.860418220152.951079
Posted: Fri Apr 18 17:01:00 1986
Date-Received: Sun, 20-Apr-86 05:19:27 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1
```


Please add me to the 16 bit list. Thanks...


```
From 5942047890730101890
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 15:19:46 PST
```

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihwpt.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihwpt!knudsen
From: knudsen@ihwpt.UUCP (mike knudsen)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <820@ihwpt.UUCP>
Date: Fri, 18-Apr-86 18:19:46 EST
Article-I.D.: ihwpt.820
Posted: Fri Apr 18 18:19:46 1986
Date-Received: Sun, 20-Apr-86 17:39:22 EST
References: <572@mordred.purdue.UUCP>
Organization: AT&T Bell Laboratories
Lines: 43

> I read an article in this newsgroup suggesting that it was cheaper by
> ~$200 to upgrade a 520 to 1Meg than to buy a 1040. My question is,
> is there any reason to buy a 1040? Aren't there some advantages to
> the layout, or ports, or something that make the price difference
> worthwhile? Or should I just laugh all the way to the bank (heh)
> and get a 520?
> Your expert comments appreciated...
> Steve Chapin | Chapin's Law of Motion:
> UUCP: ...!purdue!sjc | if you drive fast enough.

I've wondered about that too. Some advantages of
the 1040 may be:

(1) Peace of mind knowing that the extra RAM is factory
installed, and if it breaks Atari will (?) fix it.
I upgraded my RS CoCo years ago (from 16K to 64K, wow)
but must accept the fact that Radio Shack will never repair
it. If you're not a hardware jock like me, get the 1040.

(2) Doesn't the 1040 come with a built-in (less desk space)
double-sided drive? That's worth about $75 I believe.

(3) Can you still daisy-chain two external disk drives?
If so, the 1040 could have total of 3 drives, not 2.
 (I doubt you can, tho).

(4) Built-n power supply. Actually, one may prefer the
separate black-box to the bigger, heavier, and HOTTER
mainframe that results from putting the PS inside.
Especially since the keyboard is still not separate.
So, maybe this is a *disadvantage*.

(5) If you piggyback a 1040, you can put in 32 chips
and go clear to 2 Meg. Don't ask whether the MMU chip
can handle that much. In case you missed the Byte 1040ST
article, the "extra" RAM chips are end-to-end with the "original"
ones on the board. You could add just 512K the first time.

(6) How long will you live with 512K? If you plan to upgrade
a 520 as soon as you get home (and blow the warranty),
maybe you should get the 1040 right off (see (1)).

     mike k

From -2754396748806469593
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f22b6c2a47cf005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 16:13:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 5/22/85; site cbosgd.UUCP
Path: utzoo!watmath!clyde!cbosgd!rlp
From: rlp@cbosgd.UUCP (J. Knapp)
Newsgroups: net.micro.atari16
Subject: Re: 1040 ST vs. 520 ST w/upgrade
Message-ID: <2031@cbosgd.UUCP>
Date: Fri, 18-Apr-86 19:13:16 EST
Article-I.D.: cbosgd.2031
Posted: Fri Apr 18 19:13:16 1986
Date-Received: Mon, 21-Apr-86 03:15:26 EST
References: <572@mordred.purdue.UUCP>
Reply-To: rlp@cbosgd.UUCP (J. Knapp)
Distribution: net
Organization: AT&T Bell Laboratories, Columbus
Lines: 10
Keywords: cheaper? better?

In article <572@mordred.purdue.UUCP> sjc@purdue.UUCP (Steve J Chapin) writes:
>
>... is there any reason to buy a 1040? Aren't there some advantages to
>the layout, or ports, or something that make the price difference
>worthwhile? ...

A computer dealer made a good point in favor of the 1040: The "keyboard"
unit on the 1040 contains a power supply, disk drive, and TV interface.
So if you want to travel with your computer, you only need to take the
keyboard and connect it to any handy TV, and you're in business!

From -340178795745974860
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8f08386a97dd8912,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-18 18:18:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: FORTHMACS now available

Message-ID: <54600065@iuvax.UUCP>
Date: Fri, 18-Apr-86 21:18:00 EST
Article-I.D.: iuvax.54600065
Posted: Fri Apr 18 21:18:00 1986
Date-Received: Mon, 21-Apr-86 07:51:30 EST
Lines: 79
Nf-ID: #N:iuvax:54600065:000:3373
Nf-From: iuvax!franco   Apr 18 21:18:00 1986

I have just received Bradley's FORTHMACS which is the first real release (shareware) of the PDFORTH that I posted to the net some time ago. You may recall that I have offered to copy three disks worth of software for anyone sending me three floppies. I have now added a fourth disk containing FORTHMACS. You may still send me three disks if you do not want FORTHMACS or send me the fourth disk for FORTHMACS. Or you may send one disk for the FORTH. Or you may send me no disks and download all the files from GENIE (wait about 5 days before looking there-it will take awhile to upload. I will not try to upload to compuserve as it will take into the next century to do so). Or you may write directly to the author, Mitch Bradley (see the address below). I strongly recommend that you do the latter since Mitch will then know who you are and can keep in touch.

However, if you are going to send me three disks then, in my opinion, you should send four disks: FORTHMACS is fast (a few hundred times faster than xlisp) and has hooks into everything. The following is a list of files that come with FORTHMACS and illustrates what I am talking about:

File	Contents
FILES.LST	This file
READ.ME	General Forthmacs information
COPYING	Important note from the author
FORTH.TOS	The Forthmacs Forth System
EMACS.TOS	The Emacs text editor
EMACS.REF	Emacs quick reference
TUTORIAL.TXT	Emacs tutorial
MIDI.FTH	Basic MIDI interface
MODEM.FTH	Serial Line interface
CONNECT.FTH	Virtual Terminal
XMODEM.FTH	Xmodem protocol file transfer
PRINTER.FTH	Printer control
LINEA.FTH	Line A graphics interface
VDI.FTH	Low Level VDI interface
VDIBIND.FTH	C-bindings style VDI interface
AES.FTH	AES interface
POLYGONS.FTH	Sliding Polygons demo program
ART.FTH	String Art demo program
STRINGPT.BIN	Data file for ART.FTH
TASKING.FTH	Multitasking
BUNDLE.FTH	Creates "bundles" -- files containing many other files
EXTRACT.FTH	Used by BUNDLE.FTH
INTERVAL.FTH	Interval timing

```
SPLIT.FTH     Split-screen scrolling
BLOCK.FTH     Implemention of the Forth word BLOCK
BLOCKIO.FTH        Used by BLOCK.FTH
BLOCKLD.FTH        Used by BLOCK.FTH
COMPARE.FTH        File comparison
CHECKSUM.FTH       File checksum
DEBUG.FTH     Single-steping debugger
WHATIS.IND         Index file for the WHATIS help command
WHATIS.DOC         Data file for the WHATIS help command
INDEX.FTH     Recreates WHATIS.IND if you modify WHATIS.DOC
FILEDATE.FTH       Modifies the data and time stamp on files
MEMORY.MAP         Text file showing the memory map of Forthmacs
```

You don't have to keep all these files on-line all the time for Forthmacs to work. Once FORTH.TOS has started, it stays in memory until you exit from Forth. The first time you type edit , EMACS.TOS is read in to memory, and it stays there until you exit from Forth. WHATIS.IND and WHATIS.DOC are accessed every time you use the whatis command, so you have to keep them on-line if you use that command. The other files are only accessed if you explicitly ask for them.

You can also get FORTHMACS from the author at the following address:

Bradley FORTHWARE
P.O. Box 4444
Mountain View, CA 94040

Note: I just mailed disks to the following people: Hauser,Franceus,Dalio, Carson,Jaegermann,Gerard. I had delayed your disks for a few days waiting for the FORTH (I had to squeeze everything to get it on - sorry).

John Franco
2535 Spicewood Lane
Bloomington, IN 47401

```
From -6873274772390940220
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,14e5763e3355fd1c,start
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 140593,14e5763e3355fd1c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-19 10:16:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!well!tenney
From: tenney@well.UUCP
Newsgroups: net.legal,net.micro.atari16
Subject: Using Apple Macintosh roms on non-Apple machines
Message-ID: <959@well.UUCP>
Date: Sat, 19-Apr-86 13:16:29 EST
Article-I.D.: well.959
Posted: Sat Apr 19 13:16:29 1986
```

Date-Received: Mon, 21-Apr-86 06:40:13 EST
Reply-To: tenney@well.UUCP (Glenn S. Tenney)
Organization: Whole Earth Lectronic Link, Sausalito CA
Lines: 32
Keywords: Infringing ROM Copyrights
Xref: watmath net.legal:3295 net.micro.atari16:507
Summary: Can Apple stop people from doing this?

What is a line eater?

A company has developed some software and a cartridge for the
Atari ST computer that allows Apple Macintosh roms to run on the
Atari ST. They take official Apple roms and plug them into their
cartridge and then their software lets the ST run Macintosh software.
I spoke with the developer who wonders if Apple will/can stop them
from doing this. It seems that when people have their dealers upgrade
the roms, the dealers keep the old roms. You can (or could until
this situation developed) then buy these older roms.

I hope that net.legal is the proper place for this discussion (it has
been on net.micro.atari16). Some of the questions are:
1. Is there any copyright infringement? I believe there is none, but
    the developer thought Apple might so claim.
2. Can Apple suddenly claim the roms as proprietary? The roms are
    evidently availble (officially) for somthing like US$195.
3. If Apple tries to restrict this product wouldn't they expose
    themselves to restraint of trade claims?

I am not in any way involved with this product and only find the situation
exceedinly interesting. I think the idea is great and that Apple shouldn't
be able to stop it (but then with our legal system the way it is, they might
force the developer to stop by consuming mass quantities of money fighting
Apple's lawyers).

-- Glenn Tenney
UUCP: {hplabs,glacier,lll-crg,ihnp4!ptsfa}!well!tenney
ARPA: well!tenney@LLL-CRG.ARPA   Delphi and MCI Mail: TENNEY
As Alphonso Bodoya would say... (tnx boulton)
Disclaimers? DISCLAIMERS!? I don' gotta show you no stinking DISCLAIMERS!

From -5112112469369456737
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,79a99102c9f5f8ba
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-19 12:04:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!unisoft!fnf
From: fnf@unisoft.UUCP (Fred Fish)
Newsgroups: net.micro.atari16
Subject: Re: add me

Message-ID: <45@unisoft.UUCP>
Date: Sat, 19-Apr-86 15:04:46 EST
Article-I.D.: unisoft.45
Posted: Sat Apr 19 15:04:46 1986
Date-Received: Mon, 21-Apr-86 06:43:00 EST
References: <860418220152.951079@HI-MULTICS.ARPA>
Reply-To: fnf@unisoft.UUCP (Fred Fish)
Organization: UniSoft Systems; Berkeley, CA
Lines: 3

In article <860418220152.951079@HI-MULTICS.ARPA> JEllsworth@HI-MULTICS.ARPA
writes:
>Please add me to the 16 bit list. Thanks...
Sorry, you're requester number 65,536, there's no more room...   :-) :-)

From 3430022762833602550
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7537b93e8202aecf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-20 13:07:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!well!wvucenic
From: wvucenic@well.UUCP (Wayne Vucenic)
Newsgroups: net.micro.atari16
Subject: ProGEM parts 2-6
Message-ID: <961@well.UUCP>
Date: Sun, 20-Apr-86 16:07:18 EST
Article-I.D.: well.961
Posted: Sun Apr 20 16:07:18 1986
Date-Received: Wed, 23-Apr-86 12:30:27 EST
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 10
Keywords: missing

About a month ago, bammi@cwruecmp.UUCP (Jwahar R. Bammi) posted some
GEM documentation titled "ProGEM part 1 of 6". I found it quite
interesting, but this site never received parts 2-6. Were they ever
posted, and if so, could some kind person please mail them to me?

-Thanks
==
Wayne Vucenic
...{ucbvax, ihnp4, allegra, decvax}!hplabs!well!wvucenic
==

From 5174554607971046174
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,be8f4947d74ad8e7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-20 18:24:00 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DOCKMASTER.ARPA!Pase
From: Pase@DOCKMASTER.ARPA (Bill Pase)
Newsgroups: net.micro.atari16
Subject: Panasonic printer driver for 1st Word
Message-ID: <860421022431.882244@DOCKMASTER.ARPA>
Date: Sun, 20-Apr-86 21:24:00 EST
Article-I.D.: DOCKMAST.860421022431.882244
Posted: Sun Apr 20 21:24:00 1986
Date-Received: Sat, 26-Apr-86 05:32:53 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 324

Here is the 1st Word printer driver for the Panasonic printers. I'd sent this out before but apparently it did not get out to everyone. The following is in two parts, the documentation for the driver and the hex file itself. To use it just perform the normal install proceedure as described in the 1st Word manual. Since I didn't write this, and haven't used it all I can't take responsibility. Good Luck. /bill

----------kxp1091.doc----------

This 1ST_WORD printer driver is compatible with the following printers : PANASONIC (1090,1080,1091,1092,1592 1093. As well as these ROLAND (1010,1011,1111). Since the light function is not available on these printers, I have substituted for proportional mode.

Here are a list of changes and additions :

LIGHT mode (F4) is now set for Proportional mode

In the special character menu on the second line there ten characters which for lack of a better term I will call LCD characters, like a calculator display's. Since only the Atari printer is capable of reproducing these I use them to enact special funtions like :

LCD (0) NOW used to turn ON ELITE pitch printing
LCD (1) NOW used to turn OFF ELITE pitch printing

LCD (2) NOW used to turn ON CONDENSED printing
LCD (3) NOW used to turn OFF CONDENSED printing

LCD (4) NOW used to turn ON ENLARGED printing
LCD (5) NOW used to turn OFF ENLARGED printing

LCD (6) NOW used to turn ON DOUBLE space printing
LCD (7) NOW used to trun OFF DOUBLE space printing

LCD (8) NOW used to turn ON 1 1/2 space printing
LCD (9) NOW used to turn OFF 1 1/2 space printing

OPERATING NOTES:

1: It is impossible to print both in ELITE mode and NLQ
   at the same time.

2: When using the double space feature place the LCD 6
   before the line where you want duoble spacing to
   begin. And place the LCD 7 where you want it to end.

For example if you want "The lazy dog" to be double spaced :

ON S C R E E N	ON P R I N T E R
Mary had a little 6	Mary had a little
The lazy dog 7	
	The lazy dog

Modified by Craig Tremblay of Compucentre Carlingwood
If there are any questions of if you find any errors
please feel free to contact me at the following phone
number :
(613) 7 2 9 - 0 4 4 8

----------end of kxp1091.doc----------

----------kxp1091.hex----------

```
**************************************************************
*
*    Panasonic Dot Matrix Printer Driver Configuration Table
*    (1080 / 1090 / 1091 / 1092 / 1093 / 1592) compatible
*
*    As Well as these Rolland printer (1010 / 1111 / 1011)
*
*    This file contains tables defining the code sequences
*    to be sent to the printer to perform various functions
*    and to access the characters from codes in the Atari
*    character set.
*
**************************************************************

*
* Name of printer
* ===============
*
PANASONIC KX-P()
* THE INSTALL PRINT ROUTINE IS NOT SET UP FOR ANY OTHER PRINTER
* BUT THESE MODIFICATIONS ALLOW FULL USE OF THE PANASONIC OR ROLAND
* PRINTERS WITHIN THE BOUNDS OF THE 1ST WORD PROGRAM. MODIFICATON
```

```
* BY CRAIG TREMBLAY, COMPUCENTRE CARLINGWOOD (613) 729-0448
* Miscellaneous configurable variables
* ====================================
*
* 1: printer type, 0=dot matrix, 1=daisy wheel
*    Note if printer type is 0 the following 4 variables are never used.
* 2: unit width of one character
* 3: unit height of one line
* 4: Approximate middle of carriage after formfeed
* 5: Carriage shift for bold overstrike
*
0, 0, 0, 0, 0
*
* Printer characteristics
* =======================
*
* This table specifies the printer command sequences.
* If the top bit of a code is set, then this indicates the position
* of a parameter passed to the printer. The code whose top bit is set
* in this table is added to the parameter passed before being sent to the
* printer. It is not used in all command sequences, only in those where
* the printer requires  a variable value such as the length of a vertical
* tab.
*
* 0            * Character width
1, D, A        * Linefeed WITH return
* 2            * Forward print
* 3            * Reverse print
* 4, 1B, 42, 80, 0, B               * Vertical tab to line
* 5            * Absolute horizontal tab
6, 1B, 45      * Draft bold on
7, 1B, 46      * Draft bold off
8, 1B, 6E, 1B, 45      * NLQ bold on
9, 1B, 46, 1B, 6E      * NLQ bold off
A, 1B, 34      * Draft italic on
B, 1B, 35      * Draft italic off
C, 1B, 6E, 1B, 34              * NLQ italic on
D, 1B, 35, 1B, 6E              * NLQ italic off
E, 1B, 6F      * Draft proportional on
F, 1B, 50      * Draft proportional off
10, 1B, 6E, 1B, 6F             * NLQ proportional on
11, 1B, 50, 1B, 6E             * NLQ proportional off
12, 1B, 53, 0  * Draft superscript on
13, 1B, 54     * Draft superscript off
14, 1B, 50, 1B, 53, 0          * NLQ superscript on
15, 1B, 54, 1B, 6E             * NLQ superscript off
16, 1B, 53, 1  * Draft subscript on
17, 1B, 54     * Draft subscript off
18, 1B, 50, 1B, 53, 1          * NLQ subscript on
19, 1B, 54, 1B, 6E             * NLQ subscript off
1A, 1B, 2D, 1  * Draft underline on
1B, 1B, 2D, 0  * Draft underline off
1C, 1B, 6E, 1B, 2D, 1  * NLQ underline on
```

```
1D, 1B, 6E, 1B, 2D, 0  * NLQ underline off
1E, 0C         * Formfeed
1F, 12         * Horizontal initialisation
* 20           * Vertical initialisation
21, 1B, 40     * Termination: printer reset
0              * NULL termination byte

*
* Translation Table
* =================
*
* This table provides translation from single Atari input bytes into
* multiple Epson printer codes, and is useful for printing extraneous
* characters such as accented characters etc. All characters are
* subjected to translation, but if there is no entry in the table for
* a particular code, then the original code is sent to the printer.
*
* The entries must be arranged in ascending order of Atari input
* code. The table is NULL terminated.
*

0                                  * NULL: print a space
1, 08, 1B, 52, 0, 5E               * Up arrow: USA | backspace USA ^
2, 1B, 52, 0, 7C, 8, 76            * Down arrow: USA | backspace USA v
3, 2D, 8, 3E  * Right arrow: - backspace >
4, 3C, 8, 2D  * Left arrow: - backspace <
5             * No close box
6             * No size box
7             * No full box
8             * No tick
9             * No clock
A             * No bell
B             * No musical note
E             * No LH Atari symbol
F             * No RH Atari symbol
10, 1B, 6E, 1B, 4D       * LCD 0 NOW USED TO TURN NLQ ELITE PITCH ON
11, 1B, 50, 1B, 6E       * LCD 1 NOW USED TO TURN NLQ ELITE PITCH OFF
12, 1B, 0F    * LCD 2 NOW USED TO TURN CONDENSED PITCH ON
13, 1B, 6E    * LCD 3 NOW USED TO TURN CONDENSED PITCH OFF
14, 1B, 0E    * LCD 4 NOW USED TO TURN ON ENLARGED PRINT
15, 14        * LCD 5 NOW USED TO TURN OFF ENLARGED PRINT
16, 1B, 33, 48        * LCD 6 NOW USED TO TURN DOUBLE SPACE ON
17, 1B, 33. 24        * LCD 7 NOW USED TO TURN DOUBLE SPACE OFF
18, 1B, 33, 36        * LCD 8 NOW USED TO TURN 1 1/2 LINE SPACE ON
19, 1B, 33, 24        * LCD 9 NOW USED TO TURN 1 1/2 LINE SPACE OFF
7F                       * No triangle
80, 43, 8, 2C            * Capital C cedilla: C backspace ,
81, 1B, 52, 2, 7D        * Lower case u umlaut from German font
82, 1B, 52, 1, 7B        * Lower case e acute from French font
83, 61, 8, 1B, 52, 0, 5E * Lower case a circumflex: a backspace USA ^
84, 1B, 52, 2, 7B        * Lower case a umlaut from German font
85, 1B, 52, 1, 40        * Lower case a grave from French font
86, 1B, 52, 4, 7D        * Lower case a boll from Danish 1 font
```

```
87, 1B, 52, 1, 5C        * Lower case c cedilla from French font
88, 65, 8, 1B, 52, 0, 5E * Lower case e circumflex: e backspace USA ^
89, 65, 8, 1B, 52, 1, 7E * Lower case e umlaut: e backspace French umlaut
8A, 1B, 52, 1, 7D        * Lower case e grave from French font
8B, 69, 8, 1B, 52, 1, 7E * Lower case i umlaut: i backspace French umlaut
8C, 69, 8, 1B, 52, 0, 5E * Lower case i circumflex: i backspace USA ^
8D, 1B, 52, 6, 7E        * Lower case i grave from Italian font
8E, 1B, 52, 2, 5B        * Capital A umlaut from German font
8F, 1B, 52, 4, 5D        * Capital A boll from Danish 1 font
90, 1B, 52, 9, 40        * Capital E acute from Norwegian font
91, 1B, 52, 4, 7B        * Lower case ae dipthong from Danish 1 font
92, 1B, 52, 4, 5B        * Capital AE dipthong from Danish 1 font
93, 6F, 8, 1B, 52, 0, 5E * Lower case o circumflex: o backspace USA ^
94, 1B, 52, 2, 7C        * Lower case o umlaut from German font
95, 1B, 52, 6, 7C        * Lower case o grave from Italian font
96, 75, 8, 1B, 52, 0, 5E * Lower case u circumflex: u backspace USA ^
97, 1B, 52, 1, 7C        * Lower case u grave from French font
98, 79, 8, 1B, 52, 1, 7E * Lower case y umlaut: y backspace French umlaut
99, 1B, 52, 2, 5C        * Capital O umlaut from German font
9A, 1B, 52, 2, 5D        * Capital U umlaut from German font
9B, 1B, 36, 9B           * CENT sign from IBM mode 2
9C, 1B, 36, 9C           * Pound sterling from IBM mode 2
9D, 1B, 36, 9D           * Yen from IBM mode 2
9E, 1B, 52, 2, 7E        * Esszet from German font
9F, 1B, 36, 9F           * Lower case swash f: print f
A0, 1B, 36, A0           * Lower case a acute IBM mode 2
A1, 1B, 36, A1           * Lower case i acute IBM mode 2
A2, 1B, 36, A2           * Lower case o acute IBM mode 2
A3, 1B, 36, A3           * Lower case u acute IBM mode 2
A4, 1B, 36, A4           * Lower case n tilde IBM mode 2
A5, 1B, 36, A5           * Capital N tilde IBM mode 2
A6, 1B, 36, A6           * Lower case a underline IBM mode 2
A7, 1B, 36, A7           * Lower case o underline IBM mode 2
A8, 1B, 36, A8           * Inverted ? IBM mode 2
A9, 1B, 36, A9           * top left corner IBM mode 2
AA, 1B, 36, AA           * top right corner IBM mode 2
AB, 1B, 36, AB           * 1/2 fraction IBM mode 2
AC, 1B, 36, AC           * 1/4 fraction IBM mode 2
AD, 1B, 36, AD           * Inverted ! IBM mode 2
AE, 1B, 36, AE           *  << IBM mode 2
AF, 1B, 36, AF           *  >> IBM mode 2
B0, 61, 8, 7E            * Lower case a tilde: a backspace USA ~
B1, 6F, 8, 7E            * Lower case o tilde: o backspace USA ~
B2, 1B, 52, 4, 5C        * Capital crossed O from Danish 1 font
B3, 1B, 52, 4, 7C        * Lower case crossed o from Danish 1 font
B4, 6F, 8, 65            * lower case oe dipthong
B5, 4F, 8, 45            * capital OE dipthong
B6, 41                   * No capital A grave: print A
B7, 41                   * No capital A tilde: print A
B8, 4F                   * No capital O tilde: print O
B9, 1B, 52, 1, 7E        * Umlaut from French font
BA, 27                   * Acute: print '
BB                       * No dagger
```

```
BC                      * No paragraph symbol
BD                      * No copyright symbol
BE                      * No Registered symbol
BF                      * No Trademark symbol
C0, 79, 8, 1B, 52, 1, 7E * ij ligature: y backspace French umlaut
C1, 59                  * Capital IJ ligature: print Y
C2,1B,4B,06,00,00,62,14,08,14,62       * H
C3,1B,4B,06,00,00,42,42,42,7E,02       * E
C4,1B,4B,06,00,00,00,42,44,7E,00       * W
C5,1B,4B,06,00,00,40,40,40,7E,40       * B
C6,1B,4B,06,00,00,4E,40,40,40,7E       * R
C7,1B,4B,06,00,00,00,00,40,7E,00       * E
C8,1B,4B,06,00,00,40,60,50,4E,00       * W
C9,1B,4B,06,00,00,7E,40,40,40,7E
CA,1B,4B,06,00,00,7E,02,02,42,7E
CB,1B,4B,06,00,00,00,40,40,70,00
CC,1B,4B,06,00,00,42,42,42,42,7E
CD,1B,4B,06,00,00,C0,40,42,44,78
CE,1B,4B,06,00,00,6E,10,20,42,7E
CF,1B,4B,06,00,00,00,42,42,7E,00
D0,1B,4B,06,00,00,7C,42,42,42,7C
D1,1B,4B,06,00,00,02,7E,02,02,7E
D2,1B,4B,06,00,00,72,52,42,42,7E
D3,1B,4B,06,00,00,62,12,0A,0E,72
D4,1B,4B,06,00,00,40,5F,40,40,78
D5,1B,4B,06,00,00,40,40,40,40,3E
D6,1B,4B,06,00,7E,0A,12,62,02,7E
D7,1B,4B,06,00,00,42,7E,40,40,7E
D8,1B,4B,06,00,00,00,00,40,7F,00
D9,1B,4B,06,00,00,00,40,40,40,7F
DA,1B,4B,06,00,00,40,7E,42,42,7E
DB,1B,4B,06,00,00,70,50,40,40,7F
DC,1B,4B,06,00,00,60,10,08,0E,70
DD, 1B, 52, 2, 40           * Section mark from German font
DE                          * No dropped circumflex
DF, 1B, 36, EC              * infinity symbol
E0, 1B, 36, E0              * alpha
E1, 1B, 36, E1              * Esszet from German font
E2, 1B, 36, E2              * No Greek....
E3, 1B, 36, E3              * PI SYMBOL
E4, 1B, 36, E4              * SIGMA
E5, 1B, 36, E5              * FUNNY O
E6, 1B, 36, E6              * MICRO
E7, 1B, 36, E7              * GAMMA
E8, 1B, 36, E8              * I OVER O
E9, 1B, 36, E9              * - OVER O
EA, 1B, 36, EA              * OMEGA
EB, 1B, 36, EB              * FUNNY O
EC, 1B, 36, ED              * / OVER O
ED, 6F, 8, 1B, 36, B3       * ! OVER O
EE, 1B, 36, EE              * 3 BACKWARDS
EF, 1B, 36, EF              * n
F0, 1B, 36, F0              * Equivalence
```

```
F1, 1B, 36, F1              * +-: + backspace _
F2, 1B, 36, F2              * >=: > backspace -
F3, 1B, 36, F3              * <=: < backspace _
F4, 1B, 36, F4              * integral top piece
F5, 1B, 36, F5              * integral bottom piece
F6, 1B, 36, F6              * Division sign
F7, 1B, 36, F7              * No twiddly = symbol
F8, 1B, 36, F8              * Degree symbol
F9, 1B, 36, F9              * superior bullet
FA, 1B, 36, FE              * inferior bullet
FB, 1B, 36, FB              *  square root sign
FC, 1B, 36, FC              * superior n
FD, 1B, 36, FD              * superior 2
FE                          * No superior 3
FF, 1B, 36, FA              * macron
0

-----------------------end of kxp1091.hex-----------------------

That is all there is to it.  Let me know if you get a messed copy.
Support free software.  /bill


From 2819034432630349509
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-20 21:38:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!harvard!talcott!panda!genrad!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Where's the 1040? I'm typing on mine!
Message-ID: <2610@mit-hermes.ARPA>
Date: Mon, 21-Apr-86 00:38:11 EST
Article-I.D.: mit-herm.2610
Posted: Mon Apr 21 00:38:11 1986
Date-Received: Wed, 23-Apr-86 22:30:44 EST
References: <8604120324.AA05497@ucbvax.berkeley.edu> <185@atari.UUcp>
Organization: The MIT AI Lab, Cambridge, MA
Lines: 18


 In article <8604120324.AA05497@ucbvax.berkeley.edu>, franceus@TYCHO.ARPA (Paul
> Franceus) writes:
> >     I have had a 1040 on order at my local computer store for ~3 weeks, and
> > the dealer does'nt know when they are going to arrive.
> > question 1:  Does anyone know why the 1040's are so long in coming?

I've had my 1040 just over a week, and I'm pleased. It was worth waiting a
couple of weeks, as I had to do. Apparently the owner of The Bit Bucket in
Newton, Mass., which claims to be the only dealer in New England, is friendly
```

with Mr Tramiel, so they get reasonable supplies. In fact The Great Jack favored the store with a visit last week--he could hardly do that if the shelves had been empty.

A Bug. The composite and r/f outputs aren't installed. I called the store when I discovered this, which is important to me as I have a b&w system and it's my only way to see color; in fact Neo won't run at all in monochrome. They said the modulators will arrive in a couple of months and then they'd install them free. Grrr.

From 2221958803902836539
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5bcba9a988fe01f7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 07:20:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83 based; site homxb.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!homxb!jacx
From: jacx@homxb.UUCP (J.CADLEY)
Newsgroups: net.micro.atari16
Subject: Question on Composite Output
Message-ID: <1453@homxb.UUCP>
Date: Mon, 21-Apr-86 10:20:13 EST
Article-I.D.: homxb.1453
Posted: Mon Apr 21 10:20:13 1986
Date-Received: Wed, 23-Apr-86 14:15:38 EST
References: <708@ssc-vax.UUCP>, <1828@ihlpg.UUCP>
Organization: AT&T Bell Labs, Holmdel NJ
Lines: 21

x

I recently received my new 520 ST. It's great. I've got TOS in ROM and the connector for output to my T.V. I own an old medium res color monitor which I would like to use with my ST. The monitor wants composite input. I recall reading in this newsgroup several weeks ago that composite output would be available in the new ST's, however there doesn't seem to be any obvious way to get a composite signal out of my machine.

I noticed in the pinout for the monitor connection that one pin is for "General Purpose" output. Is this a composite signal? Do I need a special cable? Does anyone out there understand how to get a composite signal?

Thanks for your help,
John Cadley
AT&T
Neptune, NJ

From -6971351677323569993
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,429c97c65ee41f32
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 10:53:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Logbase/Physbase and Screen Dumps
Message-ID: <860421-105316-1612@Xerox>
Date: Mon, 21-Apr-86 13:53:15 EST
Article-I.D.: Xerox.860421-105316-1612
Posted: Mon Apr 21 13:53:15 1986
Date-Received: Wed, 23-Apr-86 22:00:52 EST
References: <157@bridge2.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

>I believe that the screen dump routine should be using the
>physbase pointer, as all I have read implies that the screen
>dump capability should give you a printout of what is visible
>on the actual screen

>Have I found a bug? Is there any way to fix it?

No. You haven't found a bug. If you think about the reasoning behind having two locations "logbase" and "physbase" you will see that it is working properly. The ideas is to allow the programmer to perform page flipping while using the system routines for writing to the screen. In order for this to work you must display one screen but have the system routines use another. Thus, there are two pointer, one points to the memory which is to be displayed on the screen (physbase) the other to the memory which is to be used by the system routines (logbase). If you want the system routines to work on the currently displayed memeory then you must set "logbase" to "physbase". If you started having system routine use physbase then you would loose flexability (Printing one screen while viewing another for example). To solve your problem simply set "logbase" to "physbase" before calling the screen dump routine and restore it after you return.

John

From -536966781962095978
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1f5fd611b172e8cd,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-04-21 11:57:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CORNELLA.BITNET!QBZJ
From: QBZJ@CORNELLA.BITNET
Newsgroups: net.micro.atari16
Subject: 1040 hardware
Message-ID: <8604212009.AA13214@ucbvax.berkeley.edu>
Date: Mon, 21-Apr-86 14:57:00 EST
Article-I.D.: ucbvax.8604212009.AA13214
Posted: Mon Apr 21 14:57:00 1986
Date-Received: Wed, 23-Apr-86 22:01:18 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

This is a question directed to anyone with a 1040 system. The Byte interview
in the March issue mentions a possible graphics coprocessor as well as an
integral rf modulator for the 1040 system. According to my local dealer
(Personal Computers of Ithaca) the 1040 does not and will not have the
rf modulator and the graphics coprocessor will not appear in later versions
of the 1040. It wil be used instead in the next generation machine. He
cited his dealer's newsletter as a source. Is this in fact the case?
The rf modulator might then make the 520 a more appealing purchase. Does
anybody know anything about this?

From 2890808966594805522
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-21 12:55:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!husc6!talcott!panda!genrad!decvax!ittatc!
dcdwest!sdcsvax!sdcrdcf!burdvax!bpa!sjuvax!drexel!hvrford!k_lim
From: k_lim@hvrford.UUCP
Newsgroups: net.micro.atari16
Subject: re: writing to Apple about MacCartridge
Message-ID: <157@hvrford.UUCP>
Date: Mon, 21-Apr-86 16:55:57 EDT
Article-I.D.: hvrford.157
Posted: Mon Apr 21 16:55:57 1986
Date-Received: Fri, 2-May-86 21:09:22 EDT
References: <8604060607.AA07358@ucbvax.berkeley.edu> <2093@uwmacc.UUCP>
Organization: Haverford College, Haverford, PA
Lines: 24
Summary: MacCartridge and Apple

In article <2093@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo @ Madison
Academic Computer Center) writes:
> A question about MacCartridge:
>
>   Did I miss something? Why should *anyone* care about Apple's approval?

> If the thing was made *wothout* any Apple software or hardware, what
> legal claim do they have to prevent this fellow from selling them?

     As I understand it, MacCartridge is designed to use the Macintosh ROMs.
This *is* use of Apple's software, and so needs to be approved by Apple, unless
you can get their ROMs through another source.

> Apple tried to stop distribution of GEMDOS, and they lost...and they
> should have, look-alikes and compatable components are *not* copyright
> infrigements...at least not the last time I looked....

     Again, from what I've heard, some changes *did* have to be made to
GEMDOS as a result of an out-of-court settlement between DRI and Apple. The
current precedents in U.S. law indicate that copying of the "look and feel"
of software *is* a copyright infringement.

--
Kian-Tat Lim, Haverford College, Haverford, PA
BITNET: K_LIM@HVRFORD   UUCP: ...!{allegra, burdvax}!sjuvax!hvrford!k_lim

From -2185911214873359180
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e08f260a8fa40ef
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-10 08:33:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!linus!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Using the ST as a VAX terminal
Message-ID: <329@imagen.UUCP>
Date: Thu, 10-Apr-86 11:33:10 EST
Article-I.D.: imagen.329
Posted: Thu Apr 10 11:33:10 1986
Date-Received: Sat, 12-Apr-86 00:02:43 EST
References: <8604090629.AA19833@ucbvax.berkeley.edu>
Organization: The Houses of the Holy
Lines: 28

>
>   I have used the ST as a terminal to a VAX/VMS system and a VAX/UNIX
> 4.2bsd system. Seems to work nice on the bsd system, but I can't find anyway
> to put the keypad into application mode to use with EDT on the VMS system.
> Also on the VMS system the built-in emulator doesn't answer dec's set term/inq
> command, so you must explicitly set the terminal to a vt52.
>   Same is true for ST-Talk, another problem(?) with ST-Talk is due to the
> information lines the useable screen length is only 21 lines. It does however
> answer the terminal inquire correctly.
>   If anyone knows how to put the keypad into app. mode PLEASE tell me!
>   Jim Berg

~~~~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~

i can't be done, the code was never put into the vt52 emulator, i
recommend PC/INTERCOMM VERY highly, its well work the money and does
everything i need done for communications/vt100 emulation
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 7926262501741972971
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34cca7de62ef26fd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-10 12:22:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!tektronix!uw-
beaver!fluke!ssc-vax!ssc-bee!ditzel
From: ditzel@ssc-bee.UUCP (Charles L Ditzel)
Newsgroups: net.micro.atari16
Subject: Re: Mac
Message-ID: <529@ssc-bee.UUCP>
Date: Thu, 10-Apr-86 15:22:58 EST
Article-I.D.: ssc-bee.529
Posted: Thu Apr 10 15:22:58 1986
Date-Received: Mon, 14-Apr-86 02:43:03 EST
Distribution: net
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 35

>From ssc-vax!keith Wed Apr 9 11:00:26 1986
>Posting-Version: version B 2.10.2 9/5/84; site ssc-vax.UUCP
>love it.
>I have to say it.
>all yoose guys...
>who argued so hard,
>and so long,
>that the atari ST was SO GOOD!!!!!
>and now all you can gossip about is (and I can see the drool stains) getting
>your hands on the MACINTOSH. :)
>Sure, Mac is overpriced, but its better.
>(for what it's worth, you can have the OLD 64k ROMs)
>dash of pepper?
~~~~~~~~~~~~~~~~~~~~~~~~~~

I work with both the (512K) Mac(at work) and a (1Meg) 520ST (at home)
...there is no comparison in my mind...the ST is 'better' for ME...
(obviously not because it has more software [since it doesn't] -
as you must be trying to point out)...nevertheless even the ST software is
coming along...most Mac developers appear to be porting their software
over...and a number of third party developers are developing software for the
ST that is and may not be available to the Mac.

Ever try doing data flow diagrams with MacDraw...forget it...tho' i have
done them fairly easily on the ST with EasyDraw...(MacDraw forgot why anyone
would want an arc to have an arrow at the end)

..."better" is such a curious word...does a machine with no color option,
bizarre communications architecture and limited expansion mean better???
I, of course, do not imply that that the Mac is without virtues. Apple
had a corner on the market a few years ago...but their are other machines
with equal and superior hardware characteristics today. If 'better' is
only software then the Mac is also quickly losing that edge and check
back in a three or four months (i think the Mac software edge will be
zip).

From -5801726991593421080
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ad1d42c539f576d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 06:33:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!ittatc!
dcdwest!sdcsvax!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: jittering of the monitor
Message-ID: <8604111433.AA06396@ucbvax.berkeley.edu>
Date: Fri, 11-Apr-86 09:33:56 EST
Article-I.D.: ucbvax.8604111433.AA06396
Posted: Fri Apr 11 09:33:56 1986
Date-Received: Mon, 14-Apr-86 01:59:39 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 29

Thomas Petsche writes:

> Another question: The display on my mono moniter becomes "jittery"

>after the system has been on for about 10-15 minutes. The problem

>disappears after another 10-15 minutes. ("Jittery" means that the

>horizontal hold appears to be off, pixels alternate between their

>proper location and one location to the right or left.) Any ideas

>or previous experience with this problem? Is it in the moniter or the

>ST? Should I consider this grounds to try and return the ST?

>(And get another, of course])

Thomas-

Return your ST immediately! There seems to be a hardware problem.

A friend of mine had the same problem. He got a new one. I think this

line shifting is due to a failure of the video counter in the

GLUE (or the MMU? Where was the videocounter?).

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -7347307960481538197
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 08:36:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!nswc-wo.arpa!root
From: root@NSWC-WO.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604111904.AA06667@ucbvax.berkeley.edu>
Date: Fri, 11-Apr-86 11:36:22 EST
Article-I.D.: ucbvax.8604111904.AA06667
Posted: Fri Apr 11 11:36:22 1986
Date-Received: Mon, 14-Apr-86 05:49:12 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -2293166545790634572
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 09:01:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!score.stanford.edu!info-atari16-
request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16

Subject: (none)
Message-ID: <8604111701.AA02168@ucbvax.berkeley.edu>
Date: Fri, 11-Apr-86 12:01:20 EST
Article-I.D.: ucbvax.8604111701.AA02168
Posted: Fri Apr 11 12:01:20 1986
Date-Received: Mon, 14-Apr-86 05:53:30 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -8817093864323932903
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9e4b1d80f2567658
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 11:22:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site mtuxn.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!mtuxo!mtuxn!rb
From: rb@mtuxn.UUCP (R.BOTWIN)
Newsgroups: net.micro.atari16
Subject: Re: Fortran on the ST
Message-ID: <798@mtuxn.UUCP>
Date: Fri, 11-Apr-86 14:22:23 EST
Article-I.D.: mtuxn.798
Posted: Fri Apr 11 14:22:23 1986
Date-Received: Mon, 14-Apr-86 05:45:51 EST
References: <112@ndmath.uucp>
Reply-To: rb@mtuxn.UUCP (01161-R.BOTWIN)
Organization: AT&T Information Systems, Holmdel NJ
Lines: 5
Summary:

[]
Call Philon Software in NYC....They indicated their FORTRAN compiler would be ready in April-May timeframe.....If not yet ready, they might sell/let you beta test, or whatever.

From 1830476658994050058
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,2bd79d79de85d600
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,2bd79d79de85d600
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 12:48:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!caip!cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16,net.micro.amiga

Subject: Re: atari monitor on amiga?
Message-ID: <74@cbmvax.cbmvax.cbm.UUCP>
Date: Fri, 11-Apr-86 15:48:58 EST
Article-I.D.: cbmvax.74
Posted: Fri Apr 11 15:48:58 1986
Date-Received: Sun, 13-Apr-86 08:13:07 EST
References: <149@ttrda.UUCP>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 23
Xref: linus net.micro.atari16:351 net.micro.amiga:6463

In article <149@ttrda.UUCP> dwd@ttrda.UUCP (Dave Dykstra) writes:
>
>I have measured a monitor for the Atari 520ST and it looks like it will
>fit in my limited space on top of an Amiga. Has anyone tried hooking up
>the Atari monitor to an Amiga? Does anyone know where I can get one?
>
>   Dave Dykstra ihnp4!ttrdc!ttrda!dwd

In theory yes, but the Atari Monitor uses seperate horizontal and vertical
sync input, while the Amiga outputs a combined sync signal. There are
seperate sync outputs on the RGB connector, but they are for the Genlock
peripheral and are not designed to drive a monitor directly.

If you do not make an adapter with circuitry to buffer the signals, you may
find that your Amiga will not boot...

--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 3230915821634258646
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b624c608848ebfa,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 14:57:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!jan
From: jan@looking.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Alcyon C compiler bugs
Message-ID: <521@looking.UUCP>
Date: Fri, 11-Apr-86 17:57:19 EST
Article-I.D.: looking.521
Posted: Fri Apr 11 17:57:19 1986
Date-Received: Sat, 12-Apr-86 02:25:12 EST

Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 35

Hello, I ran across a nasty C compiler bug the other day:

The C source:

```
     struct foo {
          ...
          unsigned array[1]; /* 8 bytes from start of struct */
     };

     func()
     {
          register struct foo    *baz;
          register unsigned  index;

          ... = baz->array[index];
     }
```

generated:

```
     ...
     <move baz into a0>
     <move index into d0>
     swap d0
     clr  d0
     swap d0
     clr  d0       <- no matter what index was, it's now 0!
     mov  8(a0,d0),d0
     ...
```

So beware using register unsigned's as array indices.

Surely you other developers out there have compiled a list of bugs to
avoid...could you please post them to the net to save everyone from hardship?

Forced to read the .s output files,

Jan Gray Looking Glass Software, Waterloo, Ont.   (519) 884-7473

From 2451023237983258390
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,86cc6fc8eff8c75f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 17:16:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!allegra!princeton!
orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: AUTO question
Message-ID: <182@atari.UUcp>

Date: Fri, 11-Apr-86 20:16:18 EST
Article-I.D.: atari.182
Posted: Fri Apr 11 20:16:18 1986
Date-Received: Sat, 19-Apr-86 04:25:38 EST
References: <54600047@iuvax.UUCP>
Organization: Atari Corp., Sunnyvale CA
Lines: 22

In article <54600047@iuvax.UUCP>, franco@iuvax.UUCP writes:
>
> Does anyone know how to predict whether a .prg will execute from AUTO
> with TOS in ROM?

TOS will execute files

     <bootdevice>:\AUTO*.PRG

in the order that they are in in the directory (as opposed to
the order they APPEAR to be in in a desktop window). You cannot
do AES calls from a program in the auto folder.

Usually the boot device is A:, but that can be changed by the
boot sector, if the boot sector so desires. Thus, with the DAS
BOOT ROMs, you could boot from B: (or, if you were extraordinarly
lucky or flush, C:).

This works with any version of TOS, be it in ROM or in RAM.

-Landon

From -8106507023896438589
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a1fad77e17fe8721,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 18:10:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!eddie.mit.edu!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Settime
Message-ID: <12198108353.21.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Fri, 11-Apr-86 21:10:26 EST
Article-I.D.: DEEP-THO.12198108353.21.UC.BRI
Posted: Fri Apr 11 21:10:26 1986
Date-Received: Mon, 14-Apr-86 05:52:46 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Does anyone know if there are any quirks in Settime(t)? I passed in a time/date encoded long and the time didn't seem to change. I then dumped the long into binary, and it looked like the correct format. Is there anything else I need to do? (I am doing this from GEM, if this causes a problem)

Also, how does the AUTO directory work? Does it run the first program it finds, or all programs? What about non-executable programs? Do GEM programs run? If I put in a GEM program and a resource file will the program run?

Thanks,

--- Bri

From -7223574660675039132
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5b1e92dfaea6a290,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 19:24:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!tycho.arpa!franceus
From: franceus@TYCHO.ARPA (Paul Franceus)
Newsgroups: net.micro.atari16
Subject: Where's the 1040???
Message-ID: <8604120324.AA05497@ucbvax.berkeley.edu>
Date: Fri, 11-Apr-86 22:24:43 EST
Article-I.D.: ucbvax.8604120324.AA05497
Posted: Fri Apr 11 22:24:43 1986
Date-Received: Mon, 14-Apr-86 05:51:42 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

Hello out there (Neil are you listening??)

I have had a 1040 on order at my local computer store for ~3 weeks, and the dealer does'nt know when they are going to arrive.

question 1: Does anyone know why the 1040's are so long in coming? (neil??)

question2: where is a good dealer in the baltimore area.

Peace and longlife,
Paul F.

From -3344481911845546503
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c54403effe96e3f3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 20:04:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!seismo!mcvax!philmds!duvel!frans
From: frans@duvel.UUCP (Frans Meulenbroeks)
Newsgroups: net.micro.atari16
Subject: No ms-dos emulation yet.
Message-ID: <160@duvel.UUCP>
Date: Fri, 11-Apr-86 23:04:33 EST
Article-I.D.: duvel.160
Posted: Fri Apr 11 23:04:33 1986
Date-Received: Mon, 14-Apr-86 02:12:30 EST
Reply-To: frans@duvel.UUCP (Frans Meulenbroeks)
Organization: Philips I&E DTS Eindhoven
Lines: 16

I had a quick peek at the Atari booth in Hannover the other day.
They were not showing the ms-dos cartridge/emalator yet, which was
rumoured to be there. They said they expected it in june.
Price unknown.

The booth was a small one, with atari giving away brochures, and some
people, supposedly from small companies, showing some stuff on ST's.
I've seen someone playing with habacad, someone playing with musical
apparatus via the MIDI interface, someone with a CCD camera and a printer
connected to the ST, and someone with stuff for industrial automation.

However, no shocking innovations.
--
Frans Meulenbroeks
     until May 1, 1986: Philips Microprocessor Development Systems
                  ...!{seismo|philabs|decvax}!mcvax!philmds!frans

From 7278356215491702375
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 125dc4,aa62644ffc9da75f
X-Google-Attributes: gid125dc4,public
X-Google-Thread: 15517a,aa62644ffc9da75f
X-Google-Attributes: gid15517a,public
X-Google-Thread: 140593,aa62644ffc9da75f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-11 20:36:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!think!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.games,net.micro.pc,net.micro.atari16
Subject: Re: Infocom takeover

Message-ID: <2602@mit-hermes.ARPA>
Date: Fri, 11-Apr-86 23:36:49 EST
Article-I.D.: mit-herm.2602
Posted: Fri Apr 11 23:36:49 1986
Date-Received: Mon, 14-Apr-86 01:48:13 EST
References: <2089@uwmacc.UUCP>
Organization: The MIT AI Lab, Cambridge, MA
Lines: 15
Xref: linus net.games:2257 net.micro.pc:7452 net.micro.atari16:353

> Does [buyout of InfoCom by ActiVision]
> mean that all future "Infocom" games are actually coming from the
> "Mind of Activision"?
>
> Depressing news always makes me thirsty...
>   --- Rob DeMillo

I know enough people at InfoCom to feel able reply to this. Yes, they took
a beating on Cornerstone. Supposedly sales have picked up a fair bit since
the price reduction. ActiVision has (so far) not been very intrusive, but
that may change. The best game-writers are still with InfoCom.

Basically, InfoCom's problem was in not saving its pennies. They had a very
bad habit of profliigacy--like renting their expensive new headquarters, just
in time to lay off half the staff and have to let a good bit of it sit empty.
Hacker-entrepreneurs take warning!

From -7961218326314680872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d65485f3082991fd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 00:51:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!tycho.arpa!
franceus
From: franceus@TYCHO.ARPA (Paul Franceus)
Newsgroups: net.micro.atari16
Subject: Easy Draw
Message-ID: <8604120709.AA13792@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 03:51:09 EST
Article-I.D.: ucbvax.8604120709.AA13792
Posted: Sat Apr 12 03:51:09 1986
Date-Received: Sat, 19-Apr-86 04:16:02 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Hello,
     Has anyone out there used EASY DRAW on the ST? I played
with it at the dealer's and I liked it ALOT. It's an object
oriented paint program like MacDraw. Since i only used it for

about 15 minutes, I would like to know if anyone has any impressions
of the program after more extensive use. Is it worth the 129.00
my dealer charges for it? If I buy it I'll post a review, but
I'd like to know what I'm getting myself into...

Peace and long life...
     from the MAD keyboard of Paul Franceus.

   Gravity: It's not just a good idea, it's the LAW!

From 4235198182984819897
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6db13ae2c42d18c0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 06:00:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!su-score.arpa!
G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Deleting addresses
Message-ID: <12198237585.2.G.ABRAMS@SU-SCORE.ARPA>
Date: Sat, 12-Apr-86 09:00:20 EST
Article-I.D.: SU-SCORE.12198237585.2.G.ABRAMS
Posted: Sat Apr 12 09:00:20 1986
Date-Received: Sat, 19-Apr-86 13:52:19 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

We have received numerous rejection notics for the following addresses
(which appear to have no relationship to recent network problems), so
we are removing them from the list(s). If you have any knowledge of
these addressees, please inform them.

     rauten@nps-cs
     tmatrak@nswc-wo
     sscalsk@nswc-wo

From -4303508436102400051
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,9dc61f67258ebdc
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,9dc61f67258ebdc
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 07:42:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: Re: OS/9 for the 520ST yet?
Message-ID: <1181@lsuc.UUCP>
Date: Sat, 12-Apr-86 10:42:58 EST
Article-I.D.: lsuc.1181
Posted: Sat Apr 12 10:42:58 1986
Date-Received: Sat, 12-Apr-86 11:52:35 EST
References: <148@sfucmpt.uucp>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Distribution: net
Organization: Barrister & Solicitor, Toronto
Lines: 50
Xref: lsuc net.micro.atari16:382 net.micro.68k:605
Summary: Glad You Asked!!!

The following is my most recent set of postings to BIX. I think it's self explanitory. ALSO: Those people involved with OS-9 development should identify yourself to me IMMEDIATELY. There is something very important coming up which we'll all be interested in. Please send me your company, position, phone number, address and what your involvement with OS-9 is.

==========
os.9/news1 #58, from jimomura, 467 chars, Fri Apr 11 22:43:55 1986
Comment to 57. Comment(s).

Title: ***OS-9 SUMMER!***

The OS-9 68K Atari ST port will be demonstrated at Commmdex.

I have just talked to MicroTRENDS and they will be demonstrating a number of things at this year's Comdex. The big news is that shortly we will have OS-9 available from MicroTRENDS for most of the popular computers. This includes The IBM-PC, the Atari ST, the Amiga, and the Apple II anddd IIe. ALL 68000 based. There's more, but I have to post this stuff in spirts.

==========
os.9/news1 #59, from jimomura, 397 chars, Fri Apr 11 22:47:49 1986
Comment to 58. Comment(s).

MicroTRENDS also announced that they are licenced to market an Deluxe Software. The datafiles for this software will be directly portable with the IBM-PC version. This means direct compatibility between IBM-PC and OS-9 at the application level for people upgrading their IBM-PC's with the multi-user OS-9 68000/68010 cards currently avaiillable.

==========
os.9/news1 #60, from jimomura, 300 chars, Fri Apr 11 22:51:10 1986

Comment to 59.

     MicroTRENDS also announced that they will hold a CDI workshop in conjunction with Microware either at the end of September or the beginning of October. Please note that the fact of the workshop is solid. The date has yet to be finalized. For more details, ccall MicroTRENDS at (312) 310-8928.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -1739816159444085656
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2d42447427c7dc5c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 10:58:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET
Newsgroups: net.micro.atari16
Subject: How close to ALCYON C is TOS?
Message-ID: <8604121902.AA24030@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 13:58:17 EST
Article-I.D.: ucbvax.8604121902.AA24030
Posted: Sat Apr 12 13:58:17 1986
Date-Received: Sat, 19-Apr-86 13:54:32 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA
Organization: The ARPA Internet
Lines: 33

Date: Sat, 12 Apr 86 09:12 EST
From: (1) <RDROYA01@ULKYVX.BITNET>
Organization: University of Louisville
Subject: How close to ALCYON C is TOS?
To: info-atari16@su-score.stanford.edu
X-Original-To: info-atari16@su-score.stanford.edu

Quote of the week: "What do you do when the people you knew were the plastic
                    that melted and the chromium too? / Who are the brain
                    police?"
                                                          -frank zappa

I have received a lot of buzzing about an entry I had on the net.

RUMORS was the name. In it I asked if TOS was really cp/m68k. No
it is not everyone said. But I'll bet it's written in ALCYON C
because the file header format and the exception format are too close
for coincidence. I didn't say why I asked at first, but perhaps I should
have. I write a lot of cpm-68k programs, and simply wondered whether the
object format (output from as68) was compatible. DRI claims rights to all
of the cpm-68k development tools, but they are actually third party
products -- i'll bet the same third party products that made cpm-68k, Tos,
and that are distributed in the developer's kit.

THE FOLLOWING IS HEARSAY FROM A TRUSTED SOURCE

David Betz writes about developing xlisp for the Atari using MicroEmacs
under CP/M-68K. This was said to be in the _BYTE_ section of *Compuserve*.
So, has anyone used the crippled cp/m-68k *and* TOS who can explain why
header format is the same and so forth and yet TOS was to have been designed
from the ground up?

RDROYA01@ULKYVX.BITNET

From 1671219015721382907
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8b9f688d18025e6c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 10:59:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!ULKYVX.BITNET!
RDROYA01
From: RDROYA01@ULKYVX.BITNET
Newsgroups: net.micro.atari16
Subject: ST based lap computers: A query.
Message-ID: <8604121914.AA24184@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 13:59:08 EST
Article-I.D.: ucbvax.8604121914.AA24184
Posted: Sat Apr 12 13:59:08 1986
Date-Received: Sat, 19-Apr-86 13:55:01 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA
Organization: The ARPA Internet
Lines: 26

Date: Sat, 12 Apr 86 09:15 EST
From: (1) <RDROYA01@ULKYVX.BITNET>
Organization: University of Louisville
Subject: ST based lap computers: A query.
To: info-atari16@su-score.stanford.edu
X-Original-To: info-atari16@su-score.stanford.edu

Quote of the week: "What do you do when the people you knew were the plastic
                    that melted and the chromium too? / Who are the brain

police?"

-frank zappa

Does anyone out there think Atari will ever develop a lap computer based
on the ST? I would love to have a 68000 computer that would fit in my
backpack. It would be swell if it had something other than an lcd display,
and as far as i'm concerned battery life is not as important as being able
to carry the @#$%~ thing from one office (i.e. home) to another (i.e. !home).
Are there real practical reasons why this cannot be accomplished? The market
in PC lap computer seems pretty active, so there's money to be made. The last
I heard (about 18 months ago) the Packard Goose was promising such a computer,
running un*cs and p*m, within the year. Time passes. . .
What do you ATARIers think?

RDROYA01@ULKYVX.BITNET

From -4313720729537371519
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 11:52:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!bellcore!
ulysses!ucbvax!score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604121952.AA24766@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 14:52:30 EST
Article-I.D.: ucbvax.8604121952.AA24766
Posted: Sat Apr 12 14:52:30 1986
Date-Received: Mon, 21-Apr-86 03:31:21 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 9189841834973885 59
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:03:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!bellcore!
ulysses!ucbvax!score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604122003.AA24839@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 15:03:35 EST

Article-I.D.: ucbvax.8604122003.AA24839
Posted: Sat Apr 12 15:03:35 1986
Date-Received: Mon, 21-Apr-86 03:32:11 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -3462324176381151776
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a5edbcff604ea893,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:13:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!eddie.mit.edu!
UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: ST Hard Disk questions
Message-ID: <12198305522.32.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Sat, 12-Apr-86 15:13:31 EST
Article-I.D.: DEEP-THO.12198305522.32.UC.BRI
Posted: Sat Apr 12 15:13:31 1986
Date-Received: Sat, 19-Apr-86 13:55:27 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

Have the ST hard disks been officially released yet? I hear bits of information about them, but haven't seen advertisements, etc.

If they are not released yet, when will they be?
If they are released, how much do they cost, how much do they hold, HOW FAST ARE THEY, and where can I get one?

Any information at all would be great! Also, how about other companies' ST hard disks? Any good ones? Is there a tape backup system for the ST? (There are lots for the IBM & IBM mutations)

Thanks,

--- Bri

From -5968292285169669694

X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:26:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!bellcore!
ulysses!ucbvax!score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604122026.AA25297@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 15:26:29 EST
Article-I.D.: ucbvax.8604122026.AA25297
Posted: Sat Apr 12 15:26:29 1986
Date-Received: Mon, 21-Apr-86 03:31:10 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 4474564472473250741
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa309d5cbabb413a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:30:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!allegra!princeton!
orsvax1!pyrnj!caip!seismo!brl-adm!brl-smoke!geoffs
From: geoffs@brl-smoke.ARPA (Geoffrey Sauerborn)
Newsgroups: net.micro.atari16
Subject: UPGRADE!
Message-ID: <2585@brl-smoke.ARPA>
Date: Sat, 12-Apr-86 15:30:42 EST
Article-I.D.: brl-smok.2585
Posted: Sat Apr 12 15:30:42 1986
Date-Received: Sat, 19-Apr-86 14:44:23 EST
Distribution: net
Organization: Ballistic Research Lab (BRL)
Lines: 23

foo!
Well I did it. I attempted the fatal up grade. The good news is that I
did not fry my ST. She boots-up all right along with the 5 or six
accessories on the desk top [fonts,ramdisk,etc...]. The ramdisk says
~690+K byte available! Looks good right!?

However a little after after boot-up,vertical lines appear up and down
across the whole screen!!! Sometimes the lines shift color as I move the
mouse. I can still run programs, copy files to and from the RAM disk,
but invariably, after a short time it crashes, lines and all. My
thinking is that one of the RAM chips is flakey. WHy?

A. the vertical lines appear on every 8th pixel

B. When pressing memory to its limit by coping whole disks into
the RAM disk, I can see the patterns of these vertical lines
change in exact sequence with the "clicks" of the floppy disk.

Questions: 1. Any suggestions on what else it might be?
2. How does one test for a bad RAM chip?

All comments will be MOST welcome. Thanks - Geoff
****

From -5061664276715383287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc33c491c09ac196,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:45:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!allegra!princeton!
orsvax1!pyrnj!caip!seismo!brl-adm!brl-smoke!geoffs
From: geoffs@brl-smoke.ARPA (Geoffrey Sauerborn)
Newsgroups: net.micro.atari16
Subject: MORE UPGRADE.
Message-ID: <2586@brl-smoke.ARPA>
Date: Sat, 12-Apr-86 15:45:30 EST
Article-I.D.: brl-smok.2586
Posted: Sat Apr 12 15:45:30 1986
Date-Received: Sat, 19-Apr-86 14:45:05 EST
Distribution: net
Organization: Ballistic Research Lab (BRL)
Lines: 13

more foo!
>However a little after after boot-up,vertical lines appear up and down
>across the whole screen!!! Sometimes the lines shift color as I move the
>mouse.....
>
>Questions: 1. Any suggestions on what else it might be?
> 2. How does one test for a bad RAM chip?
>
> All comments will be MOST welcome. Thanks - Geoff
> ****

By the way, I used the directions found in the April 1986 issue of
Computer Shopper. This upgrade doesn't use the 68 OHM RESISTORS.

From 5558168652297805592
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 12:49:08 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!bellcore!
ulysses!ucbvax!score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604122049.AA25720@ucbvax.berkeley.edu>
Date: Sat, 12-Apr-86 15:49:08 EST
Article-I.D.: ucbvax.8604122049.AA25720
Posted: Sat Apr 12 15:49:08 1986
Date-Received: Mon, 21-Apr-86 03:30:56 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -4773771020526831663
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 15:36:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site islenet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
qantel!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: Re: writing to Apple about MacCartridge
Message-ID: <2265@islenet.UUCP>
Date: Sat, 12-Apr-86 18:36:36 EST
Article-I.D.: islenet.2265
Posted: Sat Apr 12 18:36:36 1986
Date-Received: Sat, 19-Apr-86 08:44:02 EST
References: <8604060607.AA07358@ucbvax.berkeley.edu>
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 36

In article <8604060607.AA07358@ucbvax.berkeley.edu> CON.REILLY@SU-GSB-HOW.ARPA
(Brian Reilly) writes:
>the MacCartridge might be helpful to those developing this product, but
>how can they be convinced that the $100 or whatever they might make
>on each cartridge isn't just a loss of $2500 for the Mac and peripherals
>that they didn't sell (and Atari did)? It would be great if Apple
>gave the okay and allowed them to market their cartridge, but I don't
>know if there are too many good reasons why Apple would want to do that.
>David Small also said that selling the cartridge without the ROMs was
>not something he would consider.
>
>- Brian Reilly
>-------

May I make a suggestion? There was mention of something to the
effect of getting Apple's approval before the product is marketed.
Mr. Reilly is right? Why would Apple ever want to approve something
that would hinder one of their products?
I believe that David Small should take his product to Digital Research
or Atari directly to market his product. When I saw this, the first thing
that comes to mind is how useful this would make the ST in terms of
taking advantage of available software. And to me, having a machine
of the caliber of an ST being Mac compatible is a helluva lot more
meaningful than an ST being IBM compatible, simply because the Mac and the
ST are much more similar to each other
than either is to an IBM.

I hope he can pull it through! Good luck with this David! My vote
has been cast.

Aloha,

--
Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons
"On Thursday, the world came to an end."

From 5075758713901471059
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,dea74020e1f76b5e
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 15:57:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site lsuc.UUCP
Path: utzoo!lsuc!jimomura
From: jimomura@lsuc.UUCP (Jim Omura)
Newsgroups: net.micro.atari16,net.legal
Subject: Re: Is Public Domain subject to national boundaries?
Message-ID: <1182@lsuc.UUCP>
Date: Sat, 12-Apr-86 18:57:39 EST
Article-I.D.: lsuc.1182
Posted: Sat Apr 12 18:57:39 1986
Date-Received: Sat, 12-Apr-86 20:53:52 EST
References: <8604022259.AA00201@ucbvax.berkeley.edu> <377@drivax.UUCP>
<665@hoptoad.uucp>
Reply-To: jimomura@lsuc.UUCP (Jim Omura)
Organization: Barrister & Solicitor, Toronto
Lines: 17
Xref: lsuc net.micro.atari16:383 net.legal:2055
Summary: Yes, Public Domain is Subject to National Boundaries

     John asked if Public Domain status is subject to national boundaries.

The answer is yes. I won't go into all the details, but why on earth wouldn't it be? Sovereignty of nations is one of the cornerstones of international law. Your country certainly can't dictate what is going to be Canadian Law any more than Canada can dictate what will be U.S. law. What one country recognizes as public domain is always a local matter. You can agree to recognize the status as property granted by some other nation, but they certainly can't force it on you.

Cheers! -- Jim O.

--
James Omura, Barrister & Solicitor, Toronto
ihnp4!utzoo!lsuc!jimomura
Byte Information eXchange: jimomura
(416) 652-3880

From -729041827348390964
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,44398aed3880bf8a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-12 16:33:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Whoops...I forgot INIT.LSP
Message-ID: <54600056@iuvax.UUCP>
Date: Sat, 12-Apr-86 19:33:00 EST
Article-I.D.: iuvax.54600056
Posted: Sat Apr 12 19:33:00 1986
Date-Received: Sat, 19-Apr-86 04:28:08 EST
Lines: 74
Nf-ID: #N:iuvax:54600056:000:2332
Nf-From: iuvax!franco   Apr 12 19:33:00 1986

Whoops - I forgot to insert INIT.LSP onto one of the three disks I am copying for people. It is so short and the number of people needing it is so long that the only practical way to get it out is over the net. Hopefully this will be the last such transmission.

The file below should be named INIT.LSP:

```
--------------------------cut here----------------------------
; get some more memory
(expand 1)

; some fake definitions for Common Lisp pseudo compatiblity
(setq first  car)
(setq second cadr)
(setq rest   cdr)
```

```
; some more cxr functions
(defun caddr (x) (car (cddr x)))
(defun cadddr (x) (cadr (cddr x)))

; (when test code...) - execute code when test is true
(defmacro when (test &rest code)
          `(cond (,test ,@code)))

; (unless test code...) - execute code unless test is true
(defmacro unless (test &rest code)
          `(cond ((not ,test) ,@code)))

; (makunbound sym) - make a symbol be unbound
(defun makunbound (sym) (setq sym '*unbound*) sym)

; (objectp expr) - object predicate
(defun objectp (x) (eq (type-of x) :OBJECT))

; (filep expr) - file predicate
(defun filep (x) (eq (type-of x) :FILE))

; (unintern sym) - remove a symbol from the oblist
(defun unintern (sym) (cond ((member sym *oblist*)
                             (setq *oblist* (delete sym *oblist*))
                             t)
                            (t nil)))

; (mapcan ...)
(defmacro mapcan (&rest args) `(apply #'nconc (mapcar ,@args)))

; (mapcon ...)
(defmacro mapcon (&rest args) `(apply #'nconc (maplist ,@args)))

; (save fun) - save a function definition to a file
(defmacro save (fun)
         `(let* ((fname (strcat (symbol-name ',fun) ".lsp"))
                 (fval ',fun)
                 (fp (openo fname)))
                (cond (fp (print (cons (if (eq (car fval) 'lambda)
                                           'defun
                                           'defmacro)
                                       (cons fun (cdr fval))) fp)
                          (close fp)
                          fname)
                      (t nil))))

; (debug) - enable debug breaks
(defun debug ()
       (setq *breakenable* t))

; (nodebug) - disable debug breaks
(defun nodebug ()
```

```
       (setq *breakenable* nil))

; initialize to enable breaks but no trace back
(setq *breakenable* t)
(setq *tracenable* nil)


From -3040102894736853042
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 00:32:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!
score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604130832.AA04315@ucbvax.berkeley.edu>
Date: Sun, 13-Apr-86 03:32:28 EST
Article-I.D.: ucbvax.8604130832.AA04315
Posted: Sun Apr 13 03:32:28 1986
Date-Received: Sat, 19-Apr-86 13:58:51 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0



From 1000574932605668091
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 00:37:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!ucbvax!
score.stanford.edu!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604130837.AA04384@ucbvax.berkeley.edu>
Date: Sun, 13-Apr-86 03:37:52 EST
Article-I.D.: ucbvax.8604130837.AA04384
Posted: Sun Apr 13 03:37:52 1986
Date-Received: Sat, 19-Apr-86 13:59:04 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0
```

From -6733713751200249349
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 00:41:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ucbvax!score.stanford.edu!info-atari16-
request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604130841.AA04421@ucbvax.berkeley.edu>
Date: Sun, 13-Apr-86 03:41:13 EST
Article-I.D.: ucbvax.8604130841.AA04421
Posted: Sun Apr 13 03:41:13 1986
Date-Received: Sun, 20-Apr-86 17:54:12 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -8612763343302235233
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 03:52:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ucbvax!SCORE.STANFORD.EDU!info-atari16-
request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604131152.AA06578@ucbvax.berkeley.edu>
Date: Sun, 13-Apr-86 06:52:31 EST
Article-I.D.: ucbvax.8604131152.AA06578
Posted: Sun Apr 13 06:52:31 1986
Date-Received: Sun, 20-Apr-86 17:58:09 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From -1751152376633238148
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,88e4b0f78c1e790e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 04:08:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!cbosgd!ihnp4!ucbvax!SCORE.STANFORD.EDU!info-atari16-request
From: info-atari16-request@SCORE.STANFORD.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8604131208.AA07284@ucbvax.berkeley.edu>
Date: Sun, 13-Apr-86 07:08:30 EST
Article-I.D.: ucbvax.8604131208.AA07284
Posted: Sun Apr 13 07:08:30 1986
Date-Received: Sun, 20-Apr-86 17:58:21 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 6432253479822624187
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34cca7de62ef26fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 06:36:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!mhuxn!mhuxr!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Mac
Message-ID: <336@imagen.UUCP>
Date: Sun, 13-Apr-86 09:36:10 EST
Article-I.D.: imagen.336
Posted: Sun Apr 13 09:36:10 1986
Date-Received: Sun, 20-Apr-86 17:50:36 EST
References: <529@ssc-bee.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 31

>
>
> >From ssc-vax!keith Wed Apr 9 11:00:26 1986
> >Posting-Version: version B 2.10.2 9/5/84; site ssc-vax.UUCP
> >love it.
> >I have to say it.
> >all yoose guys...
> >who argued so hard,
> >and so long,
> >that the atari ST was SO GOOD!!!!!
> >and now all you can gossip about is (and I can see the drool stains) getting
> >your hands on the MACINTOSH. :)
> >Sure, Mac is overpriced, but its better.
> >(for what it's worth, you can have the OLD 64k ROMs)
> >dash of pepper?

~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~
this is a plea not a flame, PLEASE let's not start another "my
computer is better than yours" debate, every computer has its merits
or they wouldn't get sold, lets leave it at that PLEASE
--

     "If only you could see what I've seen with your eyes"
          -Blade Runner

Name: James M. Turner (not the James M. Turner at Lisp Machine Inc.)
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575
GEnie   : D-ARCANGEL

From -3771600414642833039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2bd79d79de85d600
X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,2bd79d79de85d600
X-Google-Attributes: gid142096,public
X-Google-ArrivalTime: 1986-04-13 10:46:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!mtuxo!houxm!whuxl!whuxlm!akgua!
gatech!seismo!rochester!bullwinkle!uw-beaver!ssc-vax!ssc-bee!ditzel
From: ditzel@ssc-bee.UUCP
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: Re: atari monitor on amiga?
Message-ID: <531@ssc-bee.UUCP>
Date: Sun, 13-Apr-86 13:46:39 EST
Article-I.D.: ssc-bee.531
Posted: Sun Apr 13 13:46:39 1986
Date-Received: Sun, 20-Apr-86 18:06:24 EST
References: <149@ttrda.UUCP>
Organization: Boeing Aerospace Co., Seattle, WA
Lines: 12
Xref: watmath net.micro.atari16:501 net.micro.amiga:2782

> [---]
>
> I have measured a monitor for the Atari 520ST and it looks like it will
> fit in my limited space on top of an Amiga. Has anyone tried hooking up
> the Atari monitor to an Amiga? Does anyone know where I can get one?
>

Yes..Yes..in fact at a local computer shop (in Seattle) there is an
Amiga hooked up to an Atari Color monitor...the Atari monitor according
to the merchant is much better than the Amiga monitor...i do not know
the details of how or if anything special is needed.
~~~~~~~~~~~~~~~~~~~~~~

From 8069421534416019850
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,95994510cdf4e382,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 11:44:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!decwrl!pyramid!hplabs!ucbvax!OHIO-STATE.ARPA!terrell
From: terrell@OHIO-STATE.ARPA (Eric Terrell)
Newsgroups: net.micro.atari16
Subject: test
Message-ID: <8604131944.AA11219@ohio-state.ARPA>
Date: Sun, 13-Apr-86 14:44:06 EST
Article-I.D.: ohio-sta.8604131944.AA11219
Posted: Sun Apr 13 14:44:06 1986
Date-Received: Sun, 20-Apr-86 09:23:53 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

2

From 8794999573548517569
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4546bc1c54587a42,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-13 20:16:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.PCS 1/10/84; site mtgzy.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!drutx!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: problem with joystick port
Message-ID: <1722@mtgzy.UUCP>
Date: Sun, 13-Apr-86 23:16:44 EST
Article-I.D.: mtgzy.1722
Posted: Sun Apr 13 23:16:44 1986
Date-Received: Sat, 19-Apr-86 14:43:03 EST
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 15

Has anyone seen a problem in which a joystick plugged into the
second joystick port on a 520 ST, can confuse the computer into thinking
keys are pressed?

To simulate this, all I have to do is plug the joystick in the port
and start wiggling the joystick in a random fashion. Sooner or later (usually
sooner) you will hear an audible keyclick. This causes problems
with games that use the second port as these "fake" keyclicks at
times will pause a game or take it to another mode.

Now, who knows how to fix this? My computer is of 7/85 vintage. Maybe
it only affects early computers.

Any information will be appreciated as the local repair people never
heard of this problem.

From -2774635688698523854
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a1fad77e17fe8721
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 06:36:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!hplabs!qantel!
ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Settime
Message-ID: <54600059@iuvax.UUCP>
Date: Mon, 14-Apr-86 09:36:00 EST
Article-I.D.: iuvax.54600059
Posted: Mon Apr 14 09:36:00 1986
Date-Received: Sun, 20-Apr-86 16:51:21 EST
References: <401232@DEEP-THO.UUCP>
Lines: 23
Nf-ID: #R:DEEP-THO:-40123236:iuvax:54600059:000:810
Nf-From: iuvax!franco   Apr 14 09:36:00 1986

I got this note from Jim Tittsler which should answer the AUTO question.

From: inuxc!ihnp4!lll-lcc!vecpyr!atari!jwt (Jim Tittsler)
Date: 11 Apr 1986 10:56-PST
Subject: .prgs in \AUTO
To: inuxc!iubugs!iuvax!franco
Message-Id: <513629794/jwt@Beauty>
Status: RO

Well... firstly, whether or not TOS is in ROM should not affect what
      runs. Have you found something to refute that?

Anyway, GEM has not yet been initialized (and the desktop not yet
      built) so programs should avoid doing GEM calls. The display
      driver exists, so VDI and LINEA calls are legal.

AUTO is particularly handy for things that do "Terminate and Stay
      Resident" calls like device drivers (RAMDisks, the hard disk
      driver, the CD-ROM driver, OS hacks, etc.).

All programs in AUTO will be run (at least an attempt will be made)

From 5346357435016807127
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8814d0437edb7bea
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 07:45:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!ut-sally!im4u!oakhill!oscar
From: oscar@oakhill.UUCP (Oscar Strohacker)
Newsgroups: net.micro.atari16
Subject: Re: Upgrade help needed
Message-ID: <683@oakhill.UUCP>
Date: Mon, 14-Apr-86 10:45:30 EST
Article-I.D.: oakhill.683
Posted: Mon Apr 14 10:45:30 1986
Date-Received: Wed, 16-Apr-86 04:27:26 EST
References: <1980@trwrba.UUCP>
Reply-To: oscar@oakhill.UUCP (Oscar Strohacker)
Organization: Motorola Inc. Austin, Tx
Lines: 67
Summary: How to diagnose/fix a ST memory after imperfect upgrade

Several letters recently have discussed problems with the upper bank of ram
being "available" but not working properly. A few weeks before that,
several letters here have referenced mysteries about the ST not recognizing
new ram after a ram upgrade. One referred to it as due to an intentional
change of the hardware by atari to prevent the upgrades on new ST's.

I have the developers kit (including schematics and listings). I did an
upgrade from inspection of the schematics and at first I had some errors due
to bad solder connections. In the developers kit is a utility called SID,
a debugger, which allows you to look at memory.   With it I determined
that only the lower 1/4 of the new memory was responding, the upper
3/4 was behaving just like memory addresses above 1 Meg (nonexistent memory).
(Since then I have seen situations where none of the upper bank responds).

The dynamic memory controller is reponsible for ram refresh and maybe dtack
generation. It has to be programmed by the CPU for how much memory
is there. The dram controller is initially set at powerup for 4 Meg.
then the machine does a simpleminded memory check on each bank. First it
tries 128k, then 512k, then 2 Meg. After it has sized memory for each bank
it writes a new memory size initialization byte to the memory controller.
It also saves this value in address 424.

When you expand the St memory, if you make one bad solder connection, the
memory check will probably fail and the dram controller will be reinitialized
so as not to refresh or respond to the upper bank at all. So, you won't be
able to troubleshoot it until you reinitialize the memory controller.
But if it is failing the memory test you want to KEEP the OS in low memory.
So first boot the machine, then reinitialize the dram controller by writing
a 5 to the dram controller port at 0xffff8001. SID will buserror, but

when you restart SID you will suddenly be able to access the upper
memory bank.

Now you can diagnose the memory. First, to look for bad data/ras/cas lines on
the new rams, write all ones (0xffff) and all 0's to a location in upper memory
(0x80000 say), read it back, and look for stuck data bits. Visually inspect
and physically try to move the pins on the data in/out & ras/cas lines on
the memory chip which corresponds to the particular data bit. Resolder the pin.

To look for bad (stuck at one) address lines, write a program to zero out all
of upper memory, and then write ones to the first word (0x80000) and have the
program search the upper bank for a nonzero word anywhere but the first word,
and if you find one print its value and address. Again, the nonzero data bit
of the value tells you which chip. The nonzero bits of the address correspond
to address lines of the chip which are stuck at one. Inspect and repair
(resolder) the pin.

To look for bad (stuck at zero) address lines, write a program to zero out all
of upper memory, and then write ones to the last word (0xffffe) and have the
program search the upper bank for a nonzero word anywhere but the last word,
and if you find one print its value and address. Again, the nonzero data bit
of the value tells you which chip. The nonzero bits of the address correspond
to address lines of the chip which are stuck at zero. Inspect and repair
(resolder) the pin.

In all three cases if you make the repairs dictated by a particular diagnostic
and afterwards the diagnostic does the same thing, you should change out
the memory chip.

What's worse is when you made a mistake on the upgrade and the particular
problem is NOT discovered by the boot's simpleminded memory check. It goes
ahead and tries to use upper memory, which is corrupting itself. Therefore it
dies while it is booting. To get around this, pull off ras from the upper
memory and clip the pin high, to force the diagnostic on the high bank to fail.
Boot the machine on the lower bank. Now remove the clip pulling ras high
and clip ras on (while the machine still has power of course). From
this state you can troubleshoot the memory as described above: initialize
the DRAM controller and run the diagnostics.

From -6619179036784523912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e01e2264e3fde1e6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 08:24:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!pm
From: pm@cwruecmp.UUCP (Prabhaker Mateti)
Newsgroups: net.micro.atari16
Subject: 520ST 1 Meg upgrade
Message-ID: <1460@cwruecmp.UUCP>
Date: Mon, 14-Apr-86 11:24:35 EST

Article-I.D.: cwruecmp.1460
Posted: Mon Apr 14 11:24:35 1986
Date-Received: Sun, 20-Apr-86 09:40:15 EST
Reply-To: pm@cwruecmp.UUCP (Prabhaker Mateti)
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 10
Summary:

The April 1986 issue of "Computer Shopper" magazine has an article
describing the 1 meg upgrade procedure. It is essentially the same as
what was posted several times on this net. However, it has photographs
and figures to help out.
--

prabhaker mateti   decvax!cwruecmp!pm
department of computer engineering & science   pm@Case
case western reserve university   (pm%Case@csnet-relay)
cleveland, oh 44106   (216) 368-2816

From 6460288328565485575
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,27b0ce95bd6c10a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 10:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!tektronix!hplabs!qantel!
ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: PD software delay
Message-ID: <54600060@iuvax.UUCP>
Date: Mon, 14-Apr-86 13:31:00 EST
Article-I.D.: iuvax.54600060
Posted: Mon Apr 14 13:31:00 1986
Date-Received: Sun, 20-Apr-86 16:52:06 EST
Lines: 10
Nf-ID: #N:iuvax:54600060:000:448
Nf-From: iuvax!franco   Apr 14 13:31:00 1986

To those people who have sent me three disks to copy software onto:

  I am delaying sending those disks back to you for a couple of days as
I am expecting some pieces of software which are very much improved over
similar pieces I have now and I intend to substitute them for the older
pieces. Please hang tight (or loose depending on which part of the
country you are in). More details will follow (when I get the stuff).

franco@indiana.csnet

From 4574380529871900709
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5944840f7f0b8763,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 17:24:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!MEDIA-LAB.MIT.EDU!todd
From: todd@MEDIA-LAB.MIT.EDU
Newsgroups: net.micro.atari16
Subject: Mushrooms and the analyzer
Message-ID: <8604150001.AA22521@MEDIA-LAB.MIT.EDU>
Date: Mon, 14-Apr-86 20:24:31 EST
Article-I.D.: MEDIA-LA.8604150001.AA22521
Posted: Mon Apr 14 20:24:31 1986
Date-Received: Wed, 16-Apr-86 04:14:17 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Wanna know how I get mushrooms? I use the mushroom analyzer! The
first time I exit from the analyzer, I get three bombs (yup, got TOS
in ROM). If I use the mushroom analyzer again, I get two (and I keep
getting two).

I haven't looked at the code, so I don't know what is causing it. I
never noticed this when I had TOS in RAM.

Todd (it must be the 1 meg upgrade) Fujinaka

From 3046939078453746625
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa309d5cbabb413a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 18:16:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: UPGRADE!
Message-ID: <1461@cwruecmp.UUCP>
Date: Mon, 14-Apr-86 21:16:32 EST
Article-I.D.: cwruecmp.1461
Posted: Mon Apr 14 21:16:32 1986
Date-Received: Wed, 16-Apr-86 04:51:09 EST
References: <2585@brl-smoke.ARPA>
Distribution: net
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 37

> foo!
> Well I did it. I attempted the fatal up grade. The good news is that I
> did not fry my ST. She boots-up all right along with the 5 or six
> accessories on the desk top [fonts,ramdisk,etc...]. The ramdisk says
> ~690+K byte available! Looks good right!?
>
> However a little after after boot-up,vertical lines appear up and down
> across the whole screen!!! Sometimes the lines shift color as I move the
> mouse. I can still run programs, copy files to and from the RAM disk,
> but invariably, after a short time it crashes, lines and all. My
> thinking is that one of the RAM chips is flakey. WHy?
>
>   A. the vertical lines appear on every 8th pixel
>   ---------
>   B. When pressing memory to its limit by coping whole disks into
>   the RAM disk, I can see the patterns of these vertical lines
>   change in exact sequence with the "clicks" of the floppy disk.
>
> Questions: 1. Any suggestions on what else it might be?
>   2. How does one test for a bad RAM chip?
>
>   All comments will be MOST welcome. Thanks - Geoff
>   ****

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
It looks like that you certainly have a bad bit. Since the screen
memory is placed in the uppermost 32k of memory, you can see it on the
screen. I would suggest using sed to deposity end retrive bytes from
addresses in the upper 512k range to determine which bit is bad, and
then replace the chip coresponding to that bit.

--
                        Jwahar R. Bammi
                      Usenet: .....!decvax!cwruecmp!bammi
                       CSnet: bammi@case
                     Arpa: bammi%case@csnet-relay
                  CompuServe: 71515,155

From 2351547555882299636
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1134423a420d2f1f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 20:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!AMES-VMSB.ARPA!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- VT52 keypads ---
Message-ID: <8604150504.AA10357@ucbvax.berkeley.edu>
Date: Mon, 14-Apr-86 23:09:00 EST
Article-I.D.: ucbvax.8604150504.AA10357

Posted: Mon Apr 14 23:09:00 1986
Date-Received: Wed, 16-Apr-86 04:36:54 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 29

When the discussion about the lack of
vt52 keypad sequences on the ST first
came up, the Atari reps replied that
there WAS no vt52 keypad. I sent one
of them transcriptions of the appro-
priate pages from the vt-100 & DEC EDT
manuals, explaining both the codes
produced and the physical layout of the
vt52 keypad. I presume they never
have seen a real, live, vt52 (I know
I havn't). I don't know if the Heath-19
(a vt52 workalike, w/ the addition of
an insert/delete line code) has a keypad.
perhaps that is what they were working
from. Anyway.... Atari has had the info
passed to them & are aware that they
left something (well, not really VITAL)
out of their vt52 emulation. Whether
they are going to do something about it
is still unknown. The only reply I
recieved is an acknowledgement of my
message, with no real info about whether
any action would be taken in future
ROMS.

          -Richard Hartman
          nep.pgelhausen@ames-vmsb

From -5098870724657059036
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 20:50:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site dmsd.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!hplabs!hpda!dmsd!bass
From: bass@dmsd.UUCP (John Bass)
Newsgroups: net.micro.atari16
Subject: re: writing to Apple about MacCartridge
Message-ID: <230@dmsd.UUCP>
Date: Mon, 14-Apr-86 23:50:51 EST
Article-I.D.: dmsd.230
Posted: Mon Apr 14 23:50:51 1986

Date-Received: Sun, 20-Apr-86 05:25:44 EST
References: <8604060607.AA07358@ucbvax.berkeley.edu> <2093@uwmacc.UUCP>
Organization: DMS Design, San Luis Obispo Office, CA
Lines: 43
Summary: a copyright is a copyright, AND A LICENSE IS A LICENSE

In article <2093@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:
> A question about MacCartridge:
>
>   Did I miss something? Why should *anyone* care about Apple's approval?
> If the thing was made *wothout* any Apple software or hardware, what
> legal claim do they have to prevent this fellow from selling them?
>
> There's a thousand-and-one IBM PC/XT clones on the market, as well as
> a hundred-and-one UNIX look-alike systems, as well as...
>
> Apple tried to stop distribution of GEMDOS, and they lost...and they
> should have, look-alikes and compatable components are *not* copyright
> infrigements...at least not the last time I looked....

The clones go one step over of the mark ... If I produced a "Star Wars"
movie "clone" with a similar script, plot, names, and ending the courts would
knock it down in a flash -- even though it was "original" work BASED OR NOT
on the real movie.

The clones go WAY OVER the copyright mark by using restraint of trade as the
issue against the "big bully IBM" -- if the PC was produced by a middle
weight company like Altos or Dual they would be struck down in a flash with
copyright infringement based on "derivative works" or outright piracy.

There are dozens of ways to re-write "Return of the Jedi" most would not fly
in the face of a copyright suit .... I don't know why computer jocks are
so dam fire sure they are immune to REAL copyright infringment proceedings.
Rewriting/coding some ones program (bios, application, utility or OS) is
the same is rewriting a movie --- if not legally corrupt, it is clearly morally
corrupt.

Apple doesn't have much say about the manufacture of the cartridge if it doesn't
contain Apple code when shipped .... they have a lot to say about where their
roms go. If there isn't any fine print about License of the code, they can
make service spare roms an inventory item and place a $1,000 charge/credit
on them to insure that the roms are used to replace defectives in the
field.

--

John Bass (DBA: Fastime, DBA:DMS Design)
DMS Design (System Design, Performance and Arch Consultants)
{dual,fortune,polyslo,hpda}!dmsd!bass   (805) 546-9141

From -6230120247594802440
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,2d42447427c7dc5c
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-14 21:19:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: How close to ALCYON C is TOS?
Message-ID: <183@atari.UUcp>
Date: Tue, 15-Apr-86 00:19:04 EST
Article-I.D.: atari.183
Posted: Tue Apr 15 00:19:04 1986
Date-Received: Wed, 16-Apr-86 04:27:00 EST
References: <8604121902.AA24030@ucbvax.berkeley.edu>
Organization: Atari Corp., Sunnyvale CA
Lines: 25

How far is up?

Why change a perfectly good object code format? You think reinventing the wheel is fun, maybe? Executable file loaders are not hard to write.

The GEMDOS C compiler is the Alcyon C compiler (a couple of centuries old -- ask DRI why they haven't released any new versions in the last couple years) -- the SAME compiler that also runs on CP/M-68K. Only the changes needed to make it run on the ST were made.

The only differences between CP/M-68K and GEMDOS binary files are:

- The relocation information is compressed (say, to about 5% of the total file size, on the average) under GEMDOS. (Those of you familiar with CP/M-68K are nodding your heads right now).

- There are no "absolute" files under GEMDOS (thank God).

You could do ST development under CP/M-68K, if you wanted to. In fact, that's what Atari did in the early days of the project.

-Landon "If business is war, then I'm a prisoner of business!"

From -7155287349791073532
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa309d5cbabb413a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 06:41:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!DBSTU1.BITNET!I6191008

From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: UPGRADE!
Message-ID: <8604151336.AA18071@ucbvax.berkeley.edu>
Date: Tue, 15-Apr-86 09:41:30 EST
Article-I.D.: ucbvax.8604151336.AA18071
Posted: Tue Apr 15 09:41:30 1986
Date-Received: Thu, 17-Apr-86 01:31:19 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

Geoffrey- (and others)

That's typical for a faulty RAM bank.

Either one RAM is not ok (number 8 or 16 of the upgrade) or there is

a bad connection somewhere. Check all connections] Next test the RAM's

by interchanging them, e.g. 1 with 8 etc. If the bad lines are now on

different locations you found a bad RAM. If nothing changes try other

combinations. If still nothing happens, there must be a bad connection

somewhere. Please report to me.

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -6349946143145147456
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,91508fc5a53f0e5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 07:43:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site trwrba.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
sdcrdcf!trwrb!trwrba!mdf
From: mdf@trwrba.UUCP (Mark D. Falleroni)
Newsgroups: net.micro.atari16
Subject: Upgrade
Message-ID: <1993@trwrba.UUCP>
Date: Tue, 15-Apr-86 10:43:06 EST
Article-I.D.: trwrba.1993
Posted: Tue Apr 15 10:43:06 1986
Date-Received: Fri, 18-Apr-86 04:06:27 EST
Organization: TRW EDS, Redondo Beach, CA
Lines: 16

A few weeks ago I posted a plea for help about a problem I was having

with my 1 meg upgrade. I won't repeat the lengthy problem description
again but I will describe the solution.
The problem (screen going bonkers when oscilloscope probe touched RAS
connection of upgrade) was eliminated when the 68 ohm resistors were
replaced with 33 ohm resistors.
The only response I received from my plea was from a hardware expert
at Atari Corp. That dispelled any bad thoughts I harbored about
Atari customer support. Thanks Doug.

Mark Falleroni
TRW Defense Systems
Ogden Engineering Office
Ogden, Utah 84403
<mdf>

From -7907772315687001898
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5944840f7f0b8763
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 09:43:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!XEROX.COM!Felton.pa
From: Felton.pa@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: Mushrooms and the analyzer
Message-ID: <860415-094356-1218@Xerox>
Date: Tue, 15-Apr-86 12:43:52 EST
Article-I.D.: Xerox.860415-094356-1218
Posted: Tue Apr 15 12:43:52 1986
Date-Received: Thu, 17-Apr-86 01:32:11 EST
References: <8604150001.AA22521@MEDIA-LAB.MIT.EDU>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

Todd,

What is a mushroom analyzer and how do I get one?

John

From 7149588259836181153
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-15 12:20:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil

From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Arrow Keys & VT52 Terminal Mode
Message-ID: <184@atari.UUcp>
Date: Tue, 15-Apr-86 15:20:27 EST
Article-I.D.: atari.184
Posted: Tue Apr 15 15:20:27 1986
Date-Received: Sun, 20-Apr-86 05:40:36 EST
References: <860409-150043-1731@Xerox>
Organization: Atari Corp/Mktg
Lines: 10

In article <860409-150043-1731@Xerox>, Bicer.ES@XEROX.COM writes:
> I have noticed that the arrow keys don't seem to work in the VT52 Terminal
> Mode. Also the function keys, as well as the cursor keys, don't seem to
> produce unique or distinguishible codes. Has anyone else noticed this?

A true VT52 does not have arrow keys, function keys, or even a numeric
keypad. The Atari emulator follows this guideline.

---> Neil @ Atari
     UUCP: ...lll-crg!vecpyr!atari!neil

From -8364916212002939700
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-03 11:48:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!
holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: macintosh software on the atari 520/1040ST
Message-ID: <373@drivax.UUCP>
Date: Thu, 3-Apr-86 14:48:39 EST
Article-I.D.: drivax.373
Posted: Thu Apr 3 14:48:39 1986
Date-Received: Sat, 5-Apr-86 11:22:10 EST
References: <8603312048.AA04645@ucbvax.berkeley.edu> <1297@ism780c.UUCP>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 25

In article <1297@ism780c.UUCP> tim@ism780c.UUCP (Tim Smith) writes:
>> However the obstacle facing mass production is the approval of
>> Apple, which seems to be necessary in order for this company to
>> distribute their product with the Macintosh ROMs. Wouldn't it be
>> possible for them to sell the cartridge without the ROMs and let
>> the buyer purchase and install them?
>

>Yes, they could sell the cartridge without the ROMs, but where is
>the purchaser going to buy them?

Go to Macintosh dealers. Tell them you want to buy the ROMs. They'll sell
them to you. But Apple may start requiring dealers to ask for serial numbers,
so you'd have to know someone with a Mac to get them.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From 3190476930316624739
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,86cc6fc8eff8c75f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-03 19:06:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: AUTO question
Message-ID: <54600047@iuvax.UUCP>
Date: Thu, 3-Apr-86 22:06:00 EST
Article-I.D.: iuvax.54600047
Posted: Thu Apr 3 22:06:00 1986
Date-Received: Thu, 10-Apr-86 21:27:35 EST
Lines: 3
Nf-ID: #N:iuvax:54600047:000:87
Nf-From: iuvax!franco   Apr 3 22:06:00 1986

Does anyone know how to predict whether a .prg will execute from AUTO
with TOS in ROM?

From -2557482893687799576
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 08:37:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!

turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: macintosh software on the atari 520/1040ST
Message-ID: <320@imagen.UUCP>
Date: Fri, 4-Apr-86 11:37:54 EST
Article-I.D.: imagen.320
Posted: Fri Apr 4 11:37:54 1986
Date-Received: Tue, 8-Apr-86 05:47:02 EST
References: <8603312048.AA04645@ucbvax.berkeley.edu>
Organization: The Houses of the Holy
Lines: 33

> Does anyone know any more about the company which has developed a
> cartridge that plugs into the ST, allowing it to run Macintosh software?
>
> - Brian Reilly
> -------

yes, i just used it at the West Coast Computer Faire, it was done by
David Small and was running MacPaint on the ST when i saw it. David
admitted that there were still some problems with it (minor ones)
and that he had only tried it with three Mac programs. Since it uses
ST drives, it can not run disk protected software since the programs
have to be copied to a ST disk to be run. MacPaint looks so much
nicer on a ST and runs about 20% faster because of the improved
screen access. The bad news is that David feels that he must market
it thru Apple (for legal reasons), if Apple turns him down then he
will drop the whole thing into the trash icon. Perhaps if we all
wrote Apple and told them that we would buy the cartridge then they
might be moved. Hey, i worked for tinkerbell didnt it (:-) ? David
didnt announce a selling price but a good guess would be about
$400-600, (figure cost of roms, dave's profit, Apple's royalities
etc.) I am serious about writing Apple, I think all of Dave's hard
work should be rewarded.
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From -7841697159271815238
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,71d592f4939ac70b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 10:02:14 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!tycho.arpa!franceus
From: franceus@TYCHO.ARPA (Paul Franceus)
Newsgroups: net.micro.atari16
Subject: BBS and term program.
Message-ID: <8604041801.AA09216@ucbvax.berkeley.edu>
Date: Fri, 4-Apr-86 13:02:14 EST
Article-I.D.: ucbvax.8604041801.AA09216
Posted: Fri Apr 4 13:02:14 1986
Date-Received: Tue, 8-Apr-86 05:05:26 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Hello,
     I am in the process of writing a BBS with term program for the ST.
This will be a graphical BBS, which will be GEM oriented, so you will not
be limited to text only. We are going to support communication of the
entire library BIOS, XBIOS, AES, VDI, GEMDOS, the works. The BBS uses a
sliding window protocol for error-free transmission. The term program will
also be able to communicate with normal hosts, probably as a vt100.

     I would like to solicit suggestions for features that you think make a
good BBS and a good term program. Right now the major feature of the term
program will be its macro capability. If there is anything that you would like
to see, please suggest it.

                    Peace and Long Life,
                    Paul Franceus

From -8017189073079394 92
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 10:07:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!hplabs!amdahl!drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: RUMORS
Message-ID: <377@drivax.UUCP>
Date: Fri, 4-Apr-86 13:07:16 EST
Article-I.D.: drivax.377
Posted: Fri Apr 4 13:07:16 1986
Date-Received: Sun, 6-Apr-86 01:05:09 EST
References: <8604022259.AA00201@ucbvax.berkeley.edu>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 39

In article <8604022259.AA00201@ucbvax.berkeley.edu> RDROYA01@ULKYVX.BITNET (1) writes:
>
>Two rumors have surfaced on the info-68k list that Atari users may be able
>to answer:
>
>   1. The Atari ST is running a version of CP/M-68K with GEM
>   built in. (Could this be true?)

No, this could not be true. The ST uses its own operating system called
TOS or GEMDOS, depending on whether it's Atari or DRI which tells you.

>
>   2. There exists a generic Z80 emulator (not 8080) in the
>   public domain that allows 68000 machines to run CP/M-80
>   programs and that this program is available for Ataris
>   but is *so* generic that any 68000 based micro could
>   run it. This is not to be confused with the 8080
>   emulator from recent Dr. Dobb's issues.

The CP/M-Z80 emulator is not Public Domain in the United States, and is not
generic enough to be run on any given 68K computer without modification.

>
>Can anyone verify or refute these rumors?

Yes.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From 2837705725252546859
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9e4b1d80f2567658,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 10:59:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83 SMI; site ndmath.uucp
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!ndmath!milo
From: milo@ndmath.uucp (Greg Corson)
Newsgroups: net.micro.atari16

Subject: Fortran on the ST
Message-ID: <112@ndmath.uucp>
Date: Fri, 4-Apr-86 13:59:16 EST
Article-I.D.: ndmath.112
Posted: Fri Apr 4 13:59:16 1986
Date-Received: Fri, 11-Apr-86 01:25:05 EST
Organization: Notre Dame University, Math Department
Lines: 8

Does anyone know of a good Fortran compiler that is available on the Atari ST
NOW? I am trying to port a large graphics program written in Fortran to the
ST. Full access to GEM is not necessary so long as there is some way to get
graphics on the screen (even if I have to read and write raw memory it's ok).

Greg Corson

...seismo!iuvax!kangaro!milo

From -2020814959031386749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,64c946941f19caaf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 15:27:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!dspvax.mit.edu!eem
From: eem@DSPVAX.MIT.EDU (Evangelos Milios)
Newsgroups: net.micro.atari16
Subject: Request for a 1st word driver for the Panasonic 1092 printer.
Message-ID: <8604042327.AA17540@dspvax.MIT.EDU>
Date: Fri, 4-Apr-86 18:27:43 EST
Article-I.D.: dspvax.8604042327.AA17540
Posted: Fri Apr 4 18:27:43 1986
Date-Received: Tue, 8-Apr-86 05:08:05 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

I am looking for a 1st word driver that works with the Panasonic K1092
dot matrix printer in both near-letter-quality and draft mode.
If it is not easy to e-mail it to me, please send me a printout
(I will provide a self-addressed stamped envelope).

Thanks in advance,
...Evangelos

UUCP: [seismo,pur-ee]!mit-bug!eem
ARPA: eem@dspvax.mit.edu

From 3954450533334418248

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8422c5ed103a57c6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-04 22:54:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: MacCartridge
Message-ID: <8604050705.AA21284@ucbvax.berkeley.edu>
Date: Sat, 5-Apr-86 01:54:44 EST
Article-I.D.: ucbvax.8604050705.AA21284
Posted: Sat Apr 5 01:54:44 1986
Date-Received: Tue, 8-Apr-86 05:12:41 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

In case you did not go to the West Coast Computer Faire, here is some more
information about the MacCartridge. It was displayed at the faire
by the developers and it looked pretty good. I can't remeber the name
of the company, but I have it on a flyer and will send that along tomorrow.
The two guys who made the thing and wrote the software said they felt there
was a 50-50 chance that Apple would approve of their product and let them
produce it, but I think that is a little too optimistic. They also
said the price would probably be $50 over the cost of the ROMs ($180).
They said it had worked with MacPaint, MacWrite, and Microsoft BASIC, but
that it does not work with FatBits in MacPaint. I don't remember too
much else of what they said, but there was a lot of interest in their
booth.

I'll post the address of the company tomorrow.

- Brian Reilly

From -1549801922686301962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a54c8755af935fcc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-05 01:59:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site uw-june
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
tektronix!uw-beaver!uw-june!rling
From: rling@uw-june (Robert Ling)
Newsgroups: net.micro.atari16
Subject: XBIOS and command line arguments for TDI Modula-2
Message-ID: <608@uw-june>
Date: Sat, 5-Apr-86 04:59:01 EST
Article-I.D.: uw-june.608

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Lines: 910

Here is a module to interface with the extended BIOS. I took it off
Compuserve and is posted here unmodified. The author's name is Bob
Debula. Also included is a module I wrote to get the arguments in
the command line. It's nothing amazing but handy if you haven't written
one yourself. The program, of course, has to be 'TTP' if invoked from
the desktop.

- Robert Ling   <rling@uw-june.arpa>

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    xbioscalls.def
#    xbioscalls.mod
#    commandl.def
#    commandl.mod
export PATH; PATH=/bin:$PATH
echo shar: extracting "'xbioscalls.def'" '(4777 characters)'
sed 's/^X//' << \SHAR_EOF > 'xbioscalls.def'
XDEFINITION MODULE XBIOScalls;
X
XFROM SYSTEM IMPORT ADDRESS , BYTE , CODE , SETREG , REGISTER;
X
XEXPORT QUALIFIED initmous, ssbrk, physbase, logbase, getrez, setscreen,
X                 flopfmt, setpalette, setcolor, floprd, flopwr, midiws,
X                 mfpint, iorec, rsconf, keytbl, random, protobt,
X                 flopver, scrdmp, cursconf, settime, gettime, bioskeys,
X                 ikbdws, jdisint, jenabint, giaccess, offgibit, ongibit,
X                 xbtimer, dosound, setprt, kbdvbase, kbrate, prtblk, wvbl,
X                 puntaes;
X
XPROCEDURE initmous( type : CARDINAL; parameter, vector : ADDRESS );
X                                                  (* XBIOS call #0 *)
X
XPROCEDURE ssbrk( number : CARDINAL ) : ADDRESS;  (* XBIOS call #1 *)
X
XPROCEDURE physbase() : ADDRESS;                  (* XBIOS call #2 *)
X
XPROCEDURE logbase() : ADDRESS;                   (* XBIOS call #3 *)
X
XPROCEDURE getrez() : CARDINAL;                   (* XBIOS call #4 *)
X
XPROCEDURE setscreen( logadr, physadr : ADDRESS; res : INTEGER );
X                                                  (* XBIOS call #5 *)
X
```

```
XPROCEDURE setpalette( paletteptr : ADDRESS );    (* XBIOS call #6 *)
X
XPROCEDURE setcolor( colornum : CARDINAL; VAR color : INTEGER );
X                                                 (* XBIOS call #7 *)
X
XPROCEDURE floprd( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                  track, side, count : CARDINAL ) : INTEGER ;
X                                                 (* XBIOS call #8 *)
X
XPROCEDURE flopwr( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                  track, side, count : CARDINAL ) : INTEGER ;
X                                                 (* XBIOS call #9 *)
X
XPROCEDURE flopfmt( buffer : ADDRESS; filler : LONGINT; dev, spt, track,
X                   side, interleave : CARDINAL; magic : LONGCARD;
X                   virgin : CARDINAL ) : INTEGER ;
X                                                 (* XBIOS call #10 *)
X
XPROCEDURE midiws( count : CARDINAL; ptr : ADDRESS );
X                                                 (* XBIOS call #12 *)
X
XPROCEDURE mfpint( number : CARDINAL; vector : ADDRESS );
X                                                 (* XBIOS call #13 *)
X
XPROCEDURE iorec( dev : CARDINAL ) : ADDRESS;     (* XBIOS call #14 *)
X
XPROCEDURE rsconf( baud, ctrl, ucr, rsr, tsr, scr : INTEGER );
X                                                 (* XBIOS call #15 *)
X
XPROCEDURE keytbl( unshift, shift, capslock : ADDRESS ) : ADDRESS;
X                                                 (* XBIOS CALL #16 *)
X
XPROCEDURE random() : LONGCARD;                   (* XBIOS call #17 *)
X
XPROCEDURE protobt( buffer : ADDRESS; serialno: LONGINT;
X                   disktype, execflag : INTEGER );
X                                                 (* XBIOS call #18 *)
X
XPROCEDURE flopver( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                   track, side, count : CARDINAL ) : INTEGER;
X                                                 (* XBIOS call #19 *)
X
XPROCEDURE scrdmp();                              (* XBIOS call #20 *)
X
XPROCEDURE cursconf( function, rate : CARDINAL ) : CARDINAL ;
X                                                 (* XBIOS call #21 *)
X
XPROCEDURE settime( time : LONGCARD ) ;           (* XBIOS call #22 *)
X
XPROCEDURE gettime() : LONGCARD ;                 (* XBIOS call #23 *)
X
XPROCEDURE bioskeys() ;                           (* XBIOS call #24 *)
X
```

```
XPROCEDURE ikbdws( number : CARDINAL; pointer : ADDRESS ) ;
X                                                   (* XBIOS call #25 *)
X
XPROCEDURE jdisint( number : CARDINAL ) ;           (* XBIOS call #26 *)
X
XPROCEDURE jenabint( number : CARDINAL ) ;          (* XBIOS call #27 *)
X
XPROCEDURE giaccess( data, register : BYTE ) : BYTE;
X                                                   (* XBIOS call #28 *)
X
XPROCEDURE offgibit ( bitnumber : CARDINAL );       (* XBIOS call #29 *)
X
XPROCEDURE ongibit ( bitnumber : CARDINAL );        (* XBIOS call #30 *)
X
XPROCEDURE xbtimer ( timer : CARDINAL; control, data : BYTE;
X                    vector : ADDRESS );            (* XBIOS call #31 *)
X
XPROCEDURE dosound ( pointer : ADDRESS );           (* XBIOS call #32 *)
X
XPROCEDURE setprt ( config : INTEGER ) : CARDINAL;
X                                                   (* XBIOS call #33 *)
X
XPROCEDURE kbdvbase () : ADDRESS;                   (* XBIOS call #34 *)
X
XPROCEDURE kbrate ( delay, repeat : INTEGER ) : CARDINAL;
X                                                   (* XBIOS call #35 *)
X
XPROCEDURE prtblk ( parameter : ADDRESS );          (* XBIOS call #36 *)
X
XPROCEDURE wvbl ();                                 (* XBIOS call #37 *)
X
XPROCEDURE puntaes ();                              (* XBIOS call #39 *)
X
X
X
X
X
XEND XBIOScalls.
SHAR_EOF
if test 4777 -ne "`wc -c 'xbioscalls.def'`"
then
    echo shar: error transmitting "'xbioscalls.def'" '(should have been 4777
characters)'
fi
echo shar: extracting "'xbioscalls.mod'" '(20471 characters)'
sed 's/^X//' << \SHAR_EOF > 'xbioscalls.mod'
XIMPLEMENTATION MODULE XBIOScalls;
X
XFROM SYSTEM IMPORT ADDRESS , BYTE , CODE , SETREG , REGISTER;
X
X
X
XPROCEDURE initmous ( type : CARDINAL; parameter, vector : ADDRESS ) ;
```

```
X                                                    (* XBIOS call #0 *)
X
XBEGIN;
X
X  SETREG(7,vector);            (* vector address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,parameter);         (* parameter address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(type));     (* parameter type *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,0,4E4EH);         (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND initmous;
X
X
X
XPROCEDURE ssbrk ( number : CARDINAL ) : ADDRESS;  (* XBIOS call #1 *)
X
XBEGIN;
X
X  CODE ( 7000H );                (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(number));     (* # bytes memory *)
X  CODE ( 3F07H );                (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,1,4E4EH);          (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);            (* return address of memory area *)
X
XEND ssbrk;
X
X
X
XPROCEDURE physbase () : ADDRESS;                    (* XBIOS call #2 *)
X
XBEGIN;
X
X  CODE ( 7000H );                (* MOVEQ.L #0,D0       clear reg D0 *)
X  CODE (3F3CH,2,4E4EH);          (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);            (* return screen RAM base address *)
X
XEND physbase;
X
X
X
XPROCEDURE logbase () : ADDRESS;                     (* XBIOS call #3 *)
X
XBEGIN;
X
X  CODE ( 7000H );                (* MOVEQ.L #0,D0       clear reg D0 *)
X  CODE (3F3CH,3,4E4EH);          (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);            (* set logical screen base *)
X
XEND logbase;
X
X
```

```
X
XPROCEDURE getrez () : CARDINAL;                    (* XBIOS call #4 *)
X
XBEGIN;
X
X  CODE ( 7000H );                (* MOVEQ.L #0,D0       clear reg D0 *)
X  CODE (3F3CH,4,4E4EH);          (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN CARDINAL(REGISTER(0));  (* return screen resolution *)
X
XEND getrez;
X
X
X
XPROCEDURE setscreen ( logadr, physadr : ADDRESS; res : INTEGER );
X                                                   (* XBIOS call #5 *)
XBEGIN;
X
X  SETREG(7,logadr);             (* logical screen base into reg D7 *)
X  CODE ( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,physadr);            (* physical screen base into reg D7 *)
X  CODE ( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(res));       (* put vector number into register D7 *)
X  CODE ( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,5,4E4EH);         (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND setscreen;
X
X
X
XPROCEDURE setpalette ( paletteptr : ADDRESS ) ;      (* XBIOS call #6 *)
XBEGIN;
X
X  SETREG(7,paletteptr);        (* address of new color pallette *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,6,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND setpalette;
X
X
XPROCEDURE setcolor( colornum : CARDINAL; VAR color : INTEGER );
X                                                   (* XBIOS call #7 *)
XBEGIN;
X
X  SETREG(7,ADDRESS(color));     (* color *)
X  CODE ( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(colornum MOD 16));  (* color number *)
X  CODE ( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,7,4E4EH);         (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  IF (color = -1) THEN          (* is this call to return color? *)
X     color := INTEGER(REGISTER(0)); (* return color *)
X  END;
X
XEND setcolor;
```

```
X
X
XPROCEDURE floprd ( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                   track, side, count : CARDINAL ) : INTEGER;
X                                                    (* XBIOS call #8 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(count));    (* count of sectors to read *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(side MOD 2));  (* side to read *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(track));    (* track # to read *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(sector));   (* # of 1st sector to be read *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(dev MOD 2));   (* drv # to read *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(filler));   (* useless (but required) filler *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,buffer);            (* buffer address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,8,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN INTEGER(REGISTER(0)); (* return read error code *)
X
XEND floprd;
X
X
X
XPROCEDURE flopwr ( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                   track, side, count : CARDINAL ) : INTEGER;
X                                                      (* XBIOS call #9 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(count));    (* count of sectors to written *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(side MOD 2));  (* side to write *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(track));    (* track # to write *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(sector));   (* # of 1st sector to be written *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(dev MOD 2));   (* drv # to write *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(filler));   (* useless (but required) filler *)
X  CODE( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,buffer);            (* buffer address *)
X  CODE( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE(3F3CH,9,4E4EH);         (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN INTEGER(REGISTER(0)); (* return read error code *)
```

```
X
XEND flopwr;
X
X
X
XPROCEDURE flopfmt ( buffer : ADDRESS; filler : LONGINT; dev, spt, track,
X                    side, interleave : CARDINAL; magic : LONGCARD;
X                    virgin : CARDINAL ) : INTEGER;  (* XBIOS call #10 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(virgin));   (* sector format value *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(magic));    (* magic constant $87654321 *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(interleave));  (* order in which sectors are written *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(side MOD 2));  (* side to format *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(track));    (* track # to format *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(spt));      (* sectors/track *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(dev MOD 2));   (* drv # to format *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(filler));   (* useless (but required) filler *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,buffer);            (* buffer address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,10,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN INTEGER(REGISTER(0)); (* return format error code *)
X
XEND flopfmt;
X
X
X
XPROCEDURE midiws ( count : CARDINAL; ptr : ADDRESS );
X                                                  (* XBIOS call #12 *)
XBEGIN;
X
X  SETREG(7,ptr);               (* pointer to MIDI output string *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(count));    (* # of characters to send *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,12,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND midiws;
X
X
X
XPROCEDURE mfpint ( number : CARDINAL; vector : ADDRESS );
X                                                  (* XBIOS call #13 *)
```

```
XBEGIN;
X
X  SETREG(7,vector);            (* pointer to MIDI output string *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(number));   (* # of characters to send *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,13,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND mfpint;
X
X
X
XPROCEDURE iorec ( dev : CARDINAL ) : ADDRESS;       (* XBIOS call #14 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* clear reg D0 *)
X  SETREG(7,ADDRESS(dev MOD 3));  (* input device *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,14,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);          (* return ptr to buffer data record *)
X
XEND iorec;
X
X
X
XPROCEDURE rsconf ( baud, ctrl, ucr, rsr, tsr, scr : INTEGER );
X                                                    (* XBIOS call #15 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(scr));      (* MFP synch char register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(tsr));      (* MFP tx status register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(rsr));      (* MFP receiver staus register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(ucr));      (* MFP USART control register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(ctrl));     (* handshake mode *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(baud));     (* baud rate *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,15,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND rsconf;
X
X
X
XPROCEDURE keytbl ( unshift, shift, capslock : ADDRESS ) : ADDRESS;
X                                                    (* XBIOS call #16 *)
X
XBEGIN;
```

```
X
X  CODE ( 7000H );              (* clear reg D0 *)
X  SETREG(7,capslock);          (* capslock key tbl address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,shift);             (* shift key tbl address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,unshift);           (* unshifted key tbl address *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,16,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);          (* return address of vector tbl *)
X
XEND keytbl;
X
X
X
XPROCEDURE random () : LONGCARD;                    (* XBIOS call #17 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* clear reg D0 *)
X  CODE (3F3CH,17,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN LONGCARD(REGISTER(0));   (* return random # *)
X
XEND random;
X
X
X
XPROCEDURE protobt ( buffer : ADDRESS; serialno : LONGINT;
X                   disktype, execflag : INTEGER );
X                                                   (* XBIOS call #18 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(execflag));  (* flag to indicate if executable *)
X  CODE ( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(disktype));  (* disktype *)
X  CODE ( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(serialno));  (* diskette serial # *)
X  CODE ( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,buffer);             (* buffer address *)
X  CODE ( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,18,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND protobt;
X
X
X
XPROCEDURE flopver ( buffer : ADDRESS; filler : LONGINT; dev, sector,
X                   track, side, count : CARDINAL ) : INTEGER;
X                                                   (* XBIOS call #19 *)
X
XBEGIN;
X
```

```
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(count));    (* number of sectors *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(side MOD 2));  (* side to verify *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(track));    (* track # to verify *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(sector));   (* # of 1st sector to be verified *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(dev MOD 2));   (* drv # to verify *)
X  CODE( 3F07H );               (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(filler));   (* useless (but required) filler *)
X  CODE( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,buffer);            (* buffer address *)
X  CODE( 2F07H );               (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE(3F3CH,19,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN INTEGER(REGISTER(0)); (* return read error code *)
X
XEND flopver;
X
X
X
XPROCEDURE scrdmp();            (* XBIOS call #20 *)
X
XBEGIN;
X
X  CODE (3F3CH,20,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND scrdmp;
X
X
X
XPROCEDURE cursconf ( function, rate : CARDINAL ) : CARDINAL;
X                                                  (* XBIOS call #21 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* clear reg D0 *)
X  SETREG(7,ADDRESS(rate));     (* cursor flash rate *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(function MOD 6)); (* cursor function *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,21,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN CARDINAL(REGISTER(0));  (* return ptr to buffer data record *)
X
XEND cursconf;
X
X
X
XPROCEDURE settime ( time : LONGCARD );             (* XBIOS call #22 *)
X
XBEGIN;
X
```

```
X  SETREG(7,ADDRESS(time));     (* clock time & date to set *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE (3F3CH,22,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND settime;
X
X
X
XPROCEDURE gettime () : LONGCARD;                    (* XBIOS call #23 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* clear reg D0 *)
X  CODE (3F3CH,23,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN LONGCARD(REGISTER(0)); (* return clock time & date *)
X
XEND gettime;
X
X
X
XPROCEDURE bioskeys ();                              (* XBIOS call #24 *)
X
XBEGIN;
X
X  CODE (3F3CH,24,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND bioskeys;
X
X
X
XPROCEDURE ikbdws ( number : CARDINAL; pointer : ADDRESS );
X                                                    (* XBIOS call #25 *)
X
XBEGIN;
X
X  SETREG(7,pointer);           (* address of tx command string *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(number));   (* length of string -1 *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,25,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND ikbdws;
X
X
X
XPROCEDURE jdisint ( number : CARDINAL );           (* XBIOS call #26 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(number MOD 16));  (* MFP interrupt # to disable *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,26,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
```

```
XEND jdisint;
X
X
X
XPROCEDURE jenabint ( number : CARDINAL );          (* XBIOS call #27 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(number MOD 16));  (* MFP interrupt # to enable *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,27,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND jenabint;
X
X
X
XPROCEDURE giaccess ( data, register : BYTE ) : BYTE;
X                                                   (* XBIOS call #28 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* clear D0 in case GI read *)
X  SETREG(7,ADDRESS(register)); (* GI sound chip register # *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(data));     (* GI sound chip command *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,28,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN BYTE(REGISTER(0));    (* if GI read return value *)
X
XEND giaccess;
X
X
X
XPROCEDURE offgibit ( bitnumber : CARDINAL );         (* XBIOS call #29 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(bitnumber MOD 8)); (* set bit # port A GI sound chip *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,29,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND offgibit;
X
X
X
XPROCEDURE ongibit ( bitnumber : CARDINAL );          (* XBIOS call #30 *)
X
XBEGIN;
X
X  SETREG(7,ADDRESS(bitnumber MOD 8)); (* clear bit # port A GI sound chip *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,30,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
```

```
XEND ongibit;
X
X
X
XPROCEDURE xbtimer ( timer : CARDINAL; control, data : BYTE;
X                    vector : ADDRESS );              (* XBIOS call #31 *)
X
XBEGIN;
X
X  SETREG(7,vector);            (* address of timer interrupt vector *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  SETREG(7,ADDRESS(data));     (* value for MFP timer data register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(control));  (* value for MFP timer control register *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(timer MOD 4));  (* MFP timer # *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,31,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND xbtimer;
X
X
X
XPROCEDURE dosound ( pointer : ADDRESS );          (* XBIOS call #32 *)
X
XBEGIN;
X
X  SETREG(7,pointer);           (* pointer to string of sound commands *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE(3F3CH,32,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND dosound;
X
X
X
XPROCEDURE setprt ( config : INTEGER ) : CARDINAL;  (* XBIOS call #33 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear D0 *)
X  SETREG(7,ADDRESS(config));   (* printer configuration *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE(3F3CH,33,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN CARDINAL(REGISTER(0));  (* return config bit vector *)
X
XEND setprt;
X
X
X
XPROCEDURE kbdvbase () : ADDRESS;                (* XBIOS call #34 *)
X
XBEGIN;
X
```

```
X  CODE(3F3CH,34,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN REGISTER(0);          (* return pointer to vector tbl *)
X
XEND kbdvbase;
X
X
X
XPROCEDURE kbrate ( delay, repeat : INTEGER ) : CARDINAL;
X                                                  (* XBIOS call #35 *)
X
XBEGIN;
X
X  CODE ( 7000H );              (* MOVEQ.L #0,D0       clear reg D0 *)
X  SETREG(7,ADDRESS(repeat));   (* repeat interval *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  SETREG(7,ADDRESS(delay));    (* delay before 1st repeat *)
X  CODE ( 3F07H );              (* MOVE.W  D7,-(SP)    word on stack *)
X  CODE (3F3CH,35,4E4EH);       (* MOVE.W  #call,-(SP) then TRAP 14 *)
X  RETURN CARDINAL(REGISTER(0));  (* return repeat & delay *)
X
XEND kbrate;
X
X
X
XPROCEDURE prtblk ( parameter : ADDRESS );         (* XBIOS call #36 *)
X
XBEGIN;
X
X  SETREG(7,prtblk);             (* address of parameter list *)
X  CODE ( 2F07H );              (* MOVE.L  D7,-(SP)    longword on stack *)
X  CODE(3F3CH,36,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND prtblk;
X
X
X
XPROCEDURE wvbl ();                               (* XBIOS call #37 *)
X
XBEGIN;
X
X  CODE(3F3CH,37,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND wvbl;
X
X
X
XPROCEDURE puntaes ();                             (* XBIOS call #39 *)
X
XBEGIN;
X
X  CODE(3F3CH,39,4E4EH);        (* MOVE.W  #call,-(SP) then TRAP 14 *)
X
XEND puntaes;
```

```
X
X
X
X
XEND XBIOScalls.
SHAR_EOF
if test 20471 -ne "`wc -c 'xbioscalls.mod'`"
then
    echo shar: error transmitting "'xbioscalls.mod'" '(should have been 20471
characters)'
fi
echo shar: extracting "'commandl.def'"
sed 's/^X//' << \SHAR_EOF > 'commandl.def'
XDEFINITION MODULE  CommandLine;
X
X(**********************************************************************
X *                                                                    *
X *   CommandLine : Module to access the agruments in the command line. *
X *                                                                    *
X *   Author: Robert Ling   3/25/86                                    *
X *                                                                    *
X **********************************************************************)
X
X
XEXPORT QUALIFIED
X
X     (* proc *)    NumberOfArguments,
X     (* proc *)    GetArgument;
X
X
XPROCEDURE  NumberOfArguments (): CARDINAL;
X
X  (* Returns the number of arguments in the command line not including
X     the name of the program. *)
X
XPROCEDURE  GetArgument ( n : CARDINAL; VAR arg : ARRAY OF CHAR);
X
X  (* Procedure to get an argument from the command line.  'n' specifies
X     the argument.  The argument is returned in 'arg' terminated by a
X     zero byte if the argument does not fill the array.   If a request
X     is made for a non-existent argument, an array with a zero byte is
X     returned.  If the size of the array 'arg' is too small to contain
X     the argument, the argument is truncated (no zero byte at end). *)
X
XEND  CommandLine.
SHAR_EOF
if test 1297 -ne "`wc -c 'commandl.def'`"
then
    echo shar: error transmitting "'commandl.def'" '(should have been 1297
characters)'
fi
echo shar: extracting "'commandl.mod'"
sed 's/^X//' << \SHAR_EOF > 'commandl.mod'
```

```
XIMPLEMENTATION MODULE  CommandLine;
X
X(************************************************************************
X *                                                                      *
X *   CommandLine : Module to access the agruments in the command line. *
X *                                                                      *
X *   Author: Robert Ling   3/25/86                                      *
X *                                                                      *
X ************************************************************************)
X
XFROM SYSTEM IMPORT
X
X     BYTE, WORD, LONGWORD, ADDRESS, CODE, SETREG, REGISTER;
X
XFROM GEMX IMPORT
X
X     BasePageAddress;         (* type ADDRESS: address of base page table *)
X
XTYPE    str255 = ARRAY [0..255] OF CHAR;
X
XVAR     CommandTailLength : CARDINAL;
X        NumberOfArgs : CARDINAL;
X        CommandTailPtr : POINTER TO str255;
X
X
X(***** CommandLineInit ***** Routine to find the command tail and
X determine the number of arguments.  The address of the command tail
X is at an offset of 128 bytes from the base page.  The first byte
X holds the length of the command tail. *)
X
XPROCEDURE  CommandLineInit;
X VAR     i : CARDINAL;
XBEGIN
X  SETREG (8, BasePageAddress);        (* move.l   base,a0           *)
X  CODE (41E8h,0080h);                (* lea.l    128(a0),a0        *)
X  CODE (1018h);                      (* move.b   (a0)+,d0          *)
X  CODE (0280h,0000h,00FFh);          (* andi.l   #$ff,d0           *)
X
X  CommandTailLength := CARDINAL(REGISTER(0));   (* d0 -> length     *)
X  CommandTailPtr := REGISTER(8);                (* a0 -> tail addr. *)
X
X                                     (* count number of args *)
X  IF (CommandTailLength > 0) AND (CommandTailPtr^[0] <> ' ') THEN
X    NumberOfArgs := 1;
X  ELSE
X    NumberOfArgs := 0;
X  END;
X
X  FOR i := 0 TO (CommandTailLength-2) DO      (* sequential search *)
X    IF (CommandTailPtr^[i] = ' ') AND
X       (CommandTailPtr^[i+1] <> ' ') THEN     (* look for beginings *)
X      NumberOfArgs := NumberOfArgs + 1;
X    END;
```

```
X  END;
XEND  CommandLineInit;
X
X
X(***** NumberOfArguments *****  Routine that returns the number of
X arguments in the command line.  This could be implemented as an
X exported variable but safer not to. *)
X
XPROCEDURE  NumberOfArguments (): CARDINAL;
XBEGIN
X  RETURN (NumberOfArgs);
XEND  NumberOfArguments;
X
X
X(***** GetArgument *****  Routine that returns an argument.  If the
X specified argument is non-existent then an empty array is returned
X (null byte).  If the argument is shorter than the than the length
X of the array it is terminated by a null byte.  If longer, it is
X truncated. *)
X
XPROCEDURE  GetArgument ( n : CARDINAL; VAR arg: ARRAY OF CHAR);
X VAR    i,j,start,FirstArg : CARDINAL;
XBEGIN
X  IF (n < 1) OR (n > NumberOfArgs) THEN      (* invalid number *)
X    arg[0] := 0C;                           (* return empty array *)
X  ELSE
X    i := 0;                                 (* character pointer *)
X
X    IF (CommandTailPtr^[0] <> ' ') THEN
X      FirstArg := 1;
X    ELSE
X      FirstArg := 0;
X    END;
X
X    FOR j := FirstArg TO (n-1) DO
X      REPEAT                            (* search for next begining *)
X        i := i + 1;
X      UNTIL (CommandTailPtr^[i-1] = ' ') AND (CommandTailPtr^[i] <> ' ');
X    END;
X
X    start := i;                         (* i points at start of arg *)
X
X                                        (* copy argument over *)
X    WHILE ((i-start) <= HIGH(arg)) AND
X          (CommandTailPtr^[i] <> ' ') AND
X          (i < CommandTailLength) DO
X      arg[i-start] := CommandTailPtr^[i];
X      i := i + 1;
X    END;
X
X    IF ((i-start) <= HIGH(arg)) THEN
X      arg[i-start] := 0C;               (* terminate with null byte *)
X    END;
```

```
X  END;  (*else*)
XEND  GetArgument;
X
X
XBEGIN
X  CommandLineInit;                      (* initialize variables *)
XEND  CommandLine.
X
X
X
X
SHAR_EOF
if test 3836 -ne "`wc -c 'commandl.mod'`"
then
    echo shar: error transmitting "'commandl.mod'" '(should have been 3836
characters)'
fi
echo end
```

```
From -1905759978196892855
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8cd1ebcf3eb0e229,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-05 06:15:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Removal from list
Message-ID: <12196405277.8.G.ABRAMS@SU-SCORE.ARPA>
Date: Sat, 5-Apr-86 09:15:10 EST
Article-I.D.: SU-SCORE.12196405277.8.G.ABRAMS
Posted: Sat Apr  5 09:15:10 1986
Date-Received: Wed, 9-Apr-86 06:38:29 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

We have been receiving continuing rejection notics in attempts to
forward mail to the following addresses. All other attempts to
correct the situation have failed, so we are removing them from
the list(s).

If you know any of these, please advise them to contact us about
getting reinserted on the list(s).

Greg@[36.18.0.214]
csa666@IX1.UTEXAS
info-atari16@WSMR10
info-atari8@WSMR10
Knott@dockmaster
```

From 1052210937691528853
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e3e3b3d844657a1d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-05 11:20:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!micro.udel.edu!augenbra
From: augenbra@MICRO.UDEL.EDU
Newsgroups: net.micro.atari16
Subject: 1 Meg upgrade
Message-ID: <8604051917.AA00635@ucbvax.berkeley.edu>
Date: Sat, 5-Apr-86 14:20:28 EST
Article-I.D.: ucbvax.8604051917.AA00635
Posted: Sat Apr 5 14:20:28 1986
Date-Received: Wed, 9-Apr-86 06:42:07 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 337

I notice that there is still some ierest in upgrading 520's to 1 Meg.
After upgrading mine, I rewrote the document on upgrade, and posted it
to "INFO-ATARI". I don't think it made it to INFO-ATARI16. There was
a *mistake* in the other documentation that I have seen for the 1 Meg
upgrade, and my document corrects that mistake. Besides, my document
is much clearer on the installation of the 68 ohm resistors. I hope
this helps someone.

Joe Augenbraun
augenbra@udel-scrooge.arpa
April 5, 1986

I have just completed the 1 meg memory upgrade on my 520st using a 1 meg upgrade
document taken off of a bulletin board in Florida. I found the document a
little difficult to follow, and there was one major mistake in it. I am not
sure if there are different versions of the document (I think they all derive
from a posting that I saw on INFO-ATARI a while ago). Rather than sending a
correction, I decided to rewrite the whole document. I hope that this will help
those people who have yet to make the upgrade. The document below is derived
from the version of the memory upgrade that includes the 68 ohm resistors (the
one that reportedly was tested by an anonymous engineer on Atari's development
staff). My PC board has "REV. B" written on it. I'm not sure what the
different rev's are, but I'll give warning to be careful about following these
explicit instructions if your board is not REV B.

A couple of side notes:

1) I'll be happy to answer any questions about the memory upgrade (another public service) as long as the volume isn't too high. I'm augenbra@udel-scrooge.arpa

2) When I followed the (wrong) instructions that I got from the bboard the machine did not boot. As a matter of fact the screen would turn on in white or blue for one second and then go blank again. I didn't even get the boot screen. I then figured out that the instructions were wrong and made the corrections that were necessary and the machine booted. The moral is that following the wrong instructions (for anyone out there who did) is not fatal to any component, and you can get things working again by correcting the mistake.

3) I only upgraded one machine, using those old instructions. The moral of this is that I've never used the document below and it could contain mistakes. I'll read it through pretty well, though.

4) I take no credit for this upgrade. I used some of the text from the original document word for word. I forget who posted the original instructions, but he deserves any credit.

cut here----------

1 MEG MEMORY UPGRADE FOR THE 520ST

WARNING: This will void your warranty, etc.
WARNING2: This upgrade is not for beginners. You really need to have the right tools and know what you are doing to get it right. Also, if you damage the machine with this upgrade it is unlikely that you will be able to find anyone who will fix it. This upgrade involves cutting three traces on the board, so you couldn't just take out the new chips and try to send the machine back to Atari. OK, enough scare.

Tools & components needed:

16 256K * 1 RAM chips, 150 ns access time type, e. g. NEC 41256C-15 (available at Fry's Electronics, Sunnyvale, CA for $2.77 ea.)

6 68 ohm 1/4 W carbon film resistors, 10% tolerance. I used 1/2W, but I was cursing the whole time. This is because 1/2 W are really too big, so use 1/4 W if you can.

A decent soldering iron. Needs to have a tip that is the same size as an IC pin or smaller. A Weller temperature controlled station would be perfect, but I got along with my Ungar Princess.

Good quality resin core solder (thin)

A few feet of thin (24 guage is good) insulated wire

A few feet of solid copper tinned bus wire. 22 AWG would be good, I used 24 AWG with no apparent problems.

Solder sucking equipment

Normal hand tools (screwdriver, pliers, etc)

A steady hand and self-confidence

Explanation of the modification:

U15 is a memory controller chip (Atari calls it an MMU even though it isn't). It goes inbetween the 68000 and DMA devices and the memory. Thus all communications to memory is done through this chip (someone correct me if I'm wrong). The chip knows about two "banks" of memory. Each bank consists of 16 chips. These chips may be 64K, 256K, or 1M DRAMs. I'm not sure if you can have different types of chips in the different banks. As shipped, a 520ST has one bank of 256K DRAM's. These chips have all of their address lines in common. The RAS line is also common to all chips. There are two separate CAS lines, one for the lower 8 chips, and one for the upper 8 chips. All of these lines come directly from U15, the memory controller chip. There are also 3 lines available from U15 that are currently not connected at all. They are the RAS line and two CAS lines for another bank of memory.

We are going to add bank 1 (the original chips are bank 0). The new chips will be "piggy-backed" onto the original chips. All of the pins from the new chips will be connected directly to the respective pin of the original chip that it is piggy backed to except for pins 4 and 15 which get wired to the U15 bank 1 RAS and CAS. Thus the new chips share address, data, power and ground with the old chips.

All RAS pins of the new chips are wired together and will be supplied with the "RAS1" signal generated on pin 18 of U15. The CAS pins of the 8 new high order byte chips are wired together and are supplied with the "CAS1H" signal from pin 22 of the memory controller, and the 8 new low order byte chips are wired together and supplied with the "CAS1L" signal from pin 21 of U15.

Reference:

The existing memory chips are numbered from U16 to U45. There are some gaps in the numbering, but they are numbered in increasing order. The high order group, from MSB to LSB consists of U45, 44, 43, 42, 38, 34, 33, 32. The low order group from MSB to LSB consists of U30, 29, 28, 25, 24, 18, 17 and 16. One of the groups is used for even memory locations and the other is used for odd memory locations; I'm not sure which is which, though.

How to go about it:

Step 0: Read these instructions through, and do not apply power to the ST if the mod is half in.

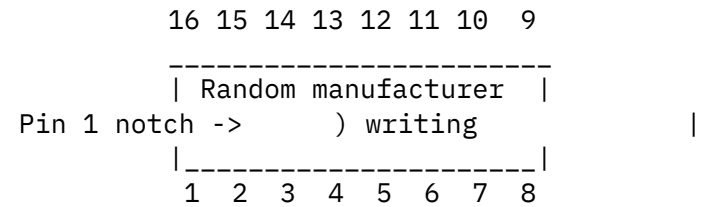
Step 1: Open up your 520ST, pull off the keyboard connector and remove the main circuit card from its top and bottom shielding. Make sure to remember which screws go where and note the keyboard connector orientation.

Step 2a: Desolder all of the capacitors next to the existing RAM chips and make sure that the holes are clear enough for the cap's to go back in easily. This step is necessary so that you have enough space to solder the new chips to the old chips.

Step 2b: Clear away any solder splatter that is sticking in nasty places on the component side of the board. This will soon be real inaccessable.

NOTE: If you damage the PC board you better fix it before going on. Things start becoming inaccessable now.

Step 3a: Take a RAM chip, and bend pins 4 and 15 (RAS and CAS) so that they are sticking up (yes a 180 degree bend). Use whatever care is necessary to keep the pins from breaking off. A rounded bend might be necessary. For those of you with poor memories (organic, not silicon), here is where pins 4 and 15 are on a 16 pin DIP. Chip is as seen from the top.



Step 3b: Place this chip on top of one of the existing RAM chips, put it on the leftmost or rightmost, whichever you prefer. Bend the other 14 pins so that it has a snug fit on the RAM chip. The bottom of the new RAM chip should be touching the top of the existing RAM chip. Now solder the 14 pins that aren't sticking up on the chip. Don't overheat, everything is static sensitive, etc.

Step 3c: Repeat 3a and 3b for the other 15 chips. No one ever said that this was going to be fun.

Step 4a: Remember those capacitors that you spent an hour taking out? You guessed it. Now you have to spend a half hour putting them back in.

Step 4b: Generally clean up the board. Look for bits of sticking solder debris.

Step 4c: Take a break, eat lunch, have a beer. You're only about half way there.

If you've done everything right so far your work should look like a combination of piggy-backed RAM chips and a bed of nails.

Step 5a: You must now take a piece of bus wire and cut it to the length of the chips. You don't need any extra length since the connection from the bus to the memory controller will be made to the middle of the bus, in a "T" fashion. Take this wire and solder it to all of the pin 4's, forming the RAS bus. Cut off any part of the IC pins that extend above the top of the wire. The wire must actually be touching the RAM chips. This is so that the wire doesnot touch the metal shielding above, i.e. so that we have maximum clearance.

Step 5b: Take another piece of bus wire and cut it to the length of the chips and wire it to all of the pin 15's. Once again make sure that it is as low as possible, actually touching the tops of the IC's. And cut off any part of the IC pin that extends above the top of the wire.

Step 5c: Cut the pin 15 bus wire in between U30 and U32, thus making the 16 chip pin 15 bus into two 8 chip buses. These are going to be the two new CAS buses.

You now have 3 buses extending above piggy-backed RAM, 2 of the buses are 8 chips long and one of the buses is 16 chips long.

Step 6: Orient the 520ST (REV B) PCB so that you are looking at the solder side (non-component side). with the row of d-rams nearest you. Find the double square pattern of pads at the 68-pin socket of the memory controller, U15 (3H-2119). The following is a guide to locating the six memory controller pins necessary to complete the wiring. It is not as convoluted as it looks. The socket is numbered CLOCKWISE when looked at from the bottom of the board (this is the mistake that I saw in another version of this document; it said counter-clockwise). The sequence starts with pin 1, the square pad (look closely) in the middle of the bottom outside row. The sequence, moving clockwise from pin 1, first on the outside square ONLY: (NOTE: the sequence ")(" means to make a 90-degree turn clockwise, e.e. around the corner)

```
1,3,5,7,9)(10,12,14,16,18,20,22,24,26)(27,29,31,33,35,
37,39,41,43)(44,46,48,50,52,54,56,58,60)(61,63,65,67
```

The sequence, moving clockwise along the inside square only, and starting with the left side of the bottom row:

```
62,64,66,68,2,4,6,8)(11,13,15,17,19,21,23,25)(28,30,32,
34,36,38,40,42)(45,47,49,51,53,55,57,59
```

Six 68 ohm resistors are used in the upgrade. 3 go to the RAS and CAS lines of the new bank, and 3 go to the RAS and CAS lines of the original bank. These series terminating resistors minimize overshoot which may damage BOTH BANKS of memory if ommitted. The upgrade will not work right if you try to get away with just the 3 for the new bank. So bite the bullet and go for all six.

Step 6a: Solder a 68 ohm resistor to pin 18 of U15, RAS1. Solder a 24 AWG stranded wire from the remaining end of the 68 ohm resistor to the pin 4 bus (RAS) of the new d-rams.

Step 6b: Solder a 68 ohm resistor to pin 22 of U15, CAS1H. Solder a 24 AWG stranded wire from the remaining end of the 68 ohm resistor to the pin 15 bus (CAS) of the new U45, 44, 43, 42, 38, 34, 33, 32.

Step 6c: Solder a 68 ohm resistor to pin 21 of U15, CAS1L. Solder a 24 AWG stranded wire from the remaining end of the 68 ohm resistor to the pin 15 bus (CAS) of the new U30, 29, 28, 25, 24, 18, 17, 16.

The other 3 resistors go in series with the RAS and CAS lines to the original chips. This means that you have to cut three traces.

Step 6d: Find the traces leading from pins 6, 7, and 8 of U15 to the RAS and CAS lines on the original chips. On my board these traces ran on the component side of the PCB from the memory controller socket downward. (For this discussion the PC board is oriented with the component side up with the memory chips towards you). My board has some of the memory controller pin numbers printed on the board, specifically the numbers 1,9,10,26,27,43,60. The traces are three traces that run together straight for about a centimeter below and to the left of the pin 9 number on my PC board. They run together for maybe 2 cm altogether, but they are straight and close for only 1 cm of that. When you think you've found the right traces scrape off the green stuff and get down to metal and check your findings with an ohmmeter. If you are not right, find the right traces. If you are right, cut all three traces. That's right, make it so that there is no connection.

Now we will reconnect the three traces, but with 68 ohm resistors instead of a 0 ohm wire.

Step 6e: Connect one side of a 68 ohm resistor to pin 7 of U15. Connect the other side to the board-through solder pad that is to the left of pins 1 and 2 of U16. You will note that this connects directly to left-most of the three traces that we cut.

Step 6f: Connect one side of a 68 ohm resistor to pin 6 of U15. Connect the other side to the board-through solder pad that connects to the middle trace that you cut.

Step 6g: Connect one side of a 68 ohm resistor to pin 8 of U15. Connect the other side to pin 4 of U16. This is the last connection.

Step 7: Sit back. Use Brain. Do you feel confident about the quality of your work? No mistakes? No resistor leads shorting PC board metal? No solder splatters that haven't been taken care of? Applying power with errors might make your ST into a decorative, non-functional piece of art. OK? Either rebuild your ST into its shielding and cabinet or, or put it onto a surface clear of wires and solder remains (the better way. No way that shorting to shielding is a problem) and connect it to the mouse, monitor, power supply and disk drive. Boot it. If it boots your probably there. Test if the new

memory works by looking at the phystop variable ($42e) with SID or BASIC. It should read $100000. Also note that memcntlr ($424) now holds 5 instead of 4, and that v_basf_ad ($44e) now holds $f80000 (screen bitmap origin). Or you could try a single drive copy and check that it gets the whole disk in one buffer instead of 2.

In case of difficulty:

If the new memory does not seem to exist, try depositting and retrieving words in locations $80000 and up (1/2 meg decimal). If bit errors occur the ST bootROM did not detect the extension (it checks all bits of 512 locations by testing a pseudo random sequence before accepting a memory bank). Check which bits are screwed up and look in the reference part of this document and try to correct the problem. Note that if you get $84 $80 $84 $80 in all memory at $a00000 and above it means that you didn't cut the traces on the board right. Check those traces with an ohmmeter across the resistor. It will read 0 ohms if the traces weren't cut right.

If the machine doesn't boot (doesn't even give the boot screen) you either made a wiring mistake or burnt something out (or I made a documentation mistake;If there are any differences between this document and the older one that you have seen besides the clockwise vs. counterclockwise thing, the older one is right, because that is what I wrote this one from). Look for wiring mistakes, have some rational human being check your work. Look for insidious bits of solder or wire debris. If you are determined that you burnt out something, try the memory controller first since it is socketed. Find some benevolent soul with an ST and try your controller in his. If that works, my guess is that you fritzed the memory, and you should either desolder it and test it in an IBM PC or something or cut it out and put in new memory and call it a $100 loss. You could cut your losses by buying a memory expansion card. I understand that they require you to cut out the existing chips. Sorry I don't have any better idea.

What do I do with it now that I have it:

There is a PD 360K ram disk program for a 1 Meg expanded ST. I haven't tried it yet (I just put the memory in 2 hours ago, and that 2 hours was used for writing this document), but that's why I want the memory.

Joe Augenbraun
augenbra@udel-scrooge.arpa
January 26, 1986

From -425550253334468165
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-05 14:36:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.1 6/24/83; site pur-ee.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <4003@pur-ee.UUCP>
Date: Sat, 5-Apr-86 17:36:12 EST
Article-I.D.: pur-ee.4003
Posted: Sat Apr 5 17:36:12 1986
Date-Received: Thu, 10-Apr-86 21:18:26 EST
References: <54600010@iuvax.UUCP> <1988@brl-smoke.ARPA> <149@molihp.UUCP>
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 12
Keywords: ACTUALLY, TOS in ROM and Intersect RAM disk

In article <149@molihp.UUCP> robt@molihp.UUCP (Robert L Thurlow) writes:
>   ... The
>Intersect ramdisk tells you, but it cannot allocate a ramdisk with TOS
>in ROM, so it is a little big just to spy on the size. Maybe the
>Intersect ramdisk could be smarter, too.
>
  I don't know if I am the exception, or if I have misread the above text;
but I daily set up a 350K Intersect RAM disk and run OSS Pascal off of it.
I don't have any problems with the combination. I am NOT flaming, more
like questioning if I should look out for some mysterious bug?

                 Bob

From -5681834217912043152
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-05 21:56:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: re: writing to Apple about MacCartridge
Message-ID: <8604060607.AA07358@ucbvax.berkeley.edu>
Date: Sun, 6-Apr-86 00:56:17 EST
Article-I.D.: ucbvax.8604060607.AA07358
Posted: Sun Apr 6 00:56:17 1986
Date-Received: Wed, 9-Apr-86 07:08:25 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I agree with the idea that writing to Apple to offer support for
the MacCartridge might be helpful to those developing this product, but
how can they be convinced that the $100 or whatever they might make

on each cartridge isn't just a loss of $2500 for the Mac and peripherals
that they didn't sell (and Atari did)? It would be great if Apple
gave the okay and allowed them to market their cartridge, but I don't
know if there are too many good reasons why Apple would want to do that.
David Small also said that selling the cartridge without the ROMs was
not something he would consider.

- Brian Reilly

From 3659910197110960457
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2ef464ad6429a89,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-06 10:33:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83 based; site houem.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!houem!plp
From: plp@houem.UUCP (P.PFAUTZ)
Newsgroups: net.micro.atari16
Subject: printers for ST
Message-ID: <505@houem.UUCP>
Date: Sun, 6-Apr-86 13:33:18 EST
Article-I.D.: houem.505
Posted: Sun Apr 6 13:33:18 1986
Date-Received: Wed, 9-Apr-86 21:46:31 EST
Organization: AT&T Bell Labs, Holmdel NJ
Lines: 3

I'm trying to decide on a printer to use with my 520ST. I'm interested
in dot matrix primarily and want something that works with First Word since that's
the major piece of software I'll be using. Recommendations?
Thanks.

From 9195130243728393951
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f0f0a95e55e575ee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-06 18:39:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: MacCartridge company address
Message-ID: <8604070946.AA00452@ucbvax.berkeley.edu>
Date: Sun, 6-Apr-86 21:39:20 EST
Article-I.D.: ucbvax.8604070946.AA00452
Posted: Sun Apr 6 21:39:20 1986
Date-Received: Wed, 9-Apr-86 22:25:43 EST
Sender: daemon@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 16

For those people who requested this information:

Data Pacific
P.O. Box 10805
Marina del Rey, CA 90295
tel. 213-821-2623

are the makers of the MacCartridge. Their flier says to write or call
for "a chance to win the first cartridge to be produced."

At an Atari demo session today at the West Coast Computer Faire, someone
from Atari said they wanted to start a rumor that they were developing
a cartridge for the Mac that would let it run ST software...

- Brian Reilly

From 5386255026636119621
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c02853b2f7c6c1d6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-06 19:29:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!whuxl!whuxlm!akgua!
gatech!seismo!umcp-cs!eneevax!andre
From: andre@eneevax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Using the ST as a VAX terminal
Message-ID: <597@eneevax.UUCP>
Date: Sun, 6-Apr-86 22:29:06 EST
Article-I.D.: eneevax.597
Posted: Sun Apr 6 22:29:06 1986
Date-Received: Wed, 9-Apr-86 22:41:51 EST
References: <860403-131052-1617@Xerox>
Reply-To: andre@eneevax.UUCP (Andre Tits)
Organization: U of Maryland, EE Dept., College Park, MD
Lines: 6
Summary: A new graphics terminal emulator

You may want to look at AnsiGraf, by Grafikon, Inc.
I have been using it for awhile and it seems to be very complete.
Persons to contact are gyuri@cvl.umd.edu and ravi@eneevax.umd.edu
--
ARPA: andre@eneevax.umd.edu
UUCP: [seismo,allegra]!umcp-cs!eneevax!andre

From 2612763858956592204
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,d3330e7644dde4c5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 04:02:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari16
Subject: What you always wanted to know but never dared ask!
Message-ID: <293@cernvax.UUCP>
Date: Mon, 7-Apr-86 07:02:59 EST
Article-I.D.: cernvax.293
Posted: Mon Apr 7 07:02:59 1986
Date-Received: Thu, 10-Apr-86 00:34:48 EST
Reply-To: jmg@cernvax.UUCP (Mike Gerard, DD Division, CERN.)
Organization: CERN, Geneva/Switzerland
Lines: 37

The story so far (especially for the line-eater)

Now that I have got an ST1040 (I bet it's the first in Switzerland!)
I have to think about software. Most of this newsgroup seems to be
people with early STs, possibly 520, possibly TOS on disk, probably
with the developer's kit (including DR C-compiler). It ain't me, babe!

So what do I want (beg, borrow or buy)? Answer: C-compiler, terminal
emulator with Kermit, RAMdisk, word-processor (with possibility of
accented characters), assembler, reference guide and general utilities.

So why am I boring you with all this? Answer: because the choice is wide,
and getting wider. Therefore, has anyone opinions on the best:-

C-compiler: DR (is it available?), Lattice C, Megamax, GST, other?
        Must produce good code (# dhrystones!) and be ergonomic.

Emulator: Want VT-100 (or 220), preferably with Kermit. Is anyone
        yet distributing Kermit, either on a disk or with utility
        software to bootstrap?

RAMdisk: Must work with TOS. Public Domain? K-RAM?

Word-processor: On my CBM64 I like PaperClip, but maybe with the 1040
        a WYSIWYG is nice? ST-writer is a pain to put in accented
        characters.

Assembler: PD or buy?

Reference Guide: How about the one published by Abacus: is it any good?

General Utilities: Keith Hall offers a fair number: any other offers.

I am willing to act as a clearing house for my area.
Thanks for any info, and happy 1040ing.

Mike Gerard

From 1007674446975401726
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6bd1c8e902e4849a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 05:12:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!HIS-PHOENIX-MULTICS.ARPA!Gauriat
From: Gauriat@HIS-PHOENIX-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: ASTEK a graphic terminal emulator for the ST
Message-ID: <860407131238.566529@HIS-PHOENIX-MULTICS.ARPA>
Date: Mon, 7-Apr-86 08:12:00 EST
Article-I.D.: HIS-PHOE.860407131238.566529
Posted: Mon Apr 7 08:12:00 1986
Date-Received: Wed, 9-Apr-86 22:32:49 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 30

For professional use, we have developped an Atari ST Tektronix (tm) "ASTEK" emulator with the following features:

- to be used with monochrome system only,
- offers choice and settings by menus and dialog boxes,
  mapping of graphic space: 1024x780 -> 512x390,
  full emulation of 4010-4012,
  emulation of 4014 vector mode,
  interprets some sequences of 4105 format: line attributs, marker type, fill area style. Dynamic drawing is possible without refreshing the entire screen.
- enables graphical input with mouse and keyboard,
- offers choice for local character size (between the three system fonts),
- presents text in one or two-columns mode (without scrolling) in Tek mode,
  Save of graphical screen (now in Degas format) on disk file for later local enhancement and hard-copy.
- return to alphanumeric (VT52) mode with vertical scrolling at any time,
- break signal capability....

The first version of ASTEK was presented on the Atari Software Show in Paris (18 march 1986) and a copy was given to Atari Corp via Atari-France to be evaluated. Many professionals have showed interest in this product.
Therefore, we plane to distribute it with charge (ranging $100-$150) should Atari Corp. decide not to act as distributor.

Gauriat Pierre
Institut de Recherche sur les Transports et leur Securite (INRETS)
BP 34

94114 ARCUEIL Cedex France
Phone (1)45 81 12 12 Telex INRETS 204454F

From 8633545071750199145
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c047c84eab5f817,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 09:32:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Intersect RAMDISK (I got it to work!
Message-ID: <54600050@iuvax.UUCP>
Date: Mon, 7-Apr-86 12:32:00 EST
Article-I.D.: iuvax.54600050
Posted: Mon Apr 7 12:32:00 1986
Date-Received: Fri, 11-Apr-86 01:34:20 EST
References: <14085829@MEDIA-LA.UUCP>
Lines: 9
Nf-ID: #R:MEDIA-LA:-1408582900:iuvax:54600050:000:375
Nf-From: iuvax!franco   Apr 7 12:32:00 1986

I beg your pardon. I answer all my mail and do not refuse information except that which is sensitive or confidential. If I were so unconcerned about your problems why would I have posted the RAMDISK in the first place. Your request for info was either lost getting to me or I could not figure out your return address. I suspect the former.

John Franco
Indiana University

From 1932618659352125336
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,2bd79d79de85d600,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,2bd79d79de85d600,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 10:58:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site ttrda.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!cuae2!ltuxa!ttrdc!ttrda!dwd
From: dwd@ttrda.UUCP (Dave Dykstra)
Newsgroups: net.micro.atari16,net.micro.amiga
Subject: atari monitor on amiga?
Message-ID: <149@ttrda.UUCP>
Date: Mon, 7-Apr-86 13:58:18 EST
Article-I.D.: ttrda.149
Posted: Mon Apr 7 13:58:18 1986

Date-Received: Thu, 10-Apr-86 21:22:20 EST
Organization: AT&T, Computer Systems Division, Skokie, IL
Lines: 11
Xref: watmath net.micro.atari16:395 net.micro.amiga:2634

[---]

I have measured a monitor for the Atari 520ST and it looks like it will
fit in my limited space on top of an Amiga. Has anyone tried hooking up
the Atari monitor to an Amiga? Does anyone know where I can get one?

Thanks!

     Dave Dykstra
     ihnp4!ttrdc!ttrda!dwd

From 8902408119499859768
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8422c5ed103a57c6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 15:13:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: MacCartridge
Message-ID: <323@imagen.UUCP>
Date: Mon, 7-Apr-86 18:13:12 EST
Article-I.D.: imagen.323
Posted: Mon Apr 7 18:13:12 1986
Date-Received: Thu, 10-Apr-86 00:17:09 EST
References: <8604050705.AA21284@ucbvax.berkeley.edu>
Organization: The Houses of the Holy
Lines: 34

> In case you did not go to the West Coast Computer Faire, here is some more
> information about the MacCartridge. It was displayed at the faire
> by the developers and it looked pretty good. I can't remeber the name
> of the company, but I have it on a flyer and will send that along tomorrow.
>
> - Brian Reilly
> -------

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~

the name of the company is:

Data Pacific, Inc
PO Box 10805
Marina del Rey CA 90295
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

(213) 821-2623

if you drop them a line they will enter you into a contest to win
the first catridge to be produced. Please indicated whether you own:
Macintosh
520ST
1040ST or
Want Apple ROM set included
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 5832878510289561532
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,84b65d94d2465937,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 16:24:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!mit-
multics.arpa!Brian_Moore%UB-MTS%UMich-MTS.MAILNET
From: Brian_Moore%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <134662@UB-MTS>
Date: Mon, 7-Apr-86 19:24:44 EST
Article-I.D.: UB-MTS.134662
Posted: Mon Apr 7 19:24:44 1986
Date-Received: Thu, 10-Apr-86 07:14:09 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 64

Subject: Distribution theory

    I have had a lot of interesting
people online the Club Network lately,
many who had had a chance to chat, and
I seem to find STRANGE distribution
channels coming from Atari.

   Having talked to people from all
over the country, it does seem that
Atari is attempting to starve out

distributors by PURPOSELY delaying shipping to them. While I can empathize with Atari preferring dealers deal directly with them, Atari's "severe" (to many smaller stores) policy of a $3000 minimum order means dealers are essential to these smaller firms who want Atari's to sell. In fact, the local Atari store is selling as many ST's as it can get it's hands on. If it can get any, that is.

Also, EVERYONE but Lansing, MI seems to be able to get ROMs. Gee, I thought Lansing, being the capitol of Michigan, at least -sort of- qualified as a major population center (culture is not an issue...) and as such, might deserve SOME attention. But I guess not. And here was have one of the biggest (only?) automotive plants too (makes the Pontiac Grand AM, Olds Calais etc. body) which means a large group of at least somewhat educated buyers.

Perhaps it's because the only Atari dealers in town have to resort to - god forbid - dealers, because of the size of computer operations locally, but if this is the case, then the "policy" Atari seems (note "seems") to have formed is going to cost them a city. If Atari doesn't up the quality of service and shipping soon, especially with TOS on ROM, of which today we got our ONE AND ONLY, no exxageration, set in all the city JUST TODAY, then this city (with it's strong IBM/GM PC-compatible drive) is going all IBM PC compatible. Period.

I guess I can't disagree with Atari wanting some working capitol, but if they want the dealers out of the picture, they ought to at least chin up and say it.

Terry Conklin
Club Network desginer
The Club (517) 372-3131
Club II (313) 334-8877
Public access 300/1200
or Terry Conklin@UMich-MTS.Mailnet

From 3359506515583395153
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c02853b2f7c6c1d6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 16:34:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Using the ST as a VAX terminal
Message-ID: <54600051@iuvax.UUCP>
Date: Mon, 7-Apr-86 19:34:00 EST
Article-I.D.: iuvax.54600051
Posted: Mon Apr 7 19:34:00 1986
Date-Received: Fri, 11-Apr-86 01:42:13 EST
References: <860403@Xerox.UUCP>
Lines: 3
Nf-ID: #R:Xerox:-86040300:iuvax:54600051:000:119
Nf-From: iuvax!franco   Apr 7 19:34:00 1986

I use my ST as a dialup terminal for a VAX 11/780. The VT52 emulator is
not too bad once you have the proper termcap.

From 3337912252854230287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bc201c1f5411875a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 17:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: ST software
Message-ID: <54600054@iuvax.UUCP>
Date: Mon, 7-Apr-86 20:31:00 EST
Article-I.D.: iuvax.54600054
Posted: Mon Apr 7 20:31:00 1986
Date-Received: Fri, 11-Apr-86 01:42:29 EST
Lines: 71
Nf-ID: #N:iuvax:54600054:000:3481
Nf-From: iuvax!franco   Apr 7 20:31:00 1986

I am the person who offered to copy three disks worth of ST software for
anyone wishing it. I would like to report that so far this operation is
going very smoothly. I get an average of one request a day and everyone
has cooperated nicely by sending postage, a SASE, packing material.

Therefore, the offer still stands. The following items are on the disks:

Languages: XLISP, TINY BASIC, PROLOG (built on top of XLISP) and, until
I hear an objection from Mr. Bradley, the FORTH I posted
earlier.

Accessories: Breakout, Puzzle, CLI, Clock, Fontload, 4 RAMDISKS, Snapshot,
File, memory, disk editor (plus a few others)

FONTS (for fontload.acc): about 30 fonts (inc. Greek and Hebrew)

Utilities: drive checkers, icon editor, microemacs, disk editor, crash
analyzer, fast copier, pack/unpack (for transmission of many
files (like shar but not as sophisticated)), squeeze/unsqueeze
(we all know what that is, right?), UUDECODE, CLI, working
spooler, xmodem/vt52 emulator (from CWRU and better than anything
I have seen sold in stores), utility to change volume labels on
disks (surprizingly handy once you have it) plus a few more.

C Source: all XLISP, XMODEM .c,.h

Docs: XLISP, microemacs plus some utilities (not a complete set since I do
not have a complete set.

By the way I received, copied and sent back disks to the following people
who I could not reach using CSNET: DeMillo, Skehan, Moore, Chiu, Gibson.
I hope you got your disks ok.

Notes: The FORTH only works with TOS in ROM.
The FONTS only work with TOS in RAM.
Put all fonts on a separate disk, hit font accessory - follow prompts
TOS in ROMers need only have a second boot disk with the
fontload.acc (renamed to deskn.acc where n is an integer between 1
and 6) and TOS.IMG (hope you did not throw that away).
The INTERSECT RAMDISK is hard to set up as has been pointed out.
It has two problems: you must cycle power on the 520ST module (not
too serious - the chips should be able to stand it) to reboot and
it uses 50k more space than it should. But it is very handy since
it can be resized and removed easily. If I need as much of my 1 MEG
as I can get (for C compiles) I use the 650k or the 709k ramdisks
(from the ATARI BBS). These beauties take almost no extra space
but are always in place. To set up all RAMDISKS create drive icon
D and save desktop (more details in docs).

You may send your disks, SASE, packing material to

John Franco
2535 Spicewood Lane
Bloomington, IN 47401
USA

Special requests honored as long as demand remains steady.

Note: If you are mailing from outside the United States please enclose
       $2.50 US instead of postage (Bloomington, Indiana is located in
       the middle of the USA and people here have only vaguely heard of
       places like Germany or France so you can imagine that sending your
       native currency to me, as pretty as it might be, is useless) or one
       disk (disks here in Bloomington cost between $2.00 and $2.50 in
       packages of 10 - what do they cost where you live?)

Remember: You are taking a risk - your disks might be lost or damaged in
          the mail and I cannot be responsible for that.

Also: If I get too many requests I will raise a flag on the net until
       I am caught up.

From -5733171183362089578
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2ef464ad6429a89
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 18:12:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: printers for ST; review of FUJITSU DL-2400 24-pin COLOR printer!
Message-ID: <8604080029.AA21121@mitre-bedford.ARPA>
Date: Mon, 7-Apr-86 21:12:24 EST
Article-I.D.: mitre-be.8604080029.AA21121
Posted: Mon Apr 7 21:12:24 1986
Date-Received: Thu, 10-Apr-86 00:06:32 EST
References: <505@houem.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 84

I just went through the printer selection process myself recently and ended up
with a rather expensive but really nice printer, the FUJITSU DL-2400C. It is
a 24-pin dot-matrix unit. Its letter quality mode is extremely good,
definitely good enough to send out business letters or camera-ready book
manuscripts in, in my opinion. Speed is 216 cps draft at 10 cpi and about 288
cps draft at maybe 15 cpi (a little compressed). It really flies along in
draft mode. Letter quality mode is about 96 cps, which is still far faster
than most inexpensive printers. This unit supports IBM and Epson graphics, so
should plug in and play with most mainstream software. It worked perfectly
with my Atari 800XL and Speedscript word processing software, which certainly
was not tailored to this particular printer.

It also has both parallel (Centronics) and RS-232 serial ports, selectable
from the front panel. The serial port parameters can also be selected from
the panel. A bidirectional tractor feed is included in the basic price
(better check this on all models). Automatic cut-sheet feeders are available
with 1, 2, or 3 bins. (Letterhead, memo, and second-sheet can be loaded all

at once with 3 bins.) Paper handling is superb. Dot registration on fine graphics drawings is absolutely perfect, though probably you would have to do such things in unidirectional mode to match the perfection of the demo printouts. This machine is one of the few I have seen that you can run with single sheets without unloading the tractor mechanism. Press the "unload" button and the tractor feed paper backs out of the way so you can feed single sheets. Press "load" (=form feed) and it moves back up into position with the top of form automatically aligned with the print head and ready to go. You can also form feed the paper so you can tear off what you just printed, then reverse-form-feed it so you don't have to keep wasting sheets of paper. Now that I am paying for the paper myself, this really hits home!

This printer also prints in seven colors! I will be paying around $890 for it, but was quoted a price of $782 without color. I don't know what I need color for, but I thought for ~$100 more, I decided it would be fun to have and for some home business applications, you could save that much real fast by not having to go get letterhead printed up!

Some other amazing features are: Hex Dump mode. Ever want to print out a binary file without skipping half the characters and blowing away your printer with the others. This unit will do it. How about automatic skipping of perforations? Want to set a left margin to print some text that has no indentation at the left? No sweat, a few keystrokes at the panel does it. How about automatic right justification? Proportional spacing? Download your own font? The unit has two standard ones built in which by the way take care of most of the European languages. There are also plug-in font cartridges, including I believe a RAM cartridge that you can program any way you want. Any of the fonts can be rendered in italics, bold, double width, double height and various other options by means of software linear transformations in the printer. With all this programmability, it's a good thing the self-test mode starts by printing out all the options you have selected!

In case you wondered, I am very definitely a FUJITSU DL2400 enthusiast right about now!

Other 24-pin units worthy of consideration are the Epson LQ-1000 or 1500, the NEC P5 or P6, and a Toshiba model I don't recall the number of (maybe P324?). Oh yes, there is a Star Micronics 24-pin unit also, which Analog magazine brags about with regard to the print quality of their program listings these days.

If super letter quality is not important to you, the Epson RX-85(?) would be a good choice. It is a 9-pin unit, but manages to come up with pretty darn good NLQ output. It is about as fast as the FUJITSU. A friend of mine who is very knowledgeable bought one and is very pleased with it.

For El Cheapo models, the Panasonic KX-1091 is widely regarded as a "best buy" with good NLQ output and a low price of about $230 mail order. Higher priced Panasonic models (1092, 1093) have higher speed but about the same quality. The Epson FX-85 is another fine little printer, Okidata is widely mentioned as a good choice, and oh yes, the Centronics GLP ("Great Little Printer") is an inexpensive choice that my FUJITSU salesman suggested. He seems to give good advice, so I suppose it would do well by you.

I think any of the above would serve you well if the speed/price tradeoff suited you. Personally I am "sold" on the 24-pin approach, as the output quality is a cut above "everybody's dot matrix printer" and people tend to\be startled to learn that it is a dot matrix unit. And the ability to print in color is rather dramatic! Finally, if you do a lot of printing of long drafts and your time is as limited as mine, you REALLY should get a high-speed unit that can print drafts at 200-plus cps. It's amazing how quickly you get used to this speed and how painfully slow other people's printers seem when you do!

-John Sangster
jhs@mitre-bedford.arpa
...ihnp4!linus!mbunix!jhs
(617) 271-2515 (work)/235-8753 (home)

From 7537228168424349759
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a13bcbbbd4bd6b2a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 21:35:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sfucmpt.uucp
Path: utzoo!utcsri!ubc-vision!sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: ST hard disk, repeat request for info
Message-ID: <135@sfucmpt.uucp>
Date: Tue, 8-Apr-86 00:35:48 EST
Article-I.D.: sfucmpt.135
Posted: Tue Apr 8 00:35:48 1986
Date-Received: Tue, 8-Apr-86 04:29:27 EST
Distribution: net
Organization: Computing Science Dept
Lines: 44

.

I originally posted this (a month ago) to net.micro since our site wasn't getting net.micro.atari16. We have not had reliable news service up until now (and we now have atari16) so I am reposting to the right group. Sorry if you've seen it before.....

 Does anyone out there know what is required to convert the dma port on the ST to a real SASI interface. I would like to use a fast 40mb st506 drive and sasi interface I already have on my ST. Apparently the developers drive has a little board with a half dozen 7400 series ics plus one pal and this then connects between the ST and an Adaptec sasi controller. How about someone with the developers drive divulging the contents of the "little board" and which model adaptec controller is used?

Is there a schematic with the developers drive? Could someone
post it?

Although complete compatibility with the developer's drive would
obviously be nice I can live without that as I don't see writing
a custom device driver as a problem - so if anyone has ideas for
an interface circuit that wouldn't be 100% compatible that would
still be interesting.

BTW - I (and I'm sure a lot of other people) would like to know how
      people with the hard drives feel about them & their performance
      (and just what the price is).

Many thanks in advance for any help,

     john chapman

.....!{watmath, utcsri, alberta}!ubc-vision!sfucmpt!sfulccr!chapman

--

 john chapman

 email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
 not the address in the header.

From -8944824216790989814
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,66a83bbcd816741c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-07 22:03:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sfucmpt.uucp
Path: utzoo!utcsri!ubc-vision!sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: new STs, connectors
Message-ID: <136@sfucmpt.uucp>
Date: Tue, 8-Apr-86 01:03:15 EST
Article-I.D.: sfucmpt.136
Posted: Tue Apr 8 01:03:15 1986
Date-Received: Tue, 8-Apr-86 04:29:47 EST
Distribution: net
Organization: Computing Science Dept
Lines: 28

Can anybody out there (particularily Atari (neil?) if they are listening) help
with these questions:

1. Is it true the new 520STs have ntsc and rf modulator outputs?
   Will atari retrofit the original STs? or better will Atari provide

the necessary details so we can do it ourselves? There are unpopulated, but etched, areas on the pc board - is this what was supposed to go there?
Alternatively will Atari sell us the connectors for the video socket so that we can connect to other monitors (I for instance have I a monochrome system but I would like to be able to use a cheap rgb monitor or tv for playing the occasional game) or ntsc encoders.

2. Will Atari sell the connecctors for the hard disk and midi ports?
Has anyone found an alternative source for any of these connectors?
Is there a source of blank rom cartridges (everything but the proms)?

Thanks in advance for any help anyone can give.

--

john chapman

email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
not the address in the header.

From 692945722357683049
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,815bab577f369af4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 00:15:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sfucmpt.uucp
Path: utzoo!utcsri!ubc-vision!sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: make facility for the ST
Message-ID: <137@sfucmpt.uucp>
Date: Tue, 8-Apr-86 03:15:34 EST
Article-I.D.: sfucmpt.137
Posted: Tue Apr 8 03:15:34 1986
Date-Received: Tue, 8-Apr-86 04:30:21 EST
Distribution: net
Organization: Computing Science Dept
Lines: 12

.
I am posting (to net.sources) the C source to a 'make' utility.
I will mail uuencoded executables to anyone who doesn't have access
to a C compiler on the ST.

--

john chapman

email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
not the address in the header.

From 7682941406849077794
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8814d0437edb7bea,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 05:52:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site trwrba.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
sdcrdcf!trwrb!trwrba!mdf
From: mdf@trwrba.UUCP (Mark D. Falleroni)
Newsgroups: net.micro.atari16
Subject: Upgrade help needed
Message-ID: <1980@trwrba.UUCP>
Date: Tue, 8-Apr-86 08:52:17 EST
Article-I.D.: trwrba.1980
Posted: Tue Apr 8 08:52:17 1986
Date-Received: Sat, 12-Apr-86 22:51:06 EST
Organization: TRW EDS, Redondo Beach, CA
Lines: 22

Help! The local electronics store just finished installing
the second upgrade in my ST. On boot-up, a ram-size program shows
about 901-902K available. Using MDISK, I allocate a 720K ram disk and
place the development C compiler (all 3 programs) and a source file
in the ram disk. I start compiling and when the second pass of the
compiler is to be loaded, anywhere from 2-4 bombs consistently appear.
If I reboot, and allocate a ram disk < 300 K, the source compiles without
error.
  The upgrade was installed with resisters and 150 ns. rams. It appears
that the larger ram disk forces the compiler to be loaded in the upper
512K of ram. Does the above description indicate an addressing error?
Is the MMU chip bad? I noticed that when pin 18 of the MMU chip (RAS)
is touched with an oscilloscope probe, the screen goes bananas. The
same thing happens when the RAS pins of the upgrade are touched.
I sure would appreciate any help on this one.

         thanks,
              Mark Falleroni
              TRW Ogden Engineering Office
              Ogden, Utah 84401
              <mdf>

From -3127252160532117648
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 125dc4,aa62644ffc9da75f,start
X-Google-Attributes: gid125dc4,public
X-Google-Thread: 15517a,aa62644ffc9da75f,start

X-Google-Attributes: gid15517a,public
X-Google-Thread: 140593,aa62644ffc9da75f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 07:28:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.games,net.micro.pc,net.micro.atari16
Subject: Infocom takeover
Message-ID: <2089@uwmacc.UUCP>
Date: Tue, 8-Apr-86 10:28:53 EST
Article-I.D.: uwmacc.2089
Posted: Tue Apr 8 10:28:53 1986
Date-Received: Thu, 10-Apr-86 07:19:35 EST
Organization: UWisconsin-Madison Academic Comp Center
Lines: 30
Xref: watmath net.games:2697 net.micro.pc:7717 net.micro.atari16:389

Roughly quoting from PC Products magazine regarding Infocom, Inc. and
its venture into the business community with a DB product called
"Cornerstone:"

> "...although Cornerstone was received favorably in the trade press,
> the $495 package failed to attract enough attention to survive in
> the tough and un-gamely business software market. The result:
> Infocom reduced the price of its software to $99. A few days later,
> it was announced that the firm was acquired by Activision...for
> a reported $7.5 million stock swap."

The article goes on to say that the development - and flop - of Cornerstone
drained enough of Infocom's resources that they had to let 65 employees
go, and this is part of what made it an easy target for a takeover.

This may explain why I haven't received my "New Zork Times" lately. Also, does
this mean that all future "Infocom" games are actually coming from the
"Mind of Activision"?

Depressing news always makes me thirsty...

--

--- Rob DeMillo
Madison Academic Computer Center
...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
who can you trust...?"
-- Mildred Crebs

From -3399993232411935364
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 15c82e,de44f99b2f9ded91,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,de44f99b2f9ded91,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 07:49:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site rose3.UUCP
Path: utzoo!watmath!thunder!mmm!rosevax!rose3!kent
From: kent@rose3.UUCP (Kent Schnaith)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Missing atari news
Message-ID: <149@rose3.UUCP>
Date: Tue, 8-Apr-86 10:49:23 EST
Article-I.D.: rose3.149
Posted: Tue Apr 8 10:49:23 1986
Date-Received: Sat, 12-Apr-86 01:30:41 EST
Distribution: net
Organization: Rosemount Inc., Minneapolis, MN
Lines: 6
Xref: watmath net.micro.atari8:142 net.micro.atari16:409

I haven't seen any atari news since the net.micro.atari8 and
net.micro.atari16 newsgroups were created.

This is a test message.

Would someone somewhere please look into the problem.

From -8853523103313386425
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,429c97c65ee41f32,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 17:23:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!glacier!bridge2!pvf
From: pvf@bridge2.UUCP (Paul V. Fries)
Newsgroups: net.micro.atari16
Subject: Logbase/Physbase and Screen Dumps
Message-ID: <157@bridge2.UUCP>
Date: Tue, 8-Apr-86 20:23:53 EST
Article-I.D.: bridge2.157
Posted: Tue Apr 8 20:23:53 1986
Date-Received: Thu, 17-Apr-86 04:49:35 EST
Distribution: net
Organization: Bridge Communications, Inc., Mountain View, Ca
Lines: 31

I think I have found a slight bug in the handling of the
screen dump to printer capability. The situation is this;
I have written a program that does some extensive graphics
work on the screen in an iterative fashion. In order to

prevent the user from seeing the mechanics of the update
on the screen, I have used careful manipulation of physbase
and logbase so that the system is never displaying the
screen that is being updated. That is, I keep two copies
of the screen memory. While the update is taking place,
physbase points to the saved copy while logbase points to
the screen in which the updated data is being computed.
When the update cycle is complete, I swap the pointers, copy
the updated data to the save screen, swap the pointers back
again and begin the next update. The result is a screen
that changes instantaneously as far as the user is concerned.
All of this work 100% as expected and I get a crisp, virtually
instant change from one cycle to the next.

The problem came when I tried a screen dump to my printer. The
output contained a picture that was partially updated. I assume
that this means that TOS did the screen dump from the area whose
address was found in the logbase pointer.

I believe that the screen dump routine should be using the
physbase pointer, as all I have read implies that the screen
dump capability should give you a printout of what is visible
on the actual screen.

Have I found a bug? Is there any way to fix it?

PS The machine is a vanilla 520 ST with TOS in EPROM.

From -5772133520167447451
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 18:05:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!talcott!panda!genrad!decvax!decwrl!
pyramid!hplabs!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: macintosh software on the atari 520/1040ST
Message-ID: <1425@ism780c.UUCP>
Date: Tue, 8-Apr-86 21:05:35 EST
Article-I.D.: ism780c.1425
Posted: Tue Apr 8 21:05:35 1986
Date-Received: Mon, 14-Apr-86 02:02:15 EST
References: <8603312048.AA04645@ucbvax.berkeley.edu> <1297@ism780c.UUCP>
<373@drivax.UUCP> <1395@ism780c.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 22

In article <373@drivax.UUCP> holloway@drivax.UUCP (Bruce Holloway) writes:
>>

>> Yes, they could sell the cartridge without the ROMs, but where is
>> the purchaser going to buy them?
>>
> Go to Macintosh dealers. Tell them you want to buy the ROMs.
> They'll sell them to you. But Apple may start requiring dealers
> to ask for serial numbers, so you'd have to know someone with a
> Mac to get them.

Considering how upset Apple got when GEM looked too much like the Mac,
I don't think that they are likely to want their dealers to sell the
ROMs, and I don't think that any dealer who sells ROMs will be a
dealer for long. I would expect them to start requiring dealers to
only sell complete Mac logic boards, and only when someone brings in
a complete Mac logic board, or has a very good excuse why he can't.

This of course doesn't mean that this product will never come to
market. It just means that if you want it, you should buy it as
soon as possible, and get your ROMs while you can.
--
Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim || ihnp4!cithep!tim

From -3423525095478297412
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 11f2eb,dea74020e1f76b5e,start
X-Google-Attributes: gid11f2eb,public
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 20:03:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!hoptoad!gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16,net.legal
Subject: Is Public Domain subject to national boundaries?
Message-ID: <665@hoptoad.uucp>
Date: Tue, 8-Apr-86 23:03:38 EST
Article-I.D.: hoptoad.665
Posted: Tue Apr 8 23:03:38 1986
Date-Received: Thu, 10-Apr-86 07:50:04 EST
References: <8604022259.AA00201@ucbvax.berkeley.edu> <377@drivax.UUCP>
Organization: Nebula Consultants in San Francisco
Lines: 18
Xref: watmath net.micro.atari16:392 net.legal:3238

In article <377@drivax.UUCP>, holloway@drivax.UUCP (Bruce Holloway) writes:
           (RUMOR)
> >   2. There exists a generic Z80 emulator (not 8080) in the
> >   public domain that allows 68000 machines to run CP/M-80
> >   programs and that this program is available for Ataris
> >   but is *so* generic that any 68000 based micro could
> >   run it. This is not to be confused with the 8080
> >   emulator from recent Dr. Dobb's issues.

> The CP/M-Z80 emulator is not Public Domain in the United States, and is not
> generic enough to be run on any given 68K computer without modification.

I just couldn't let that one go by. "Not public domain in the United States"?
Supposed I get a public domain copy in Germany and bring it here?
Does it cease to be public domain? How can its US copyright be retained
when it is freely available to "the public"?
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa
                  Post no bills.

From 6107309794986597792
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,64c946941f19caaf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 20:33:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: Request for a 1st word driver for the Panasonic 1092 printer.
Message-ID: <2092@uwmacc.UUCP>
Date: Tue, 8-Apr-86 23:33:25 EST
Article-I.D.: uwmacc.2092
Posted: Tue Apr 8 23:33:25 1986
Date-Received: Thu, 10-Apr-86 07:48:56 EST
References: <8604042327.AA17540@dspvax.MIT.EDU>
Organization: UWisconsin-Madison Academic Comp Center
Lines: 24

>
> I am looking for a 1st word driver that works with the Panasonic K1092
> dot matrix printer in both near-letter-quality and draft mode.
> If it is not easy to e-mail it to me, please send me a printout
> (I will provide a self-addressed stamped envelope).
>
> Thanks in advance,
> ...Evangelos
>

I have a K1091...I find that the Epson FX driver that is included in 1st
Word works just fine and dandy....all the proper fonts, as well as super
and sub scripting, work just fine...

--
                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
who can you trust...?"
-- Mildred Crebs

From 6829810601361440218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 20:39:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: re: writing to Apple about MacCartridge
Message-ID: <2093@uwmacc.UUCP>
Date: Tue, 8-Apr-86 23:39:08 EST
Article-I.D.: uwmacc.2093
Posted: Tue Apr 8 23:39:08 1986
Date-Received: Fri, 11-Apr-86 01:20:40 EST
References: <8604060607.AA07358@ucbvax.berkeley.edu>
Organization: UWisconsin-Madison Academic Comp Center
Lines: 23

A question about MacCartridge:

Did I miss something? Why should *anyone* care about Apple's approval?
If the thing was made *wothout* any Apple software or hardware, what
legal claim do they have to prevent this fellow from selling them?

There's a thousand-and-one IBM PC/XT clones on the market, as well as
a hundred-and-one UNIX look-alike systems, as well as...

Apple tried to stop distribution of GEMDOS, and they lost...and they
should have, look-alikes and compatable components are *not* copyright
infrigements...at least not the last time I looked....

--
--- Rob DeMillo
Madison Academic Computer Center
...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
who can you trust...?"
-- Mildred Crebs

From 5241338409847316618
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,88e4b0f78c1e790e,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 22:12:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!ittatc!dcdwest!sdcsvax!ucbvax!mit-multics.arpa!
Terry_Conklin%UB-MTS%UMich-MTS.MAILNET
From: Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <136705@UB-MTS>
Date: Wed, 9-Apr-86 01:12:38 EST
Article-I.D.: UB-MTS.136705
Posted: Wed Apr 9 01:12:38 1986
Date-Received: Fri, 11-Apr-86 07:32:12 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 54

Subject: ST online color graphics NOW!

Well ST lovers, your number 1 BBS imperialist, in yet another attempt to bring the entire ST world under the Club Network's roof (and thus make a crowded but very aimable set of BBSes) brings you enligtening news. Not to be daunted by PC's with ANSI, we have already explored the ST's inherent VT52-extended (Our name- "ST52") escape sequences to create pleasing, pretty, and otherwise fun color graphics on the Club Network BBS's.

However, I was suprised (and disappointed) to find that a major title like ST-Talk does NOT support the ST52 with it's "VT52" mode! Therefore these colors and windows and boxes are lost - solution: heck with ST Talk, it doesn't redial anyhow, so we flipped over to the free, standard VT52 terminal program with the ST and -presto-, living color.

We are now faced with a dilema though in that, I would LOVE to be able to go into 16-color mode and have 16 colors for the graphics, but of course lo-res mode for the ST means, (god forbid) ** 40 colums! ** If we create a 16 color menu system, people calling in in medium-res will get the colors but the colors will "repeat" (only the lower 2 bits count in medium res.)

We therefore, on our PD terminal program, have considered 2 options. A.) Create an 80 column driver for the lo-res mode, which we CAN do, perhaps even reasonably, or B.) hold off, because we also had worked out a complete spec for remote GEM, so that you could (in theory) log on to a complete, windowing GEM environment. This, however, would be a complete terminal program and while we're at it if we're going to do the whole thing we might as well make it incredible.

Either of these options will, of course, mean the user will have to have "our" program in order to see graphics. However my whole idea was to create a sharp looking color graphics display using the ALREADY DEFINED ST52 codes.

Inasmuch, terminal program authors, I beg of you - PLEASE use the standard CONOUT features. At least in SOME mode! It's color graphics just a simple call away, and with the success we've had so far, I can tell you folks ST color graphics WILL be the thing of the future, or we wouldn't have jumped on it so fast. It, when well done, looks great.

If you'd like to get in on this, we'll be playing with generating color graphic "pictures" all week, and will be developing more and more ST-specific online graphics that you can access as easy as your VT52 accesory. Drop us a note online the ATARI ST/TT base and we'll include some of the early graphics in the messages so you can just read through and see what happens.

Graphics ho! Color ho!

Terry Conklin, Club Network designer/coordinator @
The Club (517) 372-3131 all work being done here first
The Club II (313) 334-8877 mostly ST downloads. 100's online

From -4410863053251112848
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4e08f260a8fa40ef,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-08 22:31:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!ucbvax!ritvaxa.BITNET!jeb6589
From: jeb6589@RITVAXA.BITNET (Jim Berg)
Newsgroups: net.micro.atari16
Subject: Re: Using the ST as a VAX terminal
Message-ID: <8604090629.AA19833@ucbvax.berkeley.edu>
Date: Wed, 9-Apr-86 01:31:58 EST
Article-I.D.: ucbvax.8604090629.AA19833
Posted: Wed Apr 9 01:31:58 1986
Date-Received: Thu, 10-Apr-86 07:47:47 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Rochester Instittute of Technology, Rochester, NY
Lines: 13

I have used the ST as a terminal to a VAX/VMS system and a VAX/UNIX 4.2bsd system. Seems to work nice on the bsd system, but I can't find anyway to put the keypad into application mode to use with EDT on the VMS system. Also on the VMS system the built-in emulator doesn't answer dec's set term/inq command, so you must explicitly set the terminal to a vt52.

Same is true for ST-Talk, another problem(?) with ST-Talk is due to the information lines the useable screen length is only 21 lines. It does however answer the terminal inquire correctly.

There have been a couple terminal programs posted to net.sources and/or mod.sources for the ST, but I have no experience with them.

If anyone knows how to put the keypad into app. mode PLEASE tell me!
Jim Berg

From 959937663451659564
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 05:49:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
unirot!halloran
From: halloran@unirot.UUCP (Bob Halloran)
Newsgroups: net.micro.atari16
Subject: Re: writing to Apple about MacCartridge
Message-ID: <477@unirot.UUCP>
Date: Wed, 9-Apr-86 08:49:46 EST
Article-I.D.: unirot.477
Posted: Wed Apr 9 08:49:46 1986
Date-Received: Fri, 11-Apr-86 01:21:06 EST
References: <8604060607.AA07358@ucbvax.berkeley.edu> <2093@uwmacc.UUCP>
Organization: Public Access Un*x, Piscataway NJ (The Soup Kitchen)
Lines: 21

In article <2093@uwmacc.UUCP> demillo@uwmacc.UUCP (Rob DeMillo) writes:
>A question about MacCartridge:
>
>   Did I miss something? Why should *anyone* care about Apple's approval?
>If the thing was made *wothout* any Apple software or hardware, what
>legal claim do they have to prevent this fellow from selling them?

The problem is that it DOES use Apple software: the cartridge takes
the PROMs from a Mac, adds some code to reroute things for the ST
hardware, and plugs into the ST cartridge port. Since they're using
the Mac ROMs, they DO need to clear it with Sculley et al.

While I concur on the GEM issue, this is a clear case of re-use. I
hope Apple clears him, but I suspect they won't.

                        Robert Halloran, Consultant
==
UUCP: ..topaz!caip!unirot!halloran
USPS: 19 Culver Ct, Old Bridge NJ 08857   Ph: (201) 251-7514
Disclaimer: Any opinions are due solely to line noise.
Quote: "When the going gets weird, the weird turn pro..." -- Hunter Thompson

From -6594919344738705184
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d2b8c504de1c8a48,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 06:44:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!ittatc!dcdwest!sdcsvax!ucbvax!dockmaster.arpa!Pase
From: Pase@DOCKMASTER.ARPA (Bill Pase)
Newsgroups: net.micro.atari16
Subject: Panasonic Print Driver
Message-ID: <860409144427.301999@DOCKMASTER.ARPA>
Date: Wed, 9-Apr-86 09:44:00 EST
Article-I.D.: DOCKMAST.860409144427.301999
Posted: Wed Apr 9 09:44:00 1986
Date-Received: Fri, 11-Apr-86 07:30:49 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

The following two messages contain the print driver for the Panasonic
printer. I've never used them so I have no idea how good they are.
They can for the local user's group. Let me know if you receive every
thing intack and if it works. /bill

From -5969555101129300806
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bb391e2e83ce4e6e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 07:46:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!jan
From: jan@looking.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Q. for Atari or DRI: When will GemPaint and GemWrite be avail for ST?
Message-ID: <519@looking.UUCP>
Date: Wed, 9-Apr-86 10:46:39 EST
Article-I.D.: looking.519
Posted: Wed Apr 9 10:46:39 1986
Date-Received: Thu, 10-Apr-86 06:25:00 EST
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 4

The Gem software collection has been available for the IBM PC for some months
now. You could easily sell 100,000 copies of ST versions.

Jan Gray Looking Glass Software, Waterloo, Ont.   (519) 884-7473

From -1569733378663627356
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c02853b2f7c6c1d6
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 08:48:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!

cbmvax!grr
From: grr@cbmvax.cbm.UUCP (George Robbins)
Newsgroups: net.micro.atari16
Subject: Re: Using the ST as a VAX terminal
Message-ID: <60@cbmvax.cbmvax.cbm.UUCP>
Date: Wed, 9-Apr-86 11:48:39 EST
Article-I.D.: cbmvax.60
Posted: Wed Apr 9 11:48:39 1986
Date-Received: Fri, 11-Apr-86 01:22:02 EST
References:
<860403-131052-1617@Xerox>,<159@atari.UUcp>,<160@atari.UUcp>,<175@atari.UUcp>
Reply-To: grr@cbmvax.UUCP (George Robbins)
Organization: Commodore Technology, West Chester, PA
Lines: 33

In article <860403-131052-1617@Xerox> taylor.XRCC-NS@Xerox.COM writes:
>
>Sorry if this has already been discussed, but does anyone have
>experience using the ST as a terminal to a VAX? I am thinking about
>getting a 520ST to plug into a 9600 baud line to a VAX 750. Is the VT52
>emulator included with the ST useful for this application? Are there
>VT100 emulators available for the ST? Is there anything to watch out
>for when wiring the RS232 port? Any help greatly appreciated.
>

The ST works nicely as a terminal on a VAX, at least under unix. There is,
however, a bug in the VT52 emulator in handling cursor movement in column 80.
This makes a screen editor like vi get horribly confused when you are trying to
edit files which contain some lines of exactly 80 characters. I would expect
that the VMS screen editors would evoke the same problem.

I guess you could make up a special '520st' termcap entry, but neither the
stock vt52 or H19 entries work correctly.

There are also some adjustments in the monochrome monitor you or your friendly
local TV repairman can twiddle to adjust the size of the displayed screen.
However, they are compromise adjustments - if you expand the screen to the
full monitor size, you will start to see some pin cushion effect, see the
scan lines, and minor focus differencs from center to corner. On the other
hand, you get a more readable text display.

A simple 3-wire connection using pins 2,3, and 7 seems to work nicely, and
9600 baud is no problem...

--
George Robbins - now working with,   uucp: {ihnp4|seismo|caip}!cbmvax!grr
but no way officially representing   arpa: cbmvax!grr@seismo.css.GOV
Commodore, Engineering Department   fone: 215-431-9255 (only by moonlite)

From 8580670914445300764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,305829953108207d,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 09:39:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1 Meg upgrade
Message-ID: <54600055@iuvax.UUCP>
Date: Wed, 9-Apr-86 12:39:00 EST
Article-I.D.: iuvax.54600055
Posted: Wed Apr 9 12:39:00 1986
Date-Received: Wed, 16-Apr-86 03:03:43 EST
References: <14117325@ucbvax.UUCP>
Lines: 5
Nf-ID: #R:ucbvax:-1411732500:iuvax:54600055:000:249
Nf-From: iuvax!franco   Apr 9 12:39:00 1986

Thank you for the improved docs. I cannot understand why more people aren't interested in upgrading 520s and saving $250-$300 over buying 1040s (you can get a color system for as low as $775). Could the reason be the reduction in number of cables?

From -1251122001692605071
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7a31be5e567d8569,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 11:42:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site princeton.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!petsche
From: petsche@princeton.UUCP (Thomas Petsche)
Newsgroups: net.micro.atari16
Subject: Bigger Screen Size for Monochrome Moniters
Message-ID: <1267@princeton.UUCP>
Date: Wed, 9-Apr-86 14:42:37 EST
Article-I.D.: princeto.1267
Posted: Wed Apr 9 14:42:37 1986
Date-Received: Thu, 10-Apr-86 08:29:50 EST
Distribution: net
Organization: Princeton University EECS Dept
Lines: 28

  In part answer to my own question about the screen size on the monochrome moniter: yes atari meant for the viewing area to be smaller than the physical screen size.

  However, there is a rather straight-forward way of fixing this which is described the April '86 issue of ST Applications. If you can't get a copy and want to know how to do it, I'll email

(or post, depending on whether there are more than 3 mono systems
around) a summary. BTW, this fix voids your warrenty (so what doesn't?).

  Another question: The display on my mono moniter becomes "jittery"
after the system has been on for about 10-15 minutes. The problem
disappears after another 10-15 minutes. ("Jittery" means that the
horizontal hold appears to be off, pixels alternate between their
proper location and one location to the right or left.) Any ideas
or previous experience with this problem? Is it in the moniter or the
ST? Should I consider this grounds to try and return the ST?
(And get another, of course!)

  I saw a 1040ST this weekend. As a previous poster said, it makes
a whining noise that I would find intolerable for more than a
few minutes. Any explanations or fixes? (Me, I'll have 1Meg after
the warrenty on my 520 expires!)

Thomas Petsche
...!allegra!princeton!petsche   or   petsche@princeton

From 6158849218837417856
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ebc75dda3586652a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 12:23:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: writing to Apple about MacCartridge
Message-ID: <2095@uwmacc.UUCP>
Date: Wed, 9-Apr-86 15:23:34 EST
Article-I.D.: uwmacc.2095
Posted: Wed Apr 9 15:23:34 1986
Date-Received: Fri, 11-Apr-86 01:23:20 EST
References: <8604060607.AA07358@ucbvax.berkeley.edu> <2093@uwmacc.UUCP>
<477@unirot.UUCP>
Reply-To: demillo@uwmacc.UUCP (Rob DeMillo)
Organization: UWisconsin-Madison Academic Comp Center
Lines: 14

I was not aware that MacCartridge uses Apple ROM. I stand corrected.
(Too bad...it would've been a hot seller...)

--
                            --- Rob DeMillo
                                Madison Academic Computer Center
                                ...seismo!uwvax!uwmacc!demillo

"If you can't trust wimp lawyers anymore,
who can you trust...?"
-- Mildred Crebs

From -7127404439916583563
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c4a17d9fdc0d1c6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 15:00:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!decwrl!ucbvax!xerox.com!Bicer.ES
From: Bicer.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Arrow Keys & VT52 Terminal Mode
Message-ID: <860409-150043-1731@Xerox>
Date: Wed, 9-Apr-86 18:00:47 EST
Article-I.D.: Xerox.860409-150043-1731
Posted: Wed Apr 9 18:00:47 1986
Date-Received: Fri, 11-Apr-86 20:47:31 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: Bicer.ES@Xerox.COM
Organization: The ARPA Internet
Lines: 9

I have noticed that the arrow keys don't seem to work in the VT52 Terminal Mode.
Also the function keys, as well as the cursor keys, don't seem to produce unique
or distinguishible codes. Has anyone else noticed this?

Thanks for the info,
Jack Bicer

Bicer.ES@Xerox.ARPA

From -3733478281663864327
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,14aa75235d2a38d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 15:23:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sfucmpt.uucp
Path: utzoo!utcsri!ubc-vision!sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16
Subject: Atari CD-ROMs?
Message-ID: <143@sfucmpt.uucp>
Date: Wed, 9-Apr-86 18:23:08 EST
Article-I.D.: sfucmpt.143
Posted: Wed Apr 9 18:23:08 1986

Date-Received: Thu, 10-Apr-86 04:23:38 EST
Distribution: net
Organization: Computing Science Dept
Lines: 13

Weren't the CD roms with the entire (Grolier?) encyclopedia supposed
to be out for the ST in the 1st quarter of 86. Is atari still planning
on selling the drives and encyclopedia disk?

--

 john chapman

 email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
 not the address in the header.

From 47757327958904946
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,9dc61f67258ebdc,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,9dc61f67258ebdc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 15:29:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sfucmpt.uucp
Path: utzoo!utcsri!ubc-vision!sfucmpt!chapman
From: chapman@sfucmpt.uucp (John Chapman)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: OS/9 for the 520ST yet?
Message-ID: <148@sfucmpt.uucp>
Date: Wed, 9-Apr-86 18:29:01 EST
Article-I.D.: sfucmpt.148
Posted: Wed Apr 9 18:29:01 1986
Date-Received: Thu, 10-Apr-86 04:23:20 EST
Distribution: net
Organization: Computing Science Dept
Lines: 19

Well the St has been out for some time now. Has anyone heard
of OS/9 implementations for it nearing completion? If microware
is on the net perhaps they could comment.

It would be ideal if it came on a cartridge so that you could boot
it up when you wanted it or just use the machine as is if you wanted
to run an existing ST program (I know you can do the same by booting
off floppies - I just like the idea of being able to plug in the OS
just like any other important computer accessory :-).

--

john chapman

email to : ...{utcsri,alberta,ihnp4}!ubc-vision!sfucmpt!sfulccr!chapman
not the address in the header.

From 3882461617189614222
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9a46ec973d9b3744,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-09 15:45:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!decwrl!ucbvax!dockmaster.arpa!Pase
From: Pase@DOCKMASTER.ARPA (Bill Pase)
Newsgroups: net.micro.atari16
Subject: Panasonic Printer Driver Documentation
Message-ID: <860409234515.315576@DOCKMASTER.ARPA>
Date: Wed, 9-Apr-86 18:45:00 EST
Article-I.D.: DOCKMAST.860409234515.315576
Posted: Wed Apr 9 18:45:00 1986
Date-Received: Fri, 11-Apr-86 20:52:02 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 57

Here is the 1st Word printer driver for Panasonic printers.

----------cut me----------

This 1ST_WORD printer driver is compatible with the following printers : PANASONIC (1090,1080,1091,1092,1592 1093. As well as these ROLAND (1010,1011,1111). Since the light function is not available on these printers, I have substituted for proportional mode.

Here are a list of changes and additions :

LIGHT mode (F4) is now set for Proportional mode

In the special character menu on the second line there ten characters which for lack of a better term I will call LCD characters, like a calculator display's. Since only the Atari printer is capable of reproducing these I use them to enact special funtions like :

LCD (0) NOW used to turn ON ELITE pitch printing
LCD (1) NOW used to turn OFF ELITE pitch printing

LCD (2) NOW used to turn ON CONDENSED printing
LCD (3) NOW used to turn OFF CONDENSED printing

LCD (4) NOW used to turn ON ENLARGED printing
LCD (5) NOW used to turn OFF ENLARGED printing

LCD (6) NOW used to turn ON DOUBLE space printing
LCD (7) NOW used to trun OFF DOUBLE space printing

LCD (8) NOW used to turn ON 1 1/2 space printing
LCD (9) NOW used to turn OFF 1 1/2 space printing

OPERATING NOTES:

1: It is impossible to print both in ELITE mode and NLQ
   at the same time.

2: When using the double space feature place the LCD 6
   before the line where you want duoble spacing to
   begin. And place the LCD 7 where you want it to end.

For example if you want "The lazy dog" to be double spaced :

ON S C R E E N	ON P R I N T E R
Mary had a little 6	Mary had a little
The lazy dog 7	
	The lazy dog

Modified by Craig Tremblay of Compucentre Carlingwood
If there are any questions of if you find any errors
please feel free to contact me at the following phone
number :
(613) 7 2 9 - 0 4 4 8

From 8347737255168570429
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7da6f794f4211c32,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-10 05:37:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site unc.unc.UUCP
Path: utzoo!linus!decvax!mcnc!unc!hultquis
From: hultquis@unc.UUCP (Jeffrey P. Hultquist)
Newsgroups: net.micro.atari16
Subject: disk drive compatibility
Message-ID: <1315@unc.unc.UUCP>
Date: Thu, 10-Apr-86 08:37:51 EST
Article-I.D.: unc.1315
Posted: Thu Apr 10 08:37:51 1986
Date-Received: Sat, 12-Apr-86 23:45:52 EST
Distribution: net
Organization: CS Dept, U. of N. Carolina, Chapel Hill
Lines: 12

Is there some way to convince a 1040 to read a MacIntosh disk,
and vice-versa? Nothing fancy is needed, just pulling off bytes.
My department has Macs connected to its Vaxen, and I intend to
buy a 1040. It would be nice to use a departmental Mac as a
disk drive to up/download files between my 1040 and the Vaxen.
Thanks.

--

-- Jeff P.M. Hultquist
hultquis@unc decvax!mcnc!unc!hultquis

From 3766613735656267023
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,590d9d587599f940,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 09:33:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!bbn-prophet.arpa!dan
From: dan@BBN-PROPHET.ARPA (Dan Franklin)
Newsgroups: net.micro.atari16
Subject: Re: bidirectional ST printer port
Message-ID: <8603270456.AA05025@ucbvax.berkeley.edu>
Date: Wed, 26-Mar-86 12:33:07 EST
Article-I.D.: ucbvax.8603270456.AA05025
Posted: Wed Mar 26 12:33:07 1986
Date-Received: Fri, 28-Mar-86 05:47:41 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 10

I was hoping that the ST printer port was bidirectional, but I have seen
no documentation for it. The ST manual shows only one set of data pins
on the printer socket, and the developer's kit only talks about writing
to the printer, not reading from it. So:

What are the pins on the printer socket for doing input to the ST?
What does the software interface look like? Is it the obvious thing
(using one of the BIOS input routines with the the printer device)?

Dan Franklin

From 2633025844647108774
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8c10a011997a9d1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 12:46:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Query on music-writing packages for the ST?
Message-ID: <149@atari.UUcp>
Date: Wed, 26-Mar-86 15:46:28 EST
Article-I.D.: atari.149
Posted: Wed Mar 26 15:46:28 1986
Date-Received: Fri, 28-Mar-86 08:20:31 EST
References: <8603221804.AA19612@mitre-bedford.ARPA>
Organization: Atari Corp/Mktg
Lines: 18

In article <8603221804.AA19612@mitre-bedford.ARPA>,
 jhs@MITRE-BEDFORD.ARPA (John H. Sangster) writes:
> A friend of mine is interested in getting computer assistance with writing
> music for the guitar. Does anybody have experience with any packages which
> might be suitable for this application? What he needs is a "music word
> processor" that can write the sheet music as well as playing the music.
> Singing it would I think be unnecessary.

Activision is about to release "Music Studio" for the ST. This program lets
you create and edit sheet music using the mouse. It plays music through the
internal sound chip or through MIDI devices. It also includes a printout
feature. I personally think this is a GREAT program.

--->Neil @ Atari
    Usenet: ...lll-crg!vecpyr!atari!neil
    CIS: 70007,1135
    BIX: neilharris
    Atari BBS: 408-745-2642 or 5308

From -270822431851979061
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fbcdc6f07adb90ff,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 15:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- Megamax Printf bug ---
Message-ID: <8603270054.AA00660@ucbvax.berkeley.edu>
Date: Wed, 26-Mar-86 18:25:00 EST
Article-I.D.: ucbvax.8603270054.AA00660
Posted: Wed Mar 26 18:25:00 1986
Date-Received: Fri, 28-Mar-86 05:44:55 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet

Lines: 9

Despite Jwahar R. Bammi's rebuttal, the problem described (no printing
of statements not ending in '\n' until explicit buffer flush) is a bug.
It is possible to use fflush(stdout) to get around it, as he describes,
but that is not how most standard library printf()s require things.
Sorry, Jwahar.
              -Richard Hartman
              nep.pgelhause@ames-vmsb

From 4647753514276917893
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6ca36fe24bff1489,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 22:07:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!eddie.mit.edu!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: MFDB Help
Message-ID: <12193957234.26.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Thu, 27-Mar-86 01:07:39 EST
Article-I.D.: DEEP-THO.12193957234.26.UC.BRI
Posted: Thu Mar 27 01:07:39 1986
Date-Received: Fri, 28-Mar-86 05:54:05 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

     Could someone out there send me some short sample code on how
to use the GEM "copy raster" functions. I need to know how to set up
the MFDB's, etc. If not sample code, then a few lines of english
explanation will be cool enough...

                              Thanks,

                              --- Bri

From 5284581002304049698
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,f63fb8642018e6f4,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,f63fb8642018e6f4,start

X-Google-Attributes: gid140593,public
X-Google-Thread: 142096,f63fb8642018e6f4,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 152df8,f63fb8642018e6f4,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-03-26 23:12:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!harvard!h-sc1!breuel
From: breuel@h-sc1.UUCP (thomas breuel)
Newsgroups: net.micro.mac,net.micro.amiga,net.micro.atari16,net.micro.68k
Subject: Dr. Dobb's 8080 emulator for the 68000...
Message-ID: <1007@h-sc1.UUCP>
Date: Thu, 27-Mar-86 02:12:08 EST
Article-I.D.: h-sc1.1007
Posted: Thu Mar 27 02:12:08 1986
Date-Received: Sat, 29-Mar-86 01:15:17 EST
Distribution: net
Organization: Harvard Univ. Science Center
Lines: 5
Xref: watmath net.micro.mac:5282 net.micro.amiga:2529 net.micro.atari16:299
net.micro.68k:1595

Has anyone typed in the 8080 emulator for the 68000 from
Dr. Dobb's journal (January and March issues)? I would like
to obtain a machine-readable copy.

                        Thomas.

From 1335192588421161901
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c397c73b194a07,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 01:58:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!uw-june.arpa!rling
From: rling@UW-JUNE.ARPA
Newsgroups: net.micro.atari16
Subject: re: ST binaries
Message-ID: <512301540.rling@uw-june>
Date: Thu, 27-Mar-86 04:58:00 EST
Article-I.D.: uw-june.512301540.rling
Posted: Thu Mar 27 04:58:00 1986
Date-Received: Sat, 29-Mar-86 01:32:46 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

I can sympathize with franco@indiana about posting binaries. Some sites are
bound to get corrupted files and then requests pour in to the sender for

a re-post. (I have to admit to being guilty of this also.)

The solution, of course, is for some site to volunteer space to keep public domain software, ala Simtel20 for CPM and IBM software, accessible by anonymous FTP.

Since the system that I'm on usually has 1Mb of free space I am sorry to say that I am in no position to volunteer so please don't flame me.

- Robert Ling <rling@uw-june.arpa>

From -5461701055304661423
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d9749697b3a8c559,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 05:20:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Reducing cc's to entire list
Message-ID: <12194035994.10.G.ABRAMS@SU-SCORE.ARPA>
Date: Thu, 27-Mar-86 08:20:18 EST
Article-I.D.: SU-SCORE.12194035994.10.G.ABRAMS
Posted: Thu Mar 27 08:20:18 1986
Date-Received: Sat, 29-Mar-86 01:35:38 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

Would you all please think twice before sending messages,
especially cc's, to the entire list.

When responding to a question it is often appropriate to
respond to the sender ONLY. Adminisstrative messages should be
addressed to -REQUEST.

Thank you.

From 3872962106868790940
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5da1da8d8561b8cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 05:27:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16

Subject: A description of TOPS-20 MM format
Message-ID: <12194037357.10.G.ABRAMS@SU-SCORE.ARPA>
Date: Thu, 27-Mar-86 08:27:47 EST
Article-I.D.: SU-SCORE.12194037357.10.G.ABRAMS
Posted: Thu Mar 27 08:27:47 1986
Date-Received: Sat, 29-Mar-86 01:36:29 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

A description of the format of the mail archive files has been
added to the archives. It is MM.FORMAT. You may find it
useful if you try to read the archives under a different OS.

From 2674174551944721205
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fbcdc6f07adb90ff
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 15:19:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site megaron.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!hao!noao!arizona!megaron!robert
From: robert@megaron.UUCP
Newsgroups: net.micro.atari16
Subject: Re: --- Megamax Printf bug ---
Message-ID: <964@megaron.UUCP>
Date: Thu, 27-Mar-86 18:19:07 EST
Article-I.D.: megaron.964
Posted: Thu Mar 27 18:19:07 1986
Date-Received: Tue, 1-Apr-86 05:20:58 EST
References: <8603270054.AA00660@ucbvax.berkeley.edu>
Organization: Dept of CS, U of Arizona, Tucson
Lines: 10

> Despite Jwahar R. Bammi's rebuttal, the problem described (no printing
> of statements not ending in '\n' until explicit buffer flush) is a bug.
> It is possible to use fflush(stdout) to get around it, as he describes,
> but that is not how most standard library printf()s require things.

No, no. I have yet to see any printf do any automatic buffer flushing
on micros, minis, or main frames.
Jwahar was right!

Robert J. Drabek

From -4125993885092815231
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edf275bc0b18f37
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-03-27 16:01:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUCP
Newsgroups: net.micro.atari16
Subject: Re: What's going on here!?!?!!!??
Message-ID: <162@atari.UUcp>
Date: Thu, 27-Mar-86 19:01:25 EST
Article-I.D.: atari.162
Posted: Thu Mar 27 19:01:25 1986
Date-Received: Tue, 1-Apr-86 04:41:19 EST
References: <445@aum.UUCP> <2277@ncrcae.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 30
Keywords: ATTN: NEIL HARRIS, ATARI CORPORATION

In article <2277@ncrcae.UUCP>, wingard@ncrcae.UUCP (wingard) writes:
> I've been waiting since early February
> (when the machine was announced) with my name on my dealer's list. I
> read all about the arrival of the first shipment (yes, yes, by way of
> the Phillipines, I know all about that...), but still, to this day,
> neither my dealer, Data Control Systems of Cayce, SC, nor his "authorized
> distributor", Allison-Erwin Co. of Charlotte, NC, have even SEEN a 1040,
> much less sold one. Yes, the orders are stacking up, but all we get is
> "two more weeks... two more weeks... two more weeks... two more weeks".
>
> ...my dealer has even sent a direct
> order to Atari Corp. for ROMs. It's been 3 weeks since he did that,
> and still nothing. Meanwhile, a customer of his called Atari to
> gripe and they sent him a set of ROMs pronto...

The truth is, Allison-Erwin is no longer an Atari distributor. They were
in "limbo" for a short while, during which time we were evaluating the
relationship with each other. They never received 1040ST's during this
period, and will not receive any. The dealer in question should either
contact the local rep or a different distributor.

The ROMs are currently out of stock, with a shipment on the way right now
from Taiwan. We should be able to fulfill dealer orders shortly. End-users
have been able to order direct when they were in stock, but not recently.

--->Neil @ Atari
     Usenet: ...lll-crg!vecpyr!neil!atari
     CIS: 70007,1135
     BIX: neilharris
     Atari BBS: 408-745-5308 or 2642

From -8591204156381612350
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4102e3ec848e42e6,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 17:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- Starving for 1040s ---
Message-ID: <8603280211.AA04509@ucbvax.berkeley.edu>
Date: Thu, 27-Mar-86 20:10:00 EST
Article-I.D.: ucbvax.8603280211.AA04509
Posted: Thu Mar 27 20:10:00 1986
Date-Received: Sat, 29-Mar-86 01:44:05 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 15

In reply to WINDGARDs plea for information on 1040s (no I am not an Atari rep):

   You dealer is unhappy about a $3000 minimum order for direct orders from Atari? This seems a bit strange if he is actually having all of the holdouts you mentioned. $3000 is approx 3 (three) 1040STs. This doesn't seem to be an overly large minimum order.

   About Ataris (alleged) program of starving distributers to get directo orders, if true it is not nice. But does your local shop owner really know how hard the distributer is working to get them?

              -Richard Hartman
              nep.pgelhausen@ames-vmsb

From 6828511425927317792
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa95765c9f84e09e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-27 17:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- Active Windows NOT on top??? ---
Message-ID: <8603280155.AA04187@ucbvax.berkeley.edu>
Date: Thu, 27-Mar-86 20:16:00 EST
Article-I.D.: ucbvax.8603280155.AA04187
Posted: Thu Mar 27 20:16:00 1986
Date-Received: Sat, 29-Mar-86 01:43:00 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA

Organization: The ARPA Internet
Lines: 14

A message recently contained a question about scrolling windows; a reply concerning how to do so in an active window (hence on top); and a final plea asking "But what if the window *isn't* on top?".

As far as I know, if the window is not on top, it is not active, thus you need not be concerned with scrolling it.

What sort of situation do you have where you require scrolling for an inactive window?

-Richard Hartman
nep.pgelhausen@ames-vmsb

From 33446467269003537
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,983616a5d0932a74,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-28 12:02:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: 1st-Word bug info
Message-ID: <1924@dalcs.UUCP>
Date: Fri, 28-Mar-86 15:02:26 EST
Article-I.D.: dalcs.1924
Posted: Fri Mar 28 15:02:26 1986
Date-Received: Sun, 30-Mar-86 06:39:46 EST
Distribution: net
Organization: Marine Ecology Lab.
Lines: 23

I received a letter from GST with information on bugs in 1st-Word. Letter was dated 28 Jan. 1986. Here is a summary:

Initial form feed: No, it cannot be suppressed. Fixed in Ver. 1.04.

Cannot pause between pages: Fixed in 1.04.

Pitch changes: Not supported.

Printer control codes: Cannot be imbedded in text. Must be built into the printer driver.

Filename appears at top of page: To suppress, click on "layout" from FILE menu, then click OK. Fixed in 1.04.

Double line spacing: Not supported in Ver. 1.01. Fixed in 1.04.

Multiple copies: Not supported. New product called 1st Word Plus will
have it, along with mail merge.

Text style lost in block operations: Not yet fixed.

Incompatibility with ST Writer: Yes, they are incompatible.

From -2725758909717219861
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ca937bed9716b720,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-28 12:28:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 ARLENE 1/1/85; site dalcs.UUCP
Path: utzoo!utcsri!dalcs!silvert
From: silvert@dalcs.UUCP (Bill Silvert)
Newsgroups: net.micro.atari16
Subject: 520ST termcap
Message-ID: <1925@dalcs.UUCP>
Date: Fri, 28-Mar-86 15:28:07 EST
Article-I.D.: dalcs.1925
Posted: Fri Mar 28 15:28:07 1986
Date-Received: Sun, 30-Mar-86 06:33:15 EST
Distribution: net
Organization: Marine Ecology Lab.
Lines: 16

The vt52 emulation mode of the 520ST leaves a bit to be desired, and I
have been able to improve things by using a different termcap file.
The following file sets my TERMCAP variable with the command

```
     source st.tc
```

under csh, or you can pull out the termcap entry and get it installed in
/etc/termcap:

```
setenv TERMCAP "st|
520ST:al=\EL:am:bl=^G:bs:cd=\EJ:ce=\EK:ce=\EK:cl=\EE:cl=\EH\EJ:cm=\EY%+ %
+ :co#80:cr=^M:dl=\EM:do=^J:ho=\EH:is=\Ee\Ev:kb=^H:kd=\EB:kl=\ED:kr=\EC:ku=\EA:le=
^H:li#24:md=\EbB:me=\Eq\EbC:mr=\Ep:nd=\EC:nl=^J:pt:rc=\Ek:sc=\Ej:se=\EbC:so=\EbA:s
r=\EI:ta=^I:ue=\EbC:up=\EA:us=\EbB:ve=\Ee:vi=\Ef:vs=\Ee:"
```

There are a couple of gimmicks, such as using colour for standout mode.

This is not perfect, and I have trouble with the last line on the screen
-- if anybody has improvements, plese post them.

I also have a corresponding terminfo file -- I don't use it on this
machine, but if anyone wants it I can mail or post it.

From 1407919769727422489
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa95765c9f84e09e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-28 12:57:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site ism780c.UUCP
Path: utzoo!watmath!clyde!cbosgd!hplabs!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: --- Active Windows NOT on top??? ---
Message-ID: <1215@ism780c.UUCP>
Date: Fri, 28-Mar-86 15:57:18 EST
Article-I.D.: ism780c.1215
Posted: Fri Mar 28 15:57:18 1986
Date-Received: Sun, 30-Mar-86 03:23:40 EST
References: <8603280155.AA04187@ucbvax.berkeley.edu>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 25

In article <8603280155.AA04187@ucbvax.berkeley.edu> nep.pgelhausen@ames-vmsb.ARPA
writes:
>
>As far as I know, if the window is not on top, it is not active, thus
>you need not be concerned with scrolling it.
>
>What sort of situation do you have where you require scrolling for an
>inactive window?
>

How about a windowing terminal emulator? You would have several windows
on the ST, and a protocol for multiplexing several logical connections
over one serial line. On the host, you have a driver for multiplexing
the output of several processes onto one line.

In this situation, it would be easy to want to have output in several
windows at once.

Or how about a terminal emulator with a built in editor? It would be nice
if I could edit some text in one window, and then tell the terminal
emulator to send it. While I am doing this, I would still want to see
any stuff that comes in from the host, even though that window would
not be on top.
--

Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim || ihnp4!cithep!tim

From 2109004996414558960
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d9ec3fd6bfbf4575,start
X-Google-Attributes: gid140593,public

X-Google-Thread: 11d346,d9ec3fd6bfbf4575,start
X-Google-Attributes: gid11d346,public
X-Google-Thread: 125017,d9ec3fd6bfbf4575,start
X-Google-Attributes: gid125017,public
X-Google-ArrivalTime: 1986-03-28 13:03:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 11/03/84 (WLS Mods); site astrovax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!astrovax!richmon
From: richmon@astrovax.UUCP (Michael Richmond)
Newsgroups: net.micro.att,net.graphics,net.micro.atari16
Subject: simple graphing package posted to net.sources
Message-ID: <763@astrovax.UUCP>
Date: Fri, 28-Mar-86 16:03:03 EST
Article-I.D.: astrovax.763
Posted: Fri Mar 28 16:03:03 1986
Date-Received: Sat, 29-Mar-86 06:18:19 EST
Distribution: net
Organization: Princeton Univ. Astrophysics
Lines: 22
Xref: watmath net.micro.att:1038 net.graphics:1542 net.micro.atari16:306

I have posted the source to a simple graphing program (makes
line and point plots with labelled axes, plus a little more)
to net.sources. It was written specifically for the AT&T 7300,
and has a number of 7300-specific calls. However, these are
only to set up a couple of windows on the screen - the rest of the
pgogram, including all the actual graphics, uses GKS function
calls. Therefore, it ought to be able to be ported to any
machine with GKS without too much hassle (of course, the
7300 stuff will have to be replaced by YOUR machine's versions,
but there isn't that much).

The posted source is in a shar-format file together with Makefile
and a manual page that can be formatted with the -man macros.
It's pretty readable in un-nroff'ed form, anyway.

If anyone has questions, please let me know - I may be able to help.

--
Michael Richmond   Princeton University, Astrophysics

{allegra,akgua,burl,cbosgd,decvax,ihnp4,noao,princeton,vax135}!astrovax!richmon

From -5774917738818375515
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aa95765c9f84e09e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-28 16:06:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!hao!hplabs!tektronix!teklds!dadla!tekla!jamesp

From: jamesp@tekla.UUCP
Newsgroups: net.micro.atari16
Subject: Re: --- Active Windows NOT on top??? ---
Message-ID: <474@tekla.UUCP>
Date: Fri, 28-Mar-86 19:06:55 EST
Article-I.D.: tekla.474
Posted: Fri Mar 28 19:06:55 1986
Date-Received: Tue, 1-Apr-86 07:21:25 EST
References: <8603280155.AA04187@ucbvax.berkeley.edu>
Reply-To: jamesp@tekla.UUCP (James Perkins)
Organization: Tektronix, Beaverton OR
Lines: 3

It's called "rear-window defrosting," and is not trivial.

From 7592419979141296008
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5eccbab3e00c2cca
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-29 00:15:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!eddie.mit.edu!network
From: network@EDDIE.MIT.EDU (Chaosnet Pgm)
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603290815.AA26739@EDDIE>
Date: Sat, 29-Mar-86 03:15:21 EST
Article-I.D.: EDDIE.8603290815.AA26739
Posted: Sat Mar 29 03:15:21 1986
Date-Received: Sun, 30-Mar-86 02:49:24 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 26

>A message recently contained a question about scrolling windows; a reply
>concerning how to do so in an active window (hence on top); and a final
>plea asking "But what if the window *isn't* on top?".
>
>As far as I know, if the window is not on top, it is not active, thus
>you need not be concerned with scrolling it.
>
>What sort of situation do you have where you require scrolling for an
>inactive window?
ReSent-Date: Sat 29 Mar 86 03:16:43-EST
ReSent-From: Brian Totty <UC.BRI@DEEP-THOUGHT.MIT.EDU.#Chaos>
ReSent-To: info-atari16@SU-SCORE.ARPA.Internet
ReSent-Message-ID: <12194505017.8.UC.BRI@DEEP-THOUGHT.MIT.EDU>

     The question I originally had was for desk accessories such

as the Apple Macintosh's clock accessory. This happily can sit on top of your window, and screw up your raster map. I guess GEM just said "no way" to this type of background accessory, so we don't have to worry.

     As far as scrolling inactive windows, the overlapping windows will screw up your scroll. Why not make the window active, scroll it, and then make the original active? Also, if nothing overlaps it, you might be able to scroll it anyway (I forgot how copy raster was called, so I can't guarantee it)

                              --- Bri

From -4734535755530610348
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fbcdc6f07adb90ff
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-29 12:28:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!linus!decvax!decwrl!pyramid!hplabs!well!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: --- Megamax Printf bug ---
Message-ID: <449@aum.UUCP>
Date: Sat, 29-Mar-86 15:28:31 EST
Article-I.D.: aum.449
Posted: Sat Mar 29 15:28:31 1986
Date-Received: Wed, 2-Apr-86 20:32:53 EST
References: <8603270054.AA00660@ucbvax.berkeley.edu> <964@megaron.UUCP>
Organization: The Aurora Systems Bunch
Lines: 19

> > Despite Jwahar R. Bammi's rebuttal, the problem described (no printing
> > of statements not ending in '\n' until explicit buffer flush) is a bug.
> > It is possible to use fflush(stdout) to get around it, as he describes,
> > but that is not how most standard library printf()s require things.
>
> No, no. I have yet to see any printf do any automatic buffer flushing
> on micros, minis, or main frames.
> Jwahar was right!

I have only seen this behavior on one out of about 5 machines I have worked on. Since, I believe, this is not documented in K&R (and in most Unix manuals) the nomer of "bug" does seem correct. It is just a widespread and familiar one...
--

                          Erik James Freed
                 Aurora Systems
                 San Francisco, CA
                 {dual,ptsfa}!aum!freed

From 6304523029319888310
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 142096,bb30e4a57c576cf4,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,bb30e4a57c576cf4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-29 20:24:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!decwrl!glacier!oliveb!hplabs!qantel!lll-lcc!vecpyr!atari!
neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.amiga,net.micro.atari16
Subject: Re: Amiga price cuts
Message-ID: <164@atari.UUcp>
Date: Sat, 29-Mar-86 23:24:06 EST
Article-I.D.: atari.164
Posted: Sat Mar 29 23:24:06 1986
Date-Received: Wed, 2-Apr-86 20:13:52 EST
References: <262@ucdavis.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 11
Xref: linus net.micro.amiga:6374 net.micro.atari16:283

In article <262@ucdavis.UUCP>, ccrjohnm@ucdavis.UUCP (John McLaughlin) writes:
>   I read in the San Francisco Chronicle that the Amiga is
> begin cut in price by $500, is this true? is this just for package
> deals (computer,monitor,memory) or is it an across the board cut in
> prices.

The price is only true for the 256K Amiga with built-in drive and color
monitor. It seems like they have a warehouse full of color monitors and
are looking to get rid of them, since most Amigoids have been acquiring
Sony or other better-quality monitors. According to Commodore, this offer
expires at the end of May, about when the overabundance should run out.

From -2736612869311061475
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-30 09:22:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <54600041@iuvax.UUCP>
Date: Sun, 30-Mar-86 12:22:00 EST
Article-I.D.: iuvax.54600041
Posted: Sun Mar 30 12:22:00 1986

Date-Received: Wed, 2-Apr-86 01:56:35 EST
References: <1948@trwrba.UUCP>
Lines: 7
Nf-ID: #R:trwrba:-194800:iuvax:54600041:000:381
Nf-From: iuvax!franco   Mar 30 12:22:00 1986

If you want to be sure to get the FONTLOADER and FONTS intact send a
disk to me with your request (for fonts) and I will copy everything
onto the disk and send it back. Please include the packing material
you wish me to use and make sure proper postage has been affixed to it.
Also, you might want to write your name and address on the package to
save me the trouble of doing it.

From -482435102707158993
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9b6722e8d95d9ffb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-30 10:22:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles $Revision: 1.7.0.10 $; site uiucdcs
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!pur-ee!uiucdcs!mcewan
From: mcewan@uiucdcs.CS.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: --- Megamax Printf bug ---
Message-ID: <177500005@uiucdcs>
Date: Sun, 30-Mar-86 13:22:00 EST
Article-I.D.: uiucdcs.177500005
Posted: Sun Mar 30 13:22:00 1986
Date-Received: Wed, 2-Apr-86 00:43:04 EST
Lines: 17
Nf-ID: #R:<8603270054.AA00660@ucbvax.berke:-40:uiucdcs:177500005:000:714
Nf-From: uiucdcs.CS.UIUC.EDU!mcewan   Mar 30 12:22:00 1986

> Despite Jwahar R. Bammi's rebuttal, the problem described (no printing
> of statements not ending in '\n' until explicit buffer flush) is a bug.
> It is possible to use fflush(stdout) to get around it, as he describes,
> but that is not how most standard library printf()s require things.

Just because MOST standard library printf's do not buffer output to the
terminal does not mean that that is the only correct way. This is
implementation-dependent, and anyone who wants to write portatble code
should use fflush, even if it is not required by the library they are
using.

              Scott McEwan
              {ihnp4,pur-ee}!uiucdcs!mcewan

Green s/m watchlizard seeks s/f/wl - object: companionship. Reply
Box 23, Cynosure.

From 2498524023674344302
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,8371d4f76e1382e0,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 12da6b,8371d4f76e1382e0,start
X-Google-Attributes: gid12da6b,public
X-Google-Thread: 152df8,8371d4f76e1382e0,start
X-Google-Attributes: gid152df8,public
X-Google-Thread: 15517a,8371d4f76e1382e0,start
X-Google-Attributes: gid15517a,public
X-Google-Thread: 140593,8371d4f76e1382e0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-30 17:32:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!bellcore!ulysses!allegra!mit-eddie!think!harvard!seismo!
columbia!garfield!kearns
From: kearns@garfield.columbia.edu (Steve Kearns)
Newsgroups:
net.micro.mac,net.micro.pc,net.micro.atari16,net.micro.atari,net.lang.c
Subject: Horrible Aztec C BUG!!!
Message-ID: <1427@garfield.columbia.edu>
Date: Sun, 30-Mar-86 20:32:01 EST
Article-I.D.: garfield.1427
Posted: Sun Mar 30 20:32:01 1986
Date-Received: Wed, 2-Apr-86 20:54:56 EST
Organization: Columbia University CS Department
Lines: 30
Xref: linus net.micro.mac:5284 net.micro.pc:7305 net.micro.atari16:287
net.micro.atari:2913 net.lang.c:7701
Summary: Horrible Aztec C BUG!!!

Just discovered a pretty gross bug in the Aztec C for the Macintosh.
If anyone uses the realloc function, expect random, devestating bugs.

The realloc function is supposed to change the amount of memory gotten from
a previous malloc. However, Aztec C (I looked at the sources, which are
included) implements this by first freeing the old block of memory, then
mallocing the new memory, and finally moving the old data to the new memory.
OF COURSE, ONCE A BLOCK IS FREED, ITS DATA CAN BECOME GARBAGE. In fact
on the Macintosh a subsequent malloc call after a free often causes the heap
to be compacted, expanded, etc.. each of which can trash the data.

The reason this code is written this way is a holdover from Unix, which
promises not to compact under certain circumstances.

The workaround for this is to call malloc yourself, then move the data, and
finally free the old block. The problem with this is that it requires twice
the memory of a realloc, because we have to have the old and new blocks of
memory at the same time. But at least it doesn't crash.

Their realloc routine may work as advertised on some systems; it depends on the internals of the Macintosh. I found the problem when my Mac program produced garbage at random intervals. Implementing my workaround fixed the problem.

Note that Aztec C is an otherwise great package. However, I bought the professional version for $500 and they didn't even include a lint. What a ripoff.

From 8081036530168061970
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 125dc4,6aef934ff932cb37,start
X-Google-Attributes: gid125dc4,public
X-Google-Thread: 140593,6aef934ff932cb37,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-30 21:04:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.PCS 1/10/84; site mtgzy.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.games,net.micro.atari16
Subject: Mindshadow help on 520ST
Message-ID: <1687@mtgzy.UUCP>
Date: Mon, 31-Mar-86 00:04:15 EST
Article-I.D.: mtgzy.1687
Posted: Mon Mar 31 00:04:15 1986
Date-Received: Tue, 1-Apr-86 08:20:23 EST
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 5
Xref: watmath net.games:2665 net.micro.atari16:329

I'm looking for some hints on the Mindshadow adventure on the Atari 520ST. I have gotten as far as taking many airplane rides between Luxembourg and London, found many documents and have reached a point where I have no idea what I should be doing next. Any hints would be greatly appreciated.

From 5784530557549160 99
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ec2d3c1ea31b7763,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-30 22:04:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!esfraga
From: esfraga@water.UUCP (Eric S Fraga)
Newsgroups: net.micro.atari16
Subject: Yet Another Terminal Emulator posted to net.sources.
Message-ID: <287@water.UUCP>
Date: Mon, 31-Mar-86 01:04:45 EST

Article-I.D.: water.287
Posted: Mon Mar 31 01:04:45 1986
Date-Received: Mon, 31-Mar-86 06:32:30 EST
Reply-To: esfraga@water.UUCP (Eric S Fraga)
Organization: U of Waterloo, Ontario
Lines: 22

New Terminal emulator: WTERM

(don't ask where the name comes from -- long story)

This terminal emulator has the following features:

     VT52 support (ie. almost upwards compatible with standard Atari)
     insert and delete character capability (nice in VI and such)
     sysline mode line
     Tektronix 4010 (tm) support

and miscellaneous other things. Written using VDI calls.

The source has been posted to net.sources.

Enjoy.
--

Eric S Fraga || esfraga@water.uucp
Dept of Computer Science || esfraga%water@waterloo.csnet
U of Waterloo || esfraga%water%waterloo.csnet@csnet-relay.arpa

From -8549245049284080172
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b588638ad9707a72
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 04:36:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: unsqueezer
Message-ID: <54600043@iuvax.UUCP>
Date: Mon, 31-Mar-86 07:36:00 EST
Article-I.D.: iuvax.54600043
Posted: Mon Mar 31 07:36:00 1986
Date-Received: Sat, 5-Apr-86 04:30:47 EST
References: <707@mprvaxa.UUCP>
Lines: 10
Nf-ID: #R:mprvaxa:-70700:iuvax:54600043:000:223
Nf-From: iuvax!franco   Mar 31 07:36:00 1986

Send me a disk and I will copy it for you (no squeezing, decoding etc.)

John Franco
Computer Science Dept.
Indiana University
Lindley 101
Bloomington, IN 47405

Be sure to include packing material with postage and address.

From -1881793038471000482
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fbcdc6f07adb90ff
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 07:16:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpg.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.atari16
Subject: Re: --- Megamax Printf bug ---
Message-ID: <1746@ihlpg.UUCP>
Date: Mon, 31-Mar-86 10:16:29 EST
Article-I.D.: ihlpg.1746
Posted: Mon Mar 31 10:16:29 1986
Date-Received: Wed, 2-Apr-86 01:45:04 EST
References: <8603270054.AA00660@ucbvax.berkeley.edu>
Organization: AT&T Bell Laboratories
Lines: 13

>
> Despite Jwahar R. Bammi's rebuttal, the problem described (no printing
> of statements not ending in '\n' until explicit buffer flush) is a bug.
> It is possible to use fflush(stdout) to get around it, as he describes,
> but that is not how most standard library printf()s require things.
> Sorry, Jwahar.
>   -Richard Hartman
>   nep.pgelhause@ames-vmsb
Really? Most of the printf()s I have experienced have had this "feature".

The "bug" is not in printf(). The bug is in the OS where you cannot set a NOT
BUFFERED flag.
--j.a.tainter

From 2548768593238542449
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,590d9d587599f940
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 07:27:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpg.UUCP

Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.atari16
Subject: Re: bidirectional ST printer port
Message-ID: <1747@ihlpg.UUCP>
Date: Mon, 31-Mar-86 10:27:50 EST
Article-I.D.: ihlpg.1747
Posted: Mon Mar 31 10:27:50 1986
Date-Received: Wed, 2-Apr-86 01:46:55 EST
References: <8603270456.AA05025@ucbvax.berkeley.edu>
Organization: AT&T Bell Laboratories
Lines: 14

> I was hoping that the ST printer port was bidirectional, but I have seen
> no documentation for it. The ST manual shows only one set of data pins
> on the printer socket, and the developer's kit only talks about writing
> to the printer, not reading from it. So:
>
> What are the pins on the printer socket for doing input to the ST?
> What does the software interface look like? Is it the obvious thing
> (using one of the BIOS input routines with the the printer device)?
>
>   Dan Franklin

The printer port is a bidirectional parallel port. That means the same pins
used for output are used for input. The software interface is the BIOS
input routines with device parameters as you suspected.

From 5728694726810997852
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 12:17:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!ittatc!dcdwest!sdcsvax!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: macintosh software on the atari 520/1040ST
Message-ID: <8603312048.AA04645@ucbvax.berkeley.edu>
Date: Mon, 31-Mar-86 15:17:29 EST
Article-I.D.: ucbvax.8603312048.AA04645
Posted: Mon Mar 31 15:17:29 1986
Date-Received: Wed, 2-Apr-86 08:02:56 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

Does anyone know any more about the company which has developed a
cartridge that plugs into the ST, allowing it to run Macintosh software?
There was a small item on this in the March 30th San Jose Mercury computer
section and someone told me that the product works successfully with

MacWrite and MacPaint. However the obstacle facing mass production is
the approval of Apple, which seems to be necessary in order for this
company to distribute their product with the Macintosh ROMs. Wouldn't
it be possible for them to sell the cartridge without the ROMs and let
the buyer purchase and install them? I have also heard that there
will be a demo of this cartridge (MacCartridge?) at the West Coast
Computer Faire. Anyone know about that?

- Brian Reilly

From 4289732882358101934
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e8d0f7b8d0a70e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 13:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles $Revision: 1.7.0.10 $; site megamax
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!pur-ee!uiucdcs!convex!megamax!m5
From: m5@megamax
Newsgroups: net.micro.atari16
Subject: Re: Orphaned Response
Message-ID: <3100001@megamax>
Date: Mon, 31-Mar-86 16:15:00 EST
Article-I.D.: megamax.3100001
Posted: Mon Mar 31 16:15:00 1986
Date-Received: Sat, 5-Apr-86 03:49:51 EST
References: <398@ihnet.UUCP>
Lines: 7
Nf-ID: #R:ihnet.UUCP:398:megamax:3100001:000:280
Nf-From: megamax!m5   Mar 31 15:15:00 1986

The function getchar() is designed to return characters from line-
edited input from the keyboard, in keeping with the implementation
of standard I/O everywhere else in the world. If you want characters
as they are typed, use the low level BIOS routines.

Mike McNally   Megamax

From -2022595399095859565
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,aedee6431a35ce7b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-31 20:10:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!pm
From: pm@cwruecmp.UUCP (Prabhaker Mateti)
Newsgroups: net.micro.atari16
Subject: Detach your STs keyboard!

Message-ID: <1454@cwruecmp.UUCP>
Date: Mon, 31-Mar-86 23:10:33 EST
Article-I.D.: cwruecmp.1454
Posted: Mon Mar 31 23:10:33 1986
Date-Received: Wed, 2-Apr-86 07:41:40 EST
Reply-To: pm@cwruecmp.UUCP (Prabhaker Mateti)
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 84
Summary:

I had built a detached keyboard for the ST! It uses the original ST keyboard, original keyboard top cover (bearing the Atari 520ST logo), and a few (new, but surplus) parts (see below). Hardly any electronics experience needed for this project. Most of it depends on how well you can construct an enclosure for the keyboard.

To me, the whole thing looks much classier: the plexiglass I bought was dark satin brown, and it contrasts perfectly with the STs native color.

So far, it has been in daily use for about 5 weeks without any problems. The coiled chord from the keyboard plugs into the "main" box, the mouse (and the joystick, when we have some need for it) plug(s) into the keyboard housing. If need be, it can be reassembled into the way it originally was, except for the saw cut made along the deep groove you find running along the entire width above the function keys and the 520ST logo.

Connections

  The keyboard plugs into the main board using an 18-pin connector (J12). These pins are numbered 1 through 18, one starting at the bottom (closest to the keyboard). Only five of these need go to the board; of the remaining 13 pins, one is a keyway ("pin" 2 which is absent), pin 18 is unconnected, and eleven send/receive signals from the mouse/joy0 and joystick1 ports:

Mouse	J12		Joystick1	J12	
Up/XB	1	12	up	1	7
dn/XA	2	10	dn	2	5
lt/YA	3	9	left	3	4
rt/YB	4	8	right	4	3
---	5	unconnected	reservd	5	17
fire/lt	6	11	fire	6	6
+5V	7	13	+5V	7	13
ground	8	1	ground	8	1
fire/rt	9	6	--	9	unconnected

The main reasons I moved the DB-9s to the keyboard were:
(i) I could not find a coiled chord with 16 conductors (I cannot stand external ribbon cables).
(ii) I felt the mouse and keyboard should be close.
Alas, a typical phone extension chord has only 4 conductors, and we need five:

J12
---
16   ~reset   (generated on the main board)
15   Tx Data (of U21 6850 ACIA)
14   Rx Data (of U21 6850 ACIA)
13   +5V
1   ground

Parts Needed
----
     coiled chord of sufficient length, min 5 conductors
     5-, or 6-pin DIN socket and plug
     2 DB-9s
     1 18-pin plug 0.1in pin separation (can use > 18-pin plug too)
     1 18-pin socket (can use upto 20-pin socket)
and some scrap plexiglass sheets.

Construction

Most of it is this "box" making with a few solder connections as indicated
above. To instruct how to do the construction is so tedious that I am
going to suggest the very obvious: Open up your ST, and carefully examine it
until you discover your own way of doing it. Two cautionary remarks, however:

o The plexiglass enclosure should be constructed with precision. My wood-
  working imprecision made me ruin a couple of panels before I got everything
  accurate to within a millimeter! And the edges should be real straight.

o Underneath the keyboard are a few chips; make sure you allow for them and do
  not make the keyboard rest physically on these.

Have fun!
--

prabhaker mateti   decvax!cwruecmp!pm
department of computer engineering & science   pm@Case
case western reserve university   (pm%Case@csnet-relay)
cleveland, oh 44106   (216) 368-2816

From -4929035780928129691
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,834598e6d0c9b34d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 07:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!linus!decvax!bellcore!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP

Newsgroups: net.micro.atari16
Subject: Re: Re: UNSQUEEZER (uuencoded binary)
Message-ID: <54600044@iuvax.UUCP>
Date: Tue, 1-Apr-86 10:53:00 EST
Article-I.D.: iuvax.54600044
Posted: Tue Apr 1 10:53:00 1986
Date-Received: Sat, 5-Apr-86 05:14:09 EST
References: <251@brueer.UUCP>
Lines: 9
Nf-ID: #R:brueer:-25100:iuvax:54600044:000:214
Nf-From: iuvax!franco   Apr 1 10:53:00 1986

Apparently you received a garbled STUSQ. Send me a disk with SASE and your
name and address and I will make a copy for you.

John Franco
Computer Science Depat.
Indiana University
Lindley 101
Bloomington, IN 47405

From -6104705545893869947
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 09:13:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site molihp.UUCP
Path: utzoo!utcsri!ubc-vision!molihp!robt
From: robt@molihp.UUCP (Robert L Thurlow)
Newsgroups: net.micro.atari16
Subject: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <149@molihp.UUCP>
Date: Tue, 1-Apr-86 12:13:55 EST
Article-I.D.: molihp.149
Posted: Tue Apr 1 12:13:55 1986
Date-Received: Thu, 3-Apr-86 02:47:57 EST
References: <54600010@iuvax.UUCP> <1988@brl-smoke.ARPA>
Reply-To: robt@molihp.UUCP (Robert L Thurlow)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 27
Summary:

In article <1988@brl-smoke.ARPA> Geoffrey Sauerborn writes:
>   I have followed the instuctions to the letter. There is no such
>thing as "ST FONT LOADER" under the desk menu after rebooting.
>I still do not get "ST FONT LOADER" under the desk menu
>after rebooting. Has anyone got it to work?

<>

It worked fine for me. But my TOS.IMG will not read desk accessories unless they are named 'DESKn.ACC', so I had to rename them. With TOS in ROM, this renaming is not necessary, and more descriptive names can be used.

BTW, the font loader seems to eat a large amount of memory for some reason when it is installed upon boot-up, and can only be used a finite number of times before some limited resource is used up. Anybody else noticed this? Could this program be smarter in its use of resources? And has anybody got a desk accessory which checks the memory usage? My check so far has been the size of chunk read during a diskcopy. The Intersect ramdisk tells you, but it cannot allocate a ramdisk with TOS in ROM, so it is a little big just to spy on the size. Maybe the Intersect ramdisk could be smarter, too.

UUCP : ...!ubc_vision!molihp!robt Robert Thurlow
#
<DISCLAIMER : my thoughts are my own, and are void where prohibited by law.>
"There was something fishy aboout the butler. I think he was a Pisces,
probably working for scale." - Nick Danger

From 6453293640197650962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6aef934ff932cb37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 09:59:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!whuxl!whuxlm!akgua!gatech!seismo!hao!hplabs!qantel!lll-lcc!ucdavis!ucbvax!mitre-bedford.arpa!jhs
From: jhs@mitre-bedford.arpa.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Mindshadow help on 520ST
Message-ID: <8604011733.AA23061@mitre-bedford.ARPA>
Date: Tue, 1-Apr-86 12:59:27 EST
Article-I.D.: mitre-be.8604011733.AA23061
Posted: Tue Apr 1 12:59:27 1986
Date-Received: Sat, 5-Apr-86 07:37:05 EST
References: <1687@mtgzy.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 7

Hint: Contact the CIA. (Visit the U.S. embassy in London and ask to see the station chief.) That should stir up a lot of new activity.
-John Sangster
P.S., I have never seen the game myself, but if I had written it, that would definitely have an effect!
P.P.S. If it doesn't work in the game, go try it in real life. That REALLY should be interesting!

From 8412997407683155566

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b931f0cf38e4052a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 11:52:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!bellcore!petrus!scherzo!allegra!princeton!orsvax1!pyrnj!
caip!seismo!mcvax!ukc!cstvax!hwcs!aimmi!andrew
From: andrew@aimmi.UUCP (Andrew Stewart)
Newsgroups: net.micro.atari16
Subject: TOS ROM upgrade on Rev.2 boards?
Message-ID: <754@aimmi.UUCP>
Date: Tue, 1-Apr-86 14:52:07 EST
Article-I.D.: aimmi.754
Posted: Tue Apr 1 14:52:07 1986
Date-Received: Sat, 5-Apr-86 07:55:03 EST
Reply-To: andrew@aimmi.UUCP (Andrew Stewart)
Organization: Heriot-Watt/Strathclyde Alvey MMI Unit, Scotland
Lines: 23

I have four Rev.2 Atari 520ST systems (*very* early revisions) and I want
to upgrade them with the TOS ROM set.
The instructions for upgrading don't seem to work on the boards I've got -
they talk about links on the ROM sockets, and I don't have any, nor do
I have the MaskROM pads beside the ROMs.
I tried upgrading one board (using Atari's instructions) and got a dead 520ST;
taking the mods out again left me with a still-dead 520ST. Sigh.
Also - I'm running one machine with two SSDD 3.5" drives. When I
replace the second drive with a DSDD drive, the machine can't see it.
The DSDD drive by itself works OK.

Anybody upgraded Rev.2 boards *without* the ROM socket pin 27/28 links?
Or daisy chained disks?
Help??

Andrew Stewart   andrew@aimmi.uucp
              ..!mcvax!ukc!aimmi.uucp!andrew
--

Andrew Stewart   USENET: ...!mcvax!ukc!aimmi!andrew

"My axioms just fell into a Klein bottle"

From -6901897745409130468
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 12:43:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!decwrl!glacier!hplabs!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16

Subject: Re: macintosh software on the atari 520/1040ST
Message-ID: <1297@ism780c.UUCP>
Date: Tue, 1-Apr-86 15:43:09 EST
Article-I.D.: ism780c.1297
Posted: Tue Apr 1 15:43:09 1986
Date-Received: Sat, 5-Apr-86 01:05:50 EST
References: <8603312048.AA04645@ucbvax.berkeley.edu>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 11

> However the obstacle facing mass production is the approval of
> Apple, which seems to be necessary in order for this company to
> distribute their product with the Macintosh ROMs. Wouldn't it be
> possible for them to sell the cartridge without the ROMs and let
> the buyer purchase and install them?

Yes, they could sell the cartridge without the ROMs, but where is
the purchaser going to buy them?
--

Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim || ihnp4!cithep!tim

From 8600853785945872655
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3ebc747167ee26e6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-01 14:21:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 SMI; site sun.uucp
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!sun!wmb
From: wmb@sun.uucp (Mitch Bradley)
Newsgroups: net.micro.atari16
Subject: The truth about USQ and PDFORTH
Message-ID: <3428@sun.uucp>
Date: Tue, 1-Apr-86 17:21:26 EST
Article-I.D.: sun.3428
Posted: Tue Apr 1 17:21:26 1986
Date-Received: Sat, 5-Apr-86 04:14:57 EST
Distribution: net
Organization: Sun Microsystems, Inc.
Lines: 24

The unsqueezer binary as received at this site was definitely not a TOS
binary file. It was a section out of the middle of the "PD" Forth
system, and has nothing at all to do with unsqueezing. Perhaps the
wrong thing was posted by accident.

A TOS executable file may be recognized by the magic number 0x601a
in the first word of the file.

By the way, the "PDFORTH" system is not exactly public domain. The version
that was posted is an *very preliminary* version of a "Shareware"
Forth system that I wrote. The shareware version will be out in the
next couple of weeks. The San Leandro Computer Club will have the
new version in their disk library. The posted PDFORTH version is
ancient; it accidentally leaked out about a week after I first had it
sort of working.   The new version is much much better; it has been
been beat on, debugged, and enhanced for 4 months instead of 1 week.

The real name of the Forth system is Forthmacs, which is somewhat
related to the fact that the new version includes MicroEmacs integrated
into Forth. I'm not going to say any more because I don't want to get
flamed for advertising on the net.

Cheers,
Mitch Bradley

From -1781081553450104780
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b0f83c63f06e105b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 01:46:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!ittatc!dcdwest!sdcsvax!ucbvax!media-lab.mit.edu!todd
From: todd@MEDIA-LAB.MIT.EDU
Newsgroups: net.micro.atari16
Subject: Intersect RAMDISK (I got it to work!)
Message-ID: <8604020421.AA05940@MEDIA-LAB.MIT.EDU>
Date: Wed, 2-Apr-86 04:46:39 EST
Article-I.D.: MEDIA-LA.8604020421.AA05940
Posted: Wed Apr 2 04:46:39 1986
Date-Received: Sat, 5-Apr-86 01:40:54 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

It took me a while to figure out the intersect ramdisk. The problem
is pretty simple.

I am one of the few (I think) that has a monochrome monitor. I
couldn't figure out how to size the ramdisk, so the silly thing would
keep crashing. I was just fooling around, and I noticed that you
change the size by pushing on little colored rectangles above and
below the numbers. On the monochrome monitor, the colored squares are
BLACK, like the background! I'm sure you color monitor guys are
having a little laugh right now.

So, I beseech (implore?) you: please be careful when you are putting
colors on top of each other, and think about us monochrome guys (both
of us). I haven't seen anyone mention this before.

By the way, Mr. Franco wouldn't tell me any more about the ramdisk
when I asked. It gets tough to answer piles of mail, its hard to find
out little quirks of programs without asking SOMEONE.

Todd Fujinaka (and I thought the monochrome system was for the
"serious" programmers......)

From -3450490180909299525
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 13544e,89d65bd8025429b8,start
X-Google-Attributes: gid13544e,public
X-Google-Thread: 142096,89d65bd8025429b8,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,89d65bd8025429b8,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 15517a,89d65bd8025429b8,start
X-Google-Attributes: gid15517a,public
X-Google-ArrivalTime: 1986-04-02 11:01:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!linus!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.unix,net.micro.atari16,net.micro.amiga,net.micro.pc
Subject: hot rumors 101
Message-ID: <317@imagen.UUCP>
Date: Wed, 2-Apr-86 14:01:52 EST
Article-I.D.: imagen.317
Posted: Wed Apr 2 14:01:52 1986
Date-Received: Sat, 5-Apr-86 04:44:24 EST
Distribution: net
Organization: The Houses of the Holy
Lines: 16
Xref: linus net.unix:6902 net.micro.atari16:290 net.micro.amiga:6389
net.micro.pc:7322

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
mircosoft is releasing Word 3.0 (word processor) and Multiplan 2.0
for both Xenix and MSDOS this summer and they say that the code will
be transportable to other UN*X systems, anyone heard anything more
on this ? confirm/deny etc. ?
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 5491302450696528809
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,127983e10040bdcd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 11:58:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: where to buy the Mac ROMS
Message-ID: <8604031243.AA14152@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 14:58:39 EST
Article-I.D.: ucbvax.8604031243.AA14152
Posted: Wed Apr 2 14:58:39 1986
Date-Received: Sat, 5-Apr-86 11:04:17 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

>> Wouldn't it be
>> possible for them to sell the cartridge without the ROMs and let
>> the buyer purchase and install them?

> Yes, they could sell the cartridge without the ROMs, but where is
> the purchaser going to buy them?

Apple dealers sell them. Maybe some of these "512K upgrade" companies
could take some of the business too.

- Brian Reilly

From 1590145717131008752
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 12:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (1)
Newsgroups: net.micro.atari16
Subject: RUMORS
Message-ID: <8604030935.AA11005@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 15:54:00 EST
Article-I.D.: ucbvax.8604030935.AA11005
Posted: Wed Apr 2 15:54:00 1986
Date-Received: Sat, 5-Apr-86 11:02:43 EST

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

Two rumors have surfaced on the info-68k list that Atari users may be able
to answer:

1. The Atari ST is running a version of CP/M-68K with GEM
   built in. (Could this be true?)

2. There exists a generic Z80 emulator (not 8080) in the
   public domain that allows 68000 machines to run CP/M-80
   programs and that this program is available for Ataris
   but is *so* generic that any 68000 based micro could
   run it. This is not to be confused with the 8080
   emulator from recent Dr. Dobb's issues.

Can anyone verify or refute these rumors?

Robert Royar
Dept. of English
University of Louisville
Louisville, KY 40292

From 4420121671892338783
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 12:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!decwrl!glacier!hplabs!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (1)
Newsgroups: net.micro.atari16
Subject: RUMORS
Message-ID: <8604030206.AA03282@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 15:54:00 EST
Article-I.D.: ucbvax.8604030206.AA03282
Posted: Wed Apr 2 15:54:00 1986
Date-Received: Sat, 5-Apr-86 05:20:28 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

Two rumors have surfaced on the info-68k list that Atari users may be able
to answer:

1. The Atari ST is running a version of CP/M-68K with GEM
   built in. (Could this be true?)

2. There exists a generic Z80 emulator (not 8080) in the

public domain that allows 68000 machines to run CP/M-80 programs and that this program is available for Ataris but is *so* generic that any 68000 based micro could run it. This is not to be confused with the 8080 emulator from recent Dr. Dobb's issues.

Can anyone verify or refute these rumors?

Robert Royar
Dept. of English
University of Louisville
Louisville, KY 40292

From 6117863341089400924
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 12:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!decwrl!glacier!hplabs!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET (1)
Newsgroups: net.micro.atari16
Subject: RUMORS
Message-ID: <8604022259.AA00201@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 15:54:00 EST
Article-I.D.: ucbvax.8604022259.AA00201
Posted: Wed Apr 2 15:54:00 1986
Date-Received: Sat, 5-Apr-86 05:28:21 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: University of Louisville
Lines: 20

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1. The Atari ST is running a version of CP/M-68K with GEM built in. (Could this be true?)

2. There exists a generic Z80 emulator (not 8080) in the public domain that allows 68000 machines to run CP/M-80 programs and that this program is available for Ataris but is *so* generic that any 68000 based micro could run it. This is not to be confused with the 8080 emulator from recent Dr. Dobb's issues.

Can anyone verify or refute these rumors?

Robert Royar
Dept. of English
University of Louisville
Louisville, KY 40292

From 6736380556542215078
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4778b7c7bc4cb994
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 13:38:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!decwrl!glacier!hplabs!ucbvax!ULKYVX.BITNET!RDROYA01
From: RDROYA01@ULKYVX.BITNET
Newsgroups: net.micro.atari16
Subject: RUMORS
Message-ID: <8604030112.AA02536@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 16:38:18 EST
Article-I.D.: ucbvax.8604030112.AA02536
Posted: Wed Apr 2 16:38:18 1986
Date-Received: Sat, 5-Apr-86 05:29:10 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: RDROYA01%ULKYVX.BITNET@SU-Forsythe.ARPA
Organization: The ARPA Internet
Lines: 27

Date: Wed, 2 Apr 86 16:22 EST
From: (1) <RDROYA01@ULKYVX.BITNET>
Organization: University of Louisville
Subject: RUMORS
To: info-atari16@score.stanford.edu
X-Original-To: info-atari16@score.stanford.edu

Two rumors have surfaced on the info-68k list that Atari users may be able to answer:

1. The Atari ST is running a version of CP/M-68K with GEM built in. (Could this be true?)

2. There exists a generic Z80 emulator (not 8080) in the public domain that allows 68000 machines to run CP/M-80 programs and that this program is available for Ataris but is *so* generic that any 68000 based micro could run it. This is not to be confused with the 8080 emulator from recent Dr. Dobb's issues.

Can anyone verify or refute these rumors?

Robert Royar
Dept. of English
University of Louisville
Louisville, KY 40292

From 7279785927254745532
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,c942806de951857f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 16:04:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site princeton.UUCP
Path: utzoo!linus!decvax!bellcore!ulysses!allegra!princeton!petsche
From: petsche@princeton.UUCP (Thomas Petsche)
Newsgroups: net.micro.atari16
Subject: 1 Meg upgrade (one more time...)
Message-ID: <1264@princeton.UUCP>
Date: Wed, 2-Apr-86 19:04:05 EST
Article-I.D.: princeto.1264
Posted: Wed Apr 2 19:04:05 1986
Date-Received: Sat, 5-Apr-86 06:21:16 EST
Distribution: net
Organization: Princeton University EECS Dept
Lines: 14

  Another repeat:

  Would someone please email me instructions for a 1 Meg upgrade
for the 520ST? I would greatly appreciate any advice on how to
avoid using the 68 ohm resisters too.

  Is there a user's group doing upgrades near Princeton, NJ??

  Thanks.

Thomas Petsche
UUCP: ...!allegra!princeton!petsche
ARPA: petsche!princeton

From -680554718447553878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c1b212803b4efb3f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 17:37:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!ittatc!dcdwest!sdcsvax!ucbvax!ames-vmsb.arpa!
nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: re: macintosh software on the atari 520/1040ST
Message-ID: <8604030237.AA03744@ucbvax.berkeley.edu>
Date: Wed, 2-Apr-86 20:37:00 EST
Article-I.D.: ucbvax.8604030237.AA03744
Posted: Wed Apr 2 20:37:00 1986
Date-Received: Sat, 5-Apr-86 09:49:09 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA

Organization: The ARPA Internet
Lines: 10

Could the person who originally posted this notice please re-cite his source (includeing page number)? I checked the Merc for Sunday the 30th (which is where I thought he said the article appeared) and found nothing of this sort. I still have the Sunday Mercury News, and other issues could be found at a local library if needed. I would like to read the original article.

-Richard Hartman
nep.pgelhausen"ames-vmsb

From 791491471812332760
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c13e65389baae32e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-02 21:20:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!bellcore!petrus!scherzo!allegra!princeton!orsvax1!pyrnj!caip!seismo!mcvax!philmds!prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.atari16
Subject: I/O port thru cartridge
Message-ID: <6@prle2.UUCP>
Date: Thu, 3-Apr-86 00:20:36 EST
Article-I.D.: prle2.6
Posted: Thu Apr 3 00:20:36 1986
Date-Received: Sat, 5-Apr-86 07:58:29 EST
Reply-To: slavenbg@prle2.UUCP (Douglas Renaux)
Organization: Philips Research Laboratories Eindhoven
Lines: 265
Keywords: hardware, 520ST

An Input/OUTPUT Port for the Cartridge Slot of the 520ST

By Douglas P. B. Renaux - Feb 27, 1986.

This document describes the hardware and software of a 8 lines input/16 lines output port. The circuitry is connected to the Cartridge Slot of the ATARI 520 ST.

IMPORTANT!!! - INFORMATION IN THIS DOCUMENT CAN BE FREELY USED AND COPIED. HOWEVER, NO CHANGES CAN BE MADE TO IT WITHOUT CONSULTING THE AUTHOR FIRST, NOR THE AUTHOR'S NAME CAN BE OMISSED IN THE COPIES.

Foreword

Although the Cartridge Slot is intended for data input, specifically from a ROM, it can be used as an output port. To substitute the READ/WRITE line, that is not available on the slot, I used a WRITE ENABLE LATCH. This latch is set by READING a memory location. The consequence of seting this latch is that the output latches will read the data bus during the next instruction, which will be a memory WRITE that outputs the desired data.

1 - The signals available on the Cartridge Slot

```
     D0..D15 - DATA BUS
     A1..A15 - The 15 least significant addresses from the ADDRESS BUS
ROM 3 SELECT - Active when a READ instruction accesses $FB0000 to
               $FBFFFF
   UDS',LDS' - Upper and Lower Data Strobe
```

2 - The I/O PORT

The block diagram of the I/O PORT is in the file BLOCKDIA.PI3. Circuit diagrams are in ADDRESS.PI3 and IN'OUT.PI3. If you don't have these drawings then in appendix A you can read a description of the circuit.

The circuit of the I/O PORT is standart. A address decoder enables the output latches or the input buffers when the correct address is accessed. However, the output latches are only enabled if previously the WRITE ENABLE LATCH was set.

Address Decoder:
The lines A3..A15 are connected to NAND gates that detect when all these lines are at high level. The lines A2 and A1, select one of the four outputs of a decoder.

The output of the NOR gate "a" is active when we read from $FBFFFE. To decode a read to this address we use the outputs of the two NAND gates, the output three of the decoder (active when A1 and A2 are high) and the line ROM 3 SELECT.
The output of NOR gate "a" sets the WRITE ENABLE LATCH.

The output of NOR gate "b" decodes the address $XXFFFC. To decode an access to these addresses (read or write), we use the outputs of the NAND gates, output two of the decoder and the line LDS'.
ROM 3 SELECT cannot be used here because it is only active on read.
When a write instruction accesses the address $10FFFC (non-existent in 1MByte ST's) then the output of NOR gate "b" becomes active.

An AND gate enables the output latches to read the data bus if the WRITE ENABLE LATCH is set AND the output of NOR gate "b" is active.

The output of NOR gate "b" is delayed (by four inverters) and then

resets the WRITE ENABLE LATCH, just after the latches have read the data bus.

NOR gate "c" decodes a read to address $FBFFFA, as gate "a" does, but using output one of the decoder. The output of gate "c" enables the buffers to copy their inputs to the data bus.

3 - Components

2- 4068	NAND	gates for address decoding
2- 4002	NOR	gates for address decoding
1- 4556	1 OF 4 DECODER	for address decoding
1- 4043	SR FLIP-FLOP	write enable latch
1- 4049	INVERTER	
1- 4081	AND	
2- 40373	LATCHES	output latches
1- 74LS244	BUFFERS	input buffers

4 - Expansion

This I/O PORT is easily expandable to as many I/O lines you want. Only one WRITE ENABLE LATCH is necessary if the expansion is made in a way that any write to port instruction resets the latch. Another solution is to have a reset latch address (as we have a set latch address). In this case the write to port instructions don't need to reset the latch, and you can output a block of data to several addresses without needing to set the latch in between. Only at the end of the block transfer this would be necessary.

You can have another 8 inputs by just connecting another 74LS244 to D8..D15 of the data bus.

5 - Software

To write to the output lines the contents of D0:

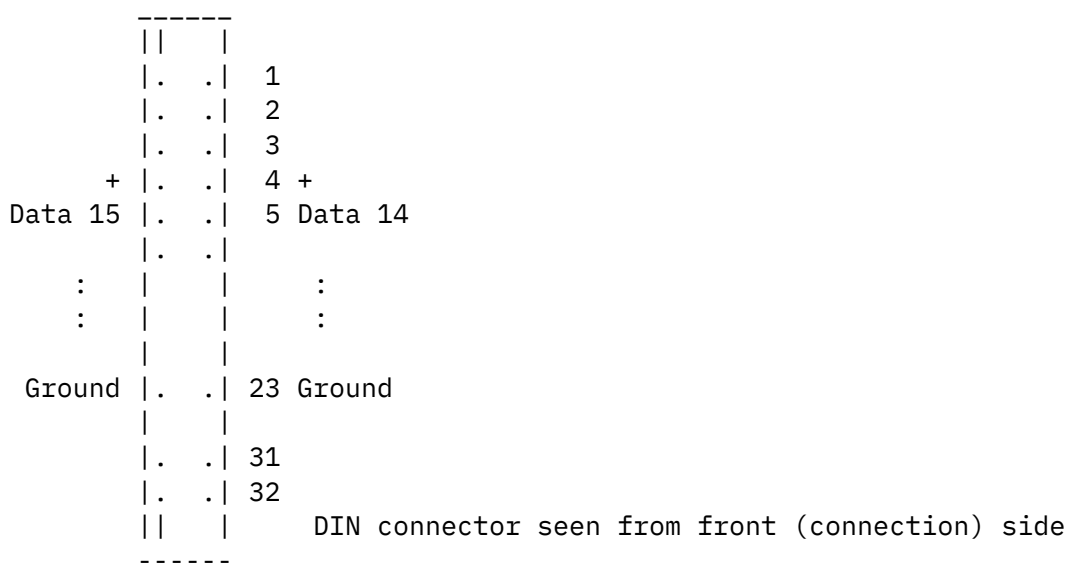
```
MOVE.W    $FBFFFE,D1     ;D1 is destroyed, latch is set
MOVE.W    D0,$10FFFC     ;D0 is latched
```

To read the input lines to D0:

```
MOVE.W    $FBFFFA,D0
```

6 - Connection to the ST

I could not find a experimentor PC Board with an edge connector that fits to the ST. So I made a convertor from the 40 pin edge connector (with spacing of 2mm) to a 64 pins euroconnector (DIN 41612). This convertor is simply a double sided PCB with 20 lines (on each side) of 1mm spaced by 2mm (center of one line to center of next line). These lines widen to 2.54 mm to fit the DIN connector. Line one of the ST goes to line 4 of the DIN connector. The tabs of the DIN connector are on the lower side.



I intend to connect some of the free lines of this connector to internal signals of the ST. Would be nice to have a standart connector between ST users. Whoever has ideas about which signals to connect and to which pin should let the others know about it.

7 - Conclusion

It is possible to open the ST !!

And this opens a lot of possibilities in hardware design. The 68000's power can be used outside the ST's box.

But a complex machine like the ST cannot be easily expanded without having information about it. The information that ATARI delivers only to software houses. Please ATARI, let everybody know about the ST. Let the POWER be available to all users.

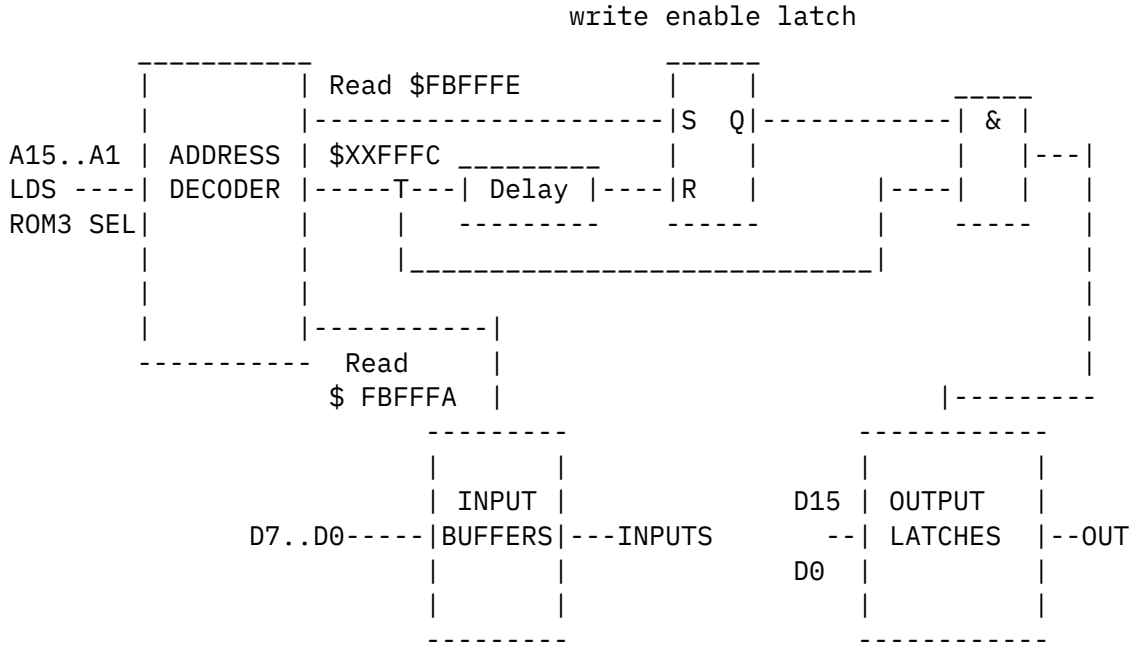
Douglas P. B. Renaux
Outshoornstraat 55
5622GX Eindhoven - NL
Tel 31-40-436930
(Address valid until May 25,1986)

People dealing with hardware design
are cordially invited to contact me.

APPENDIX A

Circuit Description.

Block Diagram:



Address Decoder Description:

Address lines A15 to A3 are connected to the inputs of two 4068 (8-input NAND). Inputs are pins 2,3,4,5,9,10,11,12. One of these NAND gates has three inputs tied high. Power supply is connected to pin 14 (+) and pin 7 (ground).

The address lines A2 and A1 are connected to the select lines of the 4556 (1 of 4 decoder), pins 3 (A2) and 2 (A1). The enable line (pin 1) is tied low. Pins 16(+) and 8 (ground). The outputs of the decoder are: output 0 at pin 4, output 1 (pin 5), output 2 (pin 6), output 3 (pin 7).

The second level of the address decoding is done by three NOR gates of four inputs (4002). Two chips are necessary. These gates are labelled "a", "b" and "c".

Pinning of the 4002: inputs 2,3,4,5; output pin 1
inputs 9,10,11,12; output pin 13
power: pin 14 (+); pin 7 (ground).

Two inputs of gate "a" are connected to the outputs of the 4068 (pin 13). The third input is connected to ROM3 SELECT and the fourth input goes to output 3 of the decoder. The output of gate "a" is connected to the SET input of the WRITE ENABLE LATCH.

Gate "b". Inputs: the two outputs of the 4068s, output 2 of the decoder and LDS. The output of this gate is the line $XXFFFC of the block diagram, it goes to a chain of four inverters (4049) to produce a delay, and it goes to an AND gate.

Gate "c". Inputs: the two outputs of the 4068s, output 1 of the decoder and ROM3 SELECT. The output of gate "c" is inverted by a 4049 and then connected to the enable line of the input buffers (74LS244).

Delay chain: The hex inverter 4049 (inputs pins 3,5,7,9,11,14; outputs pins 2,4,6,10,12,15 respectively) is used. Four inverters are chained to give the desired delay and one inverter is used for the enable of the input buffer. Power is on pin 1 (+) and pin 8 (ground). Note that + is NOT on pin 16!

Write enable latch: A 4043 (SR-latch) is used. SET is on pin 4, RESET on 3 and Q on 2. Pin 5 (output enable) is tied low. Power is on pins 16 (+) and 8 (ground). SET is connected to the output of gate "a". RESET goes to the output of the delay chain.

AND gate (4081). Inputs: Q from the latch (connected to pin 1) and the output of gate "b" (connected to pin 2). The output of this gate (pin 3) enables the output latches. Power is on pins 14 (+) and 7 (ground).

Output latches. Two 40373 (octal latches) are used. Inputs (pins 3,4, 7,8,13,14,17,18) are connected to the DATA BUS. Outputs (pins 2,5,6,9,12, 15,16,19 respectively) are the outputs of the circuit. Pin 1 (output enable) is tied low. Pin 11 (enable latches) goes to the output of the AND gate. Power to pins 20 (+) and 10 (ground).

Input buffers. The 74LS244 (inputs 2,4,6,8,11,13,15,17 outputs 18,16, 14,12,9,7,5,3 respectively). The inputs of these buffers are the inputs of the circuit. The outputs are connected to the DATA BUS (D0..D7). Pins 1 and 19 (output enable) are connected to the inverted output of gate "c". Power to pins 20 (+) and 10 (ground).

I used the +5V from the cartridge slot to drive the circuit and 16 leds that monitor the outputs. (The leds are not connected directly to the 40373, but via buffers 4049).

From 7486435031066866657
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b588638ad9707a72
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-03 06:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: unsqueezer
Message-ID: <54600046@iuvax.UUCP>
Date: Thu, 3-Apr-86 09:09:00 EST
Article-I.D.: iuvax.54600046
Posted: Thu Apr 3 09:09:00 1986
Date-Received: Thu, 10-Apr-86 21:27:16 EST
References: <1339@cvl.UUCP>

Lines: 20
Nf-ID: #R:cvl:-133900:iuvax:54600046:000:1223
Nf-From: iuvax!franco   Apr 3 09:09:00 1986

Alot of people have received those files and alot have not. Apparently this is what happened: the files left IUBUGS (my machine) ok and were traveling merrily along from node to node until some node garbled it. Then all other nodes "downwind" of that node picked up the garbled message and transmitted it perfectly to many other sites. So alot of people have garbled files that look alike. I will not send any binaries for awhile due to a number of complaints that I have received. If you want the files I sent I suggest that you take a gamble and send one to three disks to the address below. I will copy a number of files onto those disks. (about 20 accessories such as RAMDISKS, command line interface, clocks etc., about 20 utilities such as a disk editor/file recovery program, microemacs, xmodem, (un)squeezer etc., about 20 fonts and fontloader/fonteditor, a disassembler, XLISP, the FORTH I posted, PROLOG, Tiny Basic, PD Assembler, Sources for XLISP, xmodem and a few other things, some documentation etc.) (that was about three disks worth).

My address:
John Franco
2535 Spicewood Lane
Bloomington, IN 47401

Be sure to include packing material, postage, self addressed envelope.

From -7274225034588675045
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c02853b2f7c6c1d6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-03 08:16:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!linus!decvax!bellcore!ulysses!ucbvax!xerox.com!taylor.XRCC-NS
From: taylor.XRCC-NS@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Using the ST as a VAX terminal
Message-ID: <860403-131052-1617@Xerox>
Date: Thu, 3-Apr-86 11:16:39 EST
Article-I.D.: Xerox.860403-131052-1617
Posted: Thu Apr 3 11:16:39 1986
Date-Received: Sat, 5-Apr-86 07:08:27 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: taylor.XRCC-NS@Xerox.COM
Organization: The ARPA Internet
Lines: 8

<>

Sorry if this has already been discussed, but does anyone have experience using the ST as a terminal to a VAX? I am thinking about getting a 520ST to plug into a 9600 baud line to a VAX 750. Is the VT52 emulator included with the ST useful for this application? Are there

VT100 emulators available for the ST? Is there anything to watch out
for when wiring the RS232 port? Any help greatly appreciated.

From -2747840782407962631
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,98374798a65518e1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-04-03 10:57:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!warwick!fkc
From: fkc@warwick.UUCP (Frank K Carver)
Newsgroups: net.micro.atari16
Subject: What happened to OS9?
Message-ID: <461@snow.warwick.UUCP>
Date: Thu, 3-Apr-86 13:57:11 EST
Article-I.D.: snow.461
Posted: Thu Apr 3 13:57:11 1986
Date-Received: Sat, 5-Apr-86 11:46:27 EST
Reply-To: fkc@snow.UUCP (Frank K Carver)
Organization: Luxury Custom Planets Ltd, Magrathea
Lines: 25

[_does_ the line-eater really exist ?]

A few months ago I seem to recall two or three articles from people who
said that they were porting OS9/68000 to the Atari ST. A typical
message would imply that they were nearly there, and to stand by for
more details.   Without exception they seem to have dried up. I keep
looking at software lists, and watching the net, but there is no OS9 to
be seen.

Is there some reason why a port _can't_ be done?   Do the Microware
hit-men come and shoot your kneecaps ? Or, (as is probably more likely,)
have I just missed an anouncement or two.   Could someone please
enlighten me.

Cheers,
Frank.
--
Frank K Carver   "In space ... no one can hear your laser sound-effect"
         Join the Group Against Gratuitous Acronyms (GAGA) NOW !

Computer Systems Engineering, University of Warwick, Coventry, UK
or "Magrathea", 5 Whitefields, Gibbet Hill Road, Coventry, CV4 7AL, UK

UUCP: ..mcvax!ukc!warwick!fkc
ARPA: 'fraid-not@THE-MOMENT

From 6445063209515127029
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 142096,fa3ea4df545a9d51,start
X-Google-Attributes: gid142096,public
X-Google-Thread: 140593,fa3ea4df545a9d51,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 152df8,fa3ea4df545a9d51,start
X-Google-Attributes: gid152df8,public
X-Google-ArrivalTime: 1986-03-21 08:28:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site amdcad.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!amdcad!jimb
From: jimb@amdcad.UUCP (Jim Budler)
Newsgroups: net.micro.atari16,net.micro.amiga,net.micro.mac
Subject: Re: uu and otherwise encoded binaries
Message-ID: <10938@amdcad.UUCP>
Date: Fri, 21-Mar-86 11:28:02 EST
Article-I.D.: amdcad.10938
Posted: Fri Mar 21 11:28:02 1986
Date-Received: Sat, 22-Mar-86 14:23:31 EST
References: <1293@ecsvax.UUCP>
Reply-To: jimb@amdcad.UUCP (Jim Budler)
Distribution: net
Organization: AMD, Sunnyvale, California
Lines: 26
Xref: watmath net.micro.atari16:252 net.micro.amiga:2457 net.micro.mac:5203

In article <1293@ecsvax.UUCP> urjlew@ecsvax.UUCP (Rostyk Lewyckyj) writes:
>
>I am not a network official. I am just a tyro users, one individual
>but please hearken to my plea.
>
>I plead with you not to post uuencoded binaries to net.sources.
>Please post only human readable sources to that collection. The
>only allowable exception that I can see would be for binary data!
>in a standardized interchange format, e.g. an IFF encoded picture
>file, or machine independant initialization data for a posted
>program. Machine specific encryptions should be confined to the
>newsgroup/list devoted to that hardware.

Interesting....

    A year ago the "newsgroup/list devoted to the hardware"
    net.micro.mac threw out mac sources and binaries and CREATED
    net sources.mac.

    Now, along people come..... It's an old story.

--
 Jim Budler
 Advanced Micro Devices, Inc.
 (408) 749-5806
 Usenet: {ucbvax,decwrl,ihnp4,allegra,intelca}!amdcad!jimb
 Compuserve: 72415,1200

From 8959992074995609036
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a18a94c72e3579e1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 08:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: ST char screen I/O query!?!
Message-ID: <96100006@unido.UUCP>
Date: Fri, 21-Mar-86 11:29:00 EST
Article-I.D.: unido.96100006
Posted: Fri Mar 21 11:29:00 1986
Date-Received: Tue, 25-Mar-86 04:11:04 EST
Sender: notes@unido.UUCP
Lines: 16
Nf-ID: #N:unido:96100006:000:710
Nf-From: unido!uh   Mar 21 16:29:00 1986

Anybody in net-land who can help me?

I'm searching the screen memory of the ST or a pointer to it when the
ST is in command mode (COMMAND.TOS) or it is in a TOS application.
I want to do direct character
screen I/O like you can do on the IBM-PC, that means
I want to write directly into the character screen memory. I know that you
can do this in the pixel memory, as there are several hints mentioned in
the developers kit documentation, but there is no word about a
character buffer. Any hints are welcome. Please send e-mail to

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@unido.uucp, uh@unido.bitnet

From 6530873242991763638
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 08:35:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!brl-adm!brl-smoke!geoffs
From: geoffs@brl-smoke.ARPA (Geoffrey Sauerborn)
Newsgroups: net.micro.atari16
Subject: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <1988@brl-smoke.ARPA>
Date: Fri, 21-Mar-86 11:35:45 EST
Article-I.D.: brl-smok.1988
Posted: Fri Mar 21 11:35:45 1986

Date-Received: Tue, 25-Mar-86 04:10:04 EST
References: <54600010@iuvax.UUCP>
Reply-To: geoffs@brl-smoke.ARPA (Geoffrey Sauerborn (TANK) <geoffs>)
Organization: Ballistic Research Lab (BRL)
Lines: 25

>... Put the whole message into emacs and separate the pieces
>manually. Then uudecode each piece. Place FONT.ACC on a boot disk
>which has TOS.IMG (hope you still have a copy of that around). Place
>all the fonts on some disk (I have a special fonts disk which contains
>them all). To use: open the desk menu and click on ST FONT LOADER.
>The first or second dialog box will request that you put the font disk
>into a drive. After doing so follow the instuctions in each dialog box.
>
>Well, here goes - let me know if you have problems
>
>----------------------cut here--------------------------
>begin 644 fonts.acc

Hi. I have problems...
I have followed the instuctions to the letter. There is no such thing as "ST FONT LOADER" under the desk menu after rebooting. (Only the usual things). I even tried coping the ORIGINAL TOS disk on a new disk, removing DESK1.ACC & DESK2.ACC, and rebooting with FONTS.ACC as the only accessory.

I down loaded FONTS.ACC in the UUCODED form and decoded it from my ST and I also uudecoded it on the host computer first and then down loaded (of course this time I used the "image" option for kermit). all to no avail. I still do not get "ST FONT LOADER" under the desk menu after rebooting. Has anyone got it to work?

From 8467280438879560338
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dfd3a3c998df1a80,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 11:18:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!langdon
From: langdon@lll-lcc.UUcp (Bruce Langdon)
Newsgroups: net.micro.atari16
Subject: OSS Personal Pascal hints and kinks
Message-ID: <200@lll-lcc.UUcp>
Date: Fri, 21-Mar-86 14:18:28 EST
Article-I.D.: lll-lcc.200
Posted: Fri Mar 21 14:18:28 1986
Date-Received: Sat, 22-Mar-86 23:22:11 EST
Organization: Lawrence Livermore Labs, LCC, Livermore Ca
Lines: 330
Keywords: OSS,Pascal,bugs

Below is info on Personal Pascal from the bbs of its publisher.
(Neither me nor my employer are connected to OSS except I buy their stuff)

Bruce Langdon L-472 langdon%lll-lcc@lll-crg.ARPA
Physics Department "langdon#bruce%d"@lll-mfe.ARPA
Lawrence Livermore National Laboratory
Livermore, CA 94550 (415) 422-5444
UUCP: ..{gymble,ihnp4,seismo}!lll-crg!lll-lcc!langdon

From OSS bbs 3/21/85 (408) 446-3451

Files to download:

STRVAL.PAS 7K 03/03/86 10:29:18
Str and Val procedures for Pascal

PASFIX1.PAS 3K 03/01/86 15:52:04
Patches to Personal Pascal-- fixes a few bugs

SOUNDDEM.PAS 3K 03/01/86 18:06:39
Demo which uses XBIOS to access sound chip

PASACC.DOC 11K 02/22/86 00:00:00
Desk accessories with Pascal

AESVDI.DOC 12K 02/22/86 00:00:00
How to do more AES and VDI calls

INTRO.DOC 2K 02/22/86 00:00:00
Introduction to BIOS, XBIOS, and GEMDOS calls

CHAR.DOC 8K 02/22/86 00:00:00
Character-oriented BIOS, XBIOS, and GEMDOS calls

FILE.DOC 10K 02/22/86 00:00:00
File-oriented GEMDOS calls

PORT.DOC 5K 02/22/86 00:00:00
Configuring I/O ports (serial and parallel)

TIME.DOC 4K 02/22/86 00:00:00
System date and time functions

COPY.PAS 3K 02/22/86 00:00:00
Sample copy pgm (uses GEMDOS calls-- compile for TOS)

DIRLIST.PAS 2K 02/22/86 00:00:00
Directory list program (compile for TOS)

THEIGHT.PAS 4K 02/22/86 00:00:00
Set/get height of text drawn by the Draw_String routine.

Messages:

#4 - 246 chars 02/20/86 15:29:42
Re: More Pascal Documentation

We have started putting up additional
documentation for Personal Pascal.
Please bear with us a we hurry to put
more documentation up, but it does
take some time since we have to send
it from the ST to our 8-bit machine,
which is running the BBS!

#24 - 437 chars 02/23/86 17:23:49
Re: Personal Pascal Bugs

Several bugs have been reported in the Personal Pascal
system, most of which can be easily fixed. A patch
program will be available soon on this system which fixes
the following problems:
  - the routine "Bring_To_Front" not found
  - mysterious numbers in the ITEM SELECTOR dialog
  - "Delete_Dialog" sometimes crashing
  - a few more fairly obscure bugs
In addition, read the following few messages for a few
fixes you can apply now.

#25 - 357 chars 02/23/86 17:29:42
Re: Rect_Intersect in GEMSUBS

The definition of the Rect_Intersect
procedure was left out
of the early versions of the GEMSUBS.PAS
file. If you file
is missing this declaration, please insert the following:

```
  PROCEDURE Rect_Intersect( x, y, w, h : integer ;
              VAR newX, newY, newW, newH : integer )
                : boolean ;
    EXTERNAL ;
```

into your GEMSUBS.PAS file.

#26 - 386 chars 02/23/86 17:31:12
Re: Bring_To_Front routine

The Bring_To_Front routine in the PASGEM library also has a problem in early releases. Due to a typographical error, the name actually used in the PASGEM file is "Brint_To_Front". As mentioned in a previous message, a patch program will soon appear to fix this problem, but in the meantime, you will have to use this incorrect spelling, if you want to use the Bring_To_Front routine.

#27 - 558 chars 02/23/86 17:35:03
Re: Cmd_Args and Filename

One more problem exists in the Pascal libraries, this time in the PASLIB file. One of the modules in that file is in the wrong position, causing undefined symbols if you try to use the Cmd_Args or Filename functions. The actual symbol marked undefined is something like "strukteq". If you want to use either of these routines, you need to tell Personal Pascal to make two passes through the PASLIB file by putting the name PASLIB in the "Additional Link Files" box in the "Linker Options" dialog. Once you do this, both routines will be linked correctly.

#28 - 168 chars 02/24/86 10:19:06
Re: Pascal FOR loop variable

To- David Duberman
  Yes, we do intend to allow Long_Integer FOR loop counters. We also intend to allow variables to occupy more than 32K of space in a future release.

#30 - 398 chars 02/24/86 10:27:44
Re: Pascal output to printer

If you want to open a file to the printer using Personal Pascal, the following procedure call should work:

```
  rewrite( f, 'prn:' ) ;
```

if f is of type "text". ('lst:' works too, as do the upper-case versions) You can also make the standard output go to the printer with:

```
  rewrite( output, 'prn:' ) ;
```

DON'T use the "reset" call with the printer, since that call opens a file for INPUT, not OUTPUT.

#31 - 414 chars 02/24/86 10:33:53
Re: Use of Get_DEdit

Some people have expressed confusion about how to use the Get_DEdit call. In order to retrieve the final value of an edited string from a dialog, you should declare a variable to hold the result:

```
  VAR
    new_value : Str255 ;
```

Then use Get_DEdit AFTER calling Do_Dialog:

```
  Get_DEdit( the_dialog, the_field, new_value ) ;
```

The string "new_value" will then contain the final value of the editable field "the_field".

#32 - 391 chars 02/24/86 10:37:12
Re: IO_Check and IO_Result

We blew it! If you want to use the IO_Check and IO_Result routines from within a Pascal program, you must declare the routines to be EXTERNAL, in order to let the compiler know about them. This gem of knowledge was inadvertantly left out of the manual. Declare the routines like this:

```
  PROCEDURE IO_Check( on : Boolean ) ;
    EXTERNAL ;
  FUNCTION IO_Result : Integer ;
    EXTERNAL ;
```

#33 - 617 chars 02/24/86 10:40:31
Re: Pascal with two drives

Some people have had difficulty telling Pascal to put their source and object on drive B:, if they have a two-driver system. In order to edit, compiler, or link a file on drive B:, select the option so you get the ITEM SELECTOR dialog, then do the following:

1. Click the mouse on the upper text field (where the directory is shown)
2. Use the keyboard to change the leading "A:" to "B:"
3. Move the mouse down into the area where the file names are shown, and click the mouse once (this tells

GEM that you have changed the directory).
You should now see the list of files on the B drive.

#35 - 795 chars 02/24/86 11:30:12
Re: STRING type w/ Pascal

There are a couple of things to keep in mind when using the STRING type in Personal Pascal. Whenever you use the STRING type, with or without a length specified, you are declaring a "new-type" (see page 6-20 of your manual). A "new-type" is incompatible with all other new-types. So, if you declare a procedure like this:

```
  PROCEDURE p( VAR s : STRING[10] ) ;
```

there is no way to pass another variable declared as STRING[10] to the procedure, since the two "STRING[10]" variables are different types! In order to pass a variable to the procedure, declare a type in the TYPE section like this:

```
  TYPE Str10 = STRING [ 10 ] ;
```

and declare the procedure like this:

```
  PROCEDURE p( VAR s : Str10 ) ;
```

Then, if you declare the string you want to pass as type Str10 as well, everything will work fine.

#36 - 515 chars 02/24/86 11:33:45
Re: To: Gary Cacace

We will soon have a file that demonstrates absolute memory access using PPascal. In the meantime, remember that you must be in supervisor mode if you want to access memory below $1000 or in the hardware. Also, in order to call assembly language routines, you declare them like this:

```
  PROCEDURE assem( -parameters- ) ;
    EXTERNAL ;
```

In your assembly language file, "assem" must be all capitals (ASSEM) and be declared to be ".globl". Your routine should also pull all parameters off the stack before returning!

#37 - 568 chars 02/24/86 11:37:10
Re: Libraries w/ Pascal

Several people have asked how to put Personal Pascal routines into a library (like PASGEM and PASLIB). If you want to do this, you must have the library manager AR68, available from Atari, not us. Make sure you get the patched version, or instructions on patching it, since it won't work unchanged. Also, you need the program FIXO to make your object files an even number of long-words in length. Your Pascal modules

should be compiled with the M+ and E+ options, and shouldn't reference any global variables, if you want any Pascal program to be able to use them

---

#40 - 358 chars 03/03/86 09:52:04
Re: Pascal Wishes

Several people have suggested that in a future update of Pascal we allow some of the Pascal program files to reside on a different disk (e.g., to put the compiler on a ramdisk). We have this on our wish-list for future versions. If any of you have other wishes for future Pascal versions, please leave a message here or write. Your thoughts are important.

#41 - 351 chars 03/03/86 09:56:22
Re: Problems with CASE in Pascal

Some people have had difficulty using the CASE statement with Pascal. So far, the problem has been that they tried to use a variable as a CASE constant. As the name implies the "tag-values" in a CASE statement MUST be constants! E.g., the following will generate an error:

```
  CASE i OF
  (* If x is a variable, error! *)
    x: do_something;
  END;
```

#42 - 216 chars 03/03/86 10:01:57
Re: Reading the cursor pos. on ST

Several people have asked how to read the cursor position from Personal Pascal (presumably in a TOS program). We will soon have a cursor movement support package available here which includes reading the cursor pos.

#43 - 216 chars 03/03/86 10:12:51
Re: Buffers and "rwabs"

If you want to pass the address of a
Pascal array as a buffer parameter to
the rwabs XBIOS call, pass the array
as a VAR parameter, and declare the
rwabs routine as taking a VAR param
of the type you gave the array.

From -1135549952797777737
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 11:40:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!linus!decvax!decwrl!pyramid!hplabs!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <446@aum.UUCP>
Date: Fri, 21-Mar-86 14:40:04 EST
Article-I.D.: aum.446
Posted: Fri Mar 21 14:40:04 1986
Date-Received: Mon, 31-Mar-86 03:43:36 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu> <465@ccivax.UUCP>
<2807@reed.UUCP> <492@ccivax.UUCP>
Organization: The Aurora Systems Bunch
Lines: 23

I will not quote all the retoric about what the ST should have and about
upgrade paths....

I feel that the ST is quite a good deal and that is all it is. It is not
realistic to expect that it have SCSI, expandability, be compatable
forever, have unix, have a better keyboard, have built in 4 meg expandability,
plug in coprocessors, etc... Anyone who is involved in hardware development
where time and expense are major factors has to just be amazed that it exists
at all. It seems that an awful lot of good things are there and that if you
wanted all the feature that a more expensive computer affords then by all means
by a more expensive computer. In a computer selling for as little as the Atari
sells for *EVERY LITTLE BIT COUNTS*. a penny saved here and there will make
or break a cheap computer. In my opinion we have a lot to be happy about and
can certainly get around the limitations. Lets not use up the net bandwidth
by complaining about what could/should have been. Even though I would like
an expansion bus etc, Personnally, if it wasn't for the low price I would not
have anything at all...
--

Erik James Freed
Aurora Systems
San Francisco, CA
{dual,ptsfa}!aum!freed

From 5282230526379732153
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,891c84db6c51bcef
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 11:42:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!linus!decvax!decwrl!pyramid!hplabs!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: Developers Kit's
Message-ID: <447@aum.UUCP>
Date: Fri, 21-Mar-86 14:42:44 EST
Article-I.D.: aum.447
Posted: Fri Mar 21 14:42:44 1986
Date-Received: Mon, 31-Mar-86 03:44:14 EST
References: <122@rruxu.UUCP>
Organization: The Aurora Systems Bunch
Lines: 17

>
> There were rumors earlier to the effect of Atari
> (DRI??) rewritting the documentation for the
> developers kit, as well as improving the compiler,
> linker, assembler. Can anyone fill us in on the
> status of these??? Are they for real?? Should we
> wait for them or are they so far in the future

According to Richard Frick, the docs are pretty far in the future and
will be available at cost to registered developers when they do come
out. So don't wait!
--

Erik James Freed
Aurora Systems
San Francisco, CA
{dual,ptsfa}!aum!freed

From 2961934265477674242
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a192fb013c056769,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 12:21:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!case.CSNET!bammi
From: bammi@CASE.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: Troff for STs?
Message-ID: <8603220603.AA20723@ucbvax.berkeley.edu>
Date: Fri, 21-Mar-86 15:21:41 EST
Article-I.D.: ucbvax.8603220603.AA20723
Posted: Fri Mar 21 15:21:41 1986
Date-Received: Sat, 22-Mar-86 23:09:42 EST
Sender: phr@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 6

I have heard of 2:
     Andra S/T from Tdi Software
     Typesetter S/T from Xlent software.
however i have not tried either. From the publicity material Andra S/T
seems more like what you are looking for.
bammi

From 406073478057557704
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,891c84db6c51bcef
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 18:01:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Developers Kit's
Message-ID: <145@atari.UUcp>
Date: Fri, 21-Mar-86 21:01:59 EST
Article-I.D.: atari.145
Posted: Fri Mar 21 21:01:59 1986
Date-Received: Tue, 25-Mar-86 02:49:01 EST
References: <122@rruxu.UUCP>
Organization: Atari Corp/Mktg
Lines: 18

In article <122@rruxu.UUCP>, sitze@rruxu.UUCP (R Sitze) writes:
>
>   There were rumors earlier to the effect of Atari
>   (DRI??) rewriting the documentation for the
>   developers kit...

We are working on a project to completely re-write the system documentation.
The writing should be complete by late Summer (this is a _big_ project).
Once done, we have a deal with a major book publisher to get this into
book form and into dealers and book sellers, a la the Commodore programmers
reference guide books. We should see this by the end of the year, but I
can't imagine how we could get it out sooner than that.

--->Neil @ Atari
     Usenet: ...lll-crg!vecpyr!atari!neil
     BIX: neilharris
     CIS: 70007,1135
     Atari BBS: 408-745-5308 or 745-2642

From -4589177042937159878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,afcde863cb01ff47,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 18:19:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: 520ST 1Mb upgrade hints
Message-ID: <147@atari.UUcp>
Date: Fri, 21-Mar-86 21:19:05 EST
Article-I.D.: atari.147
Posted: Fri Mar 21 21:19:05 1986
Date-Received: Tue, 25-Mar-86 02:49:25 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 15
Keywords: Atari ST, 1 Megabyte, Bloody Resistors

Make sure you use heavy gauge wire (#22 or so) across the tops of the
RAM chips, and from the memory controller to the chips. Using something
like wire-wrap wire is not a good idea. Stretch the wires taut across the
tops of the chips and point-solder; don't leave any slack. (We've seen
upgrades with the wires kind of looped from one chip to the next. We don't
know /how/ they worked....)

Whether or not you need the resistors depends on the RAM chips and the
memory controller you've got. Some memory controllers have faster rise
and fall times, and generate undershoot which can fry the RAMs unless
they're protected by the resistors. The resistors should be placed close
to the memory controller (not near the RAM chips).

-Landon

From 7479042432126305960
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edf275bc0b18f37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 18:54:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site reed.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!hplabs!tektronix!reed!

rosalia
From: rosalia@reed.UUCP (Mark Galassi)
Newsgroups: net.micro.atari16
Subject: Re: need help: Unix -> ST file transfer
Message-ID: <2856@reed.UUCP>
Date: Fri, 21-Mar-86 21:54:32 EST
Article-I.D.: reed.2856
Posted: Fri Mar 21 21:54:32 1986
Date-Received: Tue, 25-Mar-86 03:26:56 EST
References: <445@aum.UUCP> <2147@hplabs.UUCP>
Reply-To: rosalia@reed.UUCP (Mark Galassi)
Distribution: net
Organization: Reed College, Portland, Oregon
Lines: 30

In article <2147@hplabs.UUCP> rodrique@hplabs.UUCP (Mike Rodriquez) writes:

>You might, if you have not already done so, check that xmodem
>is called umodem, as it is under BSD4.2.
>Mike

What on earth are you saying?

1. There is no "standard" xmodem utility on 4.2.

2. I have about 4 different xmodem utilities running on 4.2 on our
   VAX, and only 1 of them is called "umodem". The names of the others
   all can be traced to "xmodem" in their spelling.

3. The truth then is the following:
     On your machine someone has installed "umodem", a utility which
     provides xmodem file transfer (with a couple of goodies). On
     other machines this may not be the case: on another (4.2) system
     it may be called "xmodrec" and "xmodtran", or "sb" and "rb"...

4. For file transfer with the ST I find that "xmodrec" and "xmodtran"
   (posted to the net a while ago) work fine with "sttalk". I could send
   the programs to anyone who asks.
--

                    Mark Galassi
                ...!tektronix!reed!rosalia

{ these opinions are mine and should be everybody else's :-) }

From 2937653642532994004
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7473b67d601b4381,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:03:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Professional GEM tutorial
Message-ID: <1436@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:03:23 EST
Article-I.D.: cwruecmp.1436
Posted: Fri Mar 21 23:03:23 1986
Date-Received: Sun, 30-Mar-86 08:10:29 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 30

Boy mail really gets around. Ever since i mentioned the Professional GEM tutorial in one of the replies, my mailbox has been bombarded with requests (on last count 36 messages!). So here it is.

To get a nice print out of the tutorial you will need proff. So I am posting proff too. Proff will be posted in 4 parts. The tutorial itself will be posted in 6 parts (I am really asking for trouble with repost request :-). The easiest way to make everying will be to save the 4 parts of proff in one directory, and the 6 parts of the tutorial in another directory, then unshar all the files. To make proff read the file 'see.me' in the directory you save proff in. To make the tutorial see the file 'read.me' in the directory you save the tutorial in.

I realize some of you don't have the dev. system. Part 4 of the proff posting is a uuencoded version of proff.prg (you may need to rename it to proff.ttp), that has been wrapped in a shar script. When you unshar part4 of proff you will end up with a file called proff.uud. To get proff.prg run it through uudecode. In the instructions to make proff (the file 'see.me') i have also included instructions on how to make proff for a unix system. So you may if you prefer run the whole thing off on your unix host.

enjoy,

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 525629690240829851
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,10043411dbd7ea6d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:05:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi

From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Proff Part 1 of 4
Message-ID: <1437@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:05:06 EST
Article-I.D.: cwruecmp.1437
Posted: Fri Mar 21 23:05:06 1986
Date-Received: Sun, 30-Mar-86 08:12:15 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 2108

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    debug.h
#    decl.h
#    defs.h
#    dostuff2.c
#    eval.c
#    lextab.d
#    lextab.h
#    lnk
#    look.c
#    lookup.c
#    lookup.h
#    ltb.c
#    make.sh
#    makefile
#    map.c
# This archive created: Fri Mar 21 22:45:00 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'debug.h'" '(123 characters)'
if test -f 'debug.h'
then
     echo shar: over-writing existing file "'debug.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'debug.h'
X/*
X#define DEBUG
X#define PROFILE
X*/
X
X#ifdef PROFILE
X#define dprintf(str)  printf((str));
X#else
X#define dprintf(str)
X#endif
X
SHAR_EOF
if test 123 -ne "`wc -c 'debug.h'`"
```

```
then
     echo shar: error transmitting "'debug.h'" '(should have been 123 characters)'
fi
echo shar: extracting "'decl.h'" '(3858 characters)'
if test -f 'decl.h'
then
     echo shar: over-writing existing file "'decl.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'decl.h'
X/*
X * Decl.h
X *  Declarations for commonly used C functions.
X *  The way we use it is in stdio.h we put in
X *  the following lines:
X *
X *  #ifdef DECL
X *  #include <decl.h>
X *  #endif
X *
X *  and when we compile, we declare DECL, so that it
X *  decl.h gets included and we have all the functions
X *  that return types other than int, appropriately declared.
X */
X
X
X/*
Xchar *getcwd(char *, int);
X*/
X
X/*
Xchar *calloc(unsigned int, unsigned int);
X*/
Xextern  char *calloc();
X
X/*
Xchar *malloc(unsigned int);
X*/
Xextern  char *malloc();
X
X/*
Xchar *realloc(char *, unsigned int);
X*/
Xextern  char *realloc();
X
X/*
Xchar *sbrk(int);
X*/
Xextern  char *sbrk();
X
X
X#ifndef HUGE
X    /* HUGE is defined if math.h has been included */
X/*
```

```
Xdouble acos(double);
X*/
Xextern  double acos();
X
X/*
Xdouble asin(double);
X*/
Xextern  double asin();
X
X/*
Xdouble atan(double);
X*/
Xextern  double atan();
X
X/*
Xdouble atan2(double, double);
X*/
X/*
Xextern  double atan2();
X*/
X
X/*
Xdouble atof(char *);
X*/
Xextern  double atof();
X
X/*
Xdouble ceil(double);
X*/
Xextern  double ceil();
X
X/*
Xdouble cos(double);
X*/
Xextern  double cos();
X
X/*
Xdouble cosh(double);
X*/
Xextern  double cosh();
X
X/*
Xdouble exp(double);
X*/
Xextern  double exp();
X
X/*
Xdouble fabs(double);
X*/
Xextern  double fabs();
X
X/*
Xdouble floor(double);
```

```
X*/
Xextern  double floor();
X
X/*
Xdouble fmod(double, double);
X*/
Xextern  double fmod();
X
X/*
Xdouble frexp(double, int *);
X*/
X/*
Xextern  double frexp();
X*/
X
X/*
Xdouble hypot(double, double);
X*/
X/*
Xextern  double hypot();
X*/
X
X/*
Xdouble j0(double);
X*/
X/*
Xextern  double j0();
X*/
X
X/*
Xdouble j1(double);
X*/
X/*
Xextern  double j1();
X*/
X
X/*
Xdouble jn(int, double);
X*/
X/*
Xextern  double jn();
X*/
X
X/*
Xdouble ldexp(double, double);
X*/
X/*
Xextern  double ldexp();
X*/
X
X/*
Xdouble log(double);
X*/
```

```
Xextern  double log();
X
X/*
Xdouble log10(double);
X*/
Xextern  double log10();
X
X/*
Xdouble modf(double, double *);
X*/
Xextern  double modf();
X
X/*
Xdouble pow(double, double);
X*/
Xextern  double pow();
X
X/*
Xdouble sin(double);
X*/
Xextern  double sin();
X
X/*
Xdouble sinh(double);
X*/
X/*
Xextern  double sinh();
X*/
X
X/*
Xdouble sqrt(double);
X*/
Xextern  double sqrt();
X
X/*
Xdouble tan(double);
X*/
X/*
Xextern  double tan();
X*/
X
X/*
Xdouble tanh(double);
X*/
X/*
Xextern  double tanh();
X*/
X
X/*
Xdouble y0(double);
X*/
X/*
Xextern  double y0();
```

```
X*/
X
X/*
Xdouble y1(double);
X*/
X/*
Xextern  double y1();
X*/
X
X/*
Xdouble yn(int, double);
X*/
X/*
Xextern  double yn();
X*/
X
X#endif  /* HUGE */
X
X
X/*
Xint (*signal(int, int (*)()))();
X*/
Xextern  int (*signal())();
X
X/*
XFILE *fdopen(int, char *);
X*/
Xextern  FILE *fdopen();
X
X/*
Xchar *fgets(char *, int, FILE *);
X*/
Xextern  char *fgets();
X
X/*
XFILE *fopen(char *, char *);
X*/
Xextern  FILE *fopen();
X
X/*
XFILE *freopen(char *, char *, FILE *);
X*/
Xextern  FILE *freopen();
X
X/*
Xlong ftell(FILE *);
X*/
Xextern  long ftell();
X
X/*
Xchar *gets(char *);
X*/
Xextern  char *gets();
```

```
X
X/*
Xlong lseek(int, long, int);
X*/
Xextern  long lseek();
X
X/*
Xchar *mktemp(char *);
X*/
Xextern  char *mktemp();
X
X/*
Xlong tell(int);
X*/
Xextern  long tell();
X
X
X/*
Xlong atol(char *);
X*/
Xextern  long atol();
X
X/*
Xchar *ecvt(double, int, int *, int *);
X*/
Xextern  char *ecvt();
X
X/*
Xchar *fcvt(double, int, int *, int *);
X*/
Xextern  char *fcvt();
X
X/*
Xchar *gcvt(double, int, char *);
X*/
Xextern  char *gcvt();
X
X/*
Xchar *getenv(char *);
X*/
Xextern  char *getenv();
X
X/*
Xchar *itoa(int, char *, int);
X*/
Xextern  char *itoa();
X
X/*
Xlong labs(long);
X*/
Xextern  long labs();
X
X/*
```

```
Xchar *ltoa();
X*/
Xextern  char *ltoa();
X
X/*
Xchar *ultoa(unsigned long, char *, int);
X*/
Xextern  char *ultoa();
X
X
X/*
Xchar *strcat(char *, char *);
X*/
Xextern  char *strcat();
X
X/*
Xchar *strcpy(char *, char *);
X*/
Xextern  char *strcpy();
X
X/*
Xunsigned int strlen(char *);
X*/
Xextern  unsigned int strlen();
X
X/*
Xchar *strncat(char *, char *, unsigned int);
X*/
Xextern  char *strncat();
X
X/*
Xchar *strncpy(char *, char *, unsigned int);
X*/
Xextern  char *strncpy();
X
X/*
Xchar    *index(char *, char);
X*/
Xextern  char *index();
X
X/*
Xchar    *rindex(char *, char);
X*/
Xextern  char *rindex();
SHAR_EOF
if test 3858 -ne "`wc -c 'decl.h'`"
then
     echo shar: error transmitting "'decl.h'" '(should have been 3858 characters)'
fi
echo shar: extracting "'defs.h'" '(1855 characters)'
if test -f 'defs.h'
then
     echo shar: over-writing existing file "'defs.h'"
```

```
fi
sed 's/^X//' << \SHAR_EOF > 'defs.h'
X/*
X * defs.h
X *
X * #define rainbow    - rainbow CP/M-86 version
X * #define vms        - vms version (predefined by VAX11C compiler)
X * #define unix       - unix version
X * #define ATARIST    - Atari St series
X */
X
X/*
X *  Synonyms for ASCII control characters
X *
X */
X
X#define  BACKSPACE 8
X#define  BEL       7
X#define BELL       7
X#define  BLANK          32
X#define  CARRIAGE_RETURN    13
X#define  NEWLINE        10
X#define  RUBOUT         127
X#define  TAB       9
X
X/*
X * misc. definitions
X *
X */
X
X#define  EOS       0
X#define  HUGE      30000
X#define  NO        0
X#define  OK        0
X#define  YES       1
X#define FALSE          0
X#define TRUE       1
X#define  FILENAMESIZE  50
X#define  MAXCHARS  20
X#define MAXLINE        256
X#define MAXTOK         80
X#define ARB       MAXLINE
X
X#define  MAXCARD        MAXLINE-1
X#define  MAXNAME        FILENAMESIZE
X
X#define  NCHARS         33
X#define MAXOFILES 12
X
X#define  ARGFLAG   '$'
X#define  INSIZE    MAXLINE
X#define  MAXOUT    2*MAXLINE
X#define  MAXDEF    200
```

```
X#define  NFILES   MAXOFILES-4
X#define  PAGENUM       '#'
X#define  CURRENTDATE   '%'
X#define ESCAPE         '@'
X#define VESCAPE        '$'
X#define  PAGEJECT 12          /* 12 is ASCII formfeed (control-L) */
X#define  PAGEWIDTH 65
X#define  PAGELEN       62
X#define  BUFSIZE       512          /* push back buffer */
X/*
X * lexical analyser values
X *
X * include lexical analyser return constants
X * generated by ltb.
X *
X */
X#include "lextab.d"        /* expended format & roff & runoff */
X
X#define  UNKNOWN  999
X#define MACRO     0
X#define NEGATED -1
X#define  LEFT 1
X#define  CENTER   2
X#define  RIGHT    3
X
X/*
X * structure definition for contents linked list
X *
X */
X
Xstruct clist {         /* list struct for contents  */
X    char level;
X    char *str;
X    int  page;
X    struct clist *nextc;
X};
X
X#ifdef putchar
X#undef putchar
X#ifdef ATARIST
X#define putchar(c) st_putc((c),poutput);
X#else
X#define putchar(c) putc((c),poutput);
X#endif
X#endif
X
X/*
X * The following definitions are required
X * till they fix gemlib
X */
X
X#ifdef ATARIST
X#define printf st_printf
```

```
X#define fprintf st_fprintf
X#endif
SHAR_EOF
if test 1855 -ne "`wc -c 'defs.h'`"
then
     echo shar: error transmitting "'defs.h'" '(should have been 1855 characters)'
fi
echo shar: extracting "'dostuff2.c'" '(2935 characters)'
if test -f 'dostuff2.c'
then
     echo shar: over-writing existing file "'dostuff2.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'dostuff2.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X/*
X * dodef - define a command macro (".de xx" is in buf.)
X *
X */
Xdodef(buf,fd)
Xchar buf[];
XFILE *fd;
X{
X    char name[MAXNAME],defn[MAXDEF];
X    int i,junk;
X
X#ifdef DEBUG
X    printf("dodef++: Fd %ld\n",fd);
X#endif
X
X    dprintf("dodef  ");
X    i = 0;
X    junk = getwrd(buf, &i, name);
X    i = getwrd(buf, &i, name);  /* get the name */
X    if (i == 0)
X         error("missing name in command def.");
X    i = 0;
X    while (ngetln(buf,fd) != EOF) {
X         if (buf[0] == cchar && buf[1] == 'e' &&
X             buf[2] == 'n' && !isalnum(buf[3]))
X              break;
X         junk = addstr(buf, defn, &i, MAXDEF);
X    }
X    if (addset(EOS, defn, &i, MAXDEF) == NO)
X         error("definition too long.\n");
X    if (install(name, defn, macrotab) == NULL)
X         fprintf(stderr,"no room for new definition.\n");
X#ifdef DEBUG
X    printf("dodef: %s (name) %s (defn)\n",name,defn);
X#endif
```

```
X}
X
X/*
X * doesc - expand escapes in buf
X *
X */
Xdoesc(buf, tbuf, size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i,j;
X
X    dprintf("doesc  ");
X    j = 0;
X    for (i = 0; buf[i] != EOS && j < size-1; i++)
X         /*
X          * clean up generic escapes along the way.
X          */
X         if (buf[i] == genesc)
X              tbuf[j++] = buf[++i];
X
X         else if (buf[i] != ESCAPE) {
X              tbuf[j] = buf[i];
X              j++;
X         }
X         else if (buf[i+1] == 'n' &&
X             (buf[i+2] >= 'a' && buf[i+2] <= 'z')) {
X              j += itoc(nr[buf[i+2] - 'a'],
X              &tbuf[j], size - j - 1);
X              i += 2;
X         }
X         else {
X              tbuf[j] = buf[i];
X              j++;
X         }
X    tbuf[j] = EOS;
X    strcpy(buf, tbuf);
X}
X
X/*
X * dovar - expand variables in buf
X *
X */
Xdovar(tbuf, buf)
Xchar *buf;
Xchar *tbuf;
X{
X    register char *c, *p, t;
X    struct hashlist *xp;
X
X    while (*buf != '\0') {
X         if (*buf == genesc) {
```

```
X             *tbuf++ = *buf++;
X             *tbuf++ = *buf;
X        }
X        else if (*buf != VESCAPE)
X             *tbuf++ = *buf;
X        else {
X             buf++;    /* skip the ESCAPE */
X             if (*buf == '{')
X                  buf++;
X             p = buf; /* save the beginning address of variable */
X             while (isalnum(*buf))
X                  buf++;
X             t = *buf;/* save the character*/
X             *buf = '\0';  /* hack a null there */
X             if ((xp = lookup(p,gentab)) != NULL) {
X                  c = xp->def;  /* point to def */
X                  while (*c != '\0')
X                       *tbuf++ = *c++;
X             }
X             if (*(p-1) != '{')
X                  *tbuf++ = t;
X             else if (t != '}')
X                  fprintf(stderr, "missing \"}\" in %s\n",p);
X        }
X        buf++;
X    }
X    *tbuf = '\0';
X}
X
X
X/*
X * dotabs - expand tabs in buf
X *
X */
Xdotabs(buf,tbuf,size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i,j;
X    dprintf("dotabs  ");
X
X    j = 0;
X    for (i = 0; buf[i] != EOS && j < size - 1; i++)
X         if (buf[i] == '\t')
X              while (j < size - 1) {
X                   tbuf[j] = ' ';
X                   j++;
X                   if (tabs[j] == YES || j > INSIZE)
X                        break;
X              }
X         else {
X              tbuf[j] = buf[i];
```

```
X             j++;
X        }
X    tbuf[j] = EOS;
X    strcpy(buf, tbuf);
X}
X
X/*
X * docline - produce a "contents" line.
X *
X */
Xdocline(str,width,cline,page)
Xchar *str;
Xint width;
Xchar *cline;
Xint page;
X{
X    int i;
X
X    for (i = 0; i < width - 6 && cline[i] != '\0'; i++)
X         str[i] = cline[i];
X    while (i < width - 6)
X         str[i++] = '.';
X    sprintf(str+i,"%5d\n",page);
X}
X
SHAR_EOF
if test 2935 -ne "`wc -c 'dostuff2.c'`"
then
     echo shar: error transmitting "'dostuff2.c'" '(should have been 2935
characters)'
fi
echo shar: extracting "'eval.c'" '(1296 characters)'
if test -f 'eval.c'
then
     echo shar: over-writing existing file "'eval.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'eval.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X
X/*
X * eval - evaluate defined command (push back definition)
X *
X */
Xeval(buf,defn)
Xchar buf[];
Xchar defn[];
X{
X    register int j,k;
X    int i;
```

```
X    int argptr[10];
X
X    for (i = 0; i < 10 ; i++)
X         argptr[i] = 0;
X
X    buf[0] = '\0';          /* buf[0] is cchar */
X    dprintf(defn);
X    dprintf("eval  ");
X    i = 1;
X    argptr[0] = 1;          /* first parm is macro name */
X    while (buf[i] != ' ' && buf[i] != '\t' &&
X        buf[i] != '\n' && buf[i] != '\0')
X         i++;
X    buf[i++] = '\0';        /* EOS terminate */
X    /*
X     * start scanning remaining macro parameters.
X     * delimiters are blanks or commas. Any string
X     * enclosed with double quotes are accepted as
X     * parameters as well
X     *
X     */
X    for (j = 1; j < 10; j++) {
X         skipbl(buf, &i);
X         if (buf[i] == '\n' || buf[i] == '\0')
X              break;
X         argptr[j] = i;
X         while (buf[i] != ' ' && buf[i] != '\t' &&
X             buf[i] != ',' && buf[i] != '\n' && buf[i] != '\0')
X              i++;
X         buf[i] = '\0';
X         i++;
X    }
X    for (k = strlen(defn) - 1; k >= 0; k--)
X         if (defn[k-1] != ARGFLAG)
X              putbak(defn[k]);
X         else {
X              if (defn[k] < '0' || defn[k] > '9')
X                   putbak(defn[k]);
X              else {
X                   i = defn[k] - '0';
X                   i = argptr[i];
X                   pbstr(&buf[i]);
X                   k--;      /* skip over $ */
X              }
X         }
X    if (k = 0)    /* do the last character */
X         putbak(defn[k]);
X}
X
SHAR_EOF
if test 1296 -ne "`wc -c 'eval.c'`"
then
     echo shar: error transmitting "'eval.c'" '(should have been 1296 characters)'
```

```
fi
echo shar: extracting "'lextab.d'" '(856 characters)'
if test -f 'lextab.d'
then
     echo shar: over-writing existing file "'lextab.d'"
fi
sed 's/^X//' << \SHAR_EOF > 'lextab.d'
X#define  DBO 5
X#define  EBO 7
X#define  NAP 101
X#define  NPA 13
X#define  GET 95
X#define  PGI 11
X#define  M1  45
X#define  M2  47
X#define  M3  49
X#define  ELT 109
X#define  M4  51
X#define  LEX 89
X#define  SAV 85
X#define  CC  19
X#define  BD  3
X#define  SET 93
X#define  EC  27
X#define  CE  21
X#define  DE  25
X#define  EF  29
X#define  HE  37
X#define  EH  31
X#define  LTR 107
X#define  CL  103
X#define  FI  33
X#define  IG  91
X#define  AP  99
X#define  BP  9
X#define  PC  105
X#define  NE  53
X#define  OE  63
X#define  NF  55
X#define  BR  15
X#define  RST 87
X#define  OF  65
X#define  FO  35
X#define  BS  17
X#define  OH  67
X#define  IN  39
X#define  NJ  57
X#define  CU  23
X#define  PL  69
X#define  TI  81
X#define  PN  97
X#define  RM  73
X#define  PO  71
```

```
X#define  LS  43
X#define  JU  41
X#define  NR  59
X#define  UL  83
X#define  SO  75
X#define  SP  77
X#define  OU  61
X#define  ST  79
X#define  WR  111
X#define  RESET    1
SHAR_EOF
if test 856 -ne "`wc -c 'lextab.d'`"
then
     echo shar: error transmitting "'lextab.d'" '(should have been 856
characters)'
fi
echo shar: extracting "'lextab.h'" '(9281 characters)'
if test -f 'lextab.h'
then
     echo shar: over-writing existing file "'lextab.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'lextab.h'
X#ifndef STRUC_DEFINED
X
X/*  lextab.h  */
X
Xstruct _lex_h {   char     *__s;
X             int   __v;
X             int        __f;
X         struct  _lex_h  *__l;
X};
X
X#define STRUC_DEFINED
X#endif
Xstruct
X_lex_h __ce = {  "ce",
X                  21,     0,NULL };
Xstruct
X_lex_h __ec = {  "ec",
X                  27,     0,&__ce };
Xstruct
X_lex_h __de = {  "de",
X                  25,     0,NULL };
Xstruct
X_lex_h __f = {  "f",
X                  33,     1,NULL };
Xstruct
X_lex_h __ef = {  "ef",
X                  29,     0,NULL };
Xstruct
X_lex_h __nojustify = {  "nojustify",
X                  57,     0,&__ef };
Xstruct
```

```
X_lex_h __eh = {  "eh",
X                  31,     0,NULL };
Xstruct
X_lex_h __he = {  "he",
X                  37,     0,&__eh };
Xstruct
X_lex_h __j = {  "j",
X                  41,     1,NULL };
Xstruct
X_lex_h __fi = {  "fi",
X                  33,     0,NULL };
Xstruct
X_lex_h __na = {  "na",
X                  99,     0,&__fi };
Xstruct
X_lex_h __cl = {  "cl",
X                 103,     0,&__na };
Xstruct
X_lex_h __ig = {  "ig",
X                  91,     0,NULL };
Xstruct
X_lex_h __dbo = {  "dbo",
X                   5,     1,NULL };
Xstruct
X_lex_h __pa = {  "pa",
X                  11,     1,&__dbo };
Xstruct
X_lex_h __ap = {  "ap",
X                  99,     1,&__pa };
Xstruct
X_lex_h __el = {  "el",
X                 109,     1,&__ap };
Xstruct
X_lex_h __ebo = {  "ebo",
X                   7,     1,NULL };
Xstruct
X_lex_h __bp = {  "bp",
X                   9,     0,&__ebo };
Xstruct
X_lex_h __ne = {  "ne",
X                  53,     0,NULL };
Xstruct
X_lex_h __pc = {  "pc",
X                 105,     0,&__ne };
Xstruct
X_lex_h __br = {  "br",
X                  15,     1,NULL };
Xstruct
X_lex_h __need = {  "need",
X                  53,     0,&__br };
Xstruct
X_lex_h __nf = {  "nf",
X                  55,     1,&__need };
```

```
Xstruct
X_lex_h __oe = {  "oe",
X                  63,     0,&__nf };
Xstruct
X_lex_h __noautoparagraph = {  "noautoparagraph",
X                 101,     1,&__oe };
Xstruct
X_lex_h __page = {  "page",
X                   9,     1,NULL };
Xstruct
X_lex_h __bs = {  "bs",
X                  17,     0,&__page };
Xstruct
X_lex_h __cchar = {  "cchar",
X                  19,     0,&__bs };
Xstruct
X_lex_h __fo = {  "fo",
X                  35,     0,&__cchar };
Xstruct
X_lex_h __of = {  "of",
X                  65,     0,&__fo };
Xstruct
X_lex_h __pg = {  "pg",
X                   9,     1,NULL };
Xstruct
X_lex_h __echar = {  "echar",
X                  27,     0,&__pg };
Xstruct
X_lex_h __in = {  "in",
X                  39,     0,&__echar };
Xstruct
X_lex_h __oh = {  "oh",
X                  67,     0,&__in };
Xstruct
X_lex_h __s = {  "s",
X                  77,     1,&__oh };
Xstruct
X_lex_h __cu = {  "cu",
X                  23,     0,NULL };
Xstruct
X_lex_h __nj = {  "nj",
X                  57,     1,&__cu };
Xstruct
X_lex_h __bold = {  "bold",
X                   3,     0,NULL };
Xstruct
X_lex_h __break = {  "break",
X                  15,     1,&__bold };
Xstruct
X_lex_h __header = {  "header",
X                  37,     0,&__break };
Xstruct
X_lex_h __lm = {  "lm",
```

```
X                  39,     1,&__header };
Xstruct
X_lex_h __define = {  "define",
X                  25,     0,NULL };
Xstruct
X_lex_h __nap = {  "nap",
X                 101,     1,&__define };
Xstruct
X_lex_h __pl = {  "pl",
X                  69,     0,NULL };
Xstruct
X_lex_h __get = {  "get",
X                  95,     0,&__pl };
Xstruct
X_lex_h __ti = {  "ti",
X                  81,     0,NULL };
Xstruct
X_lex_h __vg = {  "vg",
X                  95,     0,&__ti };
Xstruct
X_lex_h __np = {  "np",
X                  13,     0,NULL };
Xstruct
X_lex_h __pn = {  "pn",
X                  97,     0,&__np };
Xstruct
X_lex_h __fill = {  "fill",
X                  33,     1,NULL };
Xstruct
X_lex_h __ju = {  "ju",
X                  41,     0,&__fill };
Xstruct
X_lex_h __ls = {  "ls",
X                  43,     0,&__ju };
Xstruct
X_lex_h __po = {  "po",
X                  71,     0,&__ls };
Xstruct
X_lex_h __rm = {  "rm",
X                  73,     1,&__po };
Xstruct
X_lex_h __nr = {  "nr",
X                  59,     0,NULL };
Xstruct
X_lex_h __lt = {  "lt",
X                 107,     1,&__nr };
Xstruct
X_lex_h __ul = {  "ul",
X                  83,     0,NULL };
Xstruct
X_lex_h __spc = {  "spc",
X                  43,     1,NULL };
Xstruct
```

```
X_lex_h __so = {  "so",
X                  75,     0,&__spc };
Xstruct
X_lex_h __ps = {  "ps",
X                  69,     1,NULL };
Xstruct
X_lex_h __sp = {  "sp",
X                  77,     0,&__ps };
Xstruct
X_lex_h __left = {  "left",
X                  81,     1,&__sp };
Xstruct
X_lex_h __tp = {  "tp",
X                  53,     1,NULL };
Xstruct
X_lex_h __ou = {  "ou",
X                  61,     0,&__tp };
Xstruct
X_lex_h __req = {  "req",
X                  75,     1,&__ou };
Xstruct
X_lex_h __lx = {  "lx",
X                  89,     0,&__req };
Xstruct
X_lex_h __rs = {  "rs",
X                  87,     0,NULL };
Xstruct
X_lex_h __lex = {  "lex",
X                  89,     0,&__rs };
Xstruct
X_lex_h __paging = {  "paging",
X                  11,     1,NULL };
Xstruct
X_lex_h __st = {  "st",
X                  79,     0,NULL };
Xstruct
X_lex_h __save = {  "save",
X                  85,     0,&__st };
Xstruct
X_lex_h __set = {  "set",
X                  93,     0,NULL };
Xstruct
X_lex_h __sv = {  "sv",
X                  85,     0,NULL };
Xstruct
X_lex_h __vs = {  "vs",
X                  93,     0,&__sv };
Xstruct
X_lex_h __wr = {  "wr",
X                 111,     0,&__vs };
Xstruct
X_lex_h __skip = {  "skip",
X                  77,     1,NULL };
```

```
Xstruct
X_lex_h __include = {  "include",
X                  75,     0,NULL };
Xstruct
X_lex_h __center = {  "center",
X                  21,     0,NULL };
Xstruct
X_lex_h __spacing = {  "spacing",
X                  43,     1,&__center };
Xstruct
X_lex_h __nofill = {  "nofill",
X                  55,     0,NULL };
Xstruct
X_lex_h __ignore = {  "ignore",
X                  91,     0,&__nofill };
Xstruct
X_lex_h __reset = {  "reset",
X                   1,     0,NULL };
Xstruct
X_lex_h __offset = {  "offset",
X                  71,     0,&__reset };
Xstruct
X_lex_h __literal = {  "literal",
X                 107,     1,NULL };
Xstruct
X_lex_h __enablebolding = {  "enablebolding",
X                   7,     1,NULL };
Xstruct
X_lex_h __nopaging = {  "nopaging",
X                  13,     1,NULL };
Xstruct
X_lex_h __footer = {  "footer",
X                  35,     0,NULL };
Xstruct
X_lex_h __outend = {  "outend",
X                  63,     0,&__footer };
Xstruct
X_lex_h __write = {  "write",
X                 111,     0,&__outend };
Xstruct
X_lex_h __pagesize = {  "pagesize",
X                  69,     1,NULL };
Xstruct
X_lex_h __source = {  "source",
X                  75,     0,NULL };
Xstruct
X_lex_h __m1 = {  "m1",
X                  45,     0,NULL };
Xstruct
X_lex_h __disablebolding = {  "disablebolding",
X                   5,     1,NULL };
Xstruct
X_lex_h __m2 = {  "m2",
```

```
X                  47,     0,&__disablebolding };
Xstruct
X_lex_h __m3 = {  "m3",
X                  49,     0,NULL };
Xstruct
X_lex_h __contline = {  "contline",
X                 103,     0,&__m3 };
Xstruct
X_lex_h __endliteral = {  "endliteral",
X                 109,     1,&__contline };
Xstruct
X_lex_h __m4 = {  "m4",
X                  51,     0,NULL };
Xstruct
X_lex_h __testpage = {  "testpage",
X                  53,     1,&__m4 };
Xstruct
X_lex_h __pagenumber = {  "pagenumber",
X                  97,     0,NULL };
Xstruct
X_lex_h __leftmargin = {  "leftmargin",
X                  39,     1,NULL };
Xstruct
X_lex_h __require = {  "require",
X                  75,     1,&__leftmargin };
Xstruct
X_lex_h __skipto = {  "skipto",
X                  79,     0,NULL };
Xstruct
X_lex_h __underline = {  "underline",
X                  83,     0,&__skipto };
Xstruct
X_lex_h __restore = {  "restore",
X                  87,     0,NULL };
Xstruct
X_lex_h __rightmargin = {  "rightmargin",
X                  73,     1,NULL };
Xstruct
X_lex_h __justify = {  "justify",
X                  41,     1,NULL };
Xstruct
X_lex_h __output = {  "output",
X                  61,     0,NULL };
Xstruct
X_lex_h __autoparagraph = {  "autoparagraph",
X                  99,     1,NULL };
Xstruct
X_lex_h __printcont = {  "printcont",
X                 105,     0,NULL };
Xstruct
X_lex_h __bd = {  "bd",
X                   3,     0,NULL };
Xstruct
```

```
X_lex_h __db = {  "db",
X                   5,     0,&__bd };
Xstruct
X_lex_h __cc = {  "cc",
X                  19,     0,&__db };
Xstruct
X_lex_h __eb = {  "eb",
X                   7,     0,NULL };
X
X
X/*  Hash Table */
X
Xstruct _lex_h *lextab[100] = {
X    &__ec,
X    &__de,    &__f,     &__nojustify, NULL,
X    &__he,    &__j,     &__cl,    &__ig,
X    &__el,    &__bp,    &__pc,    &__noautoparagraph,
X    &__of,    NULL,     &__s,     &__nj,
X    &__lm,    NULL,     &__nap,   &__get,
X    &__vg,    &__pn,    &__rm,    &__lt,
X    &__ul,    &__so,    &__left,  &__lx,
X    &__lex,   &__paging,    &__save,  &__set,
X    &__wr,    NULL,     NULL,     NULL,
X    NULL,     NULL,     &__skip,  &__include,
X    &__spacing,   NULL,     NULL,     &__ignore,
X    NULL,     NULL,     &__offset,    NULL,
X    &__literal,   &__enablebolding,  &__nopaging,  NULL,

X    NULL,     NULL,     &__write,&__pagesize,
X    &__source,    &__m1,    &__m2,    &__endliteral,
X    &__testpage,  &__pagenumber,    NULL,     NULL,
X    &__require,   &__underline, NULL,     NULL,
X    NULL,     NULL,     NULL,     &__restore,
X    NULL,     NULL,     NULL,     NULL,
X    NULL,     NULL,     NULL,     &__rightmargin,
X    NULL,     &__justify,   NULL,     NULL,
X    NULL,     NULL,     NULL,     NULL,
X    &__output,    NULL,     &__autoparagraph,  NULL,
X    &__printcont, NULL,     NULL,     NULL,
X    NULL,     &__cc,    &__eb   };
SHAR_EOF
if test 9281 -ne "`wc -c 'lextab.h'`"
then
     echo shar: error transmitting "'lextab.h'" '(should have been 9281
characters)'
fi
echo shar: extracting "'lnk'" '(110 characters)'
if test -f 'lnk'
then
     echo shar: over-writing existing file "'lnk'"
fi
sed 's/^X//' << \SHAR_EOF > 'lnk'
Xproff.68k=gems,proff,proff01,proff02,lookup,pinit,putwrd,pxlex,\
```

```
Xpxxparse,dostuff2,eval,stack,map,gemlib,libf
SHAR_EOF
if test 110 -ne "`wc -c 'lnk'`"
then
     echo shar: error transmitting "'lnk'" '(should have been 110 characters)'
fi
echo shar: extracting "'look.c'" '(3051 characters)'
if test -f 'look.c'
then
     echo shar: over-writing existing file "'look.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'look.c'
X/*
X * from K&R "The C Prograamming language"
X * Table lookup routines
X *
X */
X#define INLOOK 1
X
X#include <stdio.h>
X#include "lookup.h"
X
Xextern struct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
X/*
X * hash - for a hash value for string s
X *
X */
Xint hash(s)
Xchar *s;
X{
X    int  hashval;
X
X    for (hashval = 0; *s != '\0';)
X         hashval += *s++;
X    return (hashval % HASHMAX);
X}
X
X/*
X * lookup - lookup for a string s in the hash table
X *
X */
Xstruct hashlist
X*lookup(s, hashtab)
Xchar *s;
Xstruct hashlist *hashtab[];
X{
X    struct hashlist *np;
X
X    for (np = hashtab[hash(s)]; np != NULL; np = np->next)
X         if (strcmp(s, np->name) == 0)
X              return(np);   /* found     */
```

```
X    return(NULL);      /* not found */
X}
X
X/*
X * install - install a string name in hashtable and its value def
X * at a given hashtable.
X */
Xstruct hashlist
X*install(name,def,hashtab)
Xchar *name;
Xchar *def;
Xstruct hashlist *hashtab[];
X{
X    int hashval;
X    struct hashlist *np, *lookup();
X    char *strsave(), *malloc();
X
X    if ((np = lookup(name, hashtab)) == NULL) {    /* not found.. */
X         np = (struct hashlist *) malloc(sizeof(*np));
X                   if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->next = hashtab[hashval];
X         hashtab[hashval] = np;
X    } else                       /* found..     */
X         free(np->def);              /* free prev.  */
X    if ((np->def = strsave(def)) == NULL)
X         return(NULL);
X    return(np);
X}
X
X/*
X * strsave - save string s somewhere
X *
X */
Xchar
X*strsave(s)
Xchar *s;
X{
X    char *p, *malloc();
X    register int n;
X
X    n = strlen(s) + 1;
X    if ((p = malloc(n)) != NULL)
X              strcpy(p, s);
X    return(p);
X}
X
X/*
X * lexinstal - instal a string name in hashtable and its value
X *         used by lexical analyser to quickly match a token
```

```
X *         and return its lexical value.
X *
X */
Xstruct lexlist
X*lexinstal(name,val,flag,lextable)
Xchar *name;
Xint val;
Xint flag;
Xstruct lexlist *lextable[];
X{
X    int hashval;
X    struct lexlist *np,*lexlook();
X    char *strsave(), *malloc();
X
X    if ((np = lexlook(name,lextable)) == NULL) {   /* not found.. */
X         np = (struct lexlist *) malloc(sizeof(*np));
X         if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->link = lextable[hashval];
X         lextable[hashval] = np;
X    }
X    np->val = val;                   /* replace prev */
X    np->flag = flag;
X    return(np);
X}
X
X/*
X * lexlook - lookup for a string s in the hash table
X *       used by lexinstal only.
X *
X */
Xstruct lexlist
X*lexlook(s,table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np;
X
X    for (np = table[hash(s)]; np != NULL; np = np->link)
X         if (strcmp(s, np->name) == 0)
X              return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * remove an item from the hash table forever
X *
X */
Xstruct lexlist
X*remove(s, table)
```

```
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np, *xp;
X
X    np = table[hash(s)];
X    xp = np;
X    while (np != NULL) {
X         if (strcmp(s, np->name) == 0) {
X              xp->link = np->link;    /* remoe the link */
X              return(np);        /* return the lost */
X         }
X         xp = np;
X         np = np->link;
X    }
X    return(NULL);
X}
X
SHAR_EOF
if test 3051 -ne "`wc -c 'look.c'`"
then
     echo shar: error transmitting "'look.c'" '(should have been 3051 characters)'
fi
echo shar: extracting "'lookup.c'" '(3122 characters)'
if test -f 'lookup.c'
then
     echo shar: over-writing existing file "'lookup.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'lookup.c'
X/*
X * from K&R "The C Programming language"
X * Table lookup routines
X *
X */
X#define INLOOK 1
X
X#include <stdio.h>
X#include "proff.h"
X
Xstruct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
X/*
X * hash - for a hash valuue for string s
X *
X */
Xint hash(s)
Xchar *s;
X{
X    int  hashval;
X
X    for (hashval = 0; *s != '\0';)
X         hashval += *s++;
```

```
X    return (hashval % HASHMAX);
X}
X
X/*
X * lookup - lookup for a string s in the hash table
X *
X */
Xstruct hashlist
X*lookup(s, hashtab)
Xchar *s;
Xstruct hashlist *hashtab[];
X{
X    struct hashlist *np;
X
X    for (np = hashtab[hash(s)]; np != NULL; np = np->next)
X         if (strcmp(s, np->name) == 0)
X              return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * install - install a string name in hashtable and its value def
X * at a given hashtable.
X */
Xstruct hashlist
X*install(name,def,hashtab)
Xchar *name;
Xchar *def;
Xstruct hashlist *hashtab[];
X{
X    int hashval;
X    struct hashlist *np, *lookup();
X    char *strsave(), *malloc();
X
X    if ((np = lookup(name, hashtab)) == NULL) {    /* not found.. */
X         np = (struct hashlist *) malloc(sizeof(*np));
X         p_memoryus += sizeof(*np);
X         if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->next = hashtab[hashval];
X         hashtab[hashval] = np;
X    } else                        /* found..     */
X         free(np->def);              /* free prev.  */
X    if ((np->def = strsave(def)) == NULL)
X         return(NULL);
X    return(np);
X}
X
X/*
X * strsave - save string s somewhere
```

```
X *
X */
Xchar
X*strsave(s)
Xchar *s;
X{
X    char *p, *malloc();
X    register int n;
X
X    n = strlen(s) + 1;
X    if ((p = malloc(n)) != NULL) {
X         p_memoryus += n;
X         strcpy(p, s);
X    }
X    return(p);
X}
X
X/*
X * lexinstal - instal a string name in hashtable and its value
X *         used by lexical analyser to quickly match a token
X *         and return its lexical value.
X *
X */
Xstruct lexlist
X*lexinstal(name,val,flag,lextable)
Xchar *name;
Xint val;
Xint flag;
Xstruct lexlist *lextable[];
X{
X    int hashval;
X    struct lexlist *np,*lexlook();
X    char *strsave(), *malloc();
X
X    if ((np = lexlook(name,lextable)) == NULL) {   /* not found.. */
X         np = (struct lexlist *) malloc(sizeof(*np));
X         p_memoryus += sizeof(*np);
X         if (np == NULL)
X              return(NULL);
X         if ((np->name = strsave(name)) == NULL)
X              return(NULL);
X         hashval = hash(np->name);
X         np->link = lextable[hashval];
X         lextable[hashval] = np;
X    }
X    np->val = val;                   /* replace prev */
X    np->flag = flag;
X    return(np);
X}
X
X/*
X * lexlook - lookup for a string s in the hash table
X *       used by lexinstal only.
```

```
X *
X */
Xstruct lexlist
X*lexlook(s,table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np;
X
X    for (np = table[hash(s)]; np != NULL; np = np->link)
X         if (strcmp(s, np->name) == 0)
X         return(np);   /* found     */
X    return(NULL);      /* not found */
X}
X
X/*
X * remove an item from the hash table forever
X *
X */
Xstruct lexlist
X*remove(s, table)
Xchar *s;
Xstruct lexlist *table[];
X{
X    struct lexlist *np, *xp;
X
X    np = table[hash(s)];
X    xp = np;
X    while (np != NULL) {
X         if (strcmp(s, np->name) == 0) {
X              xp->link = np->link;    /* remove the link */
X              return(np);        /* return the lost */
X         }
X         xp = np;
X         np = np->link;
X    }
X    return(NULL);
X}
X
SHAR_EOF
if test 3122 -ne "`wc -c 'lookup.c'`"
then
     echo shar: error transmitting "'lookup.c'" '(should have been 3122
characters)'
fi
echo shar: extracting "'lookup.h'" '(463 characters)'
if test -f 'lookup.h'
then
     echo shar: over-writing existing file "'lookup.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'lookup.h'
X/*
X * from K&R "The C Programming language"
```

```
X * Table lookup routines
X * structure and definitions
X *
X */
X
X                       /* basic table entry */
Xstruct hashlist {
X    char *name;
X    char *def;
X    struct   hashlist *next;        /* next in chain     */
X};
X                       /* basic table entry */
Xstruct lexlist {
X    char *name;
X    int  val;          /* lexical value     */
X    int  flag;              /* optional flag val */
X    struct   lexlist  *link;        /* next in chain     */
X};
X
X
X#define HASHMAX   100           /* size of hashtable */
SHAR_EOF
if test 463 -ne "`wc -c 'lookup.h'`"
then
     echo shar: error transmitting "'lookup.h'" '(should have been 463
characters)'
fi
echo shar: extracting "'ltb.c'" '(6581 characters)'
if test -f 'ltb.c'
then
     echo shar: over-writing existing file "'ltb.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'ltb.c'
X/*
X * ltb.c - Lexical Table Builder
X *
X * Functional description:
X *
X *  This program builds a file containing the data
X *  structures of a compile-time-initialised hash table.
X *  This hash table may later be used for lexical analysis,
X *  where number of symbols to look up is sufficiently large
X *  to avoid a run-time table initialization.
X *  In order to guarantee the success of this setup, the
X *  hash routine, the lookup and install routines should be
X *  the same between ltb and the lexical analysis.
X *
X * synopsis:
X *
X *  ltb <input file> [table name]
X *
X * input file format:
X *
```

```
X *  <token>  <value identifier> [flag value]
X *
X *  token:        string of alphanumeric characters to be
X *                matched by the lexical analyser (no blanks).
X *           these token strings are "installed" to a hash
X *           table by ltb to avoid run-time overhead.
X *  value
X *  identifier:   A constant name to be used internally by the
X *           lexical analyser in place of the actual
X *           token value. a "#define <indentifier> <value>"
X *           is generated for each value identifier, where
X *           value is an odd and unique integer constant. If
X *           the value identifier is a `*' (star), then the
X *           previous value is repeated. Thus:
X *
X *                 token   ident.   flag
X *
X *                sp   SP   1
X *                space    *        { inherits SP  }
X *                blank    *        { inherits SP  }
X *                .    .    .
X *                .    .    .
X *
X *  flag value:   An additional integer field to pass flags etc. to
X *           the lexical analyser. If not specified, set to
X *           0. token value field must be present for this field
X *           to be obtained.
X *
X * outputs:
X *
X *  ltb generates two C include files:
X *
X *       [tablename].d:  compile time lexical constants (defines)
X *       [tablename].h:     initialised hash table.
X *
X *  where [tablename] is the name of the hash table as specified
X *  in the command line of ltb. If not specified, "lextab" is used
X *  as a default.
X *
X * routines used by LTB:
X *
X *  hash, lookup and a modified version of install routines,
X *  as defined in K&R, pp. 134 - 136.
X *
X * Application areas:
X *
X *  Lexical analysers for compilers, interpreters, spelling
X *  checkers.
X *
X * Author:
X *  Ozan S. Yigit
X *  Dept. of Computer Science
X *  York University
```

```
X *
X */
X
X#define MAXLINE       80
X#define MAXSYM        80
X
X#include <stdio.h>
X#include <ctype.h>
X#include "lookup.h"
X
Xstruct
Xlexlist (*(*lextable))[];/* global pointer for lexical analyser hash table */
X
Xstatic struct lexlist *hashtab[HASHMAX];
Xstatic struct lexlist *defitab[HASHMAX];
X
Xchar *tabnam;         /* table name */
X
Xextern int hash();
Xextern struct hashlist *lookup();
Xextern struct hashlist *install();
Xextern char *strsave();
Xextern struct lexlist *lexinstal();
Xextern struct lexlist *lexlook();
Xextern struct lexlist *remove();
Xextern FILE *fopen(), *fclose();
X
Xmain(argc,argv)
Xint argc;
Xchar *argv[];
X{
X    FILE *fp;
X    char line[MAXLINE];
X    char sym[MAXSYM],def[MAXSYM];
X    register int val;
X    register int prev, *p;
X    register char *ptr;
X    int flag;
X    struct lexlist *np, *lexlook();
X
X    if (argc <= 2) {
X         fprintf(stderr,"%s [-<base>] <symbol file> [tablename]\r\n",
X         argv[0]);
X         exit(1);
X    }
X
X    if (*argv[1] == '-') {
X         val = atoi(argv[1]+1); /* skip "-" and convert */
X         val = (val & 1) ? val : val+1;
X         p = (int *)argv[2];
X    }
X    else {
X         val = 1;
```

```
X         p = (int *)argv[1];
X    }
X
X    if (argc < 3)
X         tabnam = "lextab";
X    else
X         tabnam = argv[argc-1];
X
X    if ((fp = fopen(p,"r")) == NULL) {
X         fprintf(stderr,"%s:cannot open.\r\n",argv[1]);
X         exit(1);
X    }
X    else {
X         prev = val;
X         while (fgets(line,MAXLINE,fp) != NULL) {
X              if (*line != '!') {
X                   flag = 0;
X                   def[0] = '\0';
X                   ptr = line;
X                   while (isspace(*ptr))
X                        ptr++;
X                   if (*ptr == '\0')
X                        continue;
X                   sscanf(line,"%s %s %d",sym,def,&flag);
X                   if (!(def[0] == '*' && def[1] == '\0')) {
X                        if ((np = lexlook(def,defitab)) == NULL) {
X                             /* value define  */
X                             lexinstal(def,val,0,defitab);
X                             prev = val;
X                             val += 2;
X                        }
X                        else
X                             prev = np->val;
X                   }
X                    /* lexical token */
X                   lexinstal(sym,prev,flag,hashtab);
X              }
X         }
X         defgen();
X         lexgen();
X    }
X}
X/*
X * lexgen - print out the hash table in static form
X *
X */
Xlexgen()
X{
X    register int i;
X    register struct lexlist *np;
X    char filebuf[12];
X    char *file;
X    FILE *op;
```

```
X
X    file = filebuf;
X
X    strncpy(file,tabnam,8);
X    strcat(file,".h");
X
X    if ((op = fopen(file,"w")) == NULL) {
X         fprintf(stderr,"%s: cannot create.\r\n",file);
X         exit(1);
X    }
X
X    fprintf(op,"#ifndef STRUC_DEFINED\n\n");
X    fprintf(op,"\/\*\t%s\t\*\/\n\n%s\n%s\n%s\n%s\n",file,
X    "struct _lex_h {   char     *__s;",
X    "             int   __v;",
X    "             int       __f;",
X    "         struct  _lex_h  *__l;",
X    "};");
X    fprintf(op,"\n#define STRUC_DEFINED\n#endif\n");
X
X    /*
X              * generate the hash table entries.
X              * each entry is followed by the next entry in its
X              * chain.
X              * In the operating systems with memory paging, this
X              * should have the extra advantage of localized
X              * memory referances.
X              *
X     */
X
X    for (i=0; i < HASHMAX; i++)
X         if ((np = hashtab[i]) != NULL)
X              prnode(np,op);
X    /*
X              * At last, we generate the pointer array (hashtable).
X              * this table should be assigned to lextable global
X              * variable before using with lexlook() or lexinstal().
X              * lextable is defined in lookup.h
X              *
X     */
X
X    fprintf(op,"\n\n\/\*  Hash Table \*\/\n\n");
X    fprintf(op,"struct _lex_h *%s[%d] = {\n\t",tabnam,HASHMAX);
X    for (i=0; i < HASHMAX - 1; i++) {
X         np = hashtab[i];
X         if(np == NULL)
X              fprintf(op,"NULL,\t");
X         else
X              fprintf(op,"\&__%s,\t", np->name);
X         if (i % 4 == 0)
X              fprintf(op,"\n\t");
X    }
X    np = hashtab[i];
```

```
X    if (np == NULL)
X         fprintf(op,"NULL  };\n");
X    else
X         fprintf(op,"\&__%s   };\n", np->name);
X
X    fclose(op);
X}
X
X/*
X * prnode - print the current node. This routine is
X *      recursive such that printing starts from
X *      the end of the given list
X *
X */
Xprnode(np,op)
Xregister struct
Xlexlist *np;
XFILE *op;
X{
X    if (np->link != NULL)
X         prnode(np->link,op);
X    fprintf(op,"struct\n_lex_h __%s = {  ",
X    np->name);
X    fprintf(op,"\"%s\",\n              %6d,%6d,",
X    np->name,
X    np->val,
X    np->flag);
X    if (np->link != NULL)
X         fprintf(op,"\&__%s };\n",
X         (np->link)->name);
X    else
X         fprintf(op,"NULL };\n");
X}
X
X/*
X * defgen - generate a file containing the lexical
X *      constants to be equated to lexical symbols
X */
Xdefgen()
X{
X    register int i;
X    register struct lexlist *np;
X    char *file;
X    char filebuf[12];
X    FILE *op;
X
X    file = filebuf;
X    strncpy(file,tabnam,8);
X    strcat(file,".d");
X
X    if ((op = fopen(file,"w")) == NULL) {
X         fprintf(stderr,"%s: cannot create.\r\n",file);
X         exit(1);
```

```
X    }
X    for (i=0; i < HASHMAX; i++) {
X         for (np = defitab[i]; np != NULL; np = np->link)
X              fprintf(op,"\#define  %s\t%d\n",
X              np->name,
X              np->val);
X    }
X    fclose(op);
X}
X
SHAR_EOF
if test 6581 -ne "`wc -c 'ltb.c'`"
then
     echo shar: error transmitting "'ltb.c'" '(should have been 6581 characters)'
fi
echo shar: extracting "'make.sh'" '(426 characters)'
if test -f 'make.sh'
then
     echo shar: over-writing existing file "'make.sh'"
fi
sed 's/^X//' << \SHAR_EOF > 'make.sh'
Xcc -c -DDECL ltb.c
Xcc -c -DDECL look.c
Xlink68 ltb.68k=gems,ltb.o,look.o,gemlib,libf
Xrelmod ltb
Xltb proffsym.new lextab
Xcc -c -DDECL proff.c
Xcc -c -DDECL proff01.c
Xcc -c -DDECL proff02.c
Xcc -c -DDECL lookup.c
Xcc -c -DDECL pinit.c
Xcc -c -DDECL putwrd.c
Xcc -c -DDECL pxlex.c
Xcc -c -DDECL pxxparse.c
Xcc -c -DDECL dostuff2.c
Xcc -c -DDECL eval.c
Xcc -c -DDECL map.c
Xcc -c -DDECL stack.c
Xlink68 [u,com[lnk]]
Xrelmod proff
Xrm proff.68k
SHAR_EOF
if test 426 -ne "`wc -c 'make.sh'`"
then
     echo shar: error transmitting "'make.sh'" '(should have been 426 characters)'
fi
echo shar: extracting "'makefile'" '(376 characters)'
if test -f 'makefile'
then
     echo shar: over-writing existing file "'makefile'"
fi
sed 's/^X//' << \SHAR_EOF > 'makefile'
XCFLAGS=-O
```

```
XOBJS=   proff.o proff01.o proff02.o lookup.o pinit.o putwrd.o\
X    pxlex.o pxxparse.o dostuff2.o eval.o stack.o map.o
Xproff: $(OBJS)
X    cc -s -o proff $(OBJS)
X
X$(OBJS): lextab.h lextab.d
X
Xlextab.h lextab.d: proffsym.new ltb
X    ltb proffsym.new lextab
X
Xltb: ltb.o look.o
X    cc -s -o ltb ltb.o look.o
Xclean:
X    rm proff *.o
Xarch:
X    ./archc Makefile *.c *.h proffsym.new >proff.arc
SHAR_EOF
if test 376 -ne "`wc -c 'makefile'`"
then
     echo shar: error transmitting "'makefile'" '(should have been 376
characters)'
fi
echo shar: extracting "'map.c'" '(1222 characters)'
if test -f 'map.c'
then
     echo shar: over-writing existing file "'map.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'map.c'
X#include <stdio.h>
X/*
X * map map every character of s1 that is specified in s2
X * into s3 and replace in s. (source s1 remains untouched)
X */
X
Xmap(s,s1,s2,s3)
Xregister char *s;
Xregister char *s1;
Xregister char *s2;
Xregister char *s3;
X{
X    char *t, *t1;
X    if (*s1 != '\0') {
X         t = s;
X         t1 = s1;
X         strcpy(t,t1);
X
X         while (*s2 != '\0' && *s3 != '\0') {
X              while (*t1 != '\0') {
X                   if (*t1 == *s2)
X                        *t = *s3;
X                   t++;
X                   t1++;
X              }
```

```
X             t = s;
X             t1 = s1;
X             s2++;
X             s3++;
X        }
X    }
X    else
X        *s = '\0';
X}
X
X/*
X * roman - convert a numeric string into roman numerals
X *
X * icon version:
X *procedure roman(n)
X * local arabic, result
X * static equiv
X * initial equiv := ["","I","II","III","IV","V","VI","VII","VIII","IX"]
X * integer(n) > 0 | fail
X * result := ""
X * every arabic := !n do
X *    result := map(result,"IVXLCDM","XLCDM**") || equiv[arabic+1]
X * if find("*",result) then fail else return result
X * end
X *
X */
Xint
Xcvtroman(num,rom)
Xchar *num;
Xchar *rom;
X{
X    char tmp[20];
X
Xstatic char *equiv_U[] = { "","I","II","III","IV","V","VI","VII","VIII","IX" };
X
X    *rom = NULL;
X    while (*num != '\0') {
X        map(tmp,rom,"IVXLCDM","XLCDM**");
X        strcpy(rom,tmp);
X        strcat(rom,equiv_U[*num - '0']);
X        num++;
X    }
X    return(strlen(rom));
X}
X
SHAR_EOF
if test 1222 -ne "`wc -c 'map.c'`"
then
     echo shar: error transmitting "'map.c'" '(should have been 1222 characters)'
fi
#    End of shell archive
exit 0
```

--
                      Jwahar R. Bammi
                   Usenet: .....!decvax!cwruecmp!bammi
                    CSnet: bammi@case
                  Arpa: bammi%case@csnet-relay
               CompuServe: 71515,155

From -6961209325410418954
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,37898d54cb5df433,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:06:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Proff part 2 of 4
Message-ID: <1438@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:06:54 EST
Article-I.D.: cwruecmp.1438
Posted: Fri Mar 21 23:06:54 1986
Date-Received: Sun, 30-Mar-86 08:15:03 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 3508

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    pinit.c
#    proff.c
#    proff.h
#    proff01.c
#    proff02.c
#    proffman.prf
#    proffsym.new
# This archive created: Fri Mar 21 22:45:05 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'pinit.c'" '(1231 characters)'
if test -f 'pinit.c'
then
     echo shar: over-writing existing file "'pinit.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pinit.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
```

```
X/*
X * finit - initialise parameters, set default values
X *     used by .reset command
X *
X */
Xfinit()
X{
X    int i;
X
X    inval = 0;
X    rmval = PAGEWIDTH;
X    tival = 0;
X    lsval = 1;
X    fill = YES;
X    ceval = 0;
X    ulval = 0;
X    boval = 0;
X    cchar = '.';
X    genesc = '_';
X    tjust[0] = LEFT;
X    tjust[1] = CENTER;
X    tjust[2] = RIGHT;
X    bsval = 0;
X    rjust = YES;
X    ulblnk = BLANK;
X
X    for (i = 0; i < INSIZE; i++)
X        if (i % 8 == 0)
X            tabs[i] = YES;
X        else
X            tabs[i] = NO;
X
X    lineno = 0;
X    curpag = 0;
X    newpag = 1;
X    plval = PAGELEN;
X    m1val = 3;
X    m2val = 2;
X    m3val = 2;
X    m4val = 3;
X    bottom = plval - m3val - m4val;
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
X    ehlim[0] = inval;
X    ehlim[1] = rmval;
X    ohlim[0] = inval;
X    ohlim[1] = rmval;
```

```
X    eflim[0] = inval;
X    eflim[1] = rmval;
X    oflim[0] = inval;
X    oflim[1] = rmval;
X    verbose = NO;
X    stopx = 0;
X    frstpg = 0;
X    lastpg = HUGE;
X    print = YES;
X    offset = 0;
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X    bp = -1;
X    for (i = 0; i < 26; i++)
X         nr[i] = 0;
X
X    CEon = FALSE;
X    ULon = FALSE;
X    BDon = FALSE;
X
X    onlyrunoff = FALSE;
X    roman = FALSE;
X    bolding = YES;
X    autopar = NO;
X}
SHAR_EOF
if test 1231 -ne "`wc -c 'pinit.c'`"
then
     echo shar: error transmitting "'pinit.c'" '(should have been 1231
characters)'
fi
echo shar: extracting "'proff.c'" '(9415 characters)'
if test -f 'proff.c'
then
     echo shar: over-writing existing file "'proff.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.c'
Xchar *version = "v.1.1";
X
X#define GLOBALS 1
X
X#include <stdio.h>
X#include <ctype.h>
X#include "debug.h"
X#include "defs.h"
X#include "lookup.h"
X
X#define brk brrk
X
X/*
X * G L O B A L S
X *
```

```
X */
X#ifndef vms
X#define globaldef
X#endif
X
X    /* next available char; init = 0 */
Xglobaldef int bp = -1;
X    /* pushed-back characters */
Xglobaldef char buf[BUFSIZE];
X    /* stack of file descriptors */
Xglobaldef FILE *infile[NFILES];
X    /* current file is infile[level] */
Xglobaldef int level;
X    /* stack of output file descriptors */
Xglobaldef FILE *outfile[NFILES];
X    /* current output is outfile[olevel]; */
Xglobaldef int olevel;
X    /* current output file pointer */
Xglobaldef FILE *poutput;
X    /* number registers a..z */
Xglobaldef int nr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* system registers a..z */
Xglobaldef int sr[26] = {  0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
X               0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0 };
X    /* last char position in outbuf; init = 0 */
Xglobaldef int outp = 0;
X    /* width of text currently in outbuf; init = 0 */
Xglobaldef int outw = 0;
X    /* number of words in outbuf; init = 0 */
Xglobaldef int outwds = 0;
X    /* lines to be filled collect here */
Xglobaldef char outbuf[MAXOUT];
X                       /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xglobaldef int curpag = 0;
X    /* next output page number; init = 1 */
Xglobaldef int newpag = 1;
X    /* next line to be printed; init = 0 */
Xglobaldef int lineno = 0;
X    /* page length in lines; init = PAGELEN = 66 */
Xglobaldef int plval = PAGELEN;
X    /* page length save area */
Xglobaldef int savpl = PAGELEN;
X    /* margin before and including header */
Xglobaldef int m1val = 3;
X    /* margin after header */
Xglobaldef int m2val = 2;
X    /* margin after last text line */
Xglobaldef int m3val = 2;
X    /* bottom margin, including footer */
Xglobaldef int m4val = 3;
X    /* last live line on page, = plval-m3val-m4val */
```

```
Xglobaldef int bottom = PAGELEN - 5;
X    /* top of page title for even pages;init=NEWLINE */
Xglobaldef char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xglobaldef char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xglobaldef int ehlim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  header;init=inval,rmval */
Xglobaldef int ohlim[2] = { 0, PAGEWIDTH };
X    /* bot of page title for even pages;init=NEWLINE */
Xglobaldef char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xglobaldef char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xglobaldef int eflim[2] = { 0, PAGEWIDTH };
X    /* left,right margins for odd  footer;init=inval,rmval */
Xglobaldef int oflim[2] = { 0, PAGEWIDTH };
X    /* flag for pausing between pages */
Xglobaldef int stopx = 0;
X    /* first page to begin printing with */
Xglobaldef int frstpg = 0;
X    /* last page to be printed */
Xglobaldef int lastpg = HUGE;
X    /* flag to indicate whether page should be printed */
Xglobaldef int print = YES;
X    /* number of blanks to offset page by; init = 0 */
Xglobaldef int  offset = 0;
X    /* verbose option; init = NO */
Xglobaldef int verbose = NO;
X    /* bolding option; init = YES; */
Xglobaldef char bolding = YES;
X    /* fill if YES; init = YES */
Xglobaldef int fill = YES;
X    /* current line spacing; init = 1 */
Xglobaldef int lsval = 1;
X    /* current indent; >= 0; init = 0 */
Xglobaldef int inval = 0;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xglobaldef int rmval = PAGEWIDTH;
X    /* current temporary indent; init = 0 */
Xglobaldef int tival = 0;
X    /* number of lines to center; init = 0 */
Xglobaldef int ceval = 0;
X    /* flag for continuous center */
Xglobaldef char CEon = FALSE;
X    /* number of lines to underline; init = 0 */
Xglobaldef int ulval = 0;
X    /* flag for continuous underline */
Xglobaldef char ULon = FALSE;
X    /* number of lines to boldface; init = 0 */
Xglobaldef int boval = 0;
X    /* flag for continuous bolding */
Xglobaldef char BDon = FALSE;
```

```
X    /* justification types for heads and foots; */
X    /* init = LEFT, CENTER, RIGHT */
Xglobaldef int tjust[3] = { LEFT, CENTER, RIGHT };
X    /* number of lines to blank suppress; init=0 */
Xglobaldef int bsval = 0;
X    /* right justify filled lines if YES; init=YES */
Xglobaldef int rjust = YES;
X    /* tab stops; init every 8 spaces */
Xglobaldef int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xglobaldef char cchar = '.';
X    /* universal escape - init = UNDERBAR */
Xglobaldef char genesc = '_';
X    /* character used to underline a BLANK; init = BLANK */
Xglobaldef char ulblnk = ' ';
X    /* scratch arrays for use by various routines */
Xglobaldef char tbuf1[MAXLINE];
Xglobaldef char tbuf2[MAXLINE];
Xglobaldef char tbuf3[MAXLINE];
Xglobaldef char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xglobaldef char onlyrunoff = NO;
X    /* Flag to turn paging off */
Xglobaldef char paging = YES;
X    /* page number in roman numerals. Init = NO */
Xglobaldef char roman = NO;
X    /* autopar flag. Init = NO */
Xglobaldef char autopar = NO;
X    /* temporary indent value for autopar */
Xglobaldef int autoprv = 5;
X    /* hash tables for macros and variables */
Xglobaldef struct hashlist *macrotab[HASHMAX];
Xglobaldef struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xglobaldef struct clist *chead = NULL;
Xglobaldef struct clist *clast = NULL;
X    /* keep track of what is done - VERBOSE */
Xglobaldef int p_txtlines = 0;
Xglobaldef int p_outlines = 0;
Xglobaldef int p_outpages = 0;
Xglobaldef int p_memoryus = 0;
X
X
X
X/*
X * M A I N L I N E   OF   P R O F F
X *
X */
X
Xmain(argc,argv)
Xint argc;
Xchar *argv[];
X{
```

```
X	int i,j,val,type;
X	char *p,c;
X	FILE *fp, *fopen();
X
X	for (i = 1; i < argc; i++) {
X		p = argv[i];
X		if (*p == '-') {
X			++p;
X			if (isalpha(*p)) {
X				c = *p++;
X				switch(c) {
X
X/* verbose stats */		case 'v':
X		 case 'V':
X			verbose = TRUE;
X			break;
X/* runoff only   */		case 'r':
X		 case 'R':
X			onlyrunoff = TRUE;
X			break;
X/* stop for page */		case 's':
X				case 'S':
X					stopx = 1;
X					break;
X/* page offset   */		case 'p':
X				case 'P':
X					if (*p == 'o' || *p == 'O') {
X						p++;
X						j = 0;
X						val = getval(p, &j, &type);
X						set(&offset, val, type, 0, 0,
X						    rmval - 1);
X					}
X					else
X						usage();
X					break;
X/* include file  */		case 'i':
X		 case 'I': /* simulate .so <filename> */
X			pbstr("\n");
X			pbstr(p);
X			pbstr(".so ");
X			break;
X
X/* disable some  */		case 'd':
X		 case 'D':
X			switch (*p) {
X
X			case 'b':
X			case 'B':
X				bolding = NO;
X				break;
X			case 'p':
X			case 'P':
```

```
X                           paging = NO;
X                           break;
X                       default:
X                           break;
X                       }
X                       break;
X
X/* garbage       */              default:
X                                       usage();
X                                   }
X                           }
X                           else
X                         lastpg = atoi(p);
X                 }
X                 else if (*p == '+') {
X                         p++;
X                         if ((frstpg = atoi(p)) == 0)
X                                 usage();
X                 }
X                 else
X                         break;
X         }
X         if (i == argc)
X                 usage();
X         if ((fp = fopen(argv[i], "r")) == NULL) {
X                 fprintf(stderr, "%s: cannot open.\n",argv[i]);
X                 exit(1);
X         }
X
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Input Fp = %ld\n",argv[i],fp);
X#endif
X         if (p = argv[++i]) {
X                 if ((outfile[0] = fopen(p, "w")) == NULL) {
X                         fprintf(stderr,"%s: cannot create.\n\n", p);
X                         exit(1);
X                 }
X#ifdef DEBUG
X    fprintf(stderr,"OPened %s for Output\n",p);
X#endif
X
X    }
X    else
X    {
X         outfile[0] = stdout;
X#ifdef DEBUG
X    fprintf(stderr,"USing stdout for output\n");
X#endif
X    }
X
X             /* set output file level */
X    olevel = 0;
X    poutput = outfile[0];
```

```
X    /*
X     * some minor initialisation
X     */
X
X    for (i = 0; i < INSIZE; i++)
X         if (i % 8 == 0)
X              tabs[i] = YES;
X         else
X              tabs[i] = NO;
X
X    ehead[0] = '\n';
X    ehead[1] = EOS;
X    ohead[0] = '\n';
X    ohead[1] = EOS;
X    efoot[0] = '\n';
X    efoot[1] = EOS;
X    ofoot[0] = '\n';
X    ofoot[1] = EOS;
X
X              /* initialise contents linked list */
X
X    chead = (struct clist *) malloc(sizeof(struct clist));
X    clast = chead;
X    p_memoryus += sizeof(struct clist);
X
X         doroff(fp);
X         brk();
X         if (plval <= 100 && (lineno > 0 | outp > 0))
X                 space(HUGE);
X         putchar('\n');
X
X    if(verbose) {
X         fprintf(stderr,"proff read in %6d textlines to produce\n",
X              p_txtlines);
X         fprintf(stderr,"              %6d lines\n",
X              p_outlines);
X         fprintf(stderr,"              %6d pages of formatted text.\n",
X              p_outpages);
X         fprintf(stderr,"\n%d bytes of memory was required\n",
X              p_memoryus);
X         fprintf(stderr,"for internal tables and lists.\n");
X    }
X#ifdef vms
X         exit(1);
X#else
X         exit(0);
X#endif
X}
SHAR_EOF
if test 9415 -ne "`wc -c 'proff.c'`"
then
     echo shar: error transmitting "'proff.c'" '(should have been 9415
characters)'
```

```
fi
echo shar: extracting "'proff.h'" '(4948 characters)'
if test -f 'proff.h'
then
     echo shar: over-writing existing file "'proff.h'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.h'
X
X
X#include "defs.h"
X#include "lookup.h"
X
X#ifndef GLOBALS
X#ifdef vms
X#define extern globalref
X#endif
X    /* next available char; init = 0 */
Xextern int bp;
X    /* pushed-back characters */
Xextern char buf[BUFSIZE];
X    /* stack of file descriptors */
Xextern FILE *infile[NFILES];
X    /* current file is infile[level] */
Xextern int level;
X    /* stack of output file descriptors */
Xextern FILE *outfile[NFILES];
X    /* current output file is outfile[olevel] */
Xextern int olevel;
X    /* current output file pointer */
Xextern FILE *poutput;
X    /* system registers a..z */
Xextern int nr[26];
X    /* last char position in outbuf; init = 0 */
Xextern int outp;
X    /* width of text currently in outbuf; init = 0 */
Xextern int outw;
X    /* number of words in outbuf; init = 0 */
Xextern int outwds;
X    /* lines to be filled collect here */
Xextern char outbuf[MAXOUT];
X                        /* word in outbuf; init=0 */
X    /* current output page number; init = 0 */
Xextern int curpag;
X    /* next output page number; init = 1 */
Xextern int newpag;
X    /* next line to be printed; init = 0 */
Xextern int lineno;
X    /* page length in lines; init = PAGELEN = 66 */
Xextern int plval;
X    /* page length save area */
Xextern int savpl;
X    /* margin before and including header */
Xextern int m1val;
```

```
X    /* margin after header */
Xextern int m2val;
X    /* margin after last text line */
Xextern int m3val;
X    /* bottom margin, including footer */
Xextern int m4val;
X    /* last live line on page, = plval-m3val-m4val */
Xextern int bottom;
X    /* top of page title for even pages;init=NEWLINE */
Xextern char ehead[MAXLINE];
X    /* top of page title for odd  pages;init=NEWLINE */
Xextern char ohead[MAXLINE];
X    /* left,right margins for even header;init=inval,rmval */
Xextern int ehlim[2];
X    /* left,right margins for odd  header;init=inval,rmval */
Xextern int ohlim[2];
X    /* bot of page title for even pages;init=NEWLINE */
Xextern char efoot[MAXLINE];
X    /* bot of page title for odd  pages;init=NEWLINE */
Xextern char ofoot[MAXLINE];
X    /* left,right margins for even footer;init=inval,rmval */
Xextern int eflim[2];
X    /* left,right margins for odd  footer;init=inval,rmval */
Xextern int oflim[2];
X    /* flag for pausing between pages */
Xextern int stopx;
X    /* first page to begin printing with */
Xextern int frstpg;
X    /* last page to be printed */
Xextern int lastpg;
X    /* flag to indicate whether page should be printed */
Xextern int print;
X    /* number of blanks to offset page by; init = 0 */
Xextern int  offset;
X    /* verbose option; init = FALSE */
Xextern int verbose;
X    /* bolding option; init = YES; */
Xextern char bolding;
X    /* fill if YES; init = YES */
Xextern int fill;
X    /* current line spacing; init = 1 */
Xextern int lsval;
X    /* current indent; >= 0; init = 0 */
Xextern int inval;
X    /* current right margin; init = PAGEWIDTH = 60 */
Xextern int rmval;
X    /* current temporary indent; init = 0 */
Xextern int tival;
X    /* number of lines to center; init = 0 */
Xextern int ceval;
X    /* flag for continuous center */
Xextern char CEon;
X    /* number of lines to underline; init = 0 */
```

```
Xextern int ulval;
X    /* flag for continuous underline */
Xextern char ULon;
X    /* number of lines to boldface; init = 0 */
Xextern int boval;
X    /* flag for continuous bolding */
Xextern char BDon;
X    /* justification types for heads and foots; */
Xextern int tjust[3];          /* init = LEFT, CENTER, RIGHT */
X    /* number of lines to blank suppress; init=0 */
Xextern int bsval;
X    /* right justify filled lines if YES; init=YES */
Xextern int rjust;
X    /* tab stops; init every 8 spaces */
Xextern int tabs[INSIZE];
X    /* line control character; init = PERIOD */
Xextern char cchar;
X    /* universal escape - init = UNDERBAR */
Xextern char genesc;
X    /* character used to underline a BLANK; init = BLANK */
Xextern char ulblnk;
X    /* scratch arrays for use by various routines */
Xextern char tbuf1[MAXLINE];
Xextern char tbuf2[MAXLINE];
Xextern char tbuf3[MAXLINE];
Xextern char ttl[MAXLINE];
X    /* flag to process runoff symbols only */
Xextern char onlyrunoff;
X    /* flag to turn paging off */
Xextern char paging;
X    /* page number in roman numerals. Init = NO */
Xextern char roman;
X    /* autopar flag. Init = NO */
Xextern char autopar;
X    /* temporary indent value for autopar */
Xextern int autoprv;
X    /* hash tables for macros and variables */
Xextern struct hashlist *macrotab[HASHMAX];
Xextern struct hashlist *gentab[HASHMAX];
X    /* linked list entries for contents  */
Xextern struct clist *chead;
Xextern struct clist *clast;
X    /* keep track of the work - VERBOSE opt.*/
X
Xextern int p_txtlines;
Xextern int p_outlines;
Xextern int p_outpages;
Xextern int p_memoryus;
X
X#ifdef vms
X#undef extern
X#endif
X
```

```
X#endif
X
X    /* Why the hell can't people decare the routines they use */
X
X#ifndef INLOOK
Xextern int hash();
Xextern struct hashlist *lookup();
Xextern struct hashlist *install();
Xextern char *strsave();
Xextern struct lexlist *lexinstal();
Xextern struct lexlist *lexlook();
Xextern struct lexlist *remove();
X#endif
X
Xextern char *strcpy(), *strcat(), *malloc();
Xextern unsigned int strlen();
Xextern FILE *fopen(), *fclose();
SHAR_EOF
if test 4948 -ne "`wc -c 'proff.h'`"
then
     echo shar: error transmitting "'proff.h'" '(should have been 4948
characters)'
fi
echo shar: extracting "'proff01.c'" '(11642 characters)'
if test -f 'proff01.c'
then
     echo shar: over-writing existing file "'proff01.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff01.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X
X#define brk brrk
X
X/*
X * bold - bold face or overstrike a line
X *
X */
Xbold(buf,tbuf,size)
Xchar buf[];
Xchar tbuf[];
Xint  size;
X{
X    int  i,j;
X    dprintf("bold  ");
X
X    j = 0;
X    for (i = 0; buf[i] != '\n' && j < size - 2; i++) {
X         tbuf[j] = buf[i];
X         j++;
X         if (buf[i] != ' ' && buf[i] != '\t' &&
```

```
X             buf[i] != BACKSPACE ) {
X              tbuf[j] = BACKSPACE;
X              tbuf[j+1] = tbuf[j-1];
X              j += 2;
X         }
X    }
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf,tbuf);
X}
X
X/*
X * brk - end current filled line
X *
X */
Xbrk()
X{
X    dprintf("brk  ");
X    if (outp > 0) {
X         outbuf[outp] = '\n';
X         outbuf[outp+1] = EOS;
X         put(outbuf);
X    }
X    outp = 0;
X    outw = 0;
X    outwds = 0;
X}
X
X/*
X * center - center a line by setting tival
X *
X */
Xcenter(buf)
Xchar buf[];
X{
X    int  i;
X
X    dprintf("center  ");
X
X    i = (rmval + tival - width(buf)) / 2;
X    tival = (i > 0) ? i : 0;
X}
X
X/*
X * doroff - format text in file fp
X *
X */
Xdoroff(fp)
XFILE *fp;
X{
X    char inbuf[INSIZE];
X
X    infile[0] = fp;
```

```
X    for (level = 0; level > -1; level--) {
X
X#ifdef DEBUG
Xprintf("doroff: level %d FileP %ld\n",level, infile[level]);
X#endif
X
X         while (ngetln(inbuf, infile[level]) != EOF) {
X              if (inbuf[0] == cchar) /* a command */
X                   command(inbuf);
X              else {
X#ifdef rainbow
X                   if (biosb(2))
X                        exit(0);
X#endif
X                   text(inbuf);
X                   p_txtlines++;
X              }
X         }
X#ifdef DEBUG
Xprintf("doroff: Got EOF level %d FileP %ld\n",level, infile[level]);
X#endif
X
X         if (level > 0 && infile[level] > 0) {
X              fclose(infile[level]);
X              if (verbose)
X                   fprintf(stderr,"       done.\n");
X         }
X    }
X}
X
X/*
X * gettl - copy title from buf to ttl
X *
X * modifies lim
X */
Xgettl(buf,ttl,lim)
Xchar *buf;
Xchar *ttl;
Xint lim[];
X{
X    while (!isspace(*buf))
X         buf++;
X    while (isspace(*buf))
X         buf++;
X    strcpy(ttl,buf);
X    lim[0] = inval;
X    lim[1] = rmval;
X}
X
X/*
X * getwrb - get a word INCLUDING the trailing blanks
X *
X */
```

```
Xint
Xgetwrb(in,i,out)
Xchar in[];
Xchar out[];
Xint *i;
X{
X    int j,k;
X    dprintf("getval  ");
X    k = *i;
X    j = 0;
X    while (in[k] != EOS && in[k] != ' ' &&
X        in[k] != '\t' && in[k] != '\n') {
X         out[j] = in[k];
X         k++;
X         j++;
X    }
X    while (in[k] == ' ') {
X         out[j] = ' ';
X         k++;
X         j++;
X    }
X    *i = k;
X    out[j] = EOS;
X    return(j);
X}
X
X
X/*
X * gfield - get next tab or title field
X *
X */
Xint
Xgfield(buf, i, n, temp, delim)
Xchar buf[];
Xint *i;
Xint n;
Xchar temp[];
Xchar delim;
X{
X    int j,k;
X
X    dprintf("gfield  ");
X    j = 0;
X    k = *i;
X    if (n > 0) {
X         if (buf[k] == delim)
X              k++;
X         while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n' &&
X             j <= n) {
X              temp[j] = buf[k];
X              j++;
X              k++;
X         }
```

```
X    }
X    temp[j] = EOS;
X    while (buf[k] != delim && buf[k] != EOS && buf[k] != '\n')
X         k++;
X    *i = k;
X    return(j);
X}
X
X/*
X * jcopy - scopy without copying EOS
X *
X */
Xjcopy(from, i, to, j)
Xchar from[];
Xchar to[];
Xint i;
Xint j;
X{
X    int k1, k2;
X    dprintf("jcopy  ");
X
X    k1 = i;
X    k2 = j;
X    while (from[k1] != EOS) {
X         to[k2] = from[k1];
X         k1++;
X         k2++;
X    }
X}
X
X/*
X * justfy - justifies string in its tab column
X * */
Xjustfy(in, left, right, type, out)
Xchar in[];
Xchar out[];
Xint left;
Xint right;
Xint type;
X{
X    int j,k, n;
X
X    dprintf("justfy  ");
X    n = width(in);
X    if (type == RIGHT)
X         jcopy(in, 0, out, right-n);
X    else if (type == CENTER) {
X         k = (right+left-n) / 2;
X         j = (k > left) ? k : left;
X         jcopy(in, 0, out, j);
X    }
X    else
X        jcopy(in, 0, out, left);
```

```
X}
X
X/*
X * leadbl - delete leading blanks, set tival
X *
X */
Xleadbl(buf)
Xchar buf[];
X{
X    int i, j;
X
X    dprintf("leadbl  ");
X    brk();
X    for (i = 0; buf[i] == ' '; i++)     /* find 1st non-blank */
X         ;
X    if (buf[i] != '\n')
X         if (autopar) {
X              put("\n");    /* blank line */
X              tival = inval + autoprv;
X         }
X         else
X              tival = inval + i;     /* ??????????? */
X    for (j = 0; buf[i] != EOS; j++) {   /* move line to left */
X         buf[j] = buf[i];
X         i++;
X    }
X    buf[j] = EOS;
X}
X
X/*
X * ngetln - get next line from f into line
X *
X */
Xint
Xngetln(line, f)
Xchar line[];
XFILE *f;
X{
X    int c, i;
X
X#ifdef DEBUG
X    printf("ngetln+++: bp %d\n",bp);
X#endif
X
X    for (i = 0; (c = (bp >= 0) ? buf[bp--] : getc(f)) != EOF; ) {
X         if (i < MAXLINE - 1) {
X              line[i++] = (char) c;
X#ifdef DEBUG
X    printf("ngetln++: i %d c %c %d\n",i,c,c);
X#endif
X         }
X         if (c == '\n' || c == '\r')
X              break;
```

```
X    }
X    line[i] = EOS;
X    if (i == 0 && c == EOF)
X         i = EOF;
X#ifdef DEBUG
X    printf("ngetln: %s (%d, %d) (line)\n",line,strlen(line),i);
X#endif
X    return(i);
X}
X
X/*
X * pbstr - push string back onto input
X *
X */
Xpbstr(in)
Xchar in[];
X{
X
X    int i;
X
X    dprintf("pbstr  ");
X    for (i = strlen(in) - 1; i >= 0; i--)
X         putbak(in[i]);
X}
X
X/*
X * pfoot - put out page footer
X *
X */
Xpfoot()
X{
X
X    dprintf("pfoot  ");
X    skipl(m3val);
X    if (m4val > 0) {
X         if (curpag % 2 == 1)
X              puttl(efoot, eflim, curpag);
X         else
X              puttl(ofoot, oflim, curpag);
X    }
X    if (print == YES)       /* flush the page */
X    {
X         putchar(PAGEJECT); /* ...          */
X         p_outpages++;
X         if (stopx > 0)          /* -s, so flush ^L*/
X              putchar('\n');
X    }
X}
X
X/*
X * phead - put out page header
X *
X */
```

```
Xphead()
X{
X    dprintf("phead  ");
X
X    curpag = newpag;
X    if (curpag >= frstpg && curpag <= lastpg)
X         print = YES;
X    else
X        print = NO;
X    if(stopx > 0 && print == YES)
X         prmpt(&stopx);
X    newpag++;
X    if (m1val > 0) {
X         skipl(m1val-1);
X         if (curpag % 2 == 0)
X              puttl(ehead, ehlim, curpag);
X         else
X              puttl(ohead, ohlim, curpag);
X    }
X    skipl(m2val);
X    lineno = m1val + m2val + 1;
X}
X
X/*
X * prmpt - pause for paper insertion
X * prompt if i == 1; increment i
X *
X */
Xprmpt(i)
Xint *i;
X{
X    int junk,j;
X    static char bellst[2] = { BEL, EOS};
X
X    dprintf("prmpt  ");
X    j = *i;
X    if (j == 1)
X#ifdef rainbow
X         printf("%s\033[7minsert paper and type return\033[0m ",bellst);
X#else
X         printf("%sinsert paper and type return ",bellst);
X#endif
X    else
X         printf(bellst);
X    junk = getchar();
X    *i = ++j;
X}
X
X/*
X * Put - put out line with proper spacing and indenting
X *
X */
Xput(buf)
```

```
Xchar buf[];
X{
X    register int i;
X    dprintf("put  ");
X    if (lineno == 0 || lineno > bottom)
X         phead();
X
X    if ( print == YES ) {
X         if (buf[0] == '\n') {   /* empty line.. */
X              putchar('\n');
X              p_outlines++;
X         }
X         else {
X              for ( i = 1 ; i <= offset ; i++ ) /* page offset */
X                   putchar(' ');
X              for ( i = 1 ; i <= tival ; i++ )  /* indenting   */
X                   putchar(' ');
X
X              while (*buf != '\0') {
X                   putchar(*buf);
X                   buf++;
X              }
X              p_outlines++;
X         }
X    }
X
X    tival = inval;
X    skipl(((lsval-1 < bottom-lineno) ? lsval-1 : bottom-lineno));
X    lineno += lsval;
X
X    if (lineno > bottom)
X         pfoot();
X
X}
X
X/*
X * putbak - push character back onto input
X *
X */
Xputbak(c)
Xchar c;
X{
X    dprintf("putbak  ");
X
X    bp++;
X    if (bp > BUFSIZE)
X         error("too many characters pushed back.\n");
X    buf[bp] = c;
X}
X
X
X/*
X * puttl - put out title line with optional page number & date
```

```
X *
X */
Xputtl(buf, lim, pageno)
Xchar buf[];
Xint lim[];
Xint pageno;
X{
X    char chars[9],cdate[27];
X    char rmstr[MAXTOK];
X    char delim;
X    char *tp;
X    int j;
X    int nc, n, i, left, right, ncd;
X
X    dprintf("puttl  ");
X    if (print == NO)
X         return;
X    left = lim[0];     /* no more +1 here */
X    right = lim[1]; /* no more +1 here */
X    nc = itoc(pageno, chars, MAXCHARS);
X    if (roman) {
X         nc = cvtroman(chars,rmstr);
X         strcpy(chars,rmstr);
X    }
X    getnow(cdate);
X    ncd = strlen(cdate);
X    i = 0;
X    delim = buf[i];
X    for (j = 0; j < right; j++)
X         ttl[j] = ' ';
X    n = 0;
X    do {
X         if (gfield(buf, &i, right-left, tbuf1, delim) > 0) {
X              subst(tbuf1, PAGENUM, tbuf2, chars, nc);
X              subst(tbuf2, CURRENTDATE, tbuf1, cdate, ncd);
X              justfy(tbuf1, left, right, tjust[n], ttl);
X         }
X         n++;      /* update title counter */
X    }
X    while (buf[i] != EOS && buf[i] != '\n' && n != 3);
X
X    for( ; right >= 1 ; right--)
X         if( ttl[right-1] != ' ' )
X              break;
X    ttl[right] = '\n';
X    ttl[right+1] = EOS;
X    for (i = 1; i <= offset; i++)
X         putchar(' ');               /* offset */
X    tp = ttl;
X    while (*tp != '\0') {
X         putchar(*tp);
X         tp++;
X    }
```

```
X    p_outlines++;
X}
X
X/*
X * set - set parameter and check range
X *
X */
Xset(param, val, argtyp, defval, minval, maxval)
Xint *param;
Xint val;
Xint argtyp;
Xint defval;
Xint minval;
Xint maxval;
X{
X    int i;
X    dprintf("set  ");
X    i = *param;
X    if (argtyp == '\n')             /* defaulted */
X         i = defval;
X    else if (argtyp == '+')              /* relative +*/
X         i += val;
X    else if (argtyp == '-')         /* relative -*/
X         i -= val;
X    else                            /* absolute  */
X    i = val;
X    i = (i < maxval) ? i : maxval;       /* min        */
X    i = (i > minval) ? i : minval;       /* max        */
X    *param = i;
X}
X
X/*
X* skipl - output  n  blank lines
X*
X*/
Xskipl(n)
Xregister int n;
X{
X    register int i;
X
X    dprintf("skip  ");
X    if (print == YES)
X         for (i = 1; i <= n; i++) {
X              putchar('\n');
X              p_outlines++;
X         }
X}
X
X/*
X * space - space  n  lines or to bottom of page
X *
X */
Xspace(n)
```

```
Xint n;
X{
X
X    dprintf("space  ");
X    brk();
X    if (lineno > bottom)
X         return;
X    if (lineno == 0)
X         phead();
X    skipl(((n < bottom+1-lineno) ? n : bottom+1-lineno));
X    lineno += n;
X    if (lineno > bottom)
X         pfoot();
X}
X
X/*
X * spread - spread words to justify right margin
X *
X */
Xspread(buf, outp, nextra, outwds)
Xchar buf[];
Xint outp;
Xint nextra;
Xint outwds;
X{
X    int dir = 0;
X
X    register int i, j;
X    int nb, ne, nholes;
X
X    dprintf("spread  ");
X    if (nextra <= 0 || outwds <= 1)
X         return;
X    dir = 1 - dir;   /* reverse previous direction */
X    ne = nextra;
X    nholes = outwds - 1;
X    if (tival != inval && nholes > 1)
X         nholes--;
X    i = outp - 1;
X    j = (MAXOUT-2 < i+ne) ? MAXOUT-2 : i+ne; /* leave room for '\n', EOS */
X    while (i < j) {
X         buf[j] = buf[i];
X         if (buf[i] == ' ' && buf[i-1] != ' ') {
X              if (dir == 0)
X                   nb = (ne-1) / nholes + 1;
X              else
X                   nb = ne / nholes;
X              ne -= nb;
X              nholes--;
X              for ( ; nb > 0; nb--) {
X                   j--;
X                   buf[j] = ' ';
X              }
```

```
X        }
X        i--;
X        j--;
X    }
X}
X
X/*
X * subst - substitutes a string for a specified character
X *
X */
Xsubst(in, chr, out, subara, n)
Xchar in[];
Xchar chr;
Xchar out[];
Xchar subara[];
Xint n;
X{
X    register int i, j, k;
X
X    dprintf("subst  ");
X    j = 0;
X    for (i = 0; in[i] != EOS; i++)
X        if (in[i] == chr)
X            for (k = 0; k < n; k++) {
X                out[j] = subara[k];
X                j++;
X            }
X        else {
X            out[j] = in[i];
X            j++;
X        }
X    out[j] = EOS;
X}
X
X/*
X * Text  process text lines
X *
X */
X
Xtext(inbuf)
Xchar inbuf[];
X{
X    int  i;
X    register int j;
X    char wrdbuf[INSIZE];
X
X    dovar(wrdbuf,inbuf);        /*  expand variables */
X    strcpy(inbuf,wrdbuf);
X    doesc(inbuf, wrdbuf, INSIZE);    /*  expand escapes   */
X    dotabs(inbuf, wrdbuf, INSIZE);  /*  expand tabs      */
X
X    if(inbuf[0] == ' ' || inbuf[0] == '\n')
X        leadbl(inbuf);         /* move left, set tival */
```

```
X    if(ulval > 0 || ULon)       /* word underlining */
X    {
X         underl(inbuf, wrdbuf, INSIZE);
X         ulval--;
X    }
X    if(boval > 0 || BDon)       /* boldfacing */
X    {
X         bold( inbuf, wrdbuf, INSIZE);
X         boval--;
X    }
X    if(ceval > 0 || CEon)       /* centering */
X    {
X         center(inbuf);
X         put(inbuf);
X         ceval--;
X    }
X    else if( inbuf[0] == '\n' )      /* all blank line */
X         put(inbuf);
X    else if( fill == NO )       /* unfilled text */
X         put(inbuf);
X    else                    /* filled text */
X    {
X         i = strlen(inbuf) - 1;
X         inbuf[i] = ' ';
X         if( inbuf[i-1] == '.' )
X         {
X              i++;
X              inbuf[i] = ' ';
X         }
X         inbuf[i+1] = EOS;
X         for( i = 0 ; getwrb(inbuf, &i, wrdbuf) > 0 ; )
X              putwrd(wrdbuf);
X    }
X}
X
X/*
X * Underl    underline words in a line
X *
X */
Xunderl(buf, tbuf, size)
Xchar buf[];
Xchar tbuf[];
Xint size;
X{
X    int i, j;
X
X    j = 0;
X    for(i = 0 ; buf[i] != '\n' && j < size - 2; i++) {
X         if( buf[i] != ' ' && buf[i] != BACKSPACE && buf[i] != '_' ) {
X              tbuf[j++] = '_';
X              tbuf[j++] = BACKSPACE;
X         }
X         if( buf[i] == BLANK )
```

```
X             tbuf[j++] = ulblnk;
X         else
X             tbuf[j++] = buf[i];
X    }
X
X    tbuf[j] = '\n';
X    tbuf[j+1] = '\0';
X    strcpy(buf, tbuf);
X}
X
X/*
X * width - compute width of character string
X *
X */
Xint
Xwidth(buf)
Xchar buf[];
X{
X    int k,i;
X
X    dprintf("width  ");
X    k = 0;
X    for (i = 0; buf[i] != EOS; i++)
X         if (buf[i] == BACKSPACE)
X             k--;
X         else if (buf[i] >= ' ' && buf[i] <= '~')
X             k++;
X    return(k);
X}
X/*
X * getnow - get the date from command line if present.
X *          if not specified, prompt user for it.
X *
X * (stub)
X */
Xgetnow(date)
Xchar date[];
X{
X    dprintf("getnow  ");
X    strcpy(date,"00-xxx-1900 00:00:00");
X}
SHAR_EOF
if test 11642 -ne "`wc -c 'proff01.c'`"
then
     echo shar: error transmitting "'proff01.c'" '(should have been 11642
characters)'
fi
echo shar: extracting "'proff02.c'" '(2680 characters)'
if test -f 'proff02.c'
then
     echo shar: over-writing existing file "'proff02.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff02.c'
```

```
X#include <stdio.h>
X#include <ctype.h>
X#include "defs.h"
X#include "debug.h"
X
X/*
X * addset - put c in array[i], if it fits, increment i
X *
X */
Xint
Xaddset(c,array,i,maxsize)
Xchar c;
Xchar array[];
Xint *i;
Xint maxsize;
X{
X    int n,status = NO;
X    dprintf("addset  ");
X    n = *i;
X    if (n <= maxsize - 1) {
X         array[n++] = c;
X         status = YES;
X    }
X    *i = n;
X    return(status);
X}
X
X/*
X * addstr - add string s to str[i] if it fits, increment i
X *
X */
Xint
Xaddstr(s,str,i,maxsize)
Xchar s[];
Xchar str[];
Xint *i;
Xint maxsize;
X{
X    int k,j,status = NO;
X
X    dprintf("addstr  ");
X    j = *i;
X    if (j + strlen(s) <= maxsize - 1) {
X         for (k = 0; s[k] != EOS; k++)
X              str[j++] = s[k];
X         status = YES;
X    }
X    *i = j;
X    return(status);
X}
X
X/*
X * ctoi - convert string at in[i] to integer, increment i
```

```
X *
X */
Xint
Xctoi(in,i)
Xchar in[];
Xint *i;
X{
X    int j,n,sign;
X
X    dprintf("ctoi  ");
X    n = 0;
X    for (j = *i; in[j] == ' ' || in[j] == '\t'; j++)
X         ;         /* skip leading garbage */
X    sign = 1;
X    if (in[j] == '+' || in[j] == '-') /* sign */
X         sign = (in[j++] == '+') ? 1 : -1;
X    for (n = 0; in[j] >= '0' && in[j] <= '9'; j++)
X         n = 10 * n + in[j] - '0';
X    *i = j;
X    return(sign * n);
X}
X
X/*
X * error - print message and terminate
X *
X */
Xerror(s)
Xchar s[];
X{
X    fprintf(stderr,"%s\n",s);
X    exit(1);
X}
X
X/*
X * getwrd - get non-blank word from in[i] into out, increment i
X *
X */
Xint
Xgetwrd(in,i,out)
Xchar in[];
Xint *i;
Xchar out[];
X{
X    int j,size = 0;
X
X    for (j = *i; in[j] == '\t' || in[j] == ' '; j++)
X         ;         /* skip leading garbage */
X    while (in[j] != ' ' && in[j] != '\t' &&
X        in[j] != EOS && in[j] != '\n')
X         out[size++] = in[j++];
X    out[size++] = EOS;
X    *i = j;
X#ifdef DEBUG
```

```
X    printf("getwrd: %s\n",out);
X#endif
X    return(size);
X}
X/*
X * skipbl - skip blanks, tabs at str[i], increment i
X *
X */
Xskipbl(str,i)
Xchar str[];
Xint *i;
X{
X    int n;
X    dprintf("skipbl  ");
X    n = *i;
X    while (str[n] == ' ' || str[n] == '\t')
X        n++;
X    *i = n;
X}
X
X/*
X * itoc - special version of itoa
X *
X */
Xint
Xitoc(n,str,size)
Xint n;
Xchar str[];
Xint size;
X{
X
X    int i,j,k,sign;
X    char c;
X
X    dprintf("itoc  ");
X    if ((sign = n) < 0)
X        n = -n;
X    i = 0;
X    do {
X        str[i++] = n % 10 + '0';
X    }
X    while ((n /= 10) > 0 && i < size-2);
X    if (sign < 0 && i < size-1)
X        str[i++] = '-';
X    str[i] = EOS;
X    /*
X         * reverse the string and plug it back in
X         *
X */
X    for (j = 0, k = strlen(str) - 1; j < k; j++, k--) {
X        c = str[j];
X        str[j] = str[k];
X        str[k] = c;
```

```
X    }
X    return(i);
X}
X
X/*
X * usage - obvious..
X *
X */
Xusage()
X{
X#ifdef rainbow
X    fprintf(stderr,"%s %s",
X    "usage: proff \033[7m[+n] [-n] [-v] [-ifile] [-s] [-pon]\033[0m",
X    "\033[1minfile\033[0m \033[7m[outfile]\033[0m\n");
X#else
X    fprintf(stderr,
X    "usage: proff [+n] [-n] [-v] [-ifile] [-s] [-pon] infile [outfile]\n");
X#endif
X    exit(0);
X}
SHAR_EOF
if test 2680 -ne "`wc -c 'proff02.c'`"
then
     echo shar: error transmitting "'proff02.c'" '(should have been 2680
characters)'
fi
echo shar: extracting "'proffman.prf'" '(46207 characters)'
if test -f 'proffman.prf'
then
     echo shar: over-writing existing file "'proffman.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'proffman.prf'
X
X.! Proff user's manual
X.! Feb. 1984 by Ozan S. Yigit
X.!
X.! Edited by Steven Tress and Terry Lim
X.! vers. 1.0
X.!
X.! ----------- macros ----------
X.! sect - produce a bold section header and
X.! enter a contents line. First parameter
X.! is indent level for contents line.
X.define sect
X.sp
X.cl $1 $2 $3 $4 $5 $6 $7
X.bd
X$2 $3 $4 $5 $6 $7
X.en
X.! ----------------------------
X.define note
X.sp
X.ce
```

```
XNOTE
X.sp
X.fi
X.in +5
X.rm -5
X.en
X.define endnote
X.sp
X.nf
X.in -5
X.rm +5
X.en
X.! ----------------------------
X.! Macros to create a point-form lists.
X.! Note the use of number registers within
X.! the macros. See section 5.
X.!
X.define list
X.nr a $1
X.in +$1
X.en
X
X.define item
X.sp
X.ti -@na
X$1
X.en
X
X.define nolist
X.in -@na
X.sp
X.en
X.! ----------------------------
X.ce 100
X.st 8
XPROFF User's Guide
X.sp
XVersion 1.0
X.ce 0
X.nf
X.in +25
X.sp 15
X***  *******
X***  *********
X     **      **
X     **      **
X     *********
X     *******
X     **
X     **
X     **
X******
X****
```

```
X.in -25
X.fi
X.ce 100
X.st -8
XOzan S. Yigit & Steven Tress
XMarch 1984
X.ce 0
X.bp 1
X.he /1.0/Proff User's Guide/#/
X.ap
X.fi
X.ju
X.sect 0 1.0 Introduction
X This manual describes PROFF, a formatter based on the FORMAT utility
Xpresented in
X.ul
XSoftware Tools.
X PROFF was produced to provide a powerful formatter that can be used under
Xa variety of microcomputers, thus providing a consistent formatting tool
Xacross environments. PROFF can be used to format memos, reports, form letters
Xand
Xdocuments such as this manual. It can also be configured to mimic
Xother formatting
Xsystems of similar nature.
X This document itself was produced with PROFF, using most of its advanced
features.
XPROFF took care of such things as auto-paragraphing and the production of
Xthe Table of Contents as the manual was being formatted.
X PROFF was developed under a Digital Equipment Corporation Rainbow 100,
Xusing Mark Williams C Compiler for portability reasons. PROFF is
Xavailable under VAX/VMS operating system. PROFF implementations for
XIBM PC and APPLE ][ microcomputers are also underway.
X.st -14
XRainbow, VAX/VMS are trademarks of Digital Equipment Corporation.
X.br
XMark Williams C Compiler is a trademark of Mark Williams Company.
X.br
XIBM is a registered trademark of International Business Machines Inc.
X.br
XAPPLE is a trademark of Apple Computer Inc.
X.br
XUNIX is a trademark of Bell Laboratories.
X.bp
X.cl
X.sect 0 2.0 General Description
X.cl
X.sect 1 2.1 The Input
X The text that is to be formatted by PROFF is typed into an input file
Xusing any text editor. This file contains the text to be formatted
Xas well as PROFF commands.
X Each line in the input file is either a command line or a text line. A
Xcommand line is a line that begins with a period (".") . All other lines are
Xtext lines. The command lines are not printed - they tell PROFF how you want
```

```
Xit to format the text that follows. Appendix A summarizes all of the PROFF
Xcommands for a quick reference.
X.sect 2 2.1.1 Text
X Text can be entered into the input file in any format. PROFF removes all extra
Xblanks and tabs between words when operating in fill mode. This means you do
Xnot have to worry about how many words you put on a line, and you can break
Xlines wherever it is convenient to your typing. Note however, that you cannot
Xbreak a word between two lines.
X Blanks and tabs at the beginning of a line are not removed. This is useful
Xfor producing special tables and performing special types of indentation.
XThus, normal text lines should not have any leading tabs or blanks.
X.sect 2 2.1.2 Commands
X A command is a line that starts with a period. Immediately following the
Xperiod is a command name. Some commands accept a numeric quantity or a
Xcharacter string parameter, which must be separated from the command name
Xby a space or a comma. For example, an indent command might appear as follows:
X.save
X.in +5
X.nf
X.nj
X.sp
X|
X|It is to do nothing that the elect exists.
X|.in 5
X|- Oscar Wilde
X|
X.restore
X Assuming that the left margin was at column 1, PROFF would produce the
Xfollowing:
X.save
X.in +5
X.nf
X.nj
X.sp
X.need 4
X|
X|It is to do nothing that the elect exists.
X|     - Oscar Wilde
X|
X.restore
X.sp
X(In the examples above, as in those following, the vertical line indicates
Xthe left edge of input or the left edge of the printed page).
X The number following the command may be preceeded by a "+" or "-" sign.
XThis plus or minus sign indicates an addition or subtraction of the number
Xto or from the current value for the command. for example, the text:
X.sp
X.save
X.in +5
X.nf
X.nj
X.need 11
X|
```

```
X|Nothing to do but work,
X|.in +3
X|Nothing to eat but food,
X|.in -3
X|Nothing to wear but clothes
X|.in +3
X|To keep one from going nude.
X|.in +7
X|-Benjamin King
X|
X.in -5
X.sp
Xwill produce as output:
X.sp
X.in +5
X.need 6
X|
X|Nothing to do but work,
X|   Nothing to eat but food,
X|Nothing to wear but clothes
X|   To keep one from going nude.
X|          -Benjamin King
X|
X.restore
X If a number is not supplied with a command that requires a number, PROFF
Xwill use a default value. The defaults for each command are summarized in
XAppendix A.
X.cl
X.sect 1 2.2 The Output
X The main functions performed by PROFF are
X.ul
Xfilling
Xand
X.ul
Xjustifying.
XA line is
Xfilled by packing as many words onto it as will fit. The line is justified
Xby spacing words evenly between the left and right margins. When PROFF starts,
Xit assumes that the text is to be filled and justified. Of course, when fill
Xand justify are not needed (as in the case of a letter or a table), there are
Xcommands to turn these features off, and back on again, as necessary.
X When PROFF is in fill mode, it normally strips out extra spaces and tabs
Xbetween words.
X Many PROFF commands cause a
X.ul
Xbreak
Xto occur in the output. This means that the line currently being filled is
Ximmediately output. Any following text goes into a new output line.
X.cl
X.sect 1 2.3 Executing PROFF
X Once a text file is ready for formatting, PROFF is started by typing
Xthe program name, various options, name of the input file and the name
Xof the output file. For example the command
```

```
X.sp
X.in +5
XA> proff  -po5 proffman.prf proff.man
X.sp
X.in -5
Xwould produce this document as proff.man, from an input file proffman.prf,
Xshifted right by 5 spaces.
X(The symbol "A>" is CP/M system prompt).
X.cl
X.sect 1 2.4 Bibliographic Notes
X  PROFF wa produced by re-writing the Software Tools Formatter FORMAT.
XSome of the ideas are from Freshwater Institute RUNOFF, NROFF,
XUniversity of Waterloo SCRIPT
Xand other formatters of similar nature. The underlying ideas of the
Xmentioned above formatters may be found in
X.ul
XSoftware Tools
Xby B.W. Kernighan and P.J. Plauger. 1976. (Addison-Wesley, Reading, Mass.).
X.cl
X.sect 1 2.5 References and Readings
X.nf
X.nap
X.sp
XBrian W. Kernighan and P. J. Plauger,
X.ul
XSoftware Tools
XAddison-Wesley (1976)
X.sp
XR. Furuta, J. Scofield and A. Shaw,
X.ul
XDocument Formatting Systems:
X.ul
XSurvey, Concepts, and issues
XACM Computing Surveys, Sept. 1982, Pp. 417
X.sp
XMark Stuart Brader,
X.ul
XAn Incremental Text Formatter
XDepartment of Computer Science
XUniversity of Waterloo, CS-81-12
X.bp
X.fi
X.ap
X.cl
X.sect 0 3.0 Command Descriptions
X This section describes PROFF commands. Commands specify how the program is
Xto process the text lines in the input file. Lines in the input file that
Xbegin with a period (or the control character selected by the user)
Ximmediately followed by a command name are commands. Any line that begins
Xwith a period and followed by a _# or _! is a comment line and is ignored
Xby PROFF - this allows you to put information in the file that will be neither
Xprocessed nor output by PROFF.
X As described earlier, some of the commands can be followed by "parameters".
```

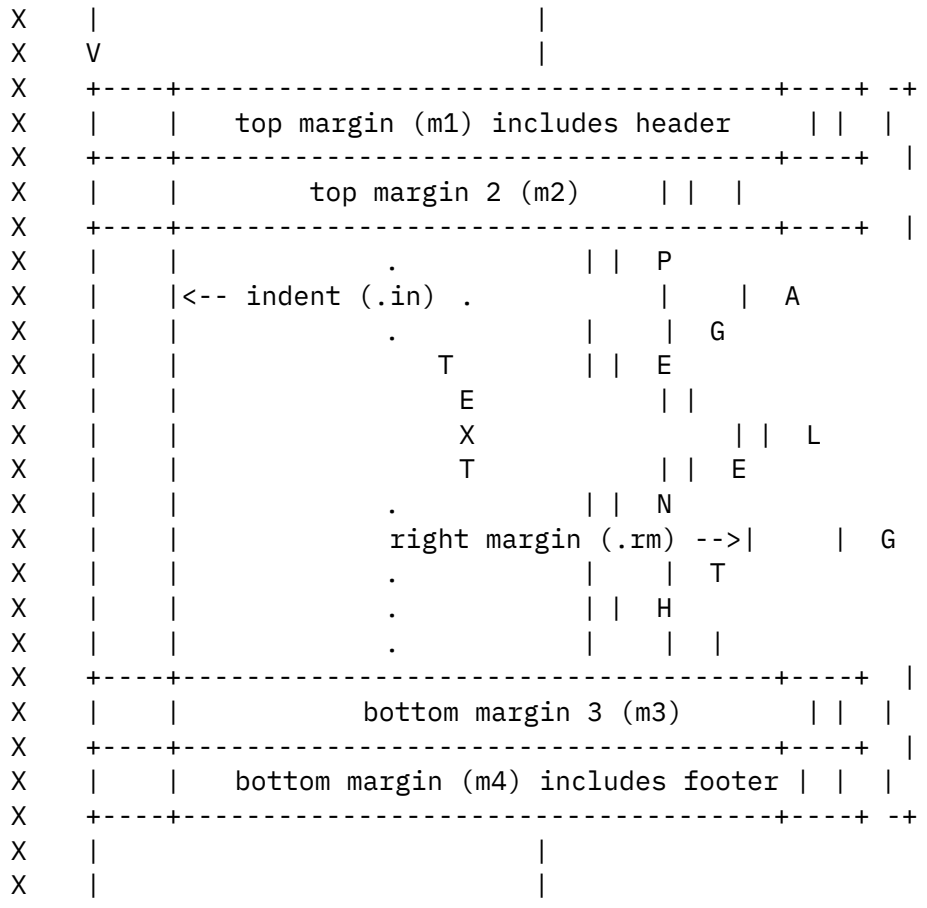
```
XParameters are used in executing a command; for example, in the command
X".sp 3", the parameter "3" tells the formatter to insert 3 blank lines into
Xthe document. The following conventions are used in describing the parameters:
X.sp
X.in +5
X.ti -2
Xo Parameters surrounded by square brackets are optional. If not supplied, PROFF
Xassumes a default value.
X.br
X(e.g. .sp [n])
X.sp
X.ti -2
Xo Parameters surrounded by angle brackets are mandatory. PROFF will display
Xa fatal error message if the parameter is absent. (e.g. .set <variable name>)
X.sp
X.ti -2
Xo Parameters surrounded by squiggly brackets are to be typed exactly as
Xindicated. (e.g. .pn {roman})
X.sp
X.ti -2
Xo A bar character seperating the parameters within brackets indicate an
Xalternative. (e.g. .st [+|-][n] means both .st [+n] and .st [-n])
X.in -5
X In describing the commands, the command is typed exacty as accepted by PROFF
Xwith the associated control character default ("."). If more than one form of
Xthe command is accepted by PROFF, the command names are separated with a
Xbar indicating an alternative.
X.bp
X.cl
X.sect 1 3.1 Filling and Justifying
X.nap
X.in +5
X.!
X.! define a simple macro for generating the headers.
X.! note that the second "$" within macro is for
X.! variable expansion. Initially, the variable name
X.! is passed into the macro WITHOUT any expension.
X.! we also use the new control character within macro.
X.!
X.define comm
X\sp
X\cl 2 $$1
X\ti -5
X$$1
X\sp
X.en
X.! change the control character from period (".") to a backslash ("\")
X.! to avoid the interpretation of the command headers
X.!
X.cchar \
X\!
X\! Variable creation
X\! We use variables to avoid re-typing of multiple options over
```

```
X\! and over again. These variable names will be reused in the
X\! appendix to produce a quick referance
X\!
X\set FILL ".fi | .f | .fill"
X\comm FILL
XThe fill command causes a line to be filled with as many words as the right
Xmargin allows. For this purpose, all extra blanks and tabs are removed between
Xwords. Each word is separated with a single blank. PROFF automatically assumes
Xfill mode during the startup.
X\set NOFILL ".nf | .nofill"
X\comm NOFILL
XNo fill discontinues the filling of the text. PROFF simply copies the text
Xto the output. This command may be used to pass tables and other text
Xunaltered through the formatter.
X\set JUST ".ju | .j | .justify"
X\comm JUST
XJustify causes the words on a line to be evenly spaced between the left and
Xthe right margins. Note that lines can be justified only if lines are also
Xbeing filled. PROFF automatically assumes justify mode during the startup.
X\set NOJUST ".nj | .nojustify"
X\comm NOJUST
XNo justify discontinues the text justification.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.2 Text Formatting
X.in +5
X.cchar \
X\set BREAK ".br | .break"
X\comm BREAK
XBreak causes a break: the current line is printed without justification,
Xand the next word is placed at the beginning of a new line. Note that many
XPROFF commands cause an implicit break.
X\set INDENT ".in | .lm | .leftmargin [+|-][n]"
X\comm INDENT
XIndent causes a break and indents the following lines [n] spaces to the
Xright of the left margin. [n] can be negative to allow beginning a line
Xto the left of the left margin, however, a line cannot begin to the left of
Xcolumn 0. If a plus or minus sign is used with n, then [n] is added or
Xsubtracted to or from the current value.
X\set TINDENT ".ti | .i | .left [+|-][n]"
X\comm TINDENT
XTemporary indent is identical to the indent command except that it
Xapplies only to the next line of printed text. Thus, the command
X".ti +5" would cause the next line to be printed 5 spaces to the right
Xof those that follow.
X\set SPACETO ".st | .spaceto [-][n]"
X\comm SPACETO
XSpaceto allows spacing to line [n] from the top of the current page.
XIf a negative [n] is specified, than spacing is performed to line [n]
Xfrom the bottom of the page (excluding the footer lines). Thus, footnotes
Xcan be set at a fixed distance from the bottom of the page by a command such
```

```
Xas ".st -5".
X\set SPACE ".sp | .s | .skip [n]"
X\comm SPACE
XSpace causes a break and skips [n] lines, except at the top of
Xa page. The space command
Xis dependent on the setting of line spacing.
X\set CENTER ".ce | .center [n | on | off]"
X\comm CENTER
XCenter causes the next [n] lines of text to be centered between the left
Xand right margins. Centering may be started with "on" and terminated with
X"off", in which case all input lines between these commands will be centered.
X\set UNDLINE ".ul | .underline [n | on | off]"
X\comm UNDLINE
XUnderline command causes the text on the next [n] input lines to be underlined
Xwhen printed. If [n] is omitted, only the next line is underlined. This command
Xdoes not cause a break, so words in filled text may be underlined by:
X\sp
X\save
X\cchar .
X.in +5
X.nf
X.need 11
X.sp
X|
X|The "Pay-off" Theory: Only
X|.ul
X|losers
X|believe in luck, horses, horoscopes
X|and
X|.ul
X|lotteries.
X|
X.in -5
X.sp
Xto get
X.in +5
X.sp
X.fi
X|
X.br
X|The "Pay-off" Theory: Only
X.ul
Xlosers
Xbelieve in
X.br
X|luck, horses, horoscopes and
X.ul
Xlotteries.
X.br
X|
X.sp
X.restore
XUnderlining may be started with "on" and terminated with "off", similar to
```

```
Xthe centering command.
X\set CUNDLINE ".ul | .underline [all | words]"
X\comm CUNDLINE
XThis version of the underline command is used to set the mode of
Xunderlining:
X\sp
X\nap
X\in +5
X\nf
Xall   - underline across all characters,
X        including spaces.
X\br
Xwords - underline words only
X\fi
X\sp
X\in -5
X\ap
X\set BOLD ".bd | .bold [n | on | off]"
X\comm BOLD
XThe bold command causes the text on the next [n] input lines to be highlighted
Xby overstriking. If [n] is omitted, only the next line is highlighted.
XBolding may be started with "on" and terminated with "off" as in the
Xcase of the center and underline commands.
X\set DBO ".db | .dbo | .disablebolding"
X\comm DBO
XTurns the bolding off, all bolding commands are ignored. This feature is
Xuseful for rough drafts.
X\set EBO ".eb | .ebo | .enablebolding"
X\comm EBO
XTurns the bolding feature back on. Bolding is turned on during the PROFF
Xstartup.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.3 Page Formatting
X.in +5
X.cchar \
X\set LS ".ls | .spc | .spacing [n]"
X\comm LS
XLine spacing is the command to set line spacing. Set n to 1 for single spacing,
X2 for double spacing etc.
X\set BP ".bp | .pg | .page [n]"
X\comm BP
XThe begin page command causes a break, ends the current page, outputs
Xfooters if required and begins a new page. If [n] is present, the page number
Xis set to [n]. The default action is to number the pages incrementally.
X\set PN ".pn | .pagenumber {roman} | {arabic}"
X\comm PN
XPage number command defines the format of the page number. Uppercase roman
Xnumerals may be obtained with "roman" keyword. To convert the page numbers
Xback to normal, "arabic" is specified. PROFF uses arabic numerals as
Xa default.
```

```
X\set NPA ".np | .nopaging"
X\comm NPA
XNo paging disables the pagination. When PROFF is in no paging mode,
X"begin page" (.bp) and "page length" (.pl) commands are ignored. This mode
Xof operation is especially useful for using the proff output with the
Xmulti-column formatter (MC).
X\set PA ".pa | .paging"
X\comm PA
XPaging enables normal page generation. This command starts a
Xnew page and restores the page length to the
Xvalue previous to the ".np" command.
X\set NE ".ne | .need | .tp | .testpage [n]"
X\comm NE
XTest page checks to see whether at least [n] lines remain in the
Xcurrent page. If less than this number of lines remain, printing will resume
Xat the top of a new page. If [n] is missing, it is assumed to be zero.
X\set HE ".he | .header <text>"
X\comm HE
XHeader sets the text to be printed on top of each page. <text> is
Xdivided into sections which are to be left justified, centered and right
Xjustified. To divide <text> into these three parts, the first character is
Xassumed to be a separator. (e.g. /left/center/right/) But any non-alphanumeric
Xcharacter may also be used. The characters "#" and "%" are replaced with the
Xcurrent page number and day/time in the header.
X\set FO ".fo | .footer <text>"
X\comm FO
XFooter is identical to header except that it sets the text to be printed
Xat the bottom of each page.
X\set OHE ".oh <text>"
X\comm OHE
XThe odd header command sets the header for odd pages only.
X\set EHE ".eh <text>"
X\comm EHE
XThe even header command sets the header for even pages only.
X\set OFO ".of <text>"
X\comm OFO
XThe odd footer command sets the footer for odd pages only.
X\set EFO ".ef <text>"
X\comm EFO
XThe even footer command sets the footer for even pages only.
X\in -5
X\cchar .
X.bp
X.cl
X.sect 1 3.4 Page Layout
X.ap
X These commands are used to specify where on the page you want the formatted
Xtext to be placed. The general layout of a page is as follows:
X.nap
X.need 30
X.nf
X
X    page offset (.po)               |
```




```
X.fi
X.in +5
X.cchar \
X\set PO ".po | .offset [+|-][n]"
X\comm PO
XThe page offset command moves the entire page to the right or left depending on
the
Xspecified value. All indentation is according to the page offset. PROFF
Xassumes a page offset of 0 during the startup. If [n] is specified with a
Xplus or minus, it will be added or subtracted from the current value.
X\set RM ".rm | .rightmargin [+|-][n]"
X\comm RM
XRight Margin sets the position of the last printable character from the
Xleft edge of the page to [n]. Default value for right margin is 65.
XA plus or minus value will be added or subtracted from the current value.
XIf [n] is not specified, right margin is set to the default value.
X\set PL ".pl | .ps | .pagesize [n]"
X\comm PL
XPage length is used to set the number of lines that are to be printed
Xon a page including the header and footer lines. After [n] lines are printed,
Xthe paper will advance to the top of next page. The default page length is
X66 lines (11 inches for 6 lines/inch). This command is disabled if nopaging
Xis set.
X\set M1 ".m1 [n]"
X\comm M1
XMargin 1 sets the number of lines (including the header) which will be left at
Xthe top of the page to [n]. The default setting is 3. If [n] is omitted, is
```

```
Xset to the default.
X\set M2 ".m2 [n]"
X\comm M2
XMargin 2 sets the number of blank lines between the header and the first
Xline of text. The default setting is 2.
X\set M3 ".m3 [n]"
X\comm M3
XMargin 3 sets the number of blank lines between the footer and the last line
Xof text. The default setting is 2.
X\set M4 ".m4 [n]"
X\comm M4
XMargin 4 sets the number of lines (including the footer) which will be left at
Xthe bottom of the page to [n]. The default setting is 3.
X\in -5
X\cchar .
X.bp
X.cl
X.ap
X.sect 1 3.5 Table of Contents
X This section describes the the commands that are used to generate a table of
Xcontents. Basically, a contents line command is used in every place in
Xthe document where an entry is needed in the table of contents. PROFF
Xstores the text and the page number when it encounters this command.
XAfter the the body of the document is processed, a print contents command
Xdumps the contents table. The contents should be dumped in a new page, with
Xnofill. Page numbering should be disabled if the table of contents is to be
Xused in front of the document.
X.sp
X.in +5
X.ap
X.cchar \
X\set CL ".cl | .contline [<n> <text>]"
X\comm CL
XContents line specifies a line of <text> to be entered into the table of
Xcontents. <n> specifies the level at which the item is to be printed
Xin the table. When the table is printed, each level of entry will be
Xindented by specific number of spaces.
X<text> appears in the output exactly as it appears
Xin the contents line command, except that leading blanks are removed.
XIf no options specified in the contents line, a blank is inserted during
Xthe table output.
X\set PC ".pc | .printcont [n]"
X\comm PC
XPrint Contents causes the currently accumulated table of contents to be
Xprinted. If [n] is specified, it is used as the indent value for each
Xlevel.  If [n] is not specified, it is defaulted to 3.
X A contents line at level 0 is as wide as rightmargin-indent. The
Xoutlook of the table of contents may be changed by altering the right
Xmargin and indent values. A typical table of contents may be produced as
Xfollows:
X\in +5
X\nf
X\sp
```

```
X|.page
X|.he ////
X|.fo ////
X|.nofill
X|.sp
X|.center
X|Table of Contents
X|.sp
X|.printcont
X\in -5
X\fi
X\sp
XThe following example illustrates the generation of a table of contents. Note
Xthat only one table of contents is active for a PROFF session.
X\need 40
X\sp
X\in +5
X\nf
X\nap
X.cl
X.cl 0 A. Introduction
XIntroduction
X    text
X    .
X.cl
X.cl 0 B. Methods
XMethods
X    text
X    .
X.cl 1 a) Sampling Procedures
XSampling
X    text
X    .
X.cl 1 b) Laboratory Procedures
XLaboratory
X    text
X    .
X.cl
X.cl 0 C. Results
XResults
X    text
X    .
X    .
X.pg
X.nf
X.he ////
X.fo ////
X.ce
XTable of Contents
X.sp
X.pc
X\sp
X\in -5
```

```
XThese commands will produce the following table:
X\sp
X\in +5
X        Table of Contents
X
XA. Introduction.............................   1
X
XB. Methods..................................   3
X   a) Sampling Procedures..................   3
X   b) Laboratory Procedures................   4
X
XC. Results..................................   5
X\sp
X\in -5
X\fi
XMacros may be defined as described in the following sections to help the
generation
Xof the table of contents.
X\cchar .
X.in -5
X.bp
X.cl
X.ap
X.sect 1 3.6 Miscellaneous
X This section describes miscellaneous commands that radically increase the
Xformatting powers of PROFF. With the assistance of variables, PROFF can
Xgenerate form letters and documents with dynamic parts. The ability to save
Xand restore formatter context eliminates the need to remember the exact
Xsettings of the formatter across the document.
X.in +5
X.cchar \
X\set VSET ".vs | .set <variable> [definition]"
X\comm VSET
XSet variable  defines a variable to be later used in the document.
XIf the definition part is left out, PROFF uses the variable name as a prompt
Xand allows the user to define the variable interactively. Variable names cannot
Xstart with a numeric character, and may only contain alphanumeric
Xcharacters. The definition of a variable may not contain any blanks, unless
Xthey are surrounded by double-quotes. To get a double quote within a a quoted
Xdefinition, two double-quotes are used.
X Once the variable is
Xdefined, it can be used anywhere in the document, including the command
Xline itself. A variable substitution is invoked by a dollar sign (_$). (A
Xliteral _$ is inserted into text using ___$).
XA variable name must be delimited by a non-alphanumeric character within the
Xtext. If the contents of the variable is to be appended to other
Xalphanumeric characters, it must be surrounded by wiggly braces
X("{" and "}"). The following is an example of variable usage:
X\need 12
X\sp
X\nf
X|.nf
X|.vs v1 Murphy
```

```
X|_${v1}'s first law:
X|   Nothing is as easy as it looks.
X|_${v1}'s second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by _$v1.
X|
X\sp
XProduces the following:
X\sp
X\need 8
X|
X|Murphy's first law:
X|   Nothing is as easy as it looks.
X|Murphy's second law:
X|   Everything takes longer than you think.
X|Charley's observation:
X|   Computers were invented by Murphy.
X|
X\sp
X\fi
X\set VGET ".vg | .get <variable> <prompt>"
X\comm VGET
XGet variable is the interactive version of variable definition. In this
Xvariant, a prompt string is used to obtain the value of the variable,
Xwhich is typed at the user's terminal. If the prompt string is to
Xcontain blanks, tabs etc., it must be enclosed in double quotes. No quotes
Xare necessary for input text.
X\set VRG ".nr <a-z> [+|-][n]"
X\comm VRG
XNumber register is used to define registers that contain numeric values.
XThere are 26 number registers, named a-z. The command ".nr x n" sets the
Xnumber register "x" to value n; ".nr x +n" increments the number register
Xby n; ".nr x -n" decrements the number register by n. The value of the
Xnumber register x is placed in the text by the appearance of _@nx. A literal
X_@ may be inserted using ___@.
XNumber registers may be used on command lines and anywhere in the text.
X\set CCHAR ".cc | .cchar [char]"
X\comm CCHAR
XControl Character  sets the character that distinguishes PROFF
Xcommands from text to be formatted. As a default, control character is set to
X(".") period.
XThis character may be changed to something other than a period, either
Xto mimic other formatters or to disallow interpretation of lines beginning
Xwith a period. (This document makes heavy use of the .cc command).
X\set ECHAR ".ec | .echar [char]"
X\comm ECHAR
XEscape Character  sets the character that disallows the
Xinterpretation of spacial characters such as _@ and _$. PROFF uses an
Xunderline ("__") character as a default.
X\set SOU ".so | .source | .include | .require [filename]"
X\comm SOU
XThe source (include) command allows external files to be inserted into the
```

Xinput file
Xduring the formatting. Using this feature, tables, graphs and other
Xdocuments generated outside PROFF may be included into the document
Xbeing formatted. This feature is also very useful in including a common set
Xof macros during formatting. Include files may be nested inside other
Xinclude files. Currently, PROFF only allows a nested include
Xfiles level of 8. Filename may be enclosed in quotes.
X\set SAVE ".sv | .save"
X\comm SAVE
XThe save command allows the saving of the current formatter context on a
Xpushdown stack. The saved context of the formatter segment (FSECT) includes
Xthe following values and flags:
X\need 14
X\sp
X\nf
X\nap
Xvalues   flags   on | off
X------   -----
Xindent   (.in)   fill   (.fi | .nf)
Xright margin (.rm)   justify (.ju | .nj)
Xoffset   (.po)   paging   (.pa | .np)
Xline spacing (.ls)   number type   (.pn)
Xpage length (.pl)   bolding   (.eb | .db)
Xmargin values   (.m1)   autoparagraph (.ap | .na)
X   (.m2)
X   (.m3)
X   (.m4)
Xcontrol char (.cc)
Xescape char (.ec)
X\sp
X\ap
X\fi
X\set RST ".rs | .restore"
X\comm RST
XThe restore command pops the context stack and restores the values and flags
Xas defined above.
X\set LEX ".lx | .lex <command> [equate]"
X\comm LEX
XThe lexical modification command is essentially a permanent replacement of a
Xgiven command. This command is used for changing the command names without
Xresorting to the macro facility. Lex permanently removes the old
Xcommand name from command tables and replaces it with the new definition.
XIf the equate is not specified, the command becomes undefined and is
Xno longer recognised by PROFF. The command equate should not contain
Xnon-alphanumeric characters.
X\set APR ".ap | .autoparagraph"
X\comm APR
XThe autoparagraph command turns on the automatic paragraphing feature. If
Xauto-paragraphing is on, every line that starts with a
X\ul
Xblank
Xor a
X\ul

```
Xtab
Xcharacter starts a new paragraph. A new line is generated (.sp) and
Xthe beginning of the paragraph is indented by five spaces.
XAutoparagraphing is the equivalent of the following commands:
X\in +5
X\nf
X|
X|textextextextext
X|.sp
X|.ti +5
X|textextextextext
X|
X\in -5
X\fi
X\set NAP ".na | nap | .noautoparagraph"
X\comm NAP
XNo Autoparagraph command disables auto-paragraphing.
X\set WRT ".wr | .write <string>"
X\comm WRT
XWrite is a special output command, only to be used to configure printers
Xand other output devices with escape sequences. This command outputs the
Xassociated string as it is encountered, without going through the normal
Xoutput routines of the formatter. Currently, the output string may contain
Xcontrol characters specified as "^<char>", decimal numbers within the range
Xof 1-255, and other characters. Blanks within the string are skipped. Any
Xportion of the string enclosed with double quotes is output as is. To output
Xa double quote, two double quotes must be used within the quoted string.
XFollowing is a typical string to set a Digital La-100 printer to letter
Xquality print mode:
X\sp
X\nf
X\in +5
X|
X|.wr ^["[2z"
X|
X\sp
X\fi
X\in -5
XIn the control string, "^[" is the ASCII equivalent of the Escape (esc)
character.
XFollowing mapping table is used to convert characters starting with a caret
Xto their binary equivalents: ("|" indicates an alternative)
X\nf
X\nap
X\sp
X\in +5
XControl chr  Dec. Oct. Hex.
X-----------  ---- ---- ----
X^a | ^A (soh)    1    01      01
X^b | ^B (stx)    2    02   02
X^c | ^C (etx)    3    03   03
X^d | ^D (eot)    4    04   04
X^e | ^E (enq)    5    05   05
```

```
X^f | ^F (ack)     6    06   06
X^g | ^G (bel)     7    07   07
X^h | ^H (bs) 8    10   08
X^i | ^I (ht) 9    11   09
X^j | ^J (nl) 10   12   0A
X^k | ^K (vt) 11   13   0B
X^l | ^L (np) 12   14   0C
X^m | ^M (cr) 13   15   0D
X^n | ^N (so) 14   16   0E
X^o | ^O (si) 15   17   0F
X^p | ^P (dle)     16   20   10
X^q | ^Q (dc1)     17   21   11
X^r | ^R (dc2)     18   22   12
X^s | ^S (dc3)     19   23   13
X^t | ^T (dc4)     20   24   14
X^u | ^U (nak)     21   25   15
X^v | ^V (syn)     22   26   16
X^w | ^W (etb)     23   27   17
X^x | ^X (can)     24   30   18
X^y | ^Y (em) 25   31   19
X^z | ^Z (sub)     26   32   1A
X^[  (esc)     27   33   1B
X^\  (fs) 28   34   1C
X^]  (gs) 29   35   1D
X^^  (rs) 30   36   1E
X^__ (us) 31   37   1F
X\sp
X\in -5
X\ap
X\fi
X\cchar .
X.in -5
X.bp
X.cl
X.sect 1 3.7 Defining New Commands (Macros)
X In document formatting, it is common to repeat a series of commands at
Xseveral places in the document. PROFF allows you to define a new command
Xthat will replace these repeated commands. This not only saves typing but
Xensures that
X.ul
Xexactly
Xthe same sequence of commands are applied throughout the document. A new
Xcommand that you define is formally called a
X.ul
Xmacro.
XTo define a macro, you must use the define macro (.de | .define) and
Xend macro (.en) commands.
X.in +5
X.cchar \
X\set DEF ".de | .define <macro name>"
X\comm DEF
XDefine is used to define a <macro name> to which a series of commands to
Xbe assigned. This definition line is followed by any number of PROFF
```

```
Xcommands and/or text which define the action that the macro
Xwill subsequently produce. Macros may refer to other macros.
X\set ENM ".en"
X\comm ENM
XEnd macro is the last line in the command definition. You must put in this
Xcommand to finish a currently defined macro. ".en" command should not be
Xre-defined as a macro.
X\in -5
X\sp
XThe example below defines macros ".note" and ".endnote", similar to the
XRUNOFF commands of the same name.
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|NOTE
X|.sp
X|.fi
X|.in +5
X|.rm -5
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -5
X|.rm +5
X|.en
X|
X\in -5
X\ap
X\fi
X A macro is used like any other PROFF command, control character followed
Ximmediately  by the name of the macro. For example, the above macros
Xmay be used as follows:
X\in +5
X\nap
X\need 9
X\nf
X\sp
X|
X|.note
X|textextextextextextextextextext
X|              .
X|          .
X|          .
X|.endnote
X|
```

```
X\in -5
X\sp
X\fi
XThe following note is generated by the same macros described previously.
X\cc .
X.nap
X.note
XFlap's Law: Any inanimate object, regardless of its position or configuration,
Xmay be expected to perform at any time in a totally unexpected manner for
Xreasons that are either entirely obscure or else completely mysterious.
X.endnote
X.fi
X.cc \
X\ap
XSpecial symbols may be used within a macro definition. These symbols represent
Xthe parameters passed to a macro, delimited by blanks or commas.
XThese symbols are _$0 for macro name, _$1 for the first parameter, _$2 for
Xthe second parameter and so on, up to _$9 for the ninth parameter. Currently,
Xmacro parameters may only contain alphanumerics, no string parameters are
Xpossible. The previous macro "note" may now be defined as follows:
X\in +5
X\nap
X\nf
X\need 20
X\sp
X|
X|.define note
X|.sp
X|.ce
X|_$2 _$3 _$4 _$5 _$6 _$7 _$8 _$9
X|.nr m _$1
X|.sp
X|.fi
X|.in +_$1
X|.rm -_$1
X|.en
X|
X|.define endnote
X|.sp
X|.nf
X|.in -_@nm
X|.rm +_@nm
X|.en
X|
X\in -5
X\ap
X\fi
X In this version of the "note" and "endnote" macros, the first parameter (_$1)
Xis used to pass the value for indentation and right margin adjustment.
XAll the rest of the macro parameters (_$2 - _$9) are used as the title of
Xthe note. The indent value passed as the first parameter is also saved in the
Xnumber register "m" to communicate it to the "endnote" macro, such that
Xwhen the endnote macro is called, both indent and right margin values are
```

```
Xadjusted back to normal. It is possible and may be more useful to use
X".save" and ".restore" commands to accomplish the same task, especially if
Xthe macro alters the current formatting context drastically. The ".note"
Xand ".endnote" macros may be called as follows:
X\in +5
X\nap
X\need 9
X\nf
X\sp
X|
X|.note 5 Asimov's Law of Robotics
X|textextextextextextextextextext
X|               .
X|          .
X|          .
X|.endnote
X|
X\in -5
X\fi
X\ap
X In this usage, the indent value will be adjusted by +5, right margin will
Xbe adjusted by -5, and the title "Asimov's Law of Robotics" will appear
Xcentered above the note.
X\cchar .
X.bp
X.cl
X.sect 0 4.0 Executing PROFF
X The PROFF program  may be invoked with a series of optional parameters and
Xfilenames on the command line. The command synopsis is:
X
XPROFF [+n] [-n] [-v] [-s] [-pon] [-ifile] input [output]
X
XThe square brackets indicate an optional parameter. Interpretation of the
Xparameters is as follows:
X.nap
X.in +10
X.define opt
X.need 5
X.sp
X.ti -5
X.bd
X$1
X.br
X.en
X.opt +n
XStart the printing of the document at the first page with
Xnumber n.
X.opt -n
XStop printing at the first page numbered higher than n.
X.opt -v
XVerbose mode. PROFF indicates the source files being included into
Xdocument, and produces a summary of the number of textlines read in, the number
Xof lines and actual pages generated. A memory usage summary of internal
```

```
Xstorage for macros, stacks and tables is also displayed.
X.opt -s
XStop before each page, including the first one to allow paper
Xadjustment. A prompt is given just before the first page. For each
Xpage thereafter, the terminal bell is rung to indicate that another sheet
Xof paper is needed.
X.opt -pon
XSets the page offset to n. This is equivalent to ".po" command within
Xthe document. It is recommended that -pon option be used instead of
Xembedding the offset value within the document.
X.opt -ifile
XIncludes the given file to the formatted document. This is equivalent to
Xa ".include file" command within the document. This option may be
Xrepeated more than once, -ifile1 -ifile2 etc.
X.opt input
XSpecifies the input file to be formatted. PROFF does not impose any
Xfile extension. The recommended extension is ".PRF".
X.opt output
XSpecifies the output file for the formatted document. If this is omitted,
Xoutput is directed to the user's terminal.
X.in -10
X
XFollowing are some examples of PROFF command lines:
X
X.ti +5
XA>PROFF -v proffman.prf
X
XFormat this document (proffman.prf) in verbose mode, and output the
Xformatted document to the
Xterminal.
X
X.ti +5
XA>PROFF +5 -imacros.pma proffman.prf
X
XFormat this document, include the external file MACROS.PMA, skip the first
Xfour pages and output the formatted document to the terminal.
X
X.ti +5
XA>PROFF -po10 proffman.prf proff.man
X
XFormat this document, shift the entire document by 10 spaces to right and
Xoutput to a file called proff.man.
X.bp
X.cl
X.sect 0 5.0 Tips on using PROFF
X.ap
X.sect 1 5.1 Care and Feeding of Memory
X PROFF uses a dynamic memory allocation scheme for some of its operations.
XThese are macro definitions, contents lines, variables and save context
Xoperation.
XRunning PROFF under microcomputers with limited memory resources (64k or less)
Xrequire some care in using these commands:
X.list 3
```

```
X.item a)
XDo not declare macros that are not needed within the document.
X.item b)
XDo not use comments within macros. Due to delayed evaluation, comments
Xwill also be stored as a part of the macro definition.
X.item c)
XWhere possible, avoid using too much text within macros. It is just as
Xeasy to pass the information during the macro call.
X.item d)
XUse only the shortest form of commands within macros.
X.item e)
XBe brief in contents line text.
X.item f)
XUse short variable names as long as it is not so cryptic as to be confusing.
X.item g)
XAvoid unnecessary blanks within the variable definitions.
X.item h)
XAvoid too many context saves without a corresponding restore. The restore
Xoperation reclaims the memory used for a save.
X.nolist
X Even if the formatter is used with a system of large memory resources,
Xsome of the precautions above are applicable. (Utz's 4th law of Computer
XProgramming: Any given program will eventually expand to fill all the
Xavailable memory.) Using the -v option under memory-restricted systems
Xmay be useful in determining the memory usage.
X
X.sect 1 5.2 Formatting without fuss
X PROFF, using its default settings, may provide reasonably formatted output
Xin many situations.
XAs an example, examine the document PROFF.TUT. This document does not use
XANY formatting commands. All formatting is done with the default settings.
X
X.sect 1 5.3 Variables within macros
X Variable expansions may be performed within the macros. Typically, one
Xof the parameters of the macro is assumed to be a variable, which is expanded
Xonly after the macro is used. Thus:
X.in +5
X.nf
X
X|
X|.define xx
X|.ce
X|_$_$1
X|.cl _$_$1
X|.en
X|
X
X.in -5
X.fi
XThe macro xx assumes the first parameter to be a variable, which is
Xcentered on the page, and also entered in the table of contents.
XNote the usage of "_$_$1". The lines within a macro are scanned from
Xright to left for parameter expansion. Thus, "_$1" is expanded first,
```

```
Xresulting in "_$<first parameter>". This is later expanded as a variable.
X
X.bp
X.cl
X.sect 0 6.0 Example macros
X
X.nf
X.in +5
X.cc \
X.!
X.! macros to create a point-form lists.
X.! note the use of number registers within
X.! the macros.
X.!------------
X.define list
X.nr a _$1
X.in _$1
X.en
X.!------------
X.define item
X.sp
X.ti -_@na
X_$1
X.en
X.!------------
X.define nolist
X.in -_@na
X.sp
X.en
X.!------------
X
X\in -5
X\fi
XThe "list" macro is used to generate point-form lists. The first parameter
Xis an indent value, size of point-str + 1. A typical usage may be as
Xfollows:
X\need 16
X\in +5
X
X\nf
X|
X|Project work involves:
X|.sp
X|.list 3     { size-of-point-str + 1 }
X|.item a)         { "a)" is the point-str }
X|choosing a topic
X|.item b)
X|defining the topic
X|.item c)
X|research
X|.item d)
X|organizing the notes
X|{etc.}
```

```
X|.nolist     { readjusts the indent  }
X|
X\in -5
X
XThe above usage will produce the following:
X\need 12
X\in +5
X
X|
X|Project work involves:
X|
X|a) choosing a topic
X|
X|b) defining the topic
X|
X|c) research
X|
X|d) organizing the notes
X|
X
X\in -5
X\fi
XThe point-form recommendations under section 5.1 (Care and Feeding of
XMemory) were generated with the same set of macros described above.
X\cc .
X.bp
X.cl
X.sect 0 7.0 Acknowledgements
X This document was edited by Terry Lim and Steven Tress.
XThe format of the document is largely based on The Freshwater Institute
XRUNOFF User's Guide. The Quotes for the various formatting examples are
Xfrom THE QUOTABLE NOTHING BOOK and from 1001 LOGICAL LAWS, ACCURATE
XAXIOMS, PROFOUND PRINCIPLES, TRUSTY TRUISMS, HOMEY HOMILIES, COLORFUL
XCOROLLARIES, QUOTABLE QUOTES, AND RAMBUNCTIOUS RUMINATIONS FOR ALL
XWALKS OF LIFE, by Peers, Bennet and Booth, Fawcett Columbine Books,
XNew York.
X.bp
X.cl
X.sect 0 Appendix A
X.he /1.0/Appendix A/#/
X.cc \
X\nf
X\nap
X\ce
XSummary of Commands
X
X-------------------------------------------------------------
X$FILL
X        default: initial: yes  break: yes
X        begin filling output lines
X-------------------------------------------------------------
X$NOFILL
X        default: initial: no   break: yes
```

```
X        stop filling
X-------------------------------------------------------
X$JUST
X        default: initial: yes  break: yes
X        begin justifying filled lines
X-------------------------------------------------------
X$NOJUST
X        default: initial: no   break: yes
X        stop justifying
X-------------------------------------------------------
X$BREAK
X        default: initial: break: yes
X        cause a break and output current line
X-------------------------------------------------------
X$INDENT
X        default: 0    inital: 0 break: yes
X        set left margin to column n+1
X-------------------------------------------------------
X$TINDENT
X        default: 0    initial: break: yes
X        temporarily indent next output n spaces
X-------------------------------------------------------
X$SPACETO
X        default: 0    initial: break: yes
X        space to line +n from top
X        space to line -n from bottom
X-------------------------------------------------------
X$SPACE
X        default: 1    initial: break: yes
X        space n lines except at top of page
X-------------------------------------------------------
X$CENTER
X        default: 1    initial       break: yes
X        center next n lines
X        center until turned off
X-------------------------------------------------------
X$UNDLINE
X        default: 1    initial       break: no
X        underline next n lines
X        underline until turned off
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$CUNDLINE
X        default: words     initial: words     break: no
X        set mode for underline - words or all
X-------------------------------------------------------
X$BOLD
X        default: 1    initial: break: no
X        boldface (overstrike) next n lines
X        boldface until turned off
X-------------------------------------------------------
X$DBO
```

```
X        default: initial: no   break: no
X        disable bolding
X-------------------------------------------------------
X$EBO
X        default: initial: yes  break: no
X        enable bolding
X-------------------------------------------------------
X$LS
X        default: 1    initial: 1    break: no
X        set line spacing to n
X-------------------------------------------------------
X$BP
X        default: +1   initial: 1    break: yes
X        begin a new page and number it n
X-------------------------------------------------------
X$PN
X        default: initial: arabic    break: no
X        set page numbering to arabic or roman
X-------------------------------------------------------
X$NPA
X        default: initial: no   break: yes
X        disable paging
X-------------------------------------------------------
X$PA
X        default: initial: yes  break: yes
X        enable paging
X-------------------------------------------------------
X$NE
X        default: 0    initial: break: yes/no
X        need n lines. Break and generate a new page
X        if not available
X-------------------------------------------------------
X$HE
X        default: null initial: null break: no
X        set header to text (/left/center/right/)
X-------------------------------------------------------
X$FO
X        default: null initial: null break: no
X        set footer to text (/lef/center/right/)
X-------------------------------------------------------
X\bp
X-------------------------------------------------------
X$OHE
X        default: null initial: null break: no
X        set header on odd pages to text
X-------------------------------------------------------
X$EHE
X        default: null initial: null break: no
X        set header on even pages to text
X-------------------------------------------------------
X$OFO
X        default: null initial: null break: no
X        set footer on odd pages to text
```

```
X-----------------------------------------------------------
X$EFO
X        default: null initial: null break: no
X        set footer on odd pages to text
X-----------------------------------------------------------
X$PO
X        default: 0    initial: 0    break: yes
X        set page offset to n spaces
X-----------------------------------------------------------
X$RM
X        default: 65   initial: 65   break: no
X        set right margin to column n
X-----------------------------------------------------------
X$PL
X        default: 66   initial: 66   break: no
X        set page length to n lines
X-----------------------------------------------------------
X$M1
X        default: 3    initial: 3    break: no
X        lines between top of page and header
X-----------------------------------------------------------
X$M2
X        default: 2    initial: 2    break: no
X        lines between header and text
X-----------------------------------------------------------
X$M3
X        default: 2    initial: 2    break: no
X        lines between text and footer
X-----------------------------------------------------------
X$M4
X        default: 3    initial: 3    break: no
X        lines between footer and bottom
X-----------------------------------------------------------
X$CL
X        default: initial: break: yes
X        enter text into table of contents at level
X        n
X-----------------------------------------------------------
X\bp
X-----------------------------------------------------------
X$PC
X        default: 3    initial: 3    break: yes
X        print table of contents, indent each level
X        n spaces
X-----------------------------------------------------------
X$VSET
X        default: initial: break: no
X        set variable to text
X-----------------------------------------------------------
X$VGET
X        default: initial: break: no
X        set variable interactively, using text
X        as prompt
```

```
X-----------------------------------------------------------
X$VRG
X        default: 0    initial: 0    break: no
X        set number register (a-z) to n
X-----------------------------------------------------------
X$CCHAR
X        default: "."  initial: "."  break: no
X        set command control character to char
X-----------------------------------------------------------
X$ECHAR
X        default: "__" initial: "__" break: no
X        set universal escape character to char
X-----------------------------------------------------------
X$SOU
X        default: initial: input    break: no
X        switch input to file
X-----------------------------------------------------------
X$SAVE
X        default: initial: break: yes
X        save the current formatter context on
X        context stack
X-----------------------------------------------------------
X$RST
X        default: initial: break: yes
X        restore the formatter context from context
X        stack
X-----------------------------------------------------------
X$LEX
X        default: initial: break: no
X        rename a command
X-----------------------------------------------------------
X$APR
X        default: initial: no   break: no
X        enable auto-paragraphing
X-----------------------------------------------------------
X\bp
X-----------------------------------------------------------
X$NAP
X        default: initial: yes  break: no
X        disable auto-paragraphing
X-----------------------------------------------------------
X$WRT
X        default: initial: break: no
X        write a special string to output. line
X        counter does not change
X-----------------------------------------------------------
X$DEF
X        default: initial: break: no
X        define a macro command - ends at ".en"
X-----------------------------------------------------------
X$ENM
X        default: initial: break: no
X        end the macro definition
```

```
X-----------------------------------------------------------
X\cc .
X.bp 1
X.pn roman
X.he ////
X.fo //- # -//
X.ce on
XTable Of Contents
X
XPROFF 1.0
X.ce off
X.pc
SHAR_EOF
if test 46207 -ne "`wc -c 'proffman.prf'`"
then
     echo shar: error transmitting "'proffman.prf'" '(should have been 46207
characters)'
fi
echo shar: extracting "'proffsym.new'" '(3451 characters)'
if test -f 'proffsym.new'
then
     echo shar: over-writing existing file "'proffsym.new'"
fi
sed 's/^X//' << \SHAR_EOF > 'proffsym.new'
X
X! proff symbols
X! flag value of 1 indicate
X! a runoff-supported symbol
X! feb. 1984
X!
X! reset the formatter
X!
Xreset        RESET
X!
X! bolding
X!
Xbd      BD
Xbold         *
X!disable_bolding      DBO      1
Xdisablebolding        DBO      1
Xdbo          *        1
Xdb           *
X!enable_bolding       EBO      1
Xenablebolding         EBO      1
Xebo          *        1
Xeb           *
X!
X! new page & paging modes
X!
Xbp      BP
Xpage         *        1
Xpg      *        1
Xpaging           PGI      1
```

```
Xpa           *        1
Xnopaging     NPA      1
Xnp           *
X!
X! break
X!
Xbr      BR       1
Xbreak        *        1
X!
Xbs      BS
X!
X! setup control character
X!
Xcc      CC
Xcchar        *
X!
X! centering
X!
Xce      CE
Xcenter       *
X!
Xcu      CU
X!
X! macro definitions
X!
Xde      DE
Xdefine       *
X!
X! setup generic escape character
X!
Xec      EC
Xechar        *
X!
X! even footers and headers
X!
Xef      EF
Xeh      EH
X!
X! end macro definition
X!
X!en     EN
X!
X! fill the lines
X!
Xfi      FI
Xf       *        1
Xfill         *        1
X!
X! general footers and headers
X!
Xfo      FO
Xfooter       *
Xhe      HE
```

```
Xheader       *
X!
X! indentation (permanent)
X!
Xin      IN
Xlm      *        1
X!left_margin *        1
Xleftmargin   *        1
X!
X! justification
X!
Xju      JU
Xj       *        1
Xjustify      *        1
X!
X! line spacing
X!
Xls      LS
Xspacing      *        1
Xspc     *        1
X!
X! margin spacing
X!
Xm1      M1
Xm2      M2
Xm3      M3
Xm4      M4
X!
X! test for page
X!
Xne      NE
Xneed         *
X!test_page   *        1
Xtestpage*        1
Xtp      *        1
X!
X! disable fill
X!
Xnf      NF       1
Xnofill       *
X!no_fill     *        1
X!
X! disable justification
X!
Xnj      NJ       1
Xnojustify    *
X!no_justify  *        1
X!
X! number registers
X!
Xnr      NR
X!
X! external output
```

```
X!
Xou      OU
Xoutput       *
Xoe      OE
Xoutend       *
X!
X! odd footers and headers
X!
Xof      OF
Xoh      OH
X!
X! page length
X!
Xpl      PL
Xps      *        1
X!page_size   *        1
Xpagesize*        1
X!
X! page offset
X!
Xpo      PO
Xoffset       *
X!
X! right margin
X!
Xrm      RM       1
X!right_margin    *        1
Xrightmargin  *        1
X!
X! external input (include)
X!
Xso      SO
Xsource       *
Xinclude      *
Xrequire      *        1
Xreq     *        1
X!
X! skip line (blank lines) according to spacing
X! sp is not the same as runoff sp
X!
Xsp      SP
Xskip         *        1
Xs       *        1
X!
X! blank line
X!
X!blank       BL       1
X!b      *        1
X!
X! space from top (or bottom)
X!
Xst      ST
Xskipto       *
```

```
X!
X! temporary indent
X!
Xti      TI
Xleft         *        1
X!
X! underline
X!
Xul      UL
Xunderline    *
X!
X! substitute (using requlars expresions)
X!
X!su     SU
X!subs        *
X!substitute  *
X!esu         ESU
X!enable_subs *
X!dsu         DSU
X!disable_subs    *
X!
X! save and restore of FSECT
X!
Xsv      SAV
Xsave          *
Xrs      RST
Xrestore      *
X!
X! looping formatting for each variable
X!
X!for          FOR
X!foreach      *
X!enf          ENF
X!endfor       *
X!
X! permanent symbol replacement
X!
Xlx      LEX
Xlex     LEX
X!
X! ignore character
X!
Xig      IG
Xignore       IG
X!
X! variable definition
X!
Xvs      SET
Xset     *
Xvg      GET
Xget     *
X!
X! page numbering (roman or arabic)
```

```
X!
Xpn      PN
Xpagenumber   *
X!
X! paragraphing
X!
Xap           AP       1
Xautoparagraph         *        1
Xna           *
Xnap          NAP            1
X!no_autoparagraph *              1
Xnoautoparagraph       *        1
X!paragraph        PAR      1
X!p           *        1
X!set_paragraph        SPR      1
X!setparagraph         *        1
X!spr              *        1
X!
X!
X!comment          COM      1
X!
X! same as pagenumber
X!
X!display_number       DNM      1
X!dnm              *        1
X!
X! entry into an index listing
X!
X!entry            ENT      1
X!y           *        1
X!
X! entry into contents table
X!
Xcl           CL
Xcontline     *
Xpc           PC
Xprintcont         *
X!
X! conditional formatting
X!
X!if          CIF      1
X!else             CELSE         1
X!endif            CENDIF        1
X!ifnot            CIFNOT        1
X!
X! list generation
X!
X!list             LST      1
X!end_list         ELS      1
X!endlist          ELS      1
X!els              *        1
X!list_element          LEM      1
X!listelement      LEM      1
```

```
X!le          *        1
X!
X! literal mode (nf-nj-lm0-rm150)
X!
Xliteral          LTR      1
Xlt           *        1
X!end_literal     ELT      1
Xendliteral       ELT      1
Xel           *        1
X!
X! overstrike control
X!
X!enable_overstriking  EOV      1
X!eov             *        1
X!disable_overstriking DOV      1
X!dov             *        1
X!
X! repeat a string
X!
X!repeat          REP      1
X!rpt             *        1
X!
X! flush right margin
X!
X!right           RIG      1
X!r           *        1
X!
X! write out a special string
X!
Xwr           WR
Xwrite             *
X!
X! end of definitions
SHAR_EOF
if test 3451 -ne "`wc -c 'proffsym.new'`"
then
     echo shar: error transmitting "'proffsym.new'" '(should have been 3451
characters)'
fi
#   End of shell archive
exit 0

--
                      Jwahar R. Bammi
                   Usenet:  .....!decvax!cwruecmp!bammi
                    CSnet:  bammi@case
                  Arpa:  bammi%case@csnet-relay
               CompuServe:  71515,155


From 3852007565921708218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bbf280a85af67dc3,start
```

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:08:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Proff part 3 of 4
Message-ID: <1439@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:08:22 EST
Article-I.D.: cwruecmp.1439
Posted: Fri Mar 21 23:08:22 1986
Date-Received: Sun, 30-Mar-86 07:39:50 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 1066

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    putwrd.c
#    pxlex.c
#    pxxparse.c
#    read.me
#    see.me
#    stack.c
# This archive created: Fri Mar 21 22:45:09 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'putwrd.c'" '(993 characters)'
if test -f 'putwrd.c'
then
     echo shar: over-writing existing file "'putwrd.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'putwrd.c'
X#include <stdio.h>
X#include "proff.h"
X#include "debug.h"
X
X#define brk brrk
X
X/*
X * putwrd - put a word in outbuf; includes margin justification
X *
X */
Xputwrd(wrdbuf)
Xchar wrdbuf[];
X{
X    int last, llval, extra, w;
X
Xdprintf("putwrd  ");
X    w = width(wrdbuf);
```

```
X    last = strlen(wrdbuf) + outp;         /* new end of outbuf */
X#ifdef DEBUG
Xprintf("strlen(wrdbuf) = %d\n",strlen(wrdbuf));
X#endif
X    llval = rmval - tival;
X    if (outw + w > llval || last >= MAXOUT) {    /* too big */
X         last -= outp;
X         extra = llval - outw;
X#ifdef DEBUG
Xprintf("extra = %d\n",extra);
X#endif
X         for ( ; outp > 0; outp--)
X              if (outbuf[outp-1] == ' ')
X                   extra++;
X              else
X                   break;
X         if (rjust == YES) {
X              spread(outbuf, outp, extra, outwds);
X              if (extra > 0 && outwds > 1)
X                   outp += extra;
X         }
X         brk();        /* flush previous line */
X    }
X#ifdef DEBUG
Xprintf("putwrd: last=%d w=%d outp=%d llval=%d outw=%d extra=%d\n",
X         last,w,outp,llval,outw,extra);
X#endif
X    strcpy(&outbuf[outp],wrdbuf);
X    outp = last;
X    outw += w;
X    outwds++;
X}
SHAR_EOF
if test 993 -ne "`wc -c 'putwrd.c'`"
then
     echo shar: error transmitting "'putwrd.c'" '(should have been 993
characters)'
fi
echo shar: extracting "'pxlex.c'" '(3355 characters)'
if test -f 'pxlex.c'
then
     echo shar: over-writing existing file "'pxlex.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pxlex.c'
X#include <stdio.h>
X#include <math.h>
X#include <ctype.h>
X
X/* translation table for control chars */
X
Xchar c_ctrl[] = {
X         0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X         0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
```

```
X        0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,  0,
X        0,  0,  0,  0,  0,  1,  2,  3,  4,  5,  6,  7,  8,  9,
X        10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23,
X        23, 25, 26, 27, 28, 29, 30, 31, 0,  1,  2,  3,  4,  5,
X        6,  7,  8,  9,  10, 11, 12, 13, 14, 15, 16, 17, 18, 19,
X        20, 21, 22, 23, 24, 25, 26, 0,  0,  0,  0,  0
X        };
X
X/*
X * getval - evaluate optional numeric argument
X *
X * increments i
X */
Xint
Xgetval(buf,i,argtyp)
Xchar buf[];
Xint *i;
Xint *argtyp;
X{
X    int j,k;
X
X    j = *i;
X    k = *argtyp;
X
X    skipbl(buf, &j);
X    k = buf[j];
X    if (k == '+' || k == '-')
X         j++;
X    *i = j;
X    *argtyp = k;
X    return(ctoi(buf,i));
X}
X
X/*
X * getarg - get the next argument from the buffer
X *
X * return values:      -1 - no argument
X *           n - number of chars in argument
X *
X * also handles quoted ("..") strings. If a quote is wanted
X * in the string, use "" or \". quotes are stripped.
X *
X * argument delimiters: blank, tab or comma (,).
X *
X * increments i
X *
X */
Xint
Xgetarg(buf,i,arg)
Xchar buf[];
Xint *i;
```

```
Xchar arg[];
X{
X    int j,k;
X    register char ch;
X
X    j = *i;
X
X    k = -1;
X    skipbl(buf,&j);
X    if (buf[j] != '\0') {
X         k = 0;
X         if (buf[j] == '\"') {
X              j++;
X              while (buf[j] != '\0') {
X                   if (buf[j] == '\"') {
X                        if (buf[j+1] == '\"') {
X                             arg[k++] = '\"';
X                             j += 2;
X                        }
X                        else
X                             break;
X                   }
X                   arg[k++] = buf[j++];
X              }
X              arg[k] = '\0';
X              j++;          /* skip the quote */
X              /* peek next char */
X              if (isalnum(buf[j]))
X                   error("improper argument list.");
X              j++;          /* skip the delimeter */
X         }
X         else {
X              ch = buf[j];
X              while (ch != ' '&&
X                  ch != '\t'     &&
X                  ch != ','      &&
X                  ch != '\r'     &&
X                  ch != '\n'     &&
X                  ch != '\0') {
X                   arg[k++] = buf[j++];
X                   ch = buf[j];
X              }
X              arg[k] = '\0';
X              if (ch != '\0')    /* if non-null delimiter, skip */
X                   j++;
X         }
X         *i = j;
X    }
X    return(k);
X}
X
X/*
X * getpstr - get a special string to print out
```

```
X *
X */
Xgetpstr(buf,out)
Xregister char *buf;
Xregister char *out;
X{
X    register int i;
X    register char c, cc;
X    register char *num;
X    char numbuf[9];
X
X    while(*buf != '\n' && *buf != '\0') {
X         c = *buf;
X         switch(c) {
X         case ' ':
X         case '\t':
X              while (*buf == ' ' || *buf == '\t')
X                   buf++;    /* skip blanks */
X              break;
X         case '\\':
X              if (*(buf+1) != '\0') {
X                   *out++ = *(buf+1);
X                   buf += 2;
X              }
X              else
X                   buf++;
X              break;
X         case '^':
X              if ((cc = c_ctrl[*(buf+1)]) != 0)
X                   *out++ = cc;
X              buf += 2;
X              break;
X         case '\"':
X              buf++;    /* skip the quote */
X              while (*buf != '\0') {
X                   if (*buf != '\"')
X                        *out++ = *buf++;
X                   else if (*(buf+1) == '\"') {
X                             *out++ = '\"';
X                             buf += 2;
X                   }
X                   else
X                        break;
X              }
X              buf++;    /* skip the quote */
X              break;
X         case '0':
X         case '1':
X         case '2':
X         case '3':
X         case '4':
X         case '5':
X         case '6':
```

```
X        case '7':
X        case '8':
X        case '9':
X             num = numbuf;
X             while (isdigit(*buf))
X                  *num++ = *buf++;
X             *num = '\0';
X             if ((i = atoi(numbuf)) > 256)
X                  error("non-ascii char value in write string.");
X             else if (i > 0)        /* do not output null */
X                  *out++ = (char) i;
X             break;
X        default:
X             *out++ = *buf++;
X        }
X    }
X    *out = '\0';
X}
SHAR_EOF
if test 3355 -ne "`wc -c 'pxlex.c'`"
then
     echo shar: error transmitting "'pxlex.c'" '(should have been 3355
characters)'
fi
echo shar: extracting "'pxxparse.c'" '(9665 characters)'
if test -f 'pxxparse.c'
then
     echo shar: over-writing existing file "'pxxparse.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'pxxparse.c'
X#include <stdio.h>
X#include <ctype.h>
X#include "proff.h"
X#include "debug.h"
X#include "lextab.h"
X
X#define brk brrk
X
X#define RUNOFF    1         /* recognise RUNOFF commands */
X
Xchar literal = NO;          /* literal flag              */
X
X/*
X * command - perform formatting command
X *
X */
Xcommand(buf)
Xchar buf[];
X{
X    char token[MAXTOK], xtoken[MAXTOK], variable[MAXTOK], *defn;
X    char special[MAXTOK];
X    int argtyp, ct, at, spval, i, flags;
X    register int val, n, rest;
```

```
X    char onflag = FALSE;
X    char offflag = FALSE;
X    struct lexlist *xp;
X
X    dovar(tbuf1,buf);  /* use scratch buffer to expand variables */
X    strcpy(buf,tbuf1);
X
X    i = 1;
X    n = getwrd(buf, &i, token); /* get the command token */
X    rest = i;          /* remaining string */
X    ct = comtype(token, n, &defn, &flags);
X    if (ct == UNKNOWN)
X         return;
X    if (literal && ct != ELT) { /* ignore while literal  */
X         put(buf);
X         return;
X    }
X
X#ifdef DOUBLEWORD
X    if (flags == 2) {  /* check for 2-word command */
X         n = getwrd(buf, &i, xtoken);
X         if (n == 0) {
X              fprintf(stderr,"%c%s what ?\n", cchar, token);
X              return;
X         }
X         if ((at = comtype(xtoken, n, &defn, &flags)) == UNKNOWN) {
X              fprintf(stderr,"%c%s %s unknown.\n", cchar,
X              token,
X              xtoken);
X              return;
X         }
X         else
X              ct += at;
X    }
X#endif
X
X    doesc(buf, variable, MAXLINE);   /* expand escapes */
X    n = getarg(buf, &i, xtoken);     /* first parameter*/
X    argtyp = '\n';     /* defaulted ** cludge ** */
X    val = 0;
X    if (n > 0) {
X         if (*xtoken == '+' || *xtoken == '-') {
X              argtyp = *xtoken;
X              val = atoi(xtoken+1);
X         }
X         else if (isdigit(*xtoken)) {
X              argtyp = 0;
X              val = atoi(xtoken);
X         }
X         else {
X              /* check some common flags */
X              if (strcmp("on",xtoken) == 0)
X                   onflag = TRUE;
```

```
X             else if (strcmp("off",xtoken) == 0)
X                  offlag = TRUE;
X         }
X    }
X
X    switch(ct) {
X
X    case MACRO:
X         eval(buf, defn);
X         break;
X    case FI:
X         brk();
X         fill = YES;
X         break;
X    case NF:
X         brk();
X         fill = NO;
X         break;
X    case BR:
X         brk();
X         break;
X    case LS:
X         set(&lsval, val, argtyp, 1, 1, HUGE);
X         break;
X    case CE:
X         brk();
X         if (onflag)
X              CEon = TRUE;
X         else if (offlag) {
X              CEon = FALSE;
X              ceval = 0;         /* reset */
X         }
X         else
X              set(&ceval, val, argtyp, 1, 0, HUGE);
X         break;
X    case UL:
X         if (onflag) {
X              ULon = TRUE;
X              break;
X         }
X         else if (offlag) {
X              ULon = FALSE;
X              ulval = 0;         /* reset */
X              break;
X         }
X         else
X              set(&ulval, val, argtyp, 0, 1, HUGE);
X
X         if (!isdigit(*xtoken)) {
X              if (strcmp("all",xtoken) == 0) {
X                        ulblnk = '_';
X                        ulval = 0;
X              }
```

```
X            else if (strcmp("words",xtoken) == 0) {
X                 ulblnk = ' ';
X                 ulval = 0;
X            }
X        }
X        break;
X    case BD:
X        if (bolding == YES) {
X            if (onflag)
X                 BDon = TRUE;
X            else if (offlag) {
X                 BDon = FALSE;
X                 boval = 0;    /* reset */
X            }
X            else
X                 set(&boval, val, argtyp, 0, 1, HUGE);
X        }
X        break;
X    case HE:
X        gettl(buf, ehead, ehlim);
X        gettl(buf, ohead, ohlim);
X        break;
X    case FO:
X        gettl(buf, efoot, eflim);
X        gettl(buf, ofoot, oflim);
X        break;
X    case BP:
X        if (paging == NO)
X             break;
X        brk();
X        if (lineno > 0)
X             space(HUGE);
X        set(&curpag, val, argtyp, curpag+1, -HUGE, HUGE);
X        newpag = curpag;
X        break;
X    case SP:
X        set(&spval, val, argtyp, 1, 0, HUGE);
X        space(spval);
X        break;
X    case IN:
X        brk();
X        set(&inval, val, argtyp, 0, 0, rmval-1);
X        tival = inval;
X        break;
X    case RM:
X        set(&rmval, val, argtyp, PAGEWIDTH, tival+1, HUGE);
X        break;
X    case TI:
X        brk();
X        set(&tival, val, argtyp, 0, 0, rmval);
X        break;
X    case LEX: /****/
X        if ((xp = remove(xtoken,lextab)) != NULL) {
```

```
X             if (getwrd(buf, &i, variable) != 0)
X                  lexinstal(variable,xp->val,xp->flag,lextab);
X         }
X         else
X             fprintf(stderr,"%s undefined.\n",xtoken);
X         break;
X    case PN: /****/
X         if (strcmp(xtoken,"roman") == 0)
X              roman = TRUE;
X         else if (strcmp(xtoken,"arabic") == 0)
X              roman = FALSE;
X         else
X              fprintf(stderr,"%c%s does not have %s option.\n",
X              cchar,token,xtoken);
X         break;
X    case IG: /****/
X         break;
X    case SET: /****/
X         if (n > 0) {
X              if (isdigit(*xtoken)) {
X                   fprintf(stderr,"illegal variable name %s\n",
X                   xtoken);
X                   break;
X              }
X              *variable = '\0';
X              n = getarg(buf, &i, variable);
X              if (n <= 0) {
X                   fprintf(stderr,"%s: ", xtoken);
X                   gets(variable);
X
X              }
X              if (*variable != '\0')
X                   install(xtoken, variable, gentab);
X         }
X         else
X              fprintf(stderr,"%c%s needs a variable name.\n",
X              cchar, token);
X         break;
X    case GET: /****/
X         if (n > 0) {
X              if (isdigit(*xtoken)) {
X                   fprintf(stderr,"illegal variable name %s\n",
X                   xtoken);
X                   break;
X              }
X              *variable = '\0';
X              n = getarg(buf, &i, tbuf3); /* using temp buf3 */
X              if (n > 0) {
X                   fprintf(stderr,"%s", tbuf3);
X                   gets(variable);
X
X              }
X              if (*variable != '\0')
```

```
X                  install(xtoken,variable, gentab);
X         }
X         else
X              fprintf(stderr,"%c%s needs a variable name.\n",
X              cchar, token);
X         break;
X    case CL: /****/
X         if (argtyp == '\n') {
X              clast->level = 0;
X              clast->str = NULL;
X         }
X         else {
X              skipbl(buf,&i);
X              if (*(buf+i) == '\0')
X                   break;        /* no contents line here ! */
X              clast->level = val * 3; /* level * indent
        */
X              n = i;
X              while(*(buf+n) != '\n')
X                   n++;
X              *(buf+n) = '\0';   /* destroy CR with a null  */
X              clast->str = strsave(buf+i);
X              clast->page = curpag;
X         }
X         clast->nextc = (struct clist *) malloc(sizeof(struct clist));
X         p_memoryus += sizeof(struct clist);
X         clast = clast->nextc;
X         clast->nextc = NULL;
X         break;
X    case PC: /****/
X         brk();
X         clast = chead;
X         while(clast->nextc != NULL) {
X              if (clast->str == NULL)
X                   put("\n");
X              else {
X                   tival = (int) clast->level + inval;
X                   i = rmval - tival;
X                   docline(variable, i, clast->str, clast->page);
X                   put(variable);
X              }
X              clast = clast->nextc;
X         }
X         break;
X    case DBO: /****/
X         bolding = NO;
X         break;
X    case EBO: /****/
X         bolding = YES;
X         break;
X    case AP: /****/
X         autopar = YES;
X         break;
```

```
X    case NAP: /****/
X         autopar = NO;
X         break;
X    case SAV: /****/
X         brk();
X         save();
X         break;
X    case RST: /****/
X         brk();
X         restore();
X         break;
X    case NPA: /****/
X         paging = NO;
X         savpl = plval;
X         plval = HUGE;
X         bottom = plval - m3val - m4val;
X         break;
X    case PGI: /****/
X         bottom = lineno - 1;    /* force end-of-page */
X         brk();
X         plval = savpl;
X         break;
X    case LTR: /****/
X         brk();
X         if (save()) {
X              inval = 0;
X              rmval = 132;
X              autopar = NO;
X              lsval = 0;
X              fill = NO;
X              literal = YES;
X         }
X         break;
X    case ELT: /****/
X         restore();
X         literal = NO;
X         break;
X    case WR:  /****/
X         brk();
X         getpstr(buf+rest,special);
X         defn = special;
X         while(*defn)
X              putchar(*defn++);
X         break;
X    case PL:
X         if (paging == NO)
X              break;
X         set(&plval, val, argtyp, PAGELEN,
X         m1val + m2val + m3val + m4val + 1, HUGE);
X         bottom = plval - m3val - m4val;
X         break;
X    case PO:
X         set(&offset, val, argtyp, 0, 0, rmval - 1);
```

```
X         break;
X    case M1:
X         set(&m1val, val, argtyp, 3, 0,
X         plval - m2val - m3val - m4val - 1);
X         break;
X    case M2:
X         set(&m2val, val, argtyp, 2, 0,
X         plval - m1val - m3val - m4val - 1);
X         break;
X    case M3:
X         set(&m3val, val, argtyp, 2, 0,
X         plval - m1val - m2val - m4val - 1);
X         bottom = plval - m3val - m4val;
X         break;
X    case M4:
X         set(&m4val, val, argtyp, 3, 0,
X         plval - m1val - m2val - m3val - 1);
X         bottom = plval - m3val - m4val;
X         break;
X    case EH:
X         gettl(buf, ehead, ehlim);
X         break;
X    case OH:
X         gettl(buf, ohead, ohlim);
X         break;
X    case EF:
X         gettl(buf, efoot, eflim);
X         break;
X    case OF:
X         gettl(buf, ofoot, oflim);
X         break;
X    case CC:
X         cchar = *xtoken;
X         if (cchar == '\0' || cchar == '\n')
X              cchar = '.';
X         if ((lineno + val) > bottom && lineno <= bottom) {
X              space(val);
X              lineno = 0;
X         }
X         break;
X    case EC:
X         genesc = *xtoken;
X         if (genesc == '\0' || genesc == '\n')
X              genesc = '_';
X         break;
X    case NE:
X         if ((lineno + val) > bottom && lineno <= bottom) {
X              space(val);
X              lineno = 0;
X         }
X         break;
X    case BS:
X         set(&bsval, val, argtyp, 1, 0, HUGE);
```

```
X         break;
X    case JU:
X         rjust = YES;
X         break;
X    case NJ:
X         rjust = NO;
X         break;
X    case SO:
X         if (n <= 0)
X              return;
X         if (level + 1 == NFILES)
X              error("? SO commands nested too deeply.");
X         if ((infile[level + 1] = fopen(xtoken, "r")) != NULL) {
X              level++;
X              if (verbose == YES)
X#ifdef rainbow
X                   fprintf(stderr,"source \033[7m%s\033[0m\n",
X                        xtoken);
X#else
X                   fprintf(stderr,"source %s\n",xtoken);
X#endif
X         }
X         else
X              fprintf(stderr,"%s: cannot open.\n",xtoken);
X         break;
X    case OU: /*****/
X         /* skip for now. */
X         break;
X
X    case OE: /*****/
X         /* skip for now. */
X         break;
X
X    case CU:
X         ulblnk = '_';
X         set(&ulval, val, argtyp, 0, 1, HUGE);
X         break;
X    case DE:
X
X#ifdef DEBUG
Xprintf("Command++: calling dodef Fp %ld\n",infile[level]);
X#endif
X         dodef(buf, infile[level]);
X         break;
X    case NR:
X         if (n <= 0)
X              return;
X         if (*xtoken < 'a' || *xtoken > 'z')
X              error("invalid number register [%c].",*xtoken);
X
X         val = getval(buf, &i, &argtyp);
X         set(&nr[xtoken[0] - 'a'], val, argtyp, 0, -HUGE, HUGE);
X         break;
```

```
X    case ST:
X         if (argtyp == '-')
X              spval = plval;
X         else
X              spval = 0;
X         set(&spval, val, argtyp, 0, 1, bottom);
X         if (spval > lineno && lineno == 0)
X              phead();
X         if (spval > lineno)
X              space(spval - lineno);
X         break;
X    case RESET:   /****/
X         finit();
X         break;
X    default:
X         error("? Botch in command.");
X         break;
X    }
X}
X
X/*
X * comtype - decode the command type
X *
X */
Xint
Xcomtype(buf, siz, defn, flags)
Xchar buf[];
Xint siz;
Xchar **defn;
Xint *flags;
X{
X
X    struct hashlist *np;
X    struct lexlist *xp;
X    extern   struct lexlist *lexlook();
X    int i,comtyp;
X    char c1,c2;
X
X
X#ifdef DEBUG
X    printf("comtype:  (token)\n");
X#endif
X
X    if ((np = lookup(buf, macrotab)) != NULL) {
X         *defn=np->def;
X         return(MACRO);
X    }
X    comtyp = UNKNOWN;
X
X    if (*buf == '#' || *buf == '!')
X         return(comtyp);
X
X    if ((xp = lexlook(buf,lextab)) != NULL)
```

```
X        if (onlyrunoff && (xp->flag != RUNOFF)) {
X             fprintf(stderr,"%c%s is not a runoff command.\n",
X             cchar,buf);
X             return(UNKNOWN);
X        }
X        else {
X             comtyp = xp->val;
X             *flags = xp->flag;
X        }
X
X    if (comtyp == UNKNOWN)
X         fprintf(stderr,"unknown command %c%s\n",cchar,buf);
X    return(comtyp);
X}
SHAR_EOF
if test 9665 -ne "`wc -c 'pxxparse.c'`"
then
     echo shar: error transmitting "'pxxparse.c'" '(should have been 9665
characters)'
fi
echo shar: extracting "'read.me'" '(1426 characters)'
if test -f 'read.me'
then
     echo shar: over-writing existing file "'read.me'"
fi
sed 's/^X//' << \SHAR_EOF > 'read.me'
XProff - A portable formatter
X
XThis is the first distribution of PROFF, a formatter based
Xon software tools ROFF. It is mainly a C re-write of ROFF,
X(now known as FORMAT), with some expansions. It is mainly
Xintended for non-UN*X systems, CP/M, MS-DOS and the like.
X
XProff was originally written for The Faculty of Administrative
XStudies, York University, tto supplement their microcomputer
Xenvironment. As of this release, the formatter is in the
Xcontrol of The Faculty of Administrative Studies.
X
XThere is no man page for proff, for it was never intended
Xfor UN*X systems. There is, however two comprehensive
Xdocuments to answer all questions.
X
XThe C code for PROFF is quite warped, and should be approached
Xcarefully. [Ok..Ok.. it is all my fault.. too much midnight
Xoil..]  It is reasonably customazible, by changing proffsym.new.
XThis file is processed by ltb, a static hash table generator.
XThis approach is most useful to change the operator keywords,
Xcreate aliases, and it also bypassess the initialization
Xoverhead. [see the makefile for the right output file names
Xfor ltb]
X
XPROFF is not copyrighted, at least for this release. Future
Xreleases may contain York University copyright.
```

```
X
XPlease send me all updates, bugfixes and other tidbits,
Xso that future releases may be coordinated smoothly.
X
Xenjoy.
X        oz
X        bitnet: oz@yuyetti
X             oz@yusol
X        useet: {ihnp4|decvax|allegra|linus}!utzoo!yetti!oz
X        phonet: (416) 667 3976
X
SHAR_EOF
if test 1426 -ne "`wc -c 'read.me'`"
then
     echo shar: error transmitting "'read.me'" '(should have been 1426
characters)'
fi
echo shar: extracting "'see.me'" '(2491 characters)'
if test -f 'see.me'
then
     echo shar: over-writing existing file "'see.me'"
fi
sed 's/^X//' << \SHAR_EOF > 'see.me'
X    After capturing and unshar'ing all the parts of this proff
Xposting you should end up with the following files:
X
Xproff.uud             lookup.h  proff.c       putwrd.c
Xdebug.h      lextab.d  ltb.c         proff.h       pxlex.c
Xdecl.h       lextab.h  make.sh       proff01.c pxxparse.c
Xdefs.h       lnk       makefile  proff02.c read.me
Xdostuff2.c   look.c        map.c         proffman.prf  see.me
Xeval.c       lookup.c  pinit.c       proffsym.new  stack.c
X
XThis file is see.me
X
XHow to make proff on the ST:
X
X    1) You will have to edit stdio.h supplied with the dev. system
Xto include the following lines at the bottom of stdio.h.
X
X    #ifdef DECL
X    #include <decl.h>
X    #endif
X
X    We do this so that when the pre-processor symbol DECL is
Xdefined the file decl.h gets included, and if it isn't then stdio.h
Xlooks exactly like it did before we added the lines. In decl.h we
Xdeclare all the commonly used function in C that do not returns the
Xtype int. This a important as in the Alcyon C compiler
X sizeof(int) != sizeof(int *). You may if you like include decl.h
Xelsewhere, but you will have to ensure that each of the modules
X(source files) has decl.h included. We found it convenient to put it
Xin stdio.h as above.
```

```
X
X    2) For those of you who have Micro C Shell and CC that i had
Xposted earlier to this newgroup, you can simply hit
X
X    make
X
Xat the Micro C Shell prompt.
X
X    3) For those who don't have Micro C Shell, but have CC, see
Xthe file make.sh, and enter those commands.
X
X    4) For those who don't have either, you will have to see
Xmake.sh and compile each C file such that DECL is defined, so you may
Xhave to  change your normal batch file somewhat to have the
Xpreprocessor switch in there to define the symbol DECL.
X
XPlease note that make.sh was set up to have all the sources, objects
Xetc in the current directory. If you are compiling on floppies you may
Xhave to  change that.
X
XThe file lnk contains the list of files to be linked, and is used with
Xlink68 as follows
X
X    link68 [com[lnk]]
X    relmod proff
X
XThe above process should yield proff.prg. If you want to use it from
Xthe desktop, rename it to proff.ttp.
X
X
XMaking Proff on the Vax
X    Simply hit
X    make
X
XMaking the users guide
X    On either the St or Vax hitting
X
X    proff -po8 proffman.prf proff.man
X
X    Will result in proff.man. (You may want to play with -po<n> to
Xget the correct left margin spacing for your printer).
X
X    If you have any problems/suggestions i may be reached at the
Xfollowing addresses:
X
X       Usenet:  .....!decvax!cwruecmp!bammi
X       CSnet:  bammi@case
X       Arpa:  bammi%case@csnet-relay
X       CompuServe:  71515,155
SHAR_EOF
if test 2491 -ne "`wc -c 'see.me'`"
then
     echo shar: error transmitting "'see.me'" '(should have been 2491 characters)'
```

```
fi
echo shar: extracting "'stack.c'" '(1909 characters)'
if test -f 'stack.c'
then
     echo shar: over-writing existing file "'stack.c'"
fi
sed 's/^X//' << \SHAR_EOF > 'stack.c'
X#include <stdio.h>
X#include "proff.h"
X
Xstruct _proffitem {
X         int  Xinval;
X         int  Xrmval;
X         int  Xoffset;
X         int  Xlsval;
X         int  Xplval;
X         int  Xm1val;
X         int  Xm2val;
X         int  Xm3val;
X         int  Xm4val;
X         int  Xfill;
X         int  Xrjust;
X
X         char Xcchar;
X         char Xgenesc;
X         char Xroman;
X         char Xbolding;
X         char Xpaging;
X         char Xautopar;
X
X         struct   _proffitem *prev;
X};
X
Xstatic struct
X_proffitem *head = NULL;
Xstatic struct
X_proffitem *top  = NULL;
X
X
Xchar *pusherr = "save: stack overflow.\n";
Xchar *poperr  = "restore: stack underflow.\n";
X
X/*
X * save - save proff parameters
X *
X */
Xsave()
X{
X    struct _proffitem *sp;
X    char *malloc();
X
X    if ((sp = (struct _proffitem *) malloc(sizeof(*sp))) == NULL) {
X         fprintf(stderr,pusherr);
```

```
X         return(FALSE);
X    }
X    else {
X         p_memoryus += sizeof(struct _proffitem);
X         if (head == NULL) {    /* first element in stack */
X              head = sp;
X              top = NULL;
X         }
X
X         sp->Xinval = inval;
X         sp->Xrmval = rmval;
X         sp->Xoffset= offset;
X         sp->Xlsval = lsval;
X         sp->Xplval = plval;
X         sp->Xm1val = m1val;
X         sp->Xm2val = m2val;
X         sp->Xm3val = m3val;
X         sp->Xm4val = m4val;
X         sp->Xfill  = fill;
X         sp->Xrjust = rjust;
X         sp->Xcchar = cchar;
X         sp->Xgenesc= genesc;
X         sp->Xroman = roman;
X         sp->Xbolding = bolding;
X         sp->Xpaging = paging;
X         sp->Xautopar = autopar;
X
X         sp->prev = top;
X         top = sp;
X    }
X    return(TRUE);
X}
X
Xrestore()
X{
X    struct _proffitem *sp;
X
X    if (top != NULL) {
X
X         inval = top->Xinval;
X         rmval = top->Xrmval;
X         offset= top->Xoffset;
X         lsval = top->Xlsval;
X         plval = top->Xplval;
X         m1val = top->Xm1val;
X         m2val = top->Xm2val;
X         m3val = top->Xm3val;
X         m4val = top->Xm4val;
X         fill  = top->Xfill;
X         rjust = top->Xrjust;
X         cchar = top->Xcchar;
X         genesc= top->Xgenesc;
X         roman = top->Xroman;
```

```
X         bolding = top->Xbolding;
X         paging = top->Xpaging;
X         autopar = top->Xautopar;
X
X         sp = top->prev;
X         free(top);
X         p_memoryus -= sizeof(struct _proffitem);
X         if ((top = sp) == NULL)
X              head = NULL;
X    }
X    else
X         fprintf(stderr,poperr);
X}
SHAR_EOF
if test 1909 -ne "`wc -c 'stack.c'`"
then
     echo shar: error transmitting "'stack.c'" '(should have been 1909
characters)'
fi
#    End of shell archive
exit 0

--
                       Jwahar R. Bammi
                    Usenet:  .....!decvax!cwruecmp!bammi
                     CSnet:  bammi@case
                   Arpa:  bammi%case@csnet-relay
                CompuServe:  71515,155


From -700933740791985369
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8082e14ded874998,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:12:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Proff part 4 of 4
Message-ID: <1440@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:12:28 EST
Article-I.D.: cwruecmp.1440
Posted: Fri Mar 21 23:12:28 1986
Date-Received: Sun, 30-Mar-86 07:41:14 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 792

Upon unshar'ing this part you will get proff.uud. Run proff.uud
through uudecode to get proff.prg

----------------------cut here---------------------------------
```

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    proff.uud
# This archive created: Fri Mar 21 22:45:15 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'proff.uud'" '(46940 characters)'
if test -f 'proff.uud'
then
     echo shar: over-writing existing file "'proff.uud'"
fi
sed 's/^X//' << \SHAR_EOF > 'proff.uud'
Xbegin 644 proff.prg
XM8!H  &F6   4T@  -1@                  $*%3KD  &!F8$9#3$5!4C8X
XM2R!6,#(N,# L($-O<'ER:6=H="AC*2 Q.3@T+"!$:6=I=&%L(%)E<V5A<F-H
XM(%A86%@M,# P,"TV-30S,C$ (&\ !"/(  !^:")H !C3Z  <(\D  'YL1>@
XM@! : H    #_/P O"IW.3KD  $!^3OD   #&(&\ !" (0>@! +_(9 1P_TYU
XM(\   'YL0H!.=4Y6   P+P ((B\ "DY"O_D  'YL9!0P/  )0?D  &F6(@A.
XM0C\\  !.04Y>3G4@;P $,B\ "# O  I(P%. ;P80P5'(__Q"@$YU(&\ !# O
XM  A*$&8$0H!.=; 89O0@"%. 3G5.5O_J/7P  ?_^8  !GC!N__[1R-'(T>X
XM"BU0__0@;O_T#!  +68  512KO_T(&[_]! 02( P0")\  !]DA PF !(@,!\
XM !AG  $@(&[_]!U0__)2KO_T$"[_\DB 8   \C/\  $  &I<8   _!/\  $
XM &J&8   \#/\  $  &I28   Y"!N__0,$ !O9PH@;O_T#!  3V9(4J[_]$)N
XM__PNCE&7+PY9ER\N__1.N0  (&Q0CSU __H^N0  :F935T)G0F<_+O_X/R[_
XM^B\\  !J6DZY   1#M_\    #& &3KD  !I$8   ?BZ\  !K#DZY   +:"ZN
XM__1.N0  "V@NO   :Q!.N0  "VA@6"!N__00$$B 8!1".0  :EY@)D(Y  !J
XMB& >8!Q@&K!\ $)GYK!\ %!GZ+!\ &)GVK!\ '!GW&#B8!Y.N0  &D1@%DC
XM('P  &J@<@RPF%?)__P@:  P3M!@$"ZN__1.N0  /F(SP   :E9@*B!N__0,
XM$  K9AY2KO_T+J[_]$ZY   ^8C/   !J5&8&3KD  !I$8 )@$%)N__XP+O_^
XML&X "&T _EHP+O_^L&X "&8&3KD  !I$+KP  &L5(&X "C)N__[3R=/)+S"8
XM $ZY   _[%B/+4#_[F8N(&X "C)N__[3R=/)+K"8 "\\  !K%R\\  ![P$ZY
XM  !!.%"//KP  4ZY  !)+E)N__XP;O_^T<C1R-'N  HM4/_T9SXNO   :RDO
XM+O_T3KD  #_L6(\CP   A]QF(BZN__0O/   :RLO/   >\!.N0  03A0CSZ\
XM  %.N0  22Y@"B/\  ![L@  A]Q">0  B_PC^0  A]P  'Z40F[__F T,"[_
XM_DC @?P "$A 2D!F$C!N__[1R-'\  "$*#"\  %@#C!N__[1R-'\  "$*$)0
XM4F[__@QN 0#__FW$$_P "@  A_Q".0  A_T3_  *  "*_$(Y  "*_1/\  H
XM +* 0CD  +*!$_P "@  @9A".0  @9D^O  ,3KD  %3.(\   &J0(_D  &J0
XM  !JE 9Y  P  &J>+J[_[DZY   &<DZY   %Y QY &0  &HT;BI*>0  :C)N
XM!$) 8 )P 4IY  !J*&X$0D%@ G(!@$%G"CZ\=3!.N0  $=(NN0  ?I0_/  *
XM3KD  %*^5(]*>0  :EQG?#ZY  !JF"\\  !K0"\\  ![P$ZY  !!.%"//KD
XM &J:+SP  &MH+SP  'O 3KD  $$X4(\^N0  :IPO/   :X$O/   >\!.N0
XM03A0CSZY  !JGB\\  !KK2\\  ![P$ZY  !!.%"/+KP  &O/+SP  'O 3KD
XM $$X6(]"5TZY  !)+DY>3G5.5O_X0F[__$)N__Y@  !Z(&X ##)N__S1R2)N
XM  @T;O_^T\H0D5)N__P@;@ (,F[__M')#!  (&=*(&X "#)N__[1R0P0  EG
XM.B!N  @R;O_^T<D,$  (9RH@;@ ,,F[__-')$+P ""!N  PR;O_\T<DR;O_\
XMT^X #!%I__\  51N__Q2;O_^(&X "#)N__[1R0P0  IG#C N !!50+!N__QN
XM /]L(&X ##)N__S1R1"\  H@;@ ,,F[__-')0B@  2ZN  PO+@ (3KD  %[Z
XM6(].7DYU3E;__$IY  !J*&\N('P  (S^,GD  &HHT<D0O  *('P  (S^,GD
XM &HHT<E"*  !+KP  (S^80 '3$)Y  !J*$)Y  !J*D)Y  !J+$Y>3G5.5O_Z
XM+JX "&$ $ 8_ # Y  !J9M!Y  !J:)!?2,"!_  "/4#__DIN__YO!C N__Y@
```

```
XM D) ,\   &IH3EY.=4Y6_OPC[@ (  "'O$)Y  "._F   +1@,! N_P!(@+ Y
XM  !J@&80+HX&E____P!.N0  (UY@$BZ.!I?___\ 80 ,]E)Y  !JF#!Y  ".
XM_M'(T<@B?   A[PNL)@ +PX&E____P!A  /\6(^P?/__9JA*>0  COYO2C!Y
XM  "._M'(T<C1_   A[Q*D&,V,'D  ([^T<C1R")\  "'O"ZPF !.N0  27A*
XM>0  :EQG%"Z\  !K\B\\  ![P$ZY  !!.%B/4WD  ([^#'G__P  COYN /]$
XM3EY.=4Y6__Q@!%*N  @@;@ ($!!(@$C T+P  'V2($ ($  %9^1@!%*N  @@
XM;@ ($!!(@$C T+P  'V2($ ($  %9N0NK@ (+RX #$ZY  !>^EB/(&X $#"Y
XM  !J9"!N ! Q>0  :F8  DY>3G5.5O_X(&X ##U0__Q";O_^8!X@;@ 0,F[_
XM_M')(FX "#1N__S3RA"14F[__%)N__X@;@ (,F[__-')2A!G,"!N  @R;O_\
XMT<D,$  @9R @;@ (,F[__-')#!  "6<0(&X "#)N__S1R0P0  IFI& 6(&X
XM$#)N__[1R1"\ "!2;O_\4F[__B!N  @R;O_\T<D,$  @9]H@;@ ,,*[__"!N
XM ! R;O_^T<E"$# N__Y.7DYU3E;_^$)N__X@;@ ,/5#__$IN !!O  !V,&[_
XM_")N  @0,)@ 2("P+@ 79@12;O_\8!X@;@ 2,F[__M')(FX "#1N__S3RA"1
XM4F[__E)N__PP;O_\(FX "! PF !(@+ N !=G*"!N  @R;O_\T<E*$&<:(&X
XM"#)N__S1R0P0  IG"C N__ZP;@ 0;Z8@;@ 2,F[__M')0A!@!%)N__PP;O_\
XM(FX "! PF !(@+ N !=G'B!N  @R;O_\T<E*$&<0(&X "#)N__S1R0P0  IF
XMRB!N  PPKO_\,"[__DY>3G5.5O_X/6X #/_^/6X $O_\8!X@;@ .,F[__-')
XM(FX "#1N__[3RA"14F[__E)N__P@;@ (,F[__M')2A!FU$Y>3G5.5O_V+JX
XM"&$ #+(]0/_Z#&X  P 09AX^K@ .,"[_^I%7+RX $D)G+RX "&&0W_P    *
XM8&@,;@ " !!F2# N  [0;@ ,D&[_^DC @?P  CU __PP+O_\L&X #&\&,"[_
XM_& $,"X ##U __X^KO_^+RX $D)G+RX "&$ _T+?_     I@&#ZN  PO+@ 2
XM0F<O+@ (80#_*-_\    "DY>3G5.5O_X80#[M$)N__Y@!%)N__X@;@ (,F[_
XM_M')#!  (&?L(&X "#)N__[1R0P0  IG-DHY  !JC&<>+KP  &P 80 "_# Y
XM  !J9-!Y  !JCC/   !J:& 0,#D  &IDT&[__C/   !J:$)N__Q@'B!N  @R
XM;O_\T<DB;@ (-&[__M/*$)%2;O_^4F[__"!N  @R;O_^T<E*$&;4(&X "#)N
XM__S1R4(03EY.=4Y6__A";O_\8"P,;@#___QL%# N__Y(@#)N__S3[@ ($H!2
XM;O_\#&X "O_^9SX,;@ -__YG-DIY  !IOFT:,'D  &F^(GP  (C\$#"8 $B
XM4WD  &F^8 HNK@ ,3KD  $%8/4#__K!\__]FGB!N  @R;O_\T<E"$$IN__QF
XM#@QN_____F8&/7S____\,"[__$Y>3G5.5O_Z+JX "$ZY  !?'%- /4#__F 8
XM,&[__B)N  @0,)@ 2( ^@&$  OQ3;O_^2F[__FSB3EY.=4Y6__P^N0  :CQA
XM  7D2GD  &H^;T8P.0  :BY(P('\  )(0+!\  %F&CZY  !J+B\\  !J2B\\
XM  "R@&$  N10CV 8/KD  &HN+SP  &I.+SP  (&880 "RE"/#'D  0  :EAF
XM,BZY  !^E#\\  Q.N0  4KY4CU)Y  !JG$IY  !J4F\2+KD  'Z4/SP "DZY
XM  !2OE2/3EY.=4Y6__PS^0  :C   &HN,#D  &HNL'D  &I4;1@P.0  :BZP
XM>0  :E9N"C/\  $  &I88 9">0  :EA*>0  :E)O% QY  $  &I89@HNO
XM:E)A  ""4GD  &HP2GD  &HX;U ^N0  :CA35V$ !.8P.0  :BY(P('\  )(
XM0$I 9AH^N0  :BXO/   :D(O/   A_QA  'P4(]@&#ZY  !J+B\\  !J1B\\
XM  "*_&$  =90CSZY  !J.F$ !)@P.0  :CC0>0  :CI20#/   !J,DY>3G5.
XM5O_X(&X "#U0__P,;@ !__QF%BZ\  !K\"\\  !L DZY  !!%EB/8 PNO
XM:_!.N0  018NO   >Z1.N0  05@]0/_^4F[__"!N  @PKO_\3EY.=4Y6  !(
XMYP, 2GD  &HR9PXP.0  :C*P>0  :D!O!&$ _K0,>0 !  !J6&8  )(@;@ (
XM#!  "F8:+KD  'Z4/SP "DZY  !2OE2/4GD  &J:8&Q^ 6 4+KD  'Z4/SP
XM($ZY  !2OE2/4D>^>0  :EIOY'X!8!0NN0  ?I0_/  @3KD  %*^5(]21[YY
XM  !J:&_D8!PNN0  ?I0@;@ ($!!(@#\ 3KD  %*^5(]2K@ ((&X "$H09MQ2
XM>0  :IHS^0  :F0  &IH,#D  &IB4T R.0  :D"2>0  :C*P06P*/KD  &IB
XM4U=@#CZY  !J0# Y  !J,I%780 #+C Y  !J8M%Y  !J,C Y  !J,K!Y  !J
XM0&\$80#](SJ?3-\ @$Y>3G5.5O_\4GD  &F^#'D"    :;YO#"Z\  !L(DZY
XM   82B!\  "(_#)Y  !IOM')$*X "4Y>3G5.5O]R2GD  &I89P "/"!N  P]
XM4/]Z(&X ##UH  +_>#Z\ !0O#@:7____]C\N !!.N0  &6!<CSU _X!*.0
XM:HIG-"Z.!I?___^*+PX&E_____9.N0  /=Y8CSU _X NC@:7____BB\.!I?_
XM___V3KD  %[Z6(\NC@:7____VF$ !V(NC@:7____VDZY  !?'#U _W9";O]\
XM(&X "#)N_WS1R1U0_XA";O^"8!0@?   B_XR;O^"T<D0O  @4F[_@C N_X*P
XM;O]X;>)";O]^$"[_B$B /H O/   ?I@_+O]X,"[_>I%7+PX&E____WPO+@ (
```

```
XM80#XKM_\    #DI ;P  ?#ZN_X O#@:7____]B\\  !_F#\\ ",O/   ?IAA
XM  -:W_P    ./J[_=B\.!I?____:+SP  'Z8/SP )2\\  !_F&$  S3?_
XM  XNO   B_XP;O]^T<@B?   :G8_,)@ /R[_>#\N_WHO/   ?IAA /E0W_P
XM   *4F[_?B!N  @R;O]\T<E*$&<:(&X "#)N_WS1R0P0  IG"@QN  /_?F8
XM_RA@%C!N_WC1_   B_X,*  @__]F#%-N_W@,;@ !_WALXB!\  "+_C)N_WC1
XMR1"\  H@?   B_XR;O]XT<E"*  !/7P  ?]\8!8NN0  ?I0_/  @3KD  %*^
XM5(]2;O]\,"[_?+!Y  !J6F_>+7P  (O^_X1@'"ZY  !^E"!N_X00$$B /P!.
XMN0  4KY4CU*N_X0@;O^$2A!FW%)Y  !JFDY>3G5.5O_Z(&X "#U0__X,;@ *
XM  YF"#UN !#__F J#&X *P .9@HP+@ ,T6[__F 8#&X +0 .9@HP+@ ,D6[_
XM_F &/6X #/_^,"[__K!N !1L!C N__Y@!# N !0]0/_^,"[__K!N !)O!C N
XM__Y@!# N !(]0/_^(&X "#"N__Y.7DYU3E8  $CG!P ^+@ (#'D  0  :EAF
XM(GP!8!HNN0  ?I0_/  *3KD  %*^5(]2>0  :II21KQ';^)*GTS? ,!.7DYU
XM3E;__&$ ] PP.0  :C*P>0  :D!N5DIY  !J,F8$80#Z2C Y  !J0%) D'D
XM &HRL&X "&\&/JX "& 0/KD  &I 4E<P.0  :C*15V$ _W P+@ (T7D  &HR
XM,#D  &HRL'D  &I ;P1A /ED3EY.=4Y6__A(YP< 0F[__DIN  YO  #@#&X
XM 0 0;P  UG !D&[__CU __X];@ .__HP+@ 04T ]0/_X,#D  &IHL'D  &ID
XM9PP,;@ !__AO!%-N__@^+@ ,4T<P!]!N__JP? '^;P8P/ '^8 8P!]!N__H\
XM &   'HP1M'N  @R1]/N  @0D3!'T>X " P0 "!F6C!'T>X " PH "#__V=,
XM2F[__F84,"[_^E- 2,"![O_X4D ]0/_\8 XP+O_Z2,"![O_X/4#__# N__R1
XM;O_Z4V[_^& 04T8P1M'N  @0O  @4V[__$IN__QNZE-'4T:^1FV$2I],WP#
XM3EY.=4Y6  !(YP\ 0D9"1V! (&X "! P< !(@+ N  UF'D)%8!(P1M'N  XR
XM1=/N !(0D5)&4D6Z;@ 6;>A@$#!&T>X #C)'T^X "!"14D921S!'T>X "$H0
XM9K8P1M'N  Y"$$J?3-\ X$Y>3G5.5O[^2.<# "ZN  @O#@:7___^_DZY   V
XME%B/+HX&E____OXO+@ (3KD  %[Z6(\^O $ +PX&E____OXO+@ (3KD  #5&
XM4(\^O $ +PX&E____OXO+@ (3KD  #>P4(\@;@ (#!  (&<*(&X " P0  IF
XM""ZN  AA /8(2GD  &IN;@A*.0  :G!G'#Z\ 0 O#@:7___^_B\N  AA  $0
XM4(]3>0  :FY*>0  :G)N"$HY  !J=&<</KP! "\.!I?___[^+RX "&$ \)Q0
XMCU-Y  !J<DIY  !J:FX(2CD  &IL9QHNK@ (80#QHBZN  AA /C.4WD  &IJ
XM8   J"!N  @,$  *9@PNK@ (80#XLF   ))*>0  :F!F#"ZN  AA /B>8
XM?BZN  A.N0  7QQ30#U __X@;@ (,F[__M')$+P (#!N__[1[@ (#"@ +O__
XM9A)2;O_^(&X "#)N__[1R1"\ " @;@ (,F[__M')0B@  4)N__Y@#BZ.!I?_
XM__[^3KD  !]6+HX&E____OXO#E67+RX "&$ \G!0CTI ;MA*GTS? (!.7DYU
XM3E;_^$)N__Q";O_^8   DB!N  @R;O_^T<D,$  @9T @;@ (,F[__M')#!
XM"&<P(&X "#)N__[1R0P0 %]G(#!N__S1[@ ,$+P 7U)N__PP;O_\T>X #!"\
XM  A2;O_\(&X "#)N__[1R0P0 "!F%#!N__S1[@ ,$+D  &J$4F[__& 8,&[_
XM_-'N  PB;@ (-&[__M/*$)%2;O_\4F[__B!N  @R;O_^T<D,$  *9PXP+@ 0
XM54"P;O_\;@#_5"!N  PR;O_\T<D0O  *(&X ##)N__S1R4(H  $NK@ ,+RX
XM"$ZY  !>^EB/3EY.=4Y6__A";O_^0F[__& ^(&X "#)N__S1R0P0  AF!E-N
XM__Y@)"!N  @R;O_\T<D,$  @;10@;@ (,F[__-')#!  ?FX$4F[__E)N__P@
XM;@ (,F[__-')2A!FM# N__Y.7DYU3E;__"Z\  !L1"\N  A.N0  7OI8CTY>
XM3G5.5O_X0F[__"!N  X]4/_^,"X $E- L&[__FT6,&[__M'N  H0K@ )4F[_
XM_CU\  '__"!N  XPKO_^,"[__$Y>3G5.5O_V0F[_^B!N ! ]4/_\+JX "$ZY
XM  !?'-!N__PR+@ 44T&P06(V0F[__F <,&[__-'N  PB;@ (-&[__M/*$)%2
XM;O_\4F[__B!N  @R;O_^T<E*$&;6/7P  ?_Z(&X $#"N__PP+O_Z3EY.=4Y6
XM__9";O_\(&X ##U0__Y@!%)N__X@;@ (,F[__M')#!  (&?L(&X "#)N__[1
XMR0P0  EGW#U\  '_^B!N  @R;O_^T<D,$  K9Q @;@ (,F[__M')#!  +68@
XM,&[__M'N  @,$  K0,!2;O_^1,!F!' !8 )P_SU __I";O_\8"0P+O_\P?P
XM"B)N  @T;O_^T\H2$4B!T$'0?/_0/4#__%)N__X@;@ (,F[__M')#!  ,&T0
XM(&X "#)N__[1R0P0 #EOO"!N  PPKO_^,"[_^L'N__Q.7DYU3E;__"ZN  @O
XM/   ;%HO/   >\!.N0  03A0CSZ\  %.N0  22Y.7DYU3E;_^$)N__P@;@ ,
XM/5#__F $4F[__B!N  @R;O_^T<D,$  )9^P@;@ (,F[__M')#!  (&?<8!HP
XM;O_\T>X $#)N__[3[@ ($)%2;O_^4F[__"!N  @R;O_^T<D,$  @9RX@;@ (
XM,F[__M')#!  "6<>(&X "#)N__[1R4H09Q @;@ (,F[__M')#!  "F:H,&[_
```

```
XM_-'N !!"$%)N__P@;@ ,,*[__C N__Q.7DYU3E;_^B!N  P]4/_^8 12;O_^
XM(&X "#)N__[1R0P0 "!G["!N  @R;O_^T<D,$  )9]P@;@ ,,*[__DY>3G5.
XM5O_R/6X "/_X; HP+@ (1$ ]0  (0F[__C N  A(P('\  I(0-!\ # R;O_^
XMT^X "A* 4F[__C N  A(P('\  H]0  (;PPP+@ .54"P;O_^;L9*;O_X;!PP
XM+@ .4T"P;O_^;Q P;O_^T>X "A"\ "U2;O_^(&X "C)N__[1R4(00F[__"ZN
XM  I.N0  7QQ30#U __I@.B!N  HR;O_\T<D=4/_V(&X "C)N__S1R2)N  HT
XM;O_ZT\H0D2!N  HR;O_ZT<D0KO_V4F[__%-N__HP+O_\L&[_^FV\,"[__DY>
XM3G5.5O_\+KP  &Q>+SP  'O 3KD  $$X6(]"5TZY  !)+DY>3G5.5O_Z0F[_
XM_F 0(&X "! 02(#1;O_^4JX ""!N  A*$&;H,"[__DC @?P 9$A 3EY.=4Y6
XM__@NK@ (8<0P0-'(T<C1[@ ,+5#__& F(&[__"Z0+RX "$ZY  !>N%B/2D!F
XM!B N__Q@$B!N__PM:  (__Q*KO_\9M1"@$Y>3G5.5O_V+JX $"\N  AAIEB/
XM+4#_^F9L/KP #$ZY  !4SBU __H&>0 ,  !JGDJN__IF!D* 8   ="ZN  AA
XM  !P+P @;O_Z()]F!$* 8%P@;O_Z+I!A /\L/4#__B!N__HR;O_^T\G3R=/N
XM ! A40 (,&[__M'(T<C1[@ 0(*[_^F .(&[_^BZH  1.N0  5EPNK@ ,81@O
XM "!N__HA7P $9@1"@& $("[_^DY>3G5.5O_\2.<# "ZN  A.N0  7QP^ %)'
XM/H=.N0  5,XM0/_\9Q;?>0  :IXNK@ (+R[__$ZY  !>^EB/("[__$J?3-\
XM@$Y>3G5.5O_V+JX $"\N  AA  ".6(\M0/_Z9F@^O  ,3KD  %3.+4#_^@9Y
XM  P  &J>2J[_^F8$0H!@8"ZN  AA /]Z+P @;O_Z()]F!$* 8$H@;O_Z+I!A
XM /XV/4#__B!N__HR;O_^T\G3R=/N ! A40 (,&[__M'(T<C1[@ 0(*[_^B!N
XM__HQ;@ ,  0@;O_Z,6X #@ &("[_^DY>3G5.5O_X+JX "&$ _>8P0-'(T<C1
XM[@ ,+5#__& F(&[__"Z0+RX "$ZY  !>N%B/2D!F!B N__Q@$B!N__PM:  (
XM__Q*KO_\9M1"@$Y>3G5.5O_T+JX "&$ _9@P0-'(T<C1[@ ,+5#__"UN__S_
XM^& Z(&[__"Z0+RX "$ZY  !>N%B/2D!F%"!N__@B;O_\(6D "  (("[__& 8
XM+6[__/_X(&[__"UH  C__$JN__QFP$* 3EY.=4Y6__I">0  :F0S_ !!  !J
XM9D)Y  !J:#/\  $  &IB,_P  0  :F!">0  :FI">0  :FY">0  :G(3_  N
XM  !J@!/\ %\  &J",_P  0  :G8S_  "  !J>#/\  ,  &IZ0GD  &I\,_P
XM 0  :GX3_  @  !JA$)N__Y@-# N__Y(P('\  A(0$I 9A(P;O_^T<C1_
XMA"@PO  !8 XP;O_^T<C1_   A"A"4%)N__X,;@$ __YMQ$)Y  !J,D)Y  !J
XM+C/\  $  &HP,_P /@  :C0S_  #  !J.#/\  (  &HZ,_P  @  :CPS_  #
XM  !J/C Y  !J-)!Y  !J/)!Y  !J/C/   !J0!/\  H  (?\0CD  (?]$_P
XM"@  BOQ".0  BOT3_  *  "R@$(Y  "R@1/\  H  (&80CD  (&9,_D  &ID
XM  !J0C/Y  !J9@  :D0S^0  :F0  &I&,_D  &IF  !J2#/Y  !J9   :DHS
XM^0  :F8  &I,,_D  &ID  !J3C/Y  !J9@  :E!">0  :EQ">0  :E)">0
XM:E0S_'4P  !J5C/\  $  &I80GD  &I:0GD  &HH0GD  &HJ0GD  &HL,_S_
XM_P  :;Y";O_^8!(P;O_^T<C1_   :<!"4%)N__X,;@ :__YMYD(Y  !J;$(Y
XM  !J<$(Y  !J=$(Y  !JAD(Y  !JBA/\  $  &I>0CD  &J,3EY.=4Y6__0N
XMK@ (3KD  !9$/4#_^"ZN  A.N0  7QS0>0  :B@]0/_^,#D  &IFD'D  &IH
XM/4#__# Y  !J*M!N__BP;O_\;@H,;@( __YM  ".,#D  &HHD6[__C N__R0
XM>0  :BH]0/_Z8"(P>0  :BC1_   C/X,*  @__]F!E)N__I@ F .4WD  &HH
XM2GD  &HH;M8,>0 !  !J?F8X/KD  &HL/R[_^C\Y  !J*"\\  ",_DZY   2
XM0E"/2F[_^F\4#'D  0  :BQO"C N__K1>0  :BA.N0  !>0NK@ ((#P  (S^
XM,CD  &HH2,'0@2\ 3KD  %[Z6(\S[O_^  !J*# N__C1>0  :BI2>0  :BQ.
XM7DYU3E;_^"!N  P]4/_^(&X $#U0__PNCE67+RX "$ZY   9(EB/,&[__B)N
XM  @0,)@ 2( ]0/_\#&X *__\9P@,;@ M__QF!%)N__X@;@ ,,*[__B!N ! P
XMKO_\+JX #"\N  A.N0  %W!8CTY>3G5.5O_\2.<# "!N  P]4/_^/7S____\
XM+HY5ER\N  A.N0  &2)8CR!N  @R;O_^T<E*$&<  39";O_\(&X "#)N__[1
XMR0P0 ")F  "N4F[__F!4(&X "#)N__[1R0P0 ")F*B!N  @R;O_^T<D,*  B
XM  %F%C!N__S1[@ 0$+P (E)N__Q4;O_^8 )@*#!N__S1[@ 0,F[__M/N  @0
XMD5)N__Y2;O_\(&X "#)N__[1R4H09IX@;@ 0,F[__-')0A!2;O_^,&[__B)N
XM  @0,)@ 2( P0")\  !]DA PF !(@,!\ !QG#"Z\  !MHDZY   82E)N__Y@
XM:B!N  @R;O_^T<D>$& F,&[__-'N ! R;O_^T^X "!"14F[__E)N__P@;@ (
XM,F[__M')'A"^/  @9QR^/  )9Q:^/  L9Q"^/  -9PJ^/  *9P1*!V:X(&X
XM$#)N__S1R4(02@=G!%)N__X@;@ ,,*[__C N__Q*GTS? (!.7DYU3E;_]DCG
```

```
XM#QPJ;@ (*&X #&   .(<%1 &2(!@  #"8 )2C0P5 "!G^ P5  EG\F   ,1*
XM+0 !9P@8[0 !5(U@ E*-8   L! M  %(@$C T+P  &RB($ :$&<"&,54C6
XM )12C6 <#!4 (F<$&-U@$@PM "(  68(&/P (E2-8 )@!$H59N!2C6!J1^[_
XM]F "%MT0%4B 2,#0O   ?9(@0 @0  )FZD(3+HX&E_____9.N0  /F(^ # '
XML'P! &\.+KP  &VZ3KD  !A*8 I*1V\&, =(@!C 8!H8W6 62, @?   ;2)R
XM#["85\G__"!H #Q.T P5  IG!DH59@#_%D(42I],WSC@3EY.=4Y6_JA(YP\
XM0B[^KD(N_JPNK@ (+SP  'Z83KD  #:46(\NO   ?I@O+@ (3KD  %[Z6(\]
XM?  !_K(NC@:7____L"\.!I?___ZR+RX "$ZY   8=%"//  Z+OZR+HX&E___
XM_K O#@:7____##\&+PX&E____[!A  \HW_P    */4#^N QN ^?^N&< #PI*
XM.0  =-1G%@QN &W^N&<.+JX "$ZY   -:&  #NP^O $ +PX&E____Q O+@ (
XM3KD  #5&4(\NC@:7____8"\.!I?___ZR+RX "$ZY   @VE"//  ]?  *_KI"
XM1TI&;P  G PN "O_8&<(#"X +?]@9AP0+O]@2( ]0/ZZ+HX&E____V%.N0
XM/F(^ &!N('P  'V2$B[_8$B!2,'1P0@0  )G%D)N_KHNC@:7____8$ZY   ^
XM8CX 8$(NC@:7____8"\\  !XW$ZY  !>N%B/2D!F"!U\  '^KF @+HX&E___
XM_V O/   >-].N0  7KA8CTI 9@8=?  !_JPP+OZX8  -\BZN_PPO+@ (3KD
XM #CD6(]@  WR3KD   7D,_P  0  :F!@  W@3KD   7D0GD  &I@8  -T$ZY
XM   %Y&  #<8^O'4P/SP  3\\  $_+OZZ/P<O/   :F).N0  $0[?_     Q@
XM  V>3KD   7D2B[^KF<*$_P  0  :FQ@-DHN_JQG#D(Y  !J;$)Y  !J:F B
XM/KQU,$)G/SP  3\N_KH_!R\\  !J:DZY   1#M_\    #&  #4Y*+OZN9PX3
XM_  !  !J<&  #3Q@.DHN_JQG$D(Y  !J<$)Y  !J;F  #21@(CZ\=3 _/  !
XM0F<_+OZZ/P<O/   :FY.N0  $0[?_     P@?   ?9(2+O]@2(%(P='!"!
XM F92+HX&E____V O/   >.-.N0  7KA8CTI 9A 3_ !?  !JA$)Y  !J;F H
XM+HX&E____V O/   >.=.N0  7KA8CTI 9@X3_  @  !JA$)Y  !J;F  #)0,
XM.0 !  !J7F9&2B[^KF<*$_P  0  :G1@-DHN_JQG#D(Y  !J=$)Y  !J<F B
XM/KQU,#\\  %"9S\N_KH_!R\\  !J<DZY   1#M_\    #&  #$ NO   :D(O
XM/   A_PO+@ (3KD   =*4(\NO   :D8O/   BOPO+@ (3KD   =*4(]@  P,
XM+KP  &I*+SP  +* +RX "$ZY   '2E"/+KP  &I.+SP  (&8+RX "$ZY   '
XM2E"/8  +V$HY  !JB&< "\Y.N0  !>1*>0  :C)O"CZ\=3!.N0  $=(^O'4P
XM/SR*T#\Y  !J+E)7/R[^NC\'+SP  &HN3KD  !$.W_P    ,,_D  &HN  !J
XM,&  "X ^O'4P0F<_/  !/R[^NC\'+PX&E____K1.N0  $0[?_     P^KOZT
XM3KD  !'28  +3DZY   %Y#ZY  !J9E-70F="9S\N_KH_!R\\  !J9$ZY   1
XM#M_\    ##/Y  !J9   :FA@  L6/KQU,#\Y  !J:%)7/SP 03\N_KH_!R\\
XM  !J9DZY   1#M_\    #&  "NI.N0  !>0^N0  :F9"9T)G/R[^NC\'+SP
XM &IH3KD  !$.W_P    ,8  *OBZ\  !S1"\.!I?___]@3KD  !S&6(\M0/ZH
XM9T@NC@:7____$"\.!I?___ZR+RX "$ZY   8=%"/2D!G)BZ\  !S1"!N_J@_
XM*  &(&[^J#\H  0O#@:7____$$ZY   ;W%"/8!PNC@:7____8"\\  !X[2\\
XM  ![P$ZY  !!.%"/8  *.BZ\  !X_"\.!I?___]@3KD  %ZX6(]*0&8*$_P
XM 0  :HI@5"Z\  !Y B\.!I?___]@3KD  %ZX6(]*0&8(0CD  &J*8#(NC@:7
XM____8"\.!I?___^P$#D  &J 2( _ "\\  !Y"2\\  ![P$ZY  !!.-_\
XM#F  ";Y@  FZ2D9O  "N('P  'V2$B[_8$B!2,'1P0@0  )G("Z.!I?___]@
XM+SP  'DH+SP  'O 3KD  $$X4(]@  E^0B[_$"Z.!I?___\0+PX&E____K(O
XM+@ (3KD  "#:4(\\ $I&;BHNC@:7____8"\\  !Y0B\\  ![P$ZY  !!.%"/
XM+HX&E____Q!.N0  0#9*+O\09QXNO   ABPO#@:7____$"\.!I?___]@3KD
XM !KF4(]@*BZ.!I?___^P$#D  &J 2( _ "\\  !Y1R\\  ![P$ZY  !!.-_\
XM    "F  "-I*1F\  *H@?   ?9(2+O]@2(%(P='!"!   F<@+HX&E____V O
XM/   >60O/   >\!.N0  03A0CV  ")Y"+O\0+KP  ("8+PX&E____K(O+@ (
XM3KD  "#:4(\\ $I&;R@NO   @)@O/   >7XO/   >\!.N0  03A0CRZ.!I?_
XM__\03KD  $ V2B[_$&<>+KP  (8L+PX&E____Q O#@:7____8$ZY   :YE"/
XM8"HNC@:7____L! Y  !J@$B /P O/   >8$O/   >\!.N0  03C?_     I@
XM  ?^#&X "OZZ9AH@>0  :I1"$"!Y  !JE"%\       "8   ?BZ.!I?___ZR
XM+RX "$ZY   9(EB/(&X "#)N_K+1R4H09P 'N# 'P?P  R)Y  !JE!* /"[^
XMLF "4D8P1M'N  @,$  *9O(P1M'N  A"$" N  @R+OZR2,'0@2Z 3KD  !N4
XM+P @>0  :I0A7P "('D  &J4,7D  &HN  8^O  ,3KD  %3.+P @>0  :I0A
```

```
XM7P (!GD #   :IX@>0  :I0CZ  (  !JE"!Y  !JE"%\       (8  '(DZY
XM   %Y"/Y  !JD   :I1@  "*('D  &J42J@  F8.+KP  'F>3KD   UH8& @
XM>0  :I00$$B T'D  &ID,\   &IH,#D  &IFD'D  &IH/4#^LB!Y  !JE#ZH
XM  8@>0  :I0O*  "/R[^LB\.!I?___\03KD  #ADW_P    *+HX&E____Q!.
XMN0  #6@@>0  :I0CZ  (  !JE"!Y  !JE$JH  AF /]L8  &=$(Y  !J7F
XM!FH3_  !  !J7F  !EX3_  !  !JC&  !E)".0  :HQ@  9(3KD   7D3KD
XM #KD8  &.$ZY   %Y$ZY   \&&  !BA".0  :H@S^0  :C0  &HV,_QU,
XM:C0P.0  :C20>0  :CR0>0  :CXSP   :D!@  7T,#D  &HR4T SP   :D!.
XMN0  !>0S^0  :C8  &HT8  %TDZY   %Y$ZY   ZY$I 9RA">0  :F0S_ "$
XM  !J9D(Y  !JC$)Y  !J8D)Y  !J8!/\  $  '348  %EDZY   \&$(Y  !T
XMU&  !89.N0  !>0NC@:7___^O# %2,#0K@ (+P!.N0  (E)8CT'N_KPM2/\,
XM8!PNN0  ?I0@;O\,$!!(@#\ 3KD  %*^5(]2KO\,(&[_#$H09MQ@  4T2CD
XM &J(9P %*CZ\=3 _.0  :C@P.0  :CK15S Y  !J/-%7,#D  &H^T5=25S\\
XM #X_+OZZ/P<O/   :C1.N0  $0[?_     PP.0  :C20>0  :CR0>0  :CXS
XMP   :D!@  3./KD  &IF4U="9T)G/R[^NC\'+SP  &I:3KD  !$.W_P    ,
XM8  $ICZY  !J-# Y  !J.I%7,#D  &H\D5<P.0  :CZ15U-70F<_/  #/R[^
XMNC\'+SP  &HX3KD  !$.W_P    ,8  $9#ZY  !J-# Y  !J.)%7,#D  &H\
XMD5<P.0  :CZ15U-70F<_/  "/R[^NC\'+SP  &HZ3KD  !$.W_P    ,8  $
XM(CZY  !J-# Y  !J.)%7,#D  &HZD5<P.0  :CZ15U-70F<_/  "/R[^NC\'
XM+SP  &H\3KD  !$.W_P    ,,#D  &HTD'D  &H\D'D  &H^,\   &I 8  #
XMR#ZY  !J-# Y  !J.)%7,#D  &HZD5<P.0  :CR15U-70F<_/  #/R[^NC\'
XM+SP  &H^3KD  !$.W_P    ,,#D  &HTD'D  &H\D'D  &H^,\   &I 8  #
XM;BZ\  !J0B\\  "'_"\N  A.N0  !TI0CV   U(NO   :D8O/   BOPO+@ (
XM3KD   =*4(]@  ,V+KP  &I*+SP  ++ +RX "$ZY   '2E"/8  #&BZ\  !J
XM3B\\  "!F"\N  A.N0  !TI0CV   OX3[O]@  !J@$HY  !J@&<*##D "@
XM:H!F"!/\ "X  &J , ?0>0  :C*P>0  :D!O'# Y  !J,K!Y  !J0&X./H=.
XMN0  $=)">0  :C)@  *L$^[_8   :H)*.0  :H)G"@PY  H  &J"9@@3_ !?
XM  !J@F   H8P!]!Y  !J,K!Y  !J0&\<,#D  &HRL'D  &I ;@X^ATZY   1
XMTD)Y  !J,F   E8^O'4P0F<_/  !/R[^NC\'+SP  &I\3KD  !$.W_P    ,
XM8  ",#/\  $  &I^8  ")$)Y  !J?F   AI*1F\  A0P.0  COY20+!\  AF
XM#"Z\  !YH$ZY   82BZ\  !YP2\.!I?___]@3KD  #_L6(\O #!Y  "._E)(
XMT<C1R-'\  "'O""?9RY2>0  COX,>0 !  !J7&8<+HX&E____V O/   ><,O
XM/   >\!.N0  03A0CV <+HX&E____V O/   ><XO/   >\!.N0  03A0CV
XM 7Y@  %Z8  !=A/\ %\  &J$/KQU,#\\  %"9S\N_KH_!R\\  !J;DZY   1
XM#M_\    #&   4@P>0  CO[1R-'((GP  (>\+K"8 "\N  A.N0  ,_18CV
XM 21*1F\  1X,+@!A_V!M" PN 'K_8&\6$"[_8$B /H O/   >>!.N0  &$I8
XMCRZ.!I?___ZZ+PX&E____K(O+@ (3KD  "!L4(\^ #Z\=3 _/(K00F<_+OZZ
XM/P<0+O]@2(#0?/^?XT!(P-"\  !IP"\ 3KD  !$.W_P    ,8   I QN "W^
XMNF8*/7D  &HT_K1@!$)N_K0^N0  :D _/  !0F<_+OZZ/P<O#@:7___^M$ZY
XM   1#M_\    ## N_K2P>0  :C)O#DIY  !J,F8&3KD   P\,"[^M+!Y  !J
XM,F\2/J[^M# Y  !J,I%73KD  !'28"Q.N0  '2Y@)"Z\  !Y_DZY   82F 6
XM8!2P? !O8NKE0#! T?P  '36(%!.T$J?3-\ X$Y>3G5.5O_L+KP  (*8+RX
XM"$ZY   :FEB/+4#__&<2(&X #B)N__P@J0 $0D!@  #&/7P#Y__T(&X " P0
XM "-G"B!N  @,$  A9@@P+O_T8   I"Z\  !S1"\N  A.N0  ''A8CRU __AG
XM6$HY  !JAF<Z(&[_^ QH  $ !F<N+JX "! Y  !J@$B /P O/   >A(O/
XM>\!.N0  03C?_     HP/ /G8$I@%B!N__@]:  $__0@;@ 2(F[_^#"I  8,
XM;@/G__1F)BZN  @0.0  :H!(@#\ +SP  'HQ+SP  'O 3KD  $$XW_P    *
XM,"[_]$Y>3G5.5O[^0F[_!"Z.!I?____.+PX&E____P0O+@ (3KD  !AT4(\]
XM0/\"+HX&E____\XO#@:7____!"\N  A.N0  &'10CSU _P1*;O\$9@PNO
XM>DA.N0  &$I";O\$8&X@;@ ($!!(@+ Y  !J@&8V(&X " PH &4  68J(&X
XM" PH &X  F8>(&X "! H  -(@#! (GP  'V2$#"8 $B P'P '&= /KP R"\.
XM!I?___\$+PX&E____P8O+@ (3KD  !<"W_P    ,/4#_ BZN  PO+@ (3KD
XM  K46(^P?/__9@#_?#Z\ ,@O#@:7____!"\.!I?___\&0F=.N0  %L#?_
```

```
XM  I*0&8,+KP  'IE3KD  !A*+KP  (*8+PX&E____P8O#@:7____SDZY   :
XMYE"/2H!F%"Z\  !Z>R\\  ![P$ZY  !!.%B/3EY.=4Y6__A";O_\0F[__F
XM 00P;O_^(FX "! PF !(@+ Y  !J@F8>4F[__C!N__S1[@ ,,F[__M/N  @0
XMD5)N__Q@  #,(&X "#)N__[1R0P0 $!G'B!N  PR;O_\T<DB;@ (-&[__M/*
XM$)%2;O_\8   GB!N  @R;O_^T<D,* !N  %F<"!N  @R;O_^T<D,* !A  )M
XM7B!N  @R;O_^T<D,* !Z  )N3#ZN ! P+O_\D5=35R N  PR+O_\2,'0@2\
XM,&[__B)N  @0,)@"2(#0?/^?,$#1R")\  !IP#\PF !.N0  &6!<C]%N__Q4
XM;O_^8!H@;@ ,,F[__-')(FX "#1N__[3RA"14F[__%)N__X@;@ (,F[__M')
XM2A!G#C N !!30+!N__QN /[D(&X ##)N__S1R4(0+JX #"\N  A.N0  7OI8
XMCTY>3G5.5O_\2.<##&   /@@;@ ,$!!(@+ Y  !J@F8D(&X "")N  P0D5*N
XM  Q2K@ ((&X "")N  P0D5*N  A@  # (&X # P0 "1G$B!N  @B;@ ,$)%2
XMK@ (8   I%*N  P@;@ ,#!  >V8$4JX #"AN  Q@!%*N  P@;@ ,$!!(@#!
XM(GP  'V2$#"8 $B P'P '&;@(&X #!X0(&X #$(0+KP  (8L+PQ.N0  &II8
XMCRU __QG&"!N__PJ:  $8 H@;@ ($)U2K@ (2A5F\@PL 'O__V<,(&X "!"'
XM4JX "& <OCP ?6<6+HPO/   >I@O/   >\!.N0  03A0CU*N  P@;@ ,2A!F
XM /\"(&X "$(02I],WS" 3EY.=4Y6__A";O_\0F[__F!J(&X "#)N__[1R0P0
XM  EF/& L(&X ##)N__S1R1"\ "!2;O_\,&[__-'(T?P  (0H#%   6<4#&X!
XM /_\;@PP+@ 04T"P;O_\;LA@&B!N  PR;O_\T<DB;@ (-&[__M/*$)%2;O_\
XM4F[__B!N  @R;O_^T<E*$&<.,"X $%- L&[__&X _WP@;@ ,,F[__-')0A N
XMK@ ,+RX "$ZY  !>^EB/3EY.=4Y6__I";O_^8!H@;@ (,F[__M')(FX #C1N
XM__[3RA"14F[__C N  Q=0+!N__YO#B!N  XR;O_^T<E*$&;,8! P;O_^T>X
XM"!"\ "Y2;O_^,"X #%U L&[__F[D/JX $B\\  !ZJR N  @R+O_^2,'0@2\
XM3KD  $RP4(].7DYU3E;_ZDCG!P!";O_^8!(@3C)N__[3R=')0FC_ZE)N__X,
XM;@ *__YMYB!N  A"$#U\  '__CU\  '_ZF $4F[__B!N  @R;O_^T<D,$  @
XM9RX@;@ (,F[__M')#!  "6<>(&X "#)N__[1R0P0  IG#B!N  @R;O_^T<E*
XM$&:^,&[__M'N  A"$%)N__Y^ 6   *@NCE67+RX "$ZY   9(EB/(&X "#)N
XM__[1R0P0  IG  ".(&X "#)N__[1R4H09P  ?B!.,D?3R='),6[__O_J8 12
XM;O_^(&X "#)N__[1R0P0 "!G/B!N  @R;O_^T<D,$  )9RX@;@ (,F[__M')
XM#!  +&<>(&X "#)N__[1R0P0  IG#B!N  @R;O_^T<E*$&:N(&X "#)N__[1
XMR4(04F[__E)'OGP "FT _U0NK@ ,3KD  %\</ !31F   (HP1M'N  P,*  D
XM__]G%"!N  P0,&  2( ^@$ZY   .C&!D,$;1[@ ,#!  ,&T,,$;1[@ ,#!
XM.6\4(&X #! P8 !(@#Z 3KD   Z,8#@@;@ ,$#!@ $B T'S_T#U __X@3C)N
XM__[3R=')/6C_ZO_^("X "#(N__Y(P="!+H!.N0  "VA31E-&2D9L /]T0D9G
XM$B!N  P0,&  2( ^@$ZY   .C$J?3-\ P$Y>3G5.5O_X/KP ($ZY  !4SBU
XM__QF'BZY  !ZN"\\  ![P$ZY  !!.%B/0D!@  $$8   _@9Y "   &J>2KD
XM 'JP9@XC[O_\  !ZL$*Y  !ZM"!N__PPN0  :F0@;O_\,7D  &IF  (@;O_\
XM,7D  &I:  0@;O_\,7D  &IB  8@;O_\,7D  &HT  @@;O_\,7D  &HX  H@
XM;O_\,7D  &HZ  P@;O_\,7D  &H\  X@;O_\,7D  &H^ ! @;O_\,7D  &I@
XM !(@;O_\,7D  &I^ !0@;O_\$7D  &J  !8@;O_\$7D  &J" !<@;O_\$7D
XM &J* !@@;O_\$7D  &I> !D@;O_\$7D  &J( !H@;O_\$7D  &J, !L@;O_\
XM(7D  'JT !PC[O_\  !ZM' !3EY.=4Y6__A*N0  >K1G  $@('D  'JT,]
XM &ID('D  'JT,^@  @  :F8@>0  >K0SZ  $  !J6B!Y  !ZM#/H  8  &IB
XM('D  'JT,^@ "   :C0@>0  >K0SZ  *  !J."!Y  !ZM#/H  P  &HZ('D
XM 'JT,^@ #@  :CP@>0  >K0SZ  0  !J/B!Y  !ZM#/H !(  &I@('D  'JT
XM,^@ %   :GX@>0  >K03Z  6  !J@"!Y  !ZM!/H !<  &J"('D  'JT$^@
XM&   :HH@>0  >K03Z  9  !J7B!Y  !ZM!/H !H  &J(('D  'JT$^@ &P
XM:HP@>0  >K0M:  <__PNN0  >K1.N0  5EP$>0 @  !JGB/N__P  'JT9@9"
XMN0  >K!@%"ZY  !ZO"\\  ![P$ZY  !!.%B/3EY.=4Y6__A(YP$<*FX ""AN
XM  PF;@ 02A1G7BU-__PM3/_X+J[_^"\N__Q.N0  7OI8CV V8!X@;O_X$!!(
XM@+ 39@H@;O_\(FX %!"14J[__%*N__@@;O_X2A!FVBU-__PM3/_X4HM2K@ 4
XM2A-G""!N !1*$&:^8 )"%4J?3-\X $Y>3G5.5O_H(&X #$(08&(NO   >T O
XM/   >S@O+@ ,+PX&E____^QA /]8W_P    ,+HX&E____^PO+@ ,3KD  %[Z
XM6(\@;@ ($!!(@-!\_] P0-'(T<@B?   >O(NL)@ +RX #$ZY  !>CEB/4JX
```

```
XM""!N  A*$&:6+JX #$ZY  !?'$Y>3G5.5@  2.<'!"IN  A"1T)&8 )2C1 5
XM2(!(P-"\  !]DB! "!  !6;J#!4 *V8$4HU@"@P5 "UF!%*-4D9@#L_\  H0
XM'4B WD#>?/_0#!4 ,&T&#!4 .6_F2D9G!C '1$ ^ # '2I],WR# 3EY.=4Y6
XM  !(YP<<*FX ""AN  Q"1V (OGP $&P:4D<P!\'\  XF0-?\  ![I# K  +
XM?  #9N"^?  0;09"@&   -0,% !W9P8,% !79A@^K@ 0/SP  2\-3KD  $@N
XM7(\\ &   ' ,% !A9P8,% !!9CX^K@ 0/SP  2\-3KD  $KZ7(\\ &P6/JX
XM$#\\  $O#4ZY  !(+ER// !@$#Z\  )"IS\&3KD  $P^7(]@) P4 ')G!@P4
XM %)F%#ZN !!"9R\-3KD  $KZ7(\\ & $0H!@0$I&; 1"@& X0FL ##:&0H G
XM0  ()T  ! P4 ')G!@P4 %)F"#=\  $  F &-WP  @ "2FX $&8& &L!   "
XM( M*GTS?.,!.7DYU3E;__$)7+RX #"\N  AA /[44(].7DYU3E;__$)7+RX
XM#"\N  AA /Z\4(].7DYU3E;__#Z\  $O+@ ,+RX "&$ _J)0CTY>3G5.5O_\
XM2.<#!"IN  @M3?_\8 (:QRZ\  ![I$ZY  !!6#X OGS__V<&OGP "F;D0A6^
XM?/__9@1"@& $("[__$J?3-\@@$Y>3G5.5@  2.<!!$ZY  !:SD)7+SP  &FO
XM3KD  $OT6(\^O  !+SP  &FO3KD  $OT6(\^O  !+SP  &FO3KD  $OT6(\@
XM;@ (,FX #-')0A J;@ (8"80%4B 2,#0O   ?9(@0 @0  -G"A 52(#0?  @
XM8 00%4B &H!2C4H59M8^K@ ,+RX "$ZY  !$GEB/2I],WR  3EY.=4Y6__PN
XMC@:7    #"\N  @O/   >[).N0  30A0CTY>3G5.5O_\+HX&EP   ! O+@ ,
XM+RX "$ZY  !-"%"/3EY.=4Y6  !(YP$$*FX "%-M  QM%"!M  @0$$B P'P
XM_U*M  A@"F (+HU.N0  09!*GTS?( !.7DYU3E8  $CG 00J;@ (""T    #
XM9@9P_V   -0(+0 '  -G# !M "   G#_8   P$JM  1F)@@M  ,  V80/KP"
XM $ZY  !4SBM   1F" !M  @  F & &T !  """T  P #9PXP%4C T+P  'YR
XM*T  !+O\  ![I&86"#D !@  >[5G#"Z\  ![LDZY  !*8 @M  ,  V<&/KP
XM 6 $/KP" "\M  0_%4ZY  !"AER/.T  #$IM  QN&@QM__\ #&8( &T ,  "
XM8 8 ;0 @  )P_V :4VT #"MM  0 ""!M  @0$$B P'P _U*M  A*GTS?( !.
XM7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$</]@8@@M  4  6<$0D!@5@@M
XM  (  6<6,_P "0  ?8XS^0  ?G   'V0</]@. @M  0  6<:0H P+@ .+H O
XM+@ *+PU.N0  0PY0CV 88!9"@# N  XN@"\N  HO#4ZY  !$,%"/2I],WR
XM3EY.=4Y6__A(YP,,*FX ""AN  PN+@ 0+4?__&   )8^O  !( <_ "\,+RT
XM!B\-!I<    23KD  &!VW_P    ./4#_^D)N__A@%"!,D\DR;O_XT<D,$  :
XM9Q!2;O_X0D P+O_XL&[_^F7@2F[_^F<0($R3R3)N__C1R0P0 !IF"CUN__C_
XM^@!5 " ^KO_Z+PQA4%B//4#_^$* ,"[_^M&M  9"@# N__C9P$* ,"[_^)Z
XM2H=O"@@M  4  6< _V"?KO_\("T !K"M  YO!BMM  8 #B N__Q*GTS?,(!.
XM7DYU3E;_^$CG 0PJ;@ (+4W__" -0H$R+@ ,T($M0/_X*$U@"@P4  UG AK4
XM4HRY[O_X9? @#9"N__Q*GTS?, !.7DYU3E;__DCG PPJ;@ (*&X #"XN ! ^
XMO  !( <_ "\,+RT !B\-!I<    23KD  &!VW_P    ./4#__DIN__YF! !5
XM "!"@# N__[1K0 &("T !K"M  YO!BMM  8 #D) ,"[__DJ?3-\P@$Y>3G5.
XM5O_>2.<'#$)73KD  %F (\   'Z$(\   'Z(0GD  'Z"+KP  &FE80 #%BIN
XM  A@  ).8 )2C4H59Q00%4B 2,#0O   ?9(@0 @0  5FYDH59P ",@P5 ")G
XM!@P5 "=F1AP5$ 9(@#Z +PU2ETZY    [%B/*$ @#&8.+KP  'M(+PUA  )6
XM6(\@#$C D(T^ "!-,D?1R4(04D<NC5*780 "GF   =A"1V "4D<@33)'T<E*
XM$&<6$#5P $B 2,#0O   ?9(@0 @0  5GWDHU< !G"B!-,D?1R4(04D<0%4B
XM8  !AD)73KD  $G00E<O#5*73KD  $P,6(]*0&<0+HU2ER\\  ![6F$  =!8
XMCV   6P^O  !3KD  $G0#"T /@ !9D ^O  !+PU4ETZY  !,#%B/L'P  688
XM/KP  D*G/SP  4ZY  !,/ER/L'S__V80+HU2ER\\  ![9V$  7Q8CV D0E<O
XM#5*73KD  $C\6(^P?  !9Q NC5*7+SP  'MV80 !5EB/8   \CZ\ #\O#4ZY
XM    [%B/2H!F%#Z\ "HO#4ZY    [%B/2H!G  "P+7P  )6H__PNKO_\!I<
XM   X/SP &DZY    HE2//KP $2\-/SP  TZY  !=2ER/' "\/ #_9@XNO
XM>X4O#6$  .98CV!>+HX&E____]X0!DB /P O+O_\80 !6ER/+HX&E____]Y.
XMN0  7QP^@%)73KD  %^\*$ NC@:7____WB\,3KD  %[Z6(\NC&$  /P^O  2
XM+PT_/  #3KD  %U*7(\< +P\ /]FG& &+HUA  #:8!2P?  \9P#^=K!\ #YG
XM /Z<8 #_$MK'2A5F /VP0I=A  "V4WD  'Z"+KD  'Z(3KD   "&L'S__V80
XM+KP  'N?+SP  'N082I8CT*7+SD  'Z$/SD  'Z"3KD   $&7(\^@$ZY  !)
XM+DJ?3-\PP$Y>3G5.5O]\+JX ""\.!I?___^ 3KD  %[Z6(\NK@ ,+PX&E___
```

```
XM_X!.N0  7HY8CRZ\  ![H"\.!I?___^ 3KD  %Z.6(\NC@:7____@#\\  E.
XMN0   *)4CSZ\__].N0  22Y.7DYU3E8  $CG 00J;@ (('D  'Z(((U8N0
XM?HA2>0  ?H)*GTS?( !.7DYU3E8  $CG QPJ;@ ('BX #2AN  Y'[0!6&-MF
XM_$J?3-\X@$Y>3G5.5@  2.<#!$ZY  !::#X OGS__V8&</]@  "2/H=.N0
XM6O P!\'\ C@J0-O\  "/ $IN  YF! !5 ! NO   ::\O+@ (3KD  %]*6(]*
XM0&8* %4  S '8%)@'BZ\  !IM"\N  A.N0  7TI8CTI 9@@ 50 %, =@,CZ\
XM !8O+@ (/P=.N0  74I<CTI 9Q8S_  C  !]CC/Y  !^<   ?9!P_V & %4
XM 3 '2I],WR" 3EY.=4Y6__Q"5S\N  PO+@ (80#_.ER/3EY.=4Y6__Q"5S\N
XM  PO+@ (80#_(ER/3EY.=4Y6__P^O  !/RX #"\N  AA /\(7(].7DYU3E;_
XM_$ZY  !)1CZN  A.N0   ,9.7DYU3E8  $CG P!"1V 6, ?!_  .T+P  'ND
XM+H!.N0  27A21[Y\ !!MY$J?3-\ @$Y>3G5.5@  2.<!!"IN  @P+0 "P'P
XM V<J+HU.N0  2F (+0 "  -G"BZM  1.N0  5EQ"0$C *T  ""M   1";0 ,
XM FW_@  "/I5.N0  2=!*GTS?( !.7DYU3E8  $CG#P0^+@ (/H=.N0  6UXJ
XM0" -9A8S_  )  !]CC/Y  !^<   ?9!P_V!.0D8P%<!\  9F%CZM  0_/  ^
XM3KD  &#N5(\\ &P"?/\^ATZY  !:\#Z'3KD  %JR2D9F!C &8!9@%#/\  4
XM 'V.,_D  'YP  !]D'#_2I],WR#@3EY.=4Y6__Q.7DYU3E8  $CG!P0J;@ (
XM,"T  L!\  JP?  "9BP@+0 (D*T !#P ;R ^AB\M  0_%4ZY  !9ZER//@"\
XM1V<* &T $  "</]@2@@M  $  V<>2JT !&<6""T  P #9P@[?  !  Q@!CM\
XM ?\ #& </KP  3 M  Q$0$C +P _%4ZY  !,/ER/0FT #"MM  0 "$) 2I],
XMWR# 3EY.=4Y6  !(YP,$3KD  %IH/@"^?/__9@9P_V   -8^ATZY  !:\# '
XMP?P"."I V_P  (\ 2FX #&8$ %4 "$IN  YF! !5 ! NO   ::\O+@ (3KD
XM %]*6(]*0&82 %4  SMN  P !# '8   AF >+KP  &FT+RX "$ZY  !?2EB/
XM2D!F" !5  4P!V!D/KP #R\N  @_!TZY  !=2ER/2D!G'CZ'3KD  %JR,_P
XM @  ?8XS^0  ?G   'V0</]@, !5  $^O  "0J<0+0 #2( _ $ZY  !,/ER/
XM0E="IQ M  -(@#\ 3KD  $P^7(\P!TJ?3-\@@$Y>3G5.5O_\0E<_+@ ,+RX
XM"&$ _O9<CTY>3G5.5O_\0E<_+@ ,+RX "&$ _MY<CTY>3G5.5O_\/KP  3\N
XM  PO+@ (80#^Q%R/3EY.=4Y6  !(YP$$/JX "$ZY  !;7BI ( UF%C/\  D
XM 'V.,_D  'YP  !]D'#_8"0^K@ ./RT !"\N  H_/ !"3KD  &#N4(\K0  &
XM E7_WR M  9*GTS?( !.7DYU3E;__#Z\  %"IS\N  AAE%R/3EY.=4Y6__)(
XMYP,$2^[_\CM\?_\ #" N  @K0  $*T  "#M\ ((  CJ\__\NC@:7    $"\N
XM  PO#4ZY  !-"%"//@ NC4)G3KD  %*^5(\P!TJ?3-\@@$Y>3G5.5OWD2.</
XM!"IN !!";OWL2JX #&< !&A@  1@0D4M;@ ,__)@!E*N__)212!N__)*$&<*
XM(&[_\@P0 "5FZ$I%;QPNK@ (/P4O+@ ,3KD  %).7(\M;O_R  S;;OWL(&X
XM# P0 "5 P%*N  Q$P&8 ! Y";OWJ(&X #! 02( > +!\ "U P%*N  Q$P&8.
XM(&X #!X04JX #%)N_>H=?  @__:^/  P9@X=1__V(&X #!X04JX ##U\___]
XM\+X\ "IF&BU-__@@;O_X/5#]\%2-(&X #!X04JX #& X8"I*;OWP; 1";OWP
XM$ =(@#(N_?##_  *T$'0?/_0/4#]\"!N  P>$%*N  R^/  P;0:^/  Y;\I\
XM_[X\ "YF#$)&(&X #!X04JX #+X\ "IF&"U-__@@;O_X/!!4C2!N  P>$%*N
XM  Q@*F <$ =(@#(&P_P "M!!/ #<?/_0(&X #!X04JX #+X\ #!M!KX\ #EO
XMV$)N_>B^/ !L9P:^/ !,9@Y2;OWH(&X #!X04JX #$'N_?(M2/_R$ =(@&
XM @Q2;OWH2F[]Z&<((#P  %A<8 8@/   61(CP   ?HPNN0  ?HP_/  !/SP
XM"B\.!I?___WR+PU.N0  5^K?_     Q*;OWH9P1P!& "< )(P-O 8  !SE)N
XM_>A*;OWH9P@@/   6%Q@!B \  !9$B/   !^C"ZY  !^C$)G/SP "B\.!I?_
XM__WR+PU.N0  5^K?_     Q*;OWH9P1P!& "< )(P-O 8  !>E)N_>A*;OWH
XM9P@@/   6%Q@!B \  !9$B/   !^C"ZY  !^C$)G/SP ""\.!I?___WR+PU.
XMN0  5^K?_     Q*;OWH9P1P!& "< )(P-O 8  !)E)N_>A*;OWH9P@@/
XM6%Q@!B \  !9$B/   !^C"ZY  !^C$)G/SP $"\.!I?___WR+PU.N0  5^K?
XM_     Q*;OWH9P1P!& "< )(P-O 8   TBU-__P@;O_\+5#_\EB-8   P"U-
XM__@@;O_X,!# ? #_'4#]\D(N_?-4C6   *00!TB /H _!B\.!I?___WR+PU.
XMN0  4<S?_     I8C7S_8   ?A '2( ^@#\&+PX&E____?(O#4ZY  !1E-_\
XM    "EB-?/]@6! '2( ^@#\&+PX&E____?(O#4ZY  !2!-_\    "EB-?/]@
XM-"ZN  @0!TB /P!.N0  4KY4CU)N_>Q@  #68!B0? !#L'P -6+:Y4 P0-'\
XM  !\A"!03M NKO_R3KD  %\<.@"\16P&2D9M CH&,"[]\)!%/4#][DIN_>IF
```

```
XM6 PN ##_]F8J(&[_\@P0 "UF(%-%+JX ""!N__(0$$B /P!.N0  4KY4CU*N
XM__)2;OWL8!@NK@ ($"[_]DB /P!.N0  4KY4CU)N_>PP+OWN4V[][DI ;MPN
XMK@ (/P4O+O_R3KD  %).7(_;;OWL8!@NK@ ($"[_]DB /P!.N0  4KY4CU)N
XM_>PP+OWN4V[][DI ;MQ@ /N@,"[][$J?3-\@X$Y>3G5.5O_X2FX $&P$< 9@
XM!# N ! ]0  0(&X "" 0+4#__#ZN ! O+@ ,+R[__$ZY  !A4E"/3EY.=4Y6
XM__A*;@ 0; 1P!F $,"X $#U  ! @;@ ((! M0/_\/JX $"\N  PO+O_\3KD
XM &-04(].7DYU3E;_^#ZN ! O+@ ,+RX "&$ _WY0CRU __PNK@ ,3KD  %\<
XM,BX $%Y!L$%O%#ZN ! O+@ ,+RX "&&,4(\M0/_\("[__$Y>3G5.5@  2.<#
XM#"IN  @^+@ ,*&X #@@L  ,  V<D0FP ##Z'+PT_%$ZY  !9ZER/L$=G"@!L
XM !   G#_8"I"0& F8!HNC! =2( _ $ZY  !2OE2/L'S__V8$</]@"C '4T=*
XM0&;>0D!*GTS?,(!.7DYU3E8  $CG P0>+@ )*FX "E-M  QM%A '2( B;0 (
XM$H# ? #_4JT "& 28! NC1 '2( _ $ZY  !3!%2/2I],WR" 3EY.=4Y6__Y(
XMYP\$'BX "2IN  I"1CH&""T  0 #9@9P_V   21*K0 $9E8(+0 #  -F3CZ\
XM @!.N0  5,XK0  $*T  "&8( &T "  "8#( ;0 $  (^E4ZY  !44DI 9P@
XM;0!   )@&#M\ ?X #! '2( B;0 ($H!2K0 (8   R @M  ,  V<.0>[__BM(
XM  0@""M   @@;0 ($(=2K0 (""T  P #9QIZ 3Z%+RT !#\53KD  %GJ7(\\
XM $)M  Q@;@@M  8  V<^OCP "F<0("T !-"\   " +"M  AB(B M  B0K0 $
XM.@ ^A2\M  0_%4ZY  !9ZER//  K;0 $  A";0 ,8"@@+0 (D*T !#H /H4O
XM+0 $/Q5.N0  6>I<CSP .WP!_P ,*VT !  (ND9G"@!M !   G#_8 @0!TB
XMP'P _TJ?3-\@X$Y>3G5.5@  2.<!!#ZN  A.N0  6UXJ0" -9@1"0& ."T
XM 0 !9@1"0& "< %*GTS?( !.7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$
XM0D!@!C 5P'P!!DJ?3-\@ $Y>3G5.5O_\/JX "&&62D!G"" \  !IKV "0H!.
XM7DYU3E8  $CG P0^+@ (7D?F3U)'/H=A'BI ( UF!$* 8 H^AR\-80  AEB/
XM2I],WR" 3EY.=4Y6  !(YP$,*'D  'UD*E1@6D) ,"T !$)!,BT !K- 1D!*
XM0&<./KP  4ZY  !7XD* 8#I"0# M  2P;@ (900@#& JN_D  'UD9AP^K@ (
XM80  IBI ( UF#CZ\  ).N0  5^)"@& &*$TJ56"D2I],WS  3EY.=4Y6  !(
XMYP$,(&X ""I00D P+@ ,6$"P;0 $90@@;@ (()5@1BA-0D P+@ ,YTA(0$)
XM2$#9P$) ,"T !)!N  PY0  $0D P+  $1D Y0  &*)4@;@ (((P[;@ ,  1"
XM0# M  1&0#M   8C[@ (  !]9" -4(!*GTS?, !.7DYU3E8  $CG PP^+@ (
XMWGP /^Q'[4<P!^= /H!.N0  68 J0+O\_____V8$0H!@*B -4H# O/____XJ
XM0"A-.4< !$) ,"P !$9 .4  !BZ,4)=A$" Y  !]9$J?3-\P@$Y>3G5.5@
XM2.<!#"IN  A1C4) ,"T !$)!,BT !K- 1D!*0&<0/KP  TZY  !7XG#_8
XMQ"AY  !]9+O,902[U&40N=1E"+O48PB[S&0$*%1@Z+O,93(@#4)!,BT !.=)
XM2$%"04A!T($B#$)"-"P !.=*2$)"0DA"TH*P@6(*(\P  'UD0D!@;B -0D$R
XM+0 $YTE(04)!2$'0@;"49AP@5# H  31;0 $0D P+0 $1D [0  &(%0JD& "
XM*I0@#$)!,BP !.=)2$%"04A!T(&[P&8:0D P+0 $T6P !$) ,"P !$9 .4
XM!BB58 (HC2/,  !]9$) 2I],WS  3EY.=4Y6__Q(YP,,*FX ""Z-80#^\CXN
XM  Q>1^9/4D<^AV$ _8@M0/_\9@1"@&!*(&[__"A04(R[S&<RN<UD$& &&-U3
XM;@ ,2FX #&;T8!Y"@# N  S9P$* ,"X #-O 8 89)5-N  Q*;@ ,9O0^AR\N
XM__QA /VN6(]*GTS?,(!.7DYU3E;__$Y>3G5.5O_\3EY.=4Y6__!(YP,,+PX&
XME_____ _+@ 2/RX $"\.!I<    ,+RX ""!N !1.D-_\    $"I ( [0O/__
XM__"[P&8"0ATH;@ ,8!(>)4B'WGP ,+Y\ #EO EY'&,<@#M"\____\+O 9N)"
XM%" ,2I],WS" 3EY.=4Y6__Q(YP\$+7P  'X2__PJ;@ 4/"X $$C&(&X ""X0
XM#&X $  09AIZ"& ,( ? ?  /&L#HAU-%2H=G!$I%9NQ@: QN  @ $&8D>@M@
XM#" 'P'P !QK YH=314J'9P1*16;L2D5F!@(M  /__V \2FX $F<:2H=L%B!N
XM  P@4!"\ "TB;@ ,4I$@!T2 +@!@%BZ&+P=.N0  7^I8CRX (&[__!KH  -*
XMAV;F( U*GTS?(.!.7DYU3E;__$CG!P0@;@ (,!!(P"U __P@+O_\P+P  /__
XM/@ J;@ 4/"X $$IN !)G'$I';!A"0# '1$ ^ "!N  P@4!"\ "TB;@ ,4I%@
XM$D* , > QDA &L!"@# '@,8^ $I'9NH@#4J?3-\@P$Y>3G5.5@  2.<####XN
XM  A(Q\Z\  #__P@'  !G E*'*GD  'YL*$?9^0  ?FPNC$ZY    AK!\__]F
XM%C/\  P  'V.,_D  'YP  !]D'#_8!(^K@ (0F<O#4ZY    T%R/( U*GTS?
XM,(!.7DYU3E8  $CG 00^K@ (3KD  %M>*D @#68$</]@6$IN  YF!$) 8$X(
XM+0 #  %G%C/\  D  'V.,_D  'YP  !]D'#_8# (+0 $  %G%CZN  XO+@ *
```

```
XM+PU.N0  6\!0CV 48!(^K@ .+RX "B\-3KD  %S04(]*GTS?( !.7DYU3E8
XM $CG!P!\ 4)'8!@@!L"Y  !]:&8*C;D  'UH, =@'N.&4D>^?  0;>(S_  8
XM  !]CC/Y  !^<   ?9!P_TJ?3-\ P$Y>3G5.5O_\< $R+@ (XV!&0$C P;D
XM 'UH0D!.7DYU3E8  $CG P!"1V &/H=A$E)'OGP $&WT2I],WP" 3EY.=4Y6
XM  !(YP$,,"X ",'\ C@J0-O\  "/ #+ N  @;0  #+0E5"+0 "*WS_____  I"
XMK0 &0JT #+CZ\ "!"9R\-!I<    23KD   #+07(\^O  +/SP ("\-!I<    3
XM3KD   #+07(]*GTS?, !.7DYU3E8  $CG P0^+@ (OGP $&46,_P "0  ?8XS
XM^0  ?G   'V00H!@,$) , ? _ (X*D#+;_   CP (+0    %F%C/\  D  'V.
XM,_D  'YP  !]D$* 8 (@#+4J?3-\@@$Y>3G5.5O_Z2.<#+#"IN  @H;@ ,/BX
XM$$) /4#+_^CU __Q@  #+(8 12;O_ZOF[_^F,0($R3R3)N__K1R0P0  IFYD)
XM,"[_^I!N__QC9CZ\  $_+O_Z0D P+O_\D5<@#+$*!,B[__-"!+P O+0 &+PT&
XMEP   !).N0  8++?_     X]0/_^0H P+O_^T:T !DIN__YF%C/\  4  'V.
XM,_D  'YP  !]D'#+_8%X];O_Z__Q@.%)N__H^O  !/SP  2\\  !];"\M  8O
XM#+0:7    $DZY  !@LM_\    #+CU __Y"@#+ N__[1K0 &OF[__&( _S0@+0 &
XML*T #+F\&*VT !@ .0D P+O_\2I],WS" 3EY.=4Y6__Y(YP$$*FX "#+Z\  $_
XM+@ 0+RX #+"\M  8O#+0:7    $DZY  !@LM_\    #+CU __Y*;O_^9A8S_  %
XM  !]CC/Y  !^<   ?9!P_V @0H P+O_^T:T !B M  :PK0 .;P8K;0 &  Y"
XM0#+ N__Y*GTS?( !.7DYU3E;_^DCG QPJ;@ *,"X ",'\ CC0O   CP M0/_\
XM?O\NC6$  .PF36 "4HM*$V<&#+!, .F;T2A-G'!UC__H,+@!!__IM#+ PN $__
XM^FX$*DM@!$OK  (P+@ .8   D$)7+PT_/  \3KD  &#+N7(\^ &\*(&[__#+%'
XM  1"1V   (9"5R\-/SP 3DZY  !@[ER/2H!G!$) 8 0P/ #+_/@!@9#+Z\ $].
XMN0  8.Y*@&<$0D!@!#+ \ /\^ &!*+HT_/  ]3KD  &#+N5(\^ &\*(&[__#+%'
XM  1"1V L+HT_/ !!3KD  &#+N5(\^ & :8!B0?  /L'P !V(.Y4 P0-'\  !]
XM;B!03M P!TJ?3-\X@$Y>3G5.5O_\(&X " P0 &%M$B!N  @,$ !Z;@@@;@ (
XM!!  ("!N  @0$$B 4JX "$H 9M1.7DYU3E8  $CG 0PJ;@ ,*&X "& "4HQ*
XM%&;Z&-UF_" N  A*GTS?, !.7DYU3E8  $CG!PPJ;@ (*&X #+& 4'AT<'+X&
XM;P1P 6 :O@9L!'#+_8!)*%6<$2A1FY! 52( 2%$B!D$%*GTS?,,!.7DYU3E8
XM $CG 0PJ;@ ,*&X "!C=9OP@+@ (2I],WS  3EY.=4Y6  !(YP$,*FX ""A-
XM8 )2C$H49OH@#+$C D(U*GTS?, !.7DYU3E;__$Y>3G5.5@  2.<'#+"IN  @H
XM;@ ,8"00'4B /H!A,!X $!Q(@#+Z 828< +X&;P1P 6 2O@9L!'#+_8 I*%6;8
XM2A1FU$) 2I],WS# 3EY.=4Y6  !(YP, /BX "+Y\ &%M"KY\ 'IN!-Y\_^ P
XM!TJ?3-\ @$Y>3G4@7T* ,!]:@ B    B>0  ?FQ#+Z0$ 0_$( +_)8@9.^0
XM +B?P$/O  0@"4[03E8  $CG'P N+@ (+"X #+$J&9A8C_(       'X2(#+R
XM    @/P  &!(O(=C"B/'  !^$D* 8#+J^AF8&>@%"AV H> &^AF4.( ;C@+R
XM8@;CAN.$8.Y"A4J$9PZ^AF4$BH2>AN*,XHY@[B/'  !^$B %2I],WP#+P3EY.
XM=4J%9PHNO/____^+_   3G5.5O_Z(&X "#+UH__+__BZN ! P;@ 6+P@P;@ 4
XM+PA.N0  8/Y0CR\ /R[__C\\ #+].N0  8.Y0CTY>3G5.5O_Z(&X "#+UH__+_
XM_BZN ! P;@ 6+P@P;@ 4+PA.N0  8/Y0CR\ /R[__C\\ $!.N0  8.Y0CTY>
XM3G4CWP  ?I!.02\Y  !^D$YU3E;__$)"2JX "&P&1*X "%)"2JX #+&P&1*X
XM#+%)","X "L#+N  XM0/_\,"X ",#+N  XR+@ ,PNX "M!!T&[__#+U __P@+O_\
XM" (  &<"1(!.7DYU3E;_^$CG'P M;@ ,__Q*;@ 0;@1P 6 2#+&X %@ 0;P1P
XM%V &,"X $%) . !"1T*G+RX "$ZY  !EA%"/;!P@;@ ,$+P +5*N  PO+@ (
XM3KD  &;Z6(\M0  (0J<O+@ (3KD  &6$4(]O+F 8+SR@  !$+RX "$ZY  !F
XMVE"/+4  "%-'+SR   !!+RX "$ZY  !EA%"/;=1@&"\\H   1"\N  A.N0
XM9:)0CRU   A21R\\H   1"\N  A.N0  9810CVS4V$=\ 3 &2, O $ZY  !E
XMPEB/+4#+_^& 8+SR@  !$+R[_^$ZY  !EHE"/+4#+_^%)&O$1MY"\\@   0B\N
XM__A.N0  9:)0CR\ +RX "$ZY  !E9%"/+4  ""\\H   1"\N  A.N0  9810
XMCVT*+7R   !!  A21TI';#+0@;@ ,$+P ,%*N  P@;@ ,$+P +E*N  Q*1&P"
XMGD1\_V .(&X #+!"\ #+!2K@ ,4T:\1V[N0D9@:B\N  A.N0  9E)8CSH , 70
XM?  P(FX #+!* 4JX #+Q'9@P@;@ ,$+P +E*N  PP!4C +P!.N0  9<)8CRU
XM__@O "\N  A.N0  9Q90CRU   @O/*   $0O+@ (3KD  &;:4(\M0  (4D:\
XM1&V2(&X #+$(04JX #+" N__Q*GTS? /!.7DYU3E;_^$CG'P M;@ ,__Q*;@ 0
XM;@1P 6 2#+&X %@ 0;P1P%V &,"X $%) . !"1T*G+RX "$ZY  !EA%"/;!P@
```

```
XM;@ ,$+P +5*N  PO+@ (3KD  &;Z6(\M0  (0J<O+@ (3KD  &6$4(]O+F 8
XM+SR@  !$+RX "$ZY  !FVE"/+4  "%-'+SR   !!+RX "$ZY  !EA%"/;=1@
XM&"\\H   1"\N  A.N0  9:)0CRU   A21R\\H   1"\N  A.N0  9810CVS4
XM? $P!DC +P!.N0  9<)8CRU __A@&"\\H   1"\N__A.N0  9:)0CRU __A2
XM1KQ$;>0O/(   $(O+O_X3KD  &6B4(\O "\N  A.N0  9610CRU   @O/*
XM $0O+@ (3KD  &6$4(]M"BU\@   00 (4D="1F!J+RX "$ZY  !F4EB/.@ P
XM!=!\ # B;@ ,$H!2K@ ,2D9F#"!N  P0O  N4JX ## %2, O $ZY  !EPEB/
XM+4#_^"\ +RX "$ZY  !G%E"/+4  ""\\H   1"\N  A.N0  9MI0CRU   A2
XM1KQ$;9(@;@ ,$+P 15*N  Q*1VP2, =$0#X (&X #!"\ "U2K@ ,, =(P('\
XM  K0?  P(FX #!* 4JX ## '2,"!_  *2$#0?  P(FX #!* 4JX #"!N  Q"
XM$%*N  P@+O_\2I],WP#P3EY.=4Y6__Q(YQ\ +BX ""PN  Q.N0  9U@@!TS?
XM /A.7DYU3E;__$CG'P N+@ (+"X #$ZY  !H*DS? /A.7DYU3E;__$CG'P N
XM+@ (+"X #$ZY  !H6B '3-\ ^$Y>3G5.5@  2.<' $JN  AL#GP!("X "$2
XM+4  "& "0D9*K@ (9@1"@&!>?AA@#" N  CB@"U   A2AR N  C O'\   !F
XMZ& ,("X ".. +4  "%.'""X !P )9^P@+@ (X8 M0  (WKP   ! ( ? O
XM '^!K@ (2D9G" "N    @  (("X "$J?3-\ P$Y>3G5.5@  2.</ " N  C
XMO    '_0O/___\ \ $JN  AG!$I&; 1"@&!6("X ","\    @#H O'P 'V\4
XM2D5G"" \@    & &(#Q_____8# N+@ (X(?.O #___^<?  88 3BAU)&2D9M
XM^& $XX=31DI&;OA*16<&( =$@"X ( =*GTS? .!.7DYU3E;__$CG'P N+@ (
XM+"X #$ZY  !HS" '3-\ ^$Y>3G5.5O_\2.<? "XN  A.N0  9SP@!TS? /A.
XM7DYU3E;__$CG'P N+@ (+"X #$ZY  !G1B '3-\ ^$Y>3G7./ !_3G5*!V<$
XM"@< @$YU& 9G4@H$ (!K:AH':VQF#F ^& 9K7F<^&@=K7F<RF@1K.!@'NCP
XM&&0L)@9" ^JK'CP @-Z#900>!$YUXI=2!&D"9/1^_U,$'@0 /  "3G4N!AX$
XM3G5*!TYUNCS_Z&_P1 4F!D('ZJ\6/ " WH-ES!X$3G4:!VNF9]9V@+<%F@1G
XM4&L\NCP &&3,& <> R8&0@/JJYZ#:Z :!$('4P2^O   ?_]B!DA'F#P $-Z'
XM6\S__+D%:P8>!&<"3G5^ $YUNCS_Z&^*1 4F!RX&'CP @&"^&@?+1!X&GH9G
XMX&JZ1(<8!6"VO@9F KZ&3G5*!TYUCOP  $J&9AR.O/___W]*!P \  ).=4A&
XM2$>]!V#J:_I^ $YU&@9GV"@'9^AV@-I%V$2W!;<$F 5IY$('2$=(1KY&:P94
XM!&G.XI](1QH#NT3B3"8'AL8Z \;&GH-(1TA&-@9" \;%GH-D""8&0@/>@U-%
XM)@9(0T)'CL-(16L(.@?:A5,$/@4Z!]J\    @"X%'@1GC$YU&@=G4A@&9VC:
XM1=A$=H"W!+<%V@1I7A@#N47B74A%.@9"!T(%. 7(QTA$)@=(0\;%V(-(1B8&
XMQL?8@T)$V01(1$A'SL9(1DA%WH1J#-Z\    @!X%9QI.=5,%:11E$GA WH3>
XMAV0$XI=2!1X%9P).=7X 3G5J^KT'CKS___]_2@< /  "3G5M8S8X,S0S(&9L
XM;V%T:6YG('!O:6YT(&9I<FUW87)E("AC*2!C;W!Y<FEG:'0@,3DX,2!B>2!M
XM;W1O<F]L82!I;F,N %-T86-K($]V97)F;&]W)$,@<G5N=&EM90!#3TXZ $Q3
XM5#H &@  :PC__P
XM
XM                                             0   #X /@ #  (
XM @ # #D   !!    00   $$   !!     '4P  $      0   0 !    00
XM                  $  @ #     2X 7P @     0        4
XM                1    $D   !0    4@   %,   !6    9    &D   !P
XM    <@   ',   !V         A8   'R   !C    70   &    !:    A8
XM  'R   !C    70   &    !:    E!V+C$N,0 * "YS;R  <@ E<SH@8V%N
XM;F]T(&]P96XN"@!W "5S.B!C86YN;W0@8W)E871E+@H* '!R;V9F(')E860@
XM:6X@)39D('1E>'1L:6YE<R!T;R!P<F]D=6-E"@ @(" @(" @(" @(" @("4V
XM9"!L:6YE<PH (" @(" @(" @(" @(" E-F0@<&%G97,@;V8@9F]R;6%T=&5D
XM('1E>'0N"@ *)60@8GET97,@;V8@;65M;W)Y('=A<R!R97%U:7)E9 H 9F]R
XM(&EN=&5R;F%L('1A8FQE<R!A;F0@;&ES=',N"@  !P @(" @(" @9&]N92X*
XM  H )7-I;G-E<G0@<&%P97(@86YD('1Y<&4@<F5T=7)N( !T;V\@;6%N>2!C
XM:&%R86-T97)S('!U<VAE9"!B86-K+@H ,# M>'AX+3$Y,# @,# Z,# Z,#
XM "5S"@!U<V%G93H@<')O9F8@6RMN72!;+6Y=(%LM=ET@6RUI9FEL95T@6RUS
XM72!;+7!O;ET@:6YF:6QE(%MO=71F:6QE70H
XM
```

```
XM     0(#! 4&!P@)"@L,#0X/$!$2$Q05%A<7&1H;'!T>'P ! @,$!08'" D*
XM"PP-#@\0$1(3%!46%Q@9&@          "0   "     B    ,    #$    R
XM    ,P   #0    U    -@   #<    X    .0   %P   !>        (G
XM ")P   BM   (MP  "+<   BW   (MP  "+<   BW   (MP  "+<   BW
XM(MP  "*$   BF   (RQI;7!R;W!E<B!A<F=U;65N="!L:7-T+@!N;VXM87-C
XM:6D@8VAA<B!V86QU92!I;B!W<FET92!S=')I;F<N    =I8 %0
XM=ID &P    !MX   =IP &0          =I\ (0 !        =J$ '0
XM    =J0 .0    !N$   =JX 'P          =K$ )0    !N*   =K0 *0 !
XM        =K8 (0          =KD 8P    !N3   =KP 9P    !N6   =K\
XM6P          =L( !0 !        =L8 "P !  !N?   =LD 8P !  !NB
XM=LP ;0 !  !NE   =L\ !P !        =M, "0    !NK   =M8 -0
XM    =MD :0    !NQ   =MP #P !        =M\ -0    !NW   =N0 -P !
XM  !NZ   =N< /P    !N]   =NH 90 !  !O    =OH "0 !        =O\
XM$0    !O&   =P( $P    !O)   =P@ (P    !O,   =PL 00    !O/
XM=PX "0 !        =Q$ &P    !O5   =Q< )P    !O8   =QH 0P    !O
XM;   =QT 30 !  !O>   =Q\ %P          =R( .0 !  !OD   =R4  P
XM        =RH #P !  !OJ   =S  )0    !OM   =S< )P !  !OP   =SH
XM&0          =T$ 90 !  !OV   =T4 10          =T@ 7P    !O\
XM=TP 40          =T\ 7P    !P"   =U( #0          =U4 80    !P
XM(   =U@ (0 !        =UT *0    !P.   =V  *P    !P1   =V, 1P
XM  !P4   =V8 20 !  !P7   =VD .P          =VP :P !  !P=   =V\
XM4P          =W( *P !        =W8 2P    !PF   =WD 10 !
XM=WP 30    !PL   =W\ 40 !  !PO   =X0 -0 !        =X< /0    !P
XMU   =XH 2P !  !PX   =XX 60    !P[   =Y$ 5P          =Y0 60
XM  !Q!   =Y@ "P !        =Y\ 3P          =Z( 50    !Q*   =Z<
XM70          =ZL 50          =ZX 70    !Q3   =[$ ;P    !Q6
XM=[0 30 !        =[D 2P          =\$ %0          =\@ *P !  !Q
XMB   =]  -P          =]< 6P    !QH   =]X  0          =^0 1P
XM  !QN   =^L :P !        =_, !P !        > $ #0 !        > H
XM(P          >!$ /P    !Q]   >!@ ;P    !R    >!X 10 !
XM>"< 2P          >"X +0          >#$ !0 !        >$  +P    !R
XM/   >$, ,0          >$8 9P    !R5   >$\ ;0 !  !R8   >%H ,P
XM        >%T -0 !  !R>   >&8 80          >'$ )P !        >'P
XM2P !  !RG   >(0 3P          >(L 4P    !RM   >)4 5P
XM>)T 20 !        >*D *0 !        >+$ /0          >+@ 8P !
XM    >,8 :0          >-   P          >-, !0    !S%   >-8 $P
XM  !S(   >-D !P          ;>P  &WX  !N!   ;AP       !N-   ;D
XM &YD  !N<   ;J   &ZX  !NT   ;PP  &](        ;X0  &^<  !OS
XM     &_D  !O_   <!0  ' L  !P:   <(   '",  !PI   <,@  '#X  !Q
XM$   <1P  '$T  !Q0   <60                              <7   '%\
XM  !QE             !QK             !QQ        ''0  !QW   <>@
XM                '(,  !R&   <B0  '(P  !R2   <FP  '*$  !RD
XM          !RJ   <L                              <LP
XM                                !RV        '+D
XM                  !R\        '+\        <P@
XM      !S+   <S@     )/   #+(   RT   )F(  #+0   L@@  ,M   "R,
XM   RT   )QX  #+0   M @  ,M   "S.   RT   )28  #+0   PH   ,M
XM "_X   RT   )5@  #+0   Q@   ,M   #&N   RT   ,$H  #+0   OP
XM,M   "^(   RT   )00  #+0   FZ@  ,M   ":V   RT   )Z@  #+0   P
XMQ@  ,M   "4P   RT   +E   #+0   ND@  ,M   "[4   RT   +RX  #+0
XM   P<   ,M   "46   RT   ,-(  #+0   QT@  ,M   #%X   RT   ,7P
XM #+0   OW   ,M   "^D   RT   +<(  #+0   N*   ,M   "?@   RT
XM,-P  #+0   G=@  ,M   #)2   RT   * P  #+0   EJ   ,M   "RN   R
```

```
XMT   ++X  #+0   H.   ,M   "DX   RT   *3P  #+0   J'   ,M   "B\
XM   RT   +)@  #+0   LI   ,M   "KX   RT   *]0  #+0   M)   ,M
XM "U@   RT   +7!C90!E8P!D90!F &5F &YO:G5S=&EF>0!E: !H90!J &9I
XM &YA &-L &EG &1B;P!P80!A< !E; !E8F\ 8G  ;F4 <&, 8G( ;F5E9 !N
XM9@!O90!N;V%U=&]P87)A9W)A<&@ <&%G90!B<P!C8VAA<@!F;P!O9@!P9P!E
XM8VAA<@!I;@!O: !S &-U &YJ &)O;&0 8G)E86L :&5A9&5R &QM &1E9FEN
XM90!N87  <&P 9V5T '1I '9G &YP '!N &9I;&P :G4 ;', <&\ <FT ;G(
XM;'0 =6P <W!C '-O '!S '-P &QE9G0 ='  ;W4 <F5Q &QX ')S &QE> !P
XM86=I;F< <W0 <V%V90!S970 <W8 =G, =W( <VMI< !I;F-L=61E &-E;G1E
XM<@!S<&%C:6YG &YO9FEL; !I9VYO<F4 <F5S970 ;V9F<V5T &QI=&5R86P
XM96YA8FQE8F]L9&EN9P!N;W!A9VEN9P!F;V]T97( ;W5T96YD '=R:71E '!A
XM9V5S:7IE '-O=7)C90!M,0!D:7-A8FQE8F]L9&EN9P!M,@!M,P!C;VYT;&EN
XM90!E;F1L:71E<F%L &TT '1E<W1P86=E '!A9V5N=6UB97( ;&5F=&UA<F=I
XM;@!R97%U:7)E '-K:7!T;P!U;F1E<FQI;F4 <F5S=&]R90!R:6=H=&UA<F=I
XM;@!J=7-T:69Y &]U='!U= !A=71O<&%R86=R87!H '!R:6YT8V]N= !B9 !D
XM8@!C8P!E8@!O;@!O9F8 86QL '=O<F1S "5S('5N9&5F:6YE9"X* ')O;6%N
XM &%R86)I8P E8R5S(&1O97,@;F]T(&AA=F4@)7,@;W!T:6]N+@H :6QL96=A
XM;"!V87)I86)L92!N86UE("5S"@ E<SH@ "5C)7,@;F5E9',@82!V87)I86)L
XM92!N86UE+@H :6QL96=A;"!V87)I86)L92!N86UE("5S"@ E<P E8R5S(&YE
XM961S(&$@=F%R:6%B;&4@;F%M92X*  H /R!33R!C;VUM86YD<R!N97-T960@
XM=&]O(&1E97!L>2X <@!S;W5R8V4@)7,* "5S.B!C86YN;W0@;W!E;BX* &EN
XM=F%L:60@;G5M8F5R(')E9VES=&5R(%LE8UTN #\@0F]T8V@@:6X@8V]M;6%N
XM9"X )6,E<R!I<R!N;W0@82!R=6YO9F8@8V]M;6%N9"X* '5N:VYO=VX@8V]M
XM;6%N9" E8R5S"@  ;6ES<VEN9R!N86UE(&EN(&-O;6UA;F0@9&5F+@!D969I
XM;FET:6]N('1O;R!L;VYG+@H ;F\@<F]O;2!F;W(@;F5W(&1E9FEN:71I;VXN
XM"@!M:7-S:6YG(")](B!I;B E<PH )35D"@              >L   'K7<V%V
XM93H@<W1A8VL@;W9E<F9L;W<N"@!R97-T;W)E.B!S=&%C:R!U;F1E<F9L;W<N
XM"@   'L:  ![&P  >QT  'L@  ![)   >R<  'LI  ![+   >S   'LU $D
XM24D 24E) $E6 %8 5DD 5DE) %9)24D 25@ 25983$-$30!83$-$32HJ #H@
XM=6YM871C:&5D('%U;W1E $-A;FYO="!O<&5N( !#86YN;W0@87!P96YD( !#
XM86YN;W0@8W)E871E(  Z($YO(&UA=&-H %-T86-K($]V97)F;&]W   -"B0
XM     0               0 *               "  H               ,
XM                !                   %                   8
XM            !P                 (                  D
XM        "@                 +                  P
XM    #0                   .                   \
XM % *  !.I@  4"8  %!,  !0<   4)0  %"4  !0E   4)0  %"4  !0E
XM4)0  $]0  !0E   4)0  %"4  !/^   4)0  $[\  !0E   4)0  $^D  !0
XME   4)0  %"4  !0E   4)0  %"4  !0E   4)0  %"4  !0E   4 H  $ZJ
XM  !0)@  4$P  %!P  !0E   4)0  %"4  !0E   4)0  %"4  !0E   3U0
XM %"4  !0E   4)0  $_X  !0E   3P   %"4  !0E   3Z@  'U<  #__P
XM?5P     #0   %X$  !>3@  7<H  %WJ  !>(@  7DX  %Y.  !=J      !
XM 0$! 0$! 0$A(0$A(0$! 0$! 0$! 0$! 0$! 0$! 2(" @(" @(" @(" @("
XM @($! 0$! 0$! 0$ @(" @(" @@(" @(" @(" @(" @(" @(" @(" @(" @(
XM @(" @("$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! " @(" 0    !#4"]-
XM+38X2RAT;2DL(%9E<G-I;VX@,2XR+"!#;W!Y<FEG:'0@*&,I(#$Y.#,L($1I
XM9VET86P@4F5S96%R8V@@6%A86"TP,# P+38U-#,R,0      !%(.& 88& R"
XM+ P,,@P4!@X*!@H&!A((* H:!AH&""0&%AX&!@P<"@@,!@8," 0&!@0B$A8&
XM" 8(!@@&"@8&! @*!@@(#A8&"@@(!@8&" 8&!@@&!@8(!@8&" 8&"M00" 8,
XM!@P*!@88!B 0!A(0% 8*'@@*"@H*!@@&!@@((AX6# H! ;@("@8&" I^" 8,
XM#$ T"@@4!@8.!@8." H(!@@*$ 0&!@@&"@@&"@@*!@@,$@8&#@8&# H&"!X&
XM!@H&!@8B" 8.% H(# H*# H*"A 4!@0&" 8*"@8,!@8&&@@(!@8&%"P,&!P<
XM(BHX"AP*$ P20AH0& H0" H0%)H,"@@>!@@,"!(($ 8&2 8!/A08&"0('@8(
```

```
XM'@8(&" 86*)J<@IB 3X&!@P!@EX&!@I@0@QD, P,#C(,FE1 " 8(" 8&!@@(
XM" @(!@@((A(4!@@(" @(" 8&!@8(!@@&" 8(!@8$!@0&! 8$!@0&! 8$!@0&
XM!@8(" 8&!@8($A0&!@8&" 82#@8*!@H:#@P&%@8*" H&!A ,!@H&# H*!B9&
XM*K82!MI*&! &&D &" HB0!0:'#H*(A(&' 8B# @*!@H<!A .#@88!A@2!AP&
XM#!X&#@80!@X&#! .!A@&$ 8*" 8*# 8*" 8*# H&# X.!@P$(A *!A(&# 0.
XM$@80!A &$ XB#!X2!@8,#@X(#@P8"@8&&AX&!B06!@80#!82"@8&%AX&!A 2
XM#@8&!A ,%A(*!@88"!X>,@@*!@P(# 8(!A(&! H,!@@*!@8&"@H6% 8(!A(,
XM# H*!@H&"@8$" 8&!@8*" 8&! H&"@@&!@8("@8*&!(0& X&" @4!@P&!@8*
XM$@80!@@(%@80!@@(%@80!@@(%@8,!@8&"@8("!8&# 8&!@H&"@P&"@P&"@P&
XM"@X&"@H(!@@&"@8,!@H*# 8(!@H&&@82"A .!@8."@P*"! &!A(&!A86!A *
XM#BH&'"@(& X:$ @("@P(" @&%!@*0@H.& H&!C8*!@8P(!(&%"PJ&"80!@86
XM# 8&*KH*8"!N'@A"!@9><&P4IJHH+#@@& P&!A0&"@8*"@P,# P,# P,# P,
XM# P,# P*$ H&!@@&" 8(!@@&" 8(!@@&" 8(!@@&" 8(!@@&" 8(!@@&# 8(
XM" @(!@8T9@8H&@X8)'@R)!84'K@&-@@&# 8,!B L(@8@-% F"@H(!AY<)@8$
XM(!I$ 1Q.!@8&!B L#D0H#! 4%A@2%!(6$@X6$A P"A(8/ 8&# 8,!@8*(!0(
XM#A0,%@@&/A8.$ H6"AX.!@1H"AP(,!(>'@X&!!P0"!(&!$A.)A8.&@H>"AX.
XM" 8$'!1J#@8$&FH.8 %>" 8&&"H(!@86*@@&!A8J" 8&%F F)!P@#D0>(AI6
XM."I2)%I&(%Q *$(T+DHB&AJ&+C@V#$IP 1Z,K @(#@8$$B D!@0<%B((%@8$
XM(D R&"8&!!00!@2((@8$'A)F& 8$2%(B'!P>' &&$B@6/$ 2*A(,") :$A88
XM%A@4&!P.%E0P$A9>&A(6&!88$A@<#A8<,!(6BB > 3H<( $!E@$<! 0$! 0$
XM! 0$! 0$ 0%B! 0$! 0$! 0$! 0$! 0$0@P(! P,# @$# @$# P(! @$# P(
XM! @$" 0," 0," 0," 0(! @$" 0," 0(! @$" 0," 0(! @$" 0," 0," 0(
XM! @$# @$# @$# @$# @$# @$" 0(! @$# @$# P(! P(! @$# @$" 0(! P(
XM! P," 0,# @$" 0,# P(! P(! P(! P,# P(! @$# P,# @$# @$" 0," 0,
XM# @$# @$# P,# P,# @$" 0,! 0$" 0$! 0$! 0$" 0$" 0$! 0$! 0$! 0$
XM! 0$& 0$# P(! 00! 0$! 0$! P$&" (' @(% 0&! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$ 0$! 2X$-@0$! 0$! 0$! %P! 0$! 0$! 0$! 0$! 0$! 0$! 0$
XM! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$! 0$" H$! 0$! 0$ &$
X< Q8J;@ (8  "3F "4HU*%6<4$!5(@$C T+P   0$
X
Xend
SHAR_EOF
if test 46940 -ne "`wc -c 'proff.uud'`"
then
     echo shar: error transmitting "'proff.uud'" '(should have been 46940
characters)'
fi
#    End of shell archive
exit 0
--
```


                        Jwahar R. Bammi
                    Usenet: .....!decvax!cwruecmp!bammi
                     CSnet: bammi@case
                   Arpa: bammi%case@csnet-relay
                CompuServe: 71515,155


```
From 3666022276856002993
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,74e6e008ea2ffbb,start
X-Google-Attributes: gid140593,public
```

X-Google-ArrivalTime: 1986-03-21 20:14:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 1 of 6
Message-ID: <1441@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:14:13 EST
Article-I.D.: cwruecmp.1441
Posted: Fri Mar 21 23:14:13 1986
Date-Received: Sun, 30-Mar-86 08:26:08 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 1063

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind1.prf
#    wind2.prf
#    wind3.prf
# This archive created: Fri Mar 21 22:40:48 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'wind1.prf'" '(13142 characters)'
if test -f 'wind1.prf'
then
     echo shar: over-writing existing file "'wind1.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind1.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!
X.!*****************************************************************************
X.!
X.!           Begin Part I
X.!
```

X.!***
X.!
X.PART I Windows
X.SH IN THE BEGINNING
XIn GEM, creating a window and displaying it are two different functions. The
Xcreation function is called wind_create, and its calling sequence is:
X.FB wind_create()
Xhandle = wind_create(parts, xfull, yfull, wfull, hfull);
X.FE
XThis function asks GEM to reserve space in its memory for a new window
Xdescription, and to return a code or "handle" which you can use to refer to the
Xwindow in the future. Valid window handles are positive integers; they are not
Xmemory pointers.
X.PP
XGEM can run out of window handles. If it does so, the value returned is
Xnegative. Your code should always check for this situation and ask the
Xprogram's user to close some windows and retry if possible. Handle zero is
Xspecial. It refers to the "desktop", which is predefined as light green (or
Xgray) on the ST. Window zero is always present and may be used, but never
Xdeleted, by the programmer.
X.PP
XThe xfull, yfull, wfull, and hfull parameters are integers which determine
Xthe maximum size of the window. Xfull and yfull define the upper left corner of
Xthe window, and wfull and hfull specify its width and height. (Note that all of
Xthe window coordinates which we use are in pixel units.)
X.PP
XGEM saves these values so that the program can get them later when processing
XFULL requests. Usually the best maximum size for a window is the entire
Xdesktop area, excepting the menu bar. You can find this by asking wind_get for
Xthe working area of the desktop (handle zero, remember):
X.FB wind_get()
Xwind_get(0, WF_WXYWH, &xfull, &yfull, &wfull, &hfull);
X.FE
XNote that WF_WXYWH, and all of the other mnemonics used in this article, are
Xdefined in the GEMDEFS.H file in the ST Toolkit.
X.PP
XThe parts parameter of wind_create defines what features will be included in
Xthe window when it is drawn. It is a word of single bit flags which indicate
Xthe presence/absence of each feature. To request multiple features, the flags
Xare "or-ed" together. The flags' mnemonics and meanings are:
X.BO
XNAME - A one character high title bar at the top of the window.
X.EO
X.BO
XINFO - A second character line below the NAME.
X.EO
X.BO
XMOVER - This lets the user move the window around by "dragging" in the NAME
Xarea. NAME also needs to be defined.
X.EO
X.BO
XCLOSER - A square box at the upper left. Clicking this control point asks
Xthat the window be removed from the screen.

```
X.EO
X.BO
XFULLER - A diamond at upper right.  Clicking this control point requests
Xthat the window grow to its maximum size, or  shrink back down if it is already
Xbig.
X.EO
X.BO
XSIZER - An arrow at bottom right.  Dragging the SIZER lets  the user choose
Xa new size for the window.
X.EO
X.BO
XVSLIDE - defines a right-hand scroll box and bar for the window. By dragging
Xthe scroll bar, the user requests that the  window's "viewport" into the
Xinformation be moved.   Clicking on the gray box above the bar requests that
Xthe window be moved up one "page". Clicking below the  bar requests a down page
Xmovement.  You have to define  what constitutes a page or line in the
Xcontext of your application.
X.EO
X.BO
XUPARROW - An arrow above the right scroll bar.  Clicking here requests that
Xthe window be moved up one "line".  Sliders and arrows almost always appear
Xtogether.
X.EO
X.BO
XDNARROW - An arrow below the right scroll bar.  Requests that  window be
Xmoved down a line.
X.EO
X.BO
XHSLIDE - These features are the horizontal equivalent of the RTARROW
Xabove.  They appear at the bottom of the window.  Arrows LFARROW  usually
Xindicate "character" sized movement left and right. "Page" sized
Xmovement has to be defined by each application.
X.EO
X.PP
XIt is important to understand the correspondence between window features and
Xevent messages which are sent to the application by the GEM window manager.  If
Xa feature is not included in a window's creation,  the user cannot perform the
Xcorresponding action, and your application will  never receive the matching
Xmessage type.  For example, a window without a  MOVER may not be dragged by the
Xuser, and your app will never get a WM_MOVED  message for that window.
X.PP
XAnother important principle is that the application itself is responsible for
Ximplementing the user's window action request when a message is received.  This
Xgives the application a chance to accept, modify, or reject the user's request.
X.PP
XAs an example, if a WM_MOVED message is received, it indicates that the user
Xhas dragged the window.  You might want to byte or word align the requested
Xposition before proceeding to move the window. The wind_set calls used to
Xperform the actual movements will be described in the next article.
X.SH OPEN, SESAME!
XThe wind_open call is used to actually make the window appear
Xon the screen.  It animates a "zoom box" on the screen and then draws in the
Xwindow's frame.  The calling sequence is:
```

X.FB wind_open()
Xwind_open(handle, x, y, w, h);
X.FE
XThe handle is the one returned by wind_create. Parameters x, y, w, and h
Xdefine the initial location and size of the window. Note that these
Xmeasurements INCLUDE all of the window frame parts which you have requested. To
Xfind out the size of the area inside the frame, you can use
X.FB wind_get()
Xwind_get(handle, WF_WXYWH, &inner_x, &inner_y, &inner_w, &inner_h);
X.FE
XWhatever size you choose for the window display, it cannot be any larger than
Xthe full size declared in wind_create.
X.PP
XHere is a good place to take note of a useful utility for calculating window
Xsizes. If you know the "parts list" for a window, and its inner or outer size,
Xyou can find the other size with the wind_calc call:
X.FB wind_calc()
Xwind_calc(parts, kind, input_x, input_y, input_w, input_h, &output_x,
X&output_y, &output_w, &output_h);
X.FE
XKind is set to zero if the input coordinates are the inner area, and you are
Xcalculating the outer size. Kind is one if the inputs are the outer size and
Xyou want the equivalent inner size. Parts are just the same as in wind_create.
X.PP
XThere is one common bug in using wind_open. If the NAME feature is
Xspecified, then the window title must be initialized BEFORE opening the window:
X.FB wind_set()
Xwind_set(handle, WF_NAME, ADDR(title), 0, 0);
X.FE
XIf you don't do this, you may get gibberish in the NAME area or the system
Xmay crash.   Likewise, if you have specified the INFO feature, you must make a
Xwind_set call for WF_INFO before opening the window.
X.PP
XNote that ADDR() specifies the 32-bit address of title. This expression is
Xportable to other (Intel-based) GEM systems. If you don't care about
Xportability, then &title[0], or just title alone will work fine on the ST.
X.SH CLEANING UP
XWhen you are done with a window, it should be closed and
Xdeleted. The call
X.FB wind_close()
Xwind_close(handle);
X.FE
Xtakes the window off the screen, redraws the desktop underneath it,
Xand animates a "zoom down" box. It doesn't delete the window's
Xdefinition, so you can reopen it later.
X.PP
XDeleting the window removes its definition from the system, and makes that
Xhandle available for reuse. Always close windows before deleting, or you may
Xleave a "dead" picture on the screen. Also be sure to delete all of your
Xwindows before ending the program, or your app may "eat" window handles. The
Xsyntax for deleting a window is:
X.FB wind_delete()
Xwind_delete(handle);

X.FE
X.SH THOSE FAT SLIDERS
XOne of ST GEM's unique features is the proportional
Xslider bar. Unlike other windowing systems, this type of bar gives visual
Xfeedback on the fraction of a document which is being viewed, as well as the
Xposition within the document. The catch, of course, is that you have two
Xvariables to maintain for each scroll bar: size and position.
X.PP
XBoth bar size and position range from 1 to 1000. A bar size of 1000 fills
Xthe slide box, and a value of one gets the minimum bar size. To compute the
Xproper size, you can use the formula:
X.br
X.sp 1
X.ce 1
Xsize = min(1000, 1000 * seen_doc / total_doc)
X.br
X.sp 1
XSeen_doc and total_doc are the visible and total size of the document
Xrespectively, in whatever units are appropriate. As an example, if your window
Xcould show 20 lines of a 100 line text file, you should set a slider size of
X200. Since the window might be bigger than the total document at some points,
Xyou need the maximum function.   If the document size is zero, force the slider
Xsize to 1000. (Note: You will probably need to do the computation above with
X32-bit arithmetic to avoid overflow problems).
X.PP
XOnce you have computed the size, use the wind_set function to configure the
Xscroll bar:
X.FB wind_set()
Xwind_set(handle, WF_VSLSIZE, size, 0, 0, 0);
X.FE
XThis call sets the vertical (right hand) scroll bar. Use WF_HSLSIZE for the
Xhorizontal scroller. All of these examples are done for the vertical
Xdimension, but the principles are identical in the other direction.
X.PP
XBar positioning is a little tougher.   The most confusing aspect is that the
X1-1000 range does not set an absolute position of the bar within the
Xscroll box. Instead, it positions the TOP of the bar within its
Xpossible range of variation.
X.PP
XLet's look at our text file example again to make this clearer. If there are
Xalways 20 lines of a 100 line file visible, then the top of the window must be
Xalways be somewhere between line 1 and line 81. This 80 line range is
Xthe actual freedom of movement of the window. So, if the window were
Xactually positioned with its top at line 61, it would be at the
Xthree-quarter position within the range, and we should set a scroll
Xbar position of 750. The actual formula for computing the position is:
X.sp 1
X.ce 1
Xpos = 1000 * (top_wind - top_doc) / (total_doc - seen_doc)
X.sp 1
XTop_wind and top_doc are the top line in the current window and the whole
Xdocument, respectively. Obviously, if seen_doc is greater or equal to
Xtotal_doc, you need to force a zero value for pos. This calculation may seem

```
Xrather convoluted the first time through, but is easy once you have done it.
XWhen you have computed the position, wind_set configures the scroll bar:
X.FB wind_set()
Xwind_set(handle, WF_VSLIDE, pos, 0, 0, 0);
X.FE
X.sp 1
X.ce 1
XWF_HSLIDE is the equivalent for horizontal scrolling.
X.sp 1
XIt is a good practice to avoid setting the slider size or position if they
Xare already at the value which you need.  This avoids an annoying redraw flash
Xon the screen when it is not necessary.  You can check on the current
Xvalue of a slider parameter with wind_get:
X.FB wind_get()
Xwind_get(handle, WF_VSLIDE, &curr_value, &foo, &foo, &foo);
X.FE
XFoo is a dummy variable which needs to be there, but is not used. Substitute
XWF_VSLIDE with whatever parameter you are checking.
X.PP
XOne philosophical note on the use of sliders:  It is probably best to avoid
Xthe use of both sliders at once unless it is clearly appropriate to the type of
Xdata which is being viewed.
X.PP
XSince Write and Paint programs make use of the sheet-of-paper metaphor,
Xmoving the window around in both dimensions is reasonable. However, if the data
Xis more randomly organized, such as a tableau of icons, then it is probably
Xbetter to only scroll in  the vertical dimension and "reshuffle" if
Xthe window's width is changed. Then the user only needs to manipulate
Xone control to find information which is off-screen.  Anyone who has
Xhad trouble finding a file or folder within a Desktop window will
Xrecognize this problem.
X.SH COMING UP NEXT
XIn my next column in Antic Online, we'll conclude the tour of the ST's
Xwindowing system.  I'll discuss the correct way to redraw a window's contents,
Xand how to handle the various messages which an application receives from the
Xwindow manager.  Finally, we'll look at a way to redesign the desktop
Xbackground to your own specifications.
X.SH FEEDBACK
XOne of the beauties of an on-line column is that you can make your comments
Xknown immediately.  To register your opinions, select ST FEEDBACK, enter your
Xmessage, leave your name, and enter a blank line to exit.
X.PP
XI am interested in hearing proposals for topics, feedback on the technical
Xlevel of the column, and reports on bugs and other "features" in both
Xthe column and the ST itself.  Your comments will be read by the ANTIC
Xstaff and myself and, though we might not answer individual questions,
Xthey will be used to steer the course of future columns.
X.!
X.!
X.!*************************************************************************
X.!*                                          *
X.!*              End Part 1                       *
X.!*                                          *
```

```
X.!************************************************************************
SHAR_EOF
if test 13142 -ne "`wc -c 'wind1.prf'`"
then
     echo shar: error transmitting "'wind1.prf'" '(should have been 13142
characters)'
fi
echo shar: extracting "'wind2.prf'" '(20216 characters)'
if test -f 'wind2.prf'
then
     echo shar: over-writing existing file "'wind2.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind2.prf'
X.!************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!************************************************************************
X.!
X.!
X.!************************************************************************
X.!
X.!           Begin Part 2
X.!
X.!************************************************************************
X.!
X.PART II Windows
X.SH EXCELSIOR
XIn this installment, we continue the exploration of GEM's window manager by
Xfinding out how to process the messages received by an application
Xwhen it has a window defined on the screen.
X.PP
XAlso, beginning with this column, sample C code demonstrating the techniques
Xdiscussed will be available on SIG*ATARI in DL5.  This will allow you to
Xdownload the code without interference by the CIS text-formatter used by ANTIC
XONLINE output.
X.PP
XThe file for this column is GEMCL2.XMO.  All references  to non-GEM routines in
Xthis column refer to this file.  Please note that  these files will not contain
Xentire programs.  Instead, they consist of small pieces of utility code which
Xyou may copy and modify in your own  programs.
X.SH REDRAWING WINDOWS
XOne of the most misunderstood parts of GEM is the correct method for drawing
```

Xwithin a window. Most requests for redrawing are generated by the GEM system,
Xand arrive as messages (read with evnt_multi) which contain the handle of the
Xwindow, and the screen rectangle which is "dirty" and needs to be redrawn.
X.PP
XScreen areas may become dirty as a result of windows being closed, sized down,
Xor moved, thus "exposing" an area underneath. The completion of a dialog, or
Xclosing of a desk accessory may also free up a screen area which needs to be
Xredrawn. When GEM detects the presence of a dirty rectangle, it checks its
Xlist of open windows, and sends the application a redraw message for each of
Xits windows which intersects the dirty area.
X.SH CAVEAT EMPTOR
XGEM does not "clip" the rectangle which it sends to the application; that is,
Xthe rectangle may not lie entirely within the portion of the window which is
Xexposed on the screen. It is the job of the application to determine in what
Xportion of the rectangle it may safely draw.   This is done by examining the
X"rectangle list" associated with the window.
X.PP
XA rectangle list is maintained by GEM for each active window. It contains the
Xportions of the window's interior which are exposed, i.e., topmost, on the
Xscreen and within which the app may draw.
X.PP
XLet's consider an example to make this clear. Suppose an app has opened two
Xwindows, and there are no desk accessory windows open. The window which is
Xtopmost will always have only one rectangle in its list. If the two are
Xseparate on the screen, then the second window will also have one rectangle.
XIf they overlap, then the top window will "break" the rectangle of the bottom
Xone. If the overlap is at a corner, two rectangles will be generated for the
Xbottom window. If the overlap is on a side only, then three rectangles are
Xrequired to cover the exposed portion of the bottom window. Finally, if the
Xfirst window is entirely within the second, it requires four rectangles in the
Xlist to tile the second window.
X.PP
XTry working out a few rectangle examples with pencil and paper to get the feel
Xof it. You will see that the possible combinations with more than two windows
Xare enormous. This, by the way, is the reason that GEM does not send one
Xmessage for each rectangle on the list: With multiple windows, the number of
Xmessages generated would quickly fill up the application's message queue.
X.PP
XFinally, note that every app MUST use this method, even if it only
Xuses a single window, because there may be desk accessories with their
Xown windows in the system at the same time. If you do not use the
Xrectangle lists, you may overwrite an accessory's window.
X.SH INTO THE BITS
XFirst, we should note that the message type for a redraw request is WM_REDRAW,
Xwhich is stored in msg[0], the first location of the message returned by
Xevnt_multi. The window handle is stored in msg[3]. These locations are the
Xsame for all of the message types being discuss. The rectangle which needs to
Xbe redrawn is stored in msg[4] through msg[7].
X.PP
XNow let's examine the sample redraw code in more detail. The redraw loop is
Xbracketed with mouse off and mouse on calls. If you forget to do this, the
Xmouse pointer will be over-written if it is within the window and the next
Xmovement of the mouse will leave a rectangular blotch on the screen as a piece

Xof the "old" screen is incorrectly restored.
X.PP
XThe other necessary step is to set the window update flag. This prevents the Xmenu manager from dropping a menu on top of the screen portion being redrawn. XYou must release this flag at the end of the redraw, or the you will be unable Xto use any menus afterwards.
X.PP
XThe window rectangles are retrieved using a get-first, get-next scheme which Xwill be familiar if you have used the GEM DOS or PC-DOS wildcard file calls. XThe end of the rectangle list has been reached when both the width and height Xreturned are zero. Since some part of a window might be off-screen X(unless you have clamped its position - see below), the retrieved Xrectangle is intersected with the desktop's area, and then with the Xscreen area for which a redraw was requested.
X.PP
XNow you have the particular area of the screen in which it is legal to draw. XUnless there is only one window in your application, you will have to test the Xhandle in the redraw request to figure out what to put in the rectangle.
X.PP
XDepending on the app, you may be drawing an AES object tree, or executing VDI Xcalls, or some combination of the two. In the AES case, the computed Xrectangle is used to specify the bounds of the objc_draw. For VDI Xwork, the rectangle is used to set the clipping area before executing Xthe VDI calls.
X.SH A SMALL CONFESSION
XAt the beginning of this discussion, I deliberately omitted one class of Xredraws: those initiated by the application itself.
XIn some cases a part of the screen must be redrawn immediately to give feedback Xto the user following a keystroke, button, or mouse action.   In these cases, Xthe application could call do_redraw directly, without waiting for a message.
X.PP
XThe only time you can bypass do_redraw, and draw without walking the rectangle Xlist, is when you can be sure that the target window is on top, and that the Xfigure being drawn is entirely contained within it.
X.PP
XIn many cases, however, an application initiated redraw happens because of a Xcomputed change, for instance, a spreadsheet update, and its timing is not Xcrucial. In this instance, you may wish to have the app send ITSELF a redraw Xrequest.
X.PP
XThe main advantage of this approach is that the AES is smart enough to see if Xthere is already a redraw request for the same window in the queue, and, if so, Xto merge the requests by doing a union of their rectangles. In this fashion, Xthe "blinky" appearance of multiple redraws is avoided, without the need to Xinclude logic for merging redraws within the program.
XA utility routine for sending the "self-redraw" is included in the Xdown-load for this article.
X.SH WINDOW CONTROL REQUESTS
XAn application is notified by the AES, via the message system, when the user Xmanipulates one of the window control points. Remember that you must have Xspecified each control point when the window was created, or will not receive Xthe associated control message.
X.PP

XThe most important thing to understand about window control is that the change
Xwhich the user requested does not take place until the application forwards it
Xto the AES. While this makes for a little extra work, it gives the program a
Xchance to intervene and validate or modify the request to suit.
X.PP
XA second thing to keep in mind is that not all window updates cause a redraw
Xrequest to be generated for the window, because the AES attempts to save time
Xwith raster moves on the screen.
XNow let's look at each window control request in detail. The message
Xcode for a window move is WM_MOVED. If you are willing to accept any
Xsuch request, just do:
X.FB wind_set()
Xwind_set(wh, WF_CXYWH, msg[4], msg[5], msg[6], msg[7]);
X.FE
X.sp 1
X.ce 1
X(Remember that wh, the window handle, is always in msg[3]).
X.sp 1
XThe AES will not request a redraw of the window following this call, unless the
Xwindow is being moved from a location which is partially "off-screen". Instead,
Xit will do a "blit" (raster copy) of the window and its contents to the new
Xlocation without intervention by the app.
X.PP
XThere are two constraints which you may often wish to apply to the user's move
Xrequest. The first is to force the new location to lie entirely within the
Xdesktop, rather than partially off-screen. You can do this with the
Xrc_constrain utility by executing:
X.FB rc_constrain()
Xrc_constrain(&full, &msg[4]);
X.FE
Xbefore making the wind_set call. (Full is assumed to contain the desktop
Xdimensions.)
X.PP
XThe second common constraint is to "snap" the x-dimension location of the new
Xlocation to a word boundary. This operation will speed up GEM's "blit" because
Xno shifting or masking will need to be done when moving the window. To perform
Xthis operation, use align() before the wind_set call:
X.FB align()
Xmsg[4] = align(msg[4], 16);
X.FE
XThe message code for a window size request is WM_SIZED. Again, if you are
Xwilling to accept any request, you can just "turn it around" with the same
Xwind_set call as given for WM_MOVED.
X.PP
XActually, GEM enforces a couple of constraints on sizing. First, the
Xwindow may not be sized off screen. Second, there is a minimum window
Xsize which is dependent on the window components specified when it was
Xcreated. This prevents features like scroll arrows from being
Xsqueezed into oblivion. The most common application constraint on
Xsizing is to snap the size to horizontal words (as above) and/or
Xvertical character lines. In the latter case, the vertical dimension
Xof the output font is used with align().
X.PP

XAlso, be aware that the size message which you receive specifies the
XEXTERNAL dimensions of the window. To assure an "even" size for the
XINTERNAL dimensions, you must make a wind_calc call to compute them,
Xuse align() on the computed values, back out the corresponding
Xexternal dimensions with the reverse wind_calc, and then make the
Xwind_set call with this set of values.
X.PP
XA window resize will only cause a redraw request for the window if the size is
Xbeing increased in at least one dimension. This is satisfactory for most
Xapplications, but if you must "reshuffle" the window after a size-down, you
Xshould send yourself a redraw (as described above) after you make the wind_set
Xcall. This will guarantee that the display is updated correctly. Also note
Xthat the sizing or movement of one window may cause redraw requests to be
Xgenerated for other windows which are uncovered by the change.
X.PP
XThe window full request, with code WM_FULLED, is actually a toggle. If the
Xwindow is already at its full size (as specified in the wind_create), then this
Xis a request to shrink to its previous size. If the window is currently small,
Xthen the request is to grow to full size.
X.PP
XSince the AES records the current, previous, and maximum window size,
Xyou can use wind_get calls to determine which situation pertains. The
Xhndl_full utility in the down-load (modified from Doodle), shows how
Xto do this.
X.PP
XThe "zoom box" effects when changing size are optional, and can be removed to
Xspeed things up. Again, if the window's size is decreasing, no redraw is
Xgenerated, so you must send yourself one if necessary. You should not have to
Xperform any constraint or "snap" operations here, since (presumably) the full
Xand previous sizes have had these checks applied to them already.
X.PP
XThe WM_CLOSED message is received when the close box is clicked. What
Xaction you perform depends on the application. If you want to remove
Xthe window, use wind_close as described in the last column. In many
Xapplications, however, the close message may indicate that a file is
Xto be saved, or a directory or editing level is to be closed. In
Xthese cases, the message is used to trigger this action before or
Xinstead of the wind_close. (Folders on the Desktop are an example of
Xthis situation.)
X.PP
XThe WM_TOPPED message indicates that the AES wants to bring the
Xindicated window to the "top" and make it active. This happens if the
Xuser clicks within a window which is not on top, or if the currently
Xtopped window is closed by its application or desk accessory.
XNormally, the application should respond to this message with:
X.FB wind_set()
Xwind_set(wh, WF_TOP, 0, 0);
X.FE
Xand allow the process to complete.
X.PP
XIn a few instances, a window may be used in an output only mode, such as a
Xstatus display, with at least one other window present for input. In
Xthis case, a WM_TOPPED message for the status window may be ignored.

XIn all other cases, you must handle the WM_TOPPED message even if your
Xapplication has only one window: Invocation of a desk accessory could
Xalways place another window on top. If you fail to do so, subsequent
Xredraws for your window may not be processed correctly.
X.SH WINDOW SLIDER MESSAGES
XIf you specify all of the slider bar parts for your window, you may receive up
Xto five different message types for each of the two sets of sliders. To
Xsimplify things a little, I will discuss everything in terms of the vertical
X(right hand side) sliders. If you are also using the horizontal sliders, the
Xsame techniques will work, just use the alternate mnemonics.
X.PP
XThe WM_VSLID message indicates that the user has dragged the slider bar within
Xits box, indicating a new relative position within the document.
XAlong with the window handle, this message includes the relative
Xposition between 1 and 1000 in msg[4].
X.PP
XRecall from last column's discussion that this interval corresponds to the
X"freedom of movement" of the slider. If you want to accept the user's request,
Xjust make the call:
X.FB wind_set
Xwind_set(wh, WF_VSLIDE, msg[4], 0, 0, 0);
X.FE
X.sp 1
X.ce 1
X(Corresponding horizontal mnemonics are WM_HSLID and WF_HSLIDE).
X.sp 1
XNote that this wind_set call will not cause a redraw message to be sent. You
Xmust update the display to reflect the new scrolled position, either by
Xexecuting a redraw directly, or by sending yourself a message.
X.PP
XIf the document within the window has some structure, you may not wish
Xto accept all slider positions. Instead you may want to force the
Xscroll position to the nearest text line (for instance). Using terms
Xdefined in the last column, you may convert the slider position to
X"document units" with:
X.sp 1
X.ce 1
Xtop_wind = msg[4] * (total_doc - seen_doc) / 1000 + top_doc
X.sp 1
X.ce 1
X(This will probably require 32-bit arithmetic).
X.sp 1
XAfter rounding off or otherwise modifying the request, convert it back
Xto slider units and make the WF_VSLIDE request.
X.PP
XThe other four slider requests all share one message code: WM_ARROWED.
XThey are distinguished by sub-codes stored in msg[4]: WA_UPPAGE,
XWA_DNPAGE, WA_UPLINE, and WA_DNLINE. These are produced by clicking
Xabove and below the slider, and on the up and down arrows,
Xrespectively. (I have no idea why sub-codes were used in this one
Xinstance.) The corresponding horizontal slider codes are:
XWA_LFPAGE, WA_RTPAGE, WA_LFLINE, and WA_RTLINE.
X.PP

XWhat interpretation you give to these requests will depend on the application.
XIn the most common instance, text documents, the customary method is to change
Xthe top of window position (top_wind) by one line for a WA_UPLINE or
XWA_DNLINE, and by seen_doc (the number of lines in the window) for a
XWA_UPPAGE or WA_DNPAGE.
X.PP
XAfter making the change, compute a new slider position, and make the wind_set
Xcall as given above. If the document's length is not an even multiple of
X"lines" or "pages" you will have to be careful that incrementing or
Xdecrementing top_wind does not exceed its range of freedom: top_doc to (top_doc
X+ total_doc - seen_doc).
X.PP
XIf you have such an odd size document, you will also have to make a decision on
Xwhether to violate the line positioning rule so that the slider may be put at
Xits bottom-most position, or to follow the rule but make it impossible to get
Xthe slider to the extreme of its range.
X.SH A COMMON BUG
XIt is easy to forget that user clicks are not the only things that
Xaffect slider position. If the window size changes as a result of a
XWM_SIZED or WM_FULLED message, the app must also update its sliders
X(if they are present). This is a good reason to keep the top of
Xwindow information in "document units".
X.PP
XYou can just redo the position calculation with the new "seen_doc" value, and
Xcall wind_set. Also remember that changing the size of the
Xunderlying document (adding or deleting a bottom line, for instance)
Xmust also cause the sliders to be adjusted.
X.SH DEPT. OF DIRTY TRICKS
XThere are two remaining window calls which are useful to advanced programmers.
XThey require techniques which I have not yet discussed, so you may need to file
Xthem for future reference.
X.PP
XThe AES maintains a quarter-screen sized buffer which is used to save the area
Xunder alerts and menu drop-downs. It is occasionally useful for the
Xapplication to gain access to this buffer for its own use in saving
Xscreen areas with raster copies. To do so, use:
X.FB wind_get()
Xwind_get(0, WF_SCREEN, &loaddr, &hiaddr, &lolen, &hilen);
X.FE
XHiaddr and loaddr are the top and bottom 16-bits (respectively) of the 32-bit
Xaddress of the buffer. Hilen and lolen are the two halves of its length.
X.PP
XDue to a preculiarity of the binding you have to reassemble these
Xpieces before using them. (The actual value of WF_SCREEN is 17; this
Xdoes not appear in some versions of the GEMDEFS.H file.)
X.PP
XIf you use this buffer, you MUST prevent menus from dropping down by using
Xeither the BEG_UPDATE or BEG_MCTRL wind_update calls. Failure to do so will
Xresult in your data being destroyed. Remember to use the matching wind_update:
XEND_UPDATE or END_MCTRL, when you are done.
X.PP
XThe other useful call enables you to replace the system's desktop definition
Xwith a resource of your choosing. The call:

```
X.FB wind_set()
Xwind_set(0, WF_NEWDESK, tree, 0, 0);
X.FE
Xwhere tree is the 32-bit address of the object tree, will cause the AES to draw
Xyour definition instead of the usual gray or green background. Not
Xonly that, it will continue to redraw this tree with no intervention
Xon your part.
X.PP
XObviously, the new definition must be carefully built to fit the desktop area
Xexactly or garbage will be left around the edges.  For the truly sophisticated,
Xa user-defined object could be used in this tree, with the result that your
Xapplication's code would be entered from the AES whenever the desktop was
Xredrawn.  This would allow you to put VDI pictures or complex images onto the
Xdesktop background.
X.SH A SIN OF OMISSION
XIn the last column, I neglected to mention that strings whose addresses are
Xpassed in the WF_NAME and WF_INFO  wind_set calls must be allocated in a static
Xdata area.  Since the AES remembers the addresses (not the characters), a
Xdisaster may result if the storage has been reused when the window manager next
Xattempts to draw the window title area.
X.SH COMING SOON
XThis concludes our tour of GEM's basic window management techniques. There have
Xbeen some unavoidable glimpses of paths not yet taken (forward references), but
Xwe will return in time.
X.PP
XOn our next excursion, we will take a look at techniques for handling simple
Xdialog boxes, and start exploring the mysteries of resources and object trees.
X.!
X.!
X.!*************************************************************************
X.!*                                                *
X.!*              End Part 2                             *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 20216 -ne "`wc -c 'wind2.prf'`"
then
     echo shar: error transmitting "'wind2.prf'" '(should have been 20216
characters)'
fi
echo shar: extracting "'wind3.prf'" '(16916 characters)'
if test -f 'wind3.prf'
then
     echo shar: over-writing existing file "'wind3.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind3.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
```

X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!***
X.!
X.!
X.!***
X.!
X.!   Begin Part 3
X.!
X.!***
X.!
X.PART III THE DIALOG HANDLER
X.SH A MEANINGFUL DIALOG
XThis issue of ST PRO GEM begins an exploration of ST GEM's dialog handler. I
Xwill discuss basic system calls for presenting the dialog, and then continue
Xwith techniques for initializing and reading on/off button and "radio" button
Xobjects. We will also take some short side-trips into the operation
Xof the GEM Resource Construction Set to assist you in building these dialogs.
X.PP
XThere are a number of short C routines which accompany this column. These are
Xstored as file GEMCL3.XMO in DL 5 on SIG*ATARI. Before reading this column, you
Xshould visit SIG*ATARI (go pcs-132) and download this file.
X.PP
X.SH DEFINING TERMS
XA dialog box is an "interactive form" in which the user may enter text and
Xindicate selections by pointing with the mouse. Dialogs in GEM are
X"modal", that is, when a dialog is activated other screen functions
Xsuch as menus and window controls are suspended until the dialog is completed.
X.PP
XIn most cases, the visual structure of a GEM dialog is specified within your
Xapplication's resource file. The GEM Resource Construction Set (RCS)
Xis used to build a picture of the dialog.
X.PP
XWhen the RCS writes out a resource, it converts that picture into a tree of
XGEM drawing objects and stores this data structure within the resource. Before
Xyour application can display the dialog, it must load this resource file and
Xfind the address of the tree which defines the dialog.
X.PP
XTo load a resource, the AES checks its size and allocates memory for the
Xload. It then reads in the resource, adjusting internal pointers to
Xreflect the load address. Finally, the object sizes stored in the
Xresource are converted from characters to pixels using the system font size.
X.PP
XA note for those with Macintosh experience: Although Mac and GEM resources
Xshare a name, there are fundamental differences which can be misleading. A Mac
Xresource is a fork within a file; a GEM resource is a TOS file by itself. Mac
Xresources may be paged in and out of memory; GEM resources are monolithic. GEM
Xresources are internally tree structured; Mac resources are not. Finally, Mac

Xresources include font information, while ST GEM does this with font loading at
Xthe VDI level.
X.PP
XThe resource load is done with the GEM AES call:
X.FB rsrc_load()
Xok = rsrc_load(ADDR("MYAPP.RSC"));
X.FE
X"MYAPP" should be replaced with the name of your program. Resources
Xconventionally have the same primary name as their application, with the RSC
Xextent name instead of PRG. The ok flag returned by rsrc_load will be FALSE is
Xanything went wrong during the load.
X.PP
XThe most common causes of failure are the resource not being in the
Xapplication's subdirectory, or lack of sufficient memory for GEM to allocate
Xspace for the resource. If this happens, you must terminate the program
Ximmediately.
X.PP
XOnce you have loaded the resource, you find the address of a dialog's object
Xtree with:
X.FB rsrc_gaddr()
Xrsrc_gaddr(R_TREE, MYDIALOG, &tree);
X.FE
XTree is a 32-bit variable which will receive the address of the root
Xnode of the tree.
X.PP
XThe mnemonic MYDIALOG should be replaced with the name you gave your dialog
Xwhen defining it in the RCS. At the same time that it writes the resource, RCS
Xgenerates a corresponding .H file containing tree and object names.
XIn order to use these mnemonics within your program, you must include
Xthe name file in your compile: #include "MYAPP.H"
X.SH BUG ALERT!
XWhen using the DRI/Alcyon C compiler, .H files must be in the compiler's home
Xdirectory or they will not be found. This is especially annoying using a two
Xfloppy drive ST development system. The only way around this is to explicitly
Xreference an alternate disk in the #include, for instance: "B:MYAPP.H".
X[Ed. Note: Use the -i flag with the C pre-processor to name the include
Xdirectories].
X.PP
XNow that the address of the dialog tree has been found, you are ready to
Xdisplay it. The standard (and minimal) sequence for doing so is given in
Xroutine hndl_dial() in the download. We will now walk through each
Xstep in this procedure.
X.PP
XThe form_center call establishes the location of the dialog on the screen.
XDialog trees generated by the RCS have an undefined origin (upper-left corner).
X.PP
XForm_center computes the upper-left location necessary to center the dialog
Xon the screen, and inserts it into the OB_X and OB_Y fields of the ROOT object
Xof the tree. It also computes the screen rectangle which the dialog
Xwill occupy on screen and writes its pixel coordinates into variables
Xxdial, ydial, wdial, and hdial.
X.PP
XThere is one peculiarity of form_center which occasionally causes trouble.

XNormally the rectangle returned in xdial, etc., is exactly the same size as the
Xbasic dialog box.
X.PP
XHowever, when the OUTLINED enhancement has been specified for the box,
Xform_center adds a three pixel margin to the rectangle returned. This
Xcauses the screen area under the outline to be correctly redrawn later
X(see below). Note that OUTLINED is part of the standard dialog box in
Xthe RCS. Other enhancements, such as SHADOWED or "outside" borders
Xare NOT handled in this fashion, and you must compensate for them in
Xyour code.
X.PP
XThe next part of the sequence is a form_dial call with a zero parameter.
XThis reserves the screen for the dialog action about to occur. Note that the C
Xbinding given for form_dial in the DRI documents is in error: there are nine
Xparameters, not five. The first set of xywh arguments is actually used with
Xform_dial calls 1 and 2 only, but place holders must be supplied in all cases.
X.PP
XThe succeeding form_dial call (parameter one) animates a "zoom box" on the
Xscreen which moves and grows from the first screen rectangle given to
Xthe second rectangle, where the dialog will be displayed.
X.PP
XThe use of this call is entirely optional. In choosing whether to use it or
Xnot, you should consider whether the origin of the "zoom" is relevant to the
Xoperation. For instance, a zoom from the menu bar is relatively meaningless,
Xwhile a zoom from an object about to be edited in the dialog provides visual
Xfeedback to the user, showing whether the correct object was chosen.
X.PP
XIf the origin is not relevant, then the zoom is just a time-waster. If you
Xdecide to include these effects, consider a "preferences" option in your app
Xwhich will allow the experienced and jaded user to turn them off in the
Xinterests of speed.
X.PP
XThe objc_draw call actually displays the dialog on the screen. Note that the
Xaddress of the tree, the beginning drawing object, and the drawing depth are
Xpassed as arguments, as well as the rectangle allotted for the dialog.
X.PP
XIn general, dialogs (and parts of dialogs) are ALWAYS drawn beginning at the
XROOT (object zero). When you want to draw only a portion of the
Xdialog, adjust the clipping rectangle, but not the object number.
XThis ensures that the background of the dialog is always drawn correctly.
X.PP
XThe objc_xywh() utility in the download can be used to find the clipping
Xrectangle for any object within a dialog, though you may have to allow an extra
Xmargin is you have used shadows, outlines, or outside borders with the object.
X.PP
XCalling form_do transfers control to the AES, which animates the dialog for
Xuser interaction. The address of the dialog tree is passed as a
Xparameter. The second paramter is the number of the editable object
Xat which the text cursor will first be positioned. If you have no text
Xfields, pass a zero. Note that again the DRI documents are in error:
Xpassing a -1 default may crash the system. Also be careful that the
Xdefault which you specify is actually a text field; no error checking
Xis performed.

X.PP
XThe form_do call returns the number of the object on which the clicked to
Xterminate the dialog. Usually this is a button type object with the EXIT and
XSELECTABLE attributes set. Setting the DEFAULT attribute as well will cause an
Xexit on that object is a carriage return is struck while in the dialog.
X.PP
XIf the top bit of the return is set, it indicates that the exit object had
Xthe TOUCHEXIT attribute and was selected with a double-click. Since very few
Xdialogs use this combination, the sample code simply masks off the top bit.
X.PP
XThe next form_dial call reverses the "zoom box", moving it from the dialog's
Xlocation back to the given x,y,w,h. The same cautions apply here as above.
X.PP
XThe final form_dial call tells GEM that the dialog is complete, and that the
Xscreen area occupied by the dialog is now considered "dirty" and needs to be
Xredrawn. Using the methods described in our last column, GEM then
Xsends redraws to all windows which were overlaid, and does any
Xnecessary redrawing of the menu or desktop itself.
X.PP
XThere is one notable "feature" of form_dial(3): It always redraws an area
Xwhich is two pixels wider and higher than your request! This was probably
Xincluded to make sure that drop-shadows were cleaned up, and is usually
Xinnocuous.
X.SH A HANDY TRICK
XUse of the form_dial(3) call is not limited to dialogs. You can use
Xit to force the system to redraw any part of the screen. The
Xadvantage of this method is that the redraw area need not lie entirely
Xwithin a window, as was necessary with the send_redraw method detailed
Xin the last column. A disadvantage is that this method is somewhat
Xslower, since the AES has to decide who gets the redraws.
X.SH CLEAN UP
XAs a last step, you need to clear the SELECTED flag in the object which was
Xclicked. If you do not do this, the object will be drawn inverted the next
Xtime you call the dialog. You could clear the flag with the GEM objc_change
Xcall, but it is inefficient since you do not need to redraw the object.
X.PP
XInstead, use the desel_obj() code in the download, which modifies the
Xobject's OB_STATE field directly. Assuming that ret_obj contains the exit
Xobject returned by hndl_dial, the call:
X.FB desel_obj()
Xdesel_obj(tree, ret_obj);
X.FE
Xwill do the trick.
X.SH RECAP
XThe basic dialog handling method I have described contains three steps:
Xinitialization (rsrc_gaddr), dialog presentation (hndl_dial), and cleanup
X(desel_obj).
X.PP
XAs we build more advanced dialogs, these same basic steps will be performed,
Xbut they will grow more complex. The initialization will include setting up
Xproper object text and states, and the cleanup phase will also interrogate the
Xfinal states of objects to find out what the user did.
X.SH BUTTON, BUTTON

XThe simple dialogs described above contain only exit buttons as active objects.
XAs such, they are little more than glorified alert boxes.
X.PP
XWe will now increase the complexity a little by considering non-exit buttons.
XThese are constructed by setting the SELECTABLE attribute on a button object.
XAt run-time, such an object will toggle its state between selected
X(highlighted) and non-selected whenever the user clicks on it. (You
Xcan set the SELECTABLE attribute of other types of objects and use
Xthem instead of actual buttons, but be sure that the user will be
Xable to figure out what you intend!)
X.PP
XHaving non-exit buttons forces us to consider the problem of initializing
Xthem before the dialog, and interrogating and resetting them afterward.
X.PP
XSince a button is a toggle, it is usually associated with a flag variable in
Xthe program. As part of the initialization, you should test the flag variable,
Xand if true call:
X.FB sel_obj()
Xsel_obj(tree, BTNOBJ);
X.FE
Xwhich will cause the button to appear highlighted when the dialog is first
Xdrawn. Sel_obj() is in the download. BTNOBJ is replaced with the name you
Xgave your button when you defined it in the RCS. Since the button starts out
Xdeselected, you don't have to do anything if your flag variable is false.
X.PP
XAfter the dialog has completed, you need to check the object's state. The
Xselectp() utility does so by masking the OB_STATE field. You can simply assign
Xthe result of this test to your flag variable, but be sure that the dialog was
Xexited with an OK button, not with a CANCEL! Again, remember to clean up the
Xbutton with desel_obj(). (It's often easiest to deselect all buttons
Xjust before you leave the dialog routine, regardless of the final
Xdialog state.)
X.SH WHO'S GOT THE BUTTON?
XAnother common use of buttons in a dialog is to select one of a set
Xof possible options. In GEM, such objects are called radio buttons.
XThis term recalls automobile radio tuners where pushing in one button
Xpops out any others. In like fashion, selecting any one of a set of
Xradio buttons automatically deselects all of the others.
X.PP
XTo use the radio button feature, you must do some careful work with the
XResource Construction Set.
X.PP
XFirst, each member of a set of radio buttons must be children of the same
Xparent object within the object tree. To create this structure, put a hollow
Xbox type object in the dialog, make it big enough to hold all of the buttons,
Xand then put the buttons into the box one at a time.
X.PP
XBy nesting the buttons within the box object, you force them to be its
Xchildren. Each of the buttons must have both the SELECTABLE and RADIO BUTTON
Xattributes set. When you are done, you may make the containing box
Xinvisible by setting its border to zero, but do not FLATTEN it!
X.PP
XSince each radio button represents a different option, you must usually

Xassign a name to each object. When initializing the dialog, you must check
Xwhich option is currently set, and turn on the corresponding button only. A
Xchain of if-then-else structures assures that only one button will be selected.
X.PP
XAt the conclusion of the dialog, you must check each button with selectp()
Xand make the appropriate adjustments to internal variables. Again, an
Xif-then-else chain is appropriate since only one button may be
Xselected. Either deselect the chosen button within this chain or do
Xthem all at the end.
X.PP
XThere is one common use of radio buttons in which you may short-cut this
Xprocedure. If the buttons each represent one possible value of a numeric
Xvariable, for instance, a set of selector buttons representing colors
Xfrom zero to seven, then you can compute the initial object directly.
X.PP
XIn order for this technique to work, you must use a special capability of the
XRCS. Insert the object corresponding to a zero value at the top (or left) of
Xyour array of buttons, then put the "one" button below (or right) of it, and so
Xon.
X.PP
XWhen the buttons are complete, the SORT operation is used to guarantee that
Xthe top/left object is in fact the first child of the parent box with
Xthe others following in order. Due to the details of object tree
Xstructure (to be discussed in the next column), this will guarantee
Xthat these objects are contiguous in the resource.
X.PP
XIf you assign a name (say BUTTON1) to the first button, then you can
Xinitialize the correct button with the call:
X.FB sel_obj()
Xsel_obj(tree, BUTTON1 + field);
X.FE
Xwhere field is the variable of interest.
X.PP
XWhen the dialog is complete, you can scan the radio buttons to compute the
Xnew value for the underlying variable. The encode() procedure in the download
Xwill do this. As always, remember to deselect the buttons at the end.
X.PP
XYou can use offsets or multipliers if your variable's values don't start with
Xzero or increment by one. If the values are irregular you may be able to use a
Xlookup table, at the cost of additional code.
X.SH COMING UP NEXT
XIn the next column, I will discuss the internal structure of object
Xtrees. Then we'll use that knowledge to build a piece of code which
Xwill "walk" an entire tree and apply a function to each object. We'll
Xapply this code to do all of the button deselects with a single call!
XI'll also look at handling editable text fields and discuss some ways
Xto alter a dialog's appearance at run-time.
X.SH DISPELL GREMLINS
XAn editing error caused an omission in the first installment of ST PRO
XGEM. The window components RTARROW and DNARROW should have been
Xlisted along with HSLIDE as the horizontal equivalents of the vertical
Xslider components which were discussed.
X.!

```
X.!
X.!*************************************************************************
X.!*                                                *
X.!*               End Part 3                            *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 16916 -ne "`wc -c 'wind3.prf'`"
then
     echo shar: error transmitting "'wind3.prf'" '(should have been 16916
characters)'
fi
#    End of shell archive
exit 0

--
                       Jwahar R. Bammi
                     Usenet:  .....!decvax!cwruecmp!bammi
                      CSnet:  bammi@case
                    Arpa:  bammi%case@csnet-relay
                  CompuServe:  71515,155


From 7772652485737728841
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ca8f9cd39067e0c5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:25:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 2 of 6
Message-ID: <1442@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:25:57 EST
Article-I.D.: cwruecmp.1442
Posted: Fri Mar 21 23:25:57 1986
Date-Received: Sun, 30-Mar-86 07:41:55 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 1151

#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind4.prf
#    wind5.prf
#    wind6.prf
# This archive created: Fri Mar 21 22:40:50 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
```

```
echo shar: extracting "'wind4.prf'" '(18602 characters)'
if test -f 'wind4.prf'
then
     echo shar: over-writing existing file "'wind4.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind4.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 4
X.!
X.!*************************************************************************
X.!
X.PART IV Resource Structure
X.PP
XWelcome to the fourth installment of ST PRO GEM.  We are about to delve into
Xthe mysteries of GEM resource structure, and then use this knowledge to create
Xsome useful utilities for handling dialogs.  As with the past columns, there is
Xonce again a download file.  You will find it under the name GEMCL4.C in the
XATARI 16-bit Forum (GO PCS-58).
X.PP
XThe first and largest part of the download contains a C image of a sample
Xresource file.  To create this listing, I used the GEM Resource  Construction
XSet to create a dummy resource with three dialogs including examples of all
Xobject types, then enabled the C output option and saved  the resource.  If you
Xhave access to a copy of RCS, I suggest that you  create your own listing in
Xorder to get a feel for the results.  Then, using  either listing as a roadmap
Xto the resource, you can follow along as  we enter...
X.SH A MAZE OF TWISTY LITTLE PASSAGES.
XWhile a GEM resource is loaded as a block of binary information, it
Xis actually composed of a number of different data structures.  These
Xstructures are linked together in a rather tangled hierarchy.  Our
Xfirst job is to map this linkage system.
X.PP
XThe topmost structure in a resource file is the resource header. This is an
Xarray of words containing the size and offset within the resource of the other
Xstructures which follow.  This information is used by  GEM during the resource
```

Xload process, and you should never need to access it. (The resource header does
Xnot appear in the C output file; it is generated by the RSCREATE utility if the
XC file is used to recreate the resource.)
X.PP
XThe next structure of interest is the tree index. This is an array of long
Xpointers, each of which addresses the beginning of an object tree. Again, you
Xwouldn't normally access this structure directly. The GEM rsrc_gaddr call uses
Xit when finding trees' addresses. This structure is called "rs_trindex" in the
XC output.
X.PP
XIf you look at the contents of rs_trindex you will notice that the values are
Xintegers, instead of the pointers I described. What has happened is that RCS
Xhas converted the pointers to indices into the object array. (If you actually
Xused the C file to recreate the resource file, then the pointers would be
Xregenerated by RSCREATE.)
X.PP
XNow you can follow the link from rs_trindex to the objects stored in
Xrs_object. Take (for instance) the second entry in rs_trindex and count down
Xthat many lines in rs_object. The following line (object) should start with a
X-1. This indicates that it is the root object of a tree. The following objects
Xdown to the next root belong to that tree. We'll pass over the details of
Xinter-object linkage for now, leaving it for a later column.
X.PP
XThere are a number of different fields in an object, but right now we'll
Xconcentrate on two of them: OB_TYPE and OB_SPEC. The OB_TYPE is the field which
Xcontains mnemonics like G_STRING and G_BOX indicating the type of the object.
XThe OB_SPEC is the only field in each object which is a LONG - you can tell it
Xby the L after the number.
X.PP
XWhat's in OB_SPEC depends on the object type, so we need to talk about what
Xkinds of objects are available, what you might use them for, and finally how
Xthey use the OB_SPEC field.
X.PP
XThe box type objects are G_BOX, G_IBOX, and G_BOXCHAR. A G_BOX is an opaque
Xrectangle, with an optional border. It's used to create a solid patch of color
Xor pattern on which to place other objects. For instance, the background of a
Xdialog is a G_BOX.
X.PP
XA G_IBOX is a hollow box which has only a border. (If the border has no
Xthickness, then the box is "invisible", hence the name.) The favorite use for
XIBOXes is to hold radio buttons. There is also one neat trick you can play with
Xan IBOX. If you have more than one object (say an image and a string) which you
Xwould like to have selected all at once, you can insert them in a dialog, then
Xcover them with an IBOX. Since the box is transparent, they will show through.
XIf you now make the box selectable, clicking on it will highlight the whole area
Xat once!
X.PP
XThe G_BOXCHAR is just like a G_BOX, except that a single character is drawn
Xin its center. They are mostly used as "control points": the FULLER, CLOSER,
XSIZER, and arrows in GEM windows are BOXCHARs, as are the components of the
Xcolor selection gadgets in the RCS.
X.PP
XThe OB_SPEC for box type objects is a packed bit array. Its various fields

Xcontain the background color and pattern, the border thickness and color, and
Xthe optional character and its color.
X.PP
XThe string type objects are G_STRING, G_BUTTON, and G_TITLE. G_STRINGs (in
Xaddition to being a bad pun) are for setting up static explanatory text within
Xdialogs. The characters are always written in the "system font": full size,
Xblack, with no special effects.
X.PP
XWe have already discussed many of the uses of G_BUTTONs. They add a border
Xaround the text. The thickness of a G_BUTTON's border is determined by what
Xflags are set for the object. All buttons start out with a border thickness of
Xone pixel. One pixel is added if the EXIT attribute is set, and one more is
Xadded if the DEFAULT attribute is set.
X.PP
XThe G_TITLE type is a specially formatted text string used only in the title
Xbar of menus. This type is needed to make sure that the menus redraw correctly.
XThe Resource Construction Set automatically handles inserting G_TITLEs, so you
Xwill seldom use them directly.
X.PP
XIn a resource, the OB_SPEC for all string objects is a long pointer to a null
Xterminated ASCII string. The string data in the C file is shown in the BYTE
Xarray rs_strings. Again you will notice that the OB_SPECs in the C file have
Xbeen converted to indices into rs_string. To find the string which matches the
Xobject, take the value of OB_SPEC and count down that many lines in rs_strings.
XThe next line is the correct string.
X.PP
XThe formatted text object types are G_TEXT, G_BOXTEXT, G_FTEXT, and
XG_FBOXTEXT. G_TEXTs are a lot like strings, except that you can specify a
Xcolor, different sizes, and a positioning rule for the text.   Since they
Xrequire more memory than G_STRINGs, G_TEXTs should be used sparingly to draw
Xattention to important information within a dialog.   G_TEXTs are also useful
Xfor automatic centering of dialog text which is changed at run-time. I will
Xdescribe this technique in detail later on.
X.PP
XThe G_BOXTEXT type adds a solid background and border to the G_TEXT type.
XThese objects are occasionally used in place of G_BUTTONs when their color will
Xdraw attention to an important object.
X.PP
XThe G_FTEXT object is an editable text field. You are able to specify a
Xconstant "template" of characters, a validation field for those characters which
Xare to be typed in, and an initial value for the input characters. You may also
Xselect color, size, and positioning rule for G_FTEXTs. We'll discuss text
Xediting at length below.
X.PP
XThe G_FBOXTEXT object, as you might suspect, is the same as G_FTEXT with the
Xaddition of background and border. This type is seldom used: the extra
Xappearance details distract attention from the text being edited.
X.PP
XThe OB_SPEC for a formatted text object is a pointer to yet another type of
Xstructure: a TEDINFO. In the C file, you will find these in rs_tedinfo. Take
Xthe OB_SPEC value from each text type object and count down that many entries in
Xrs_tedinfo, finding the matching TEDINFO on the next line. Each contains
Xpointers to ASCII strings for the template, validation, and initialization. You

Xcan find these strings in rs_strings, just as above.
X.PP
XThere are also fields for the optional background and border details, and for Xthe length of the template and text. As we will see when discussing editing, Xthe most important TEDINFO fields are the TE_PTEXT pointer to initialized text Xand the TE_TXTLEN field which gives its length.
X.PP
XThe G_IMAGE object type is the only one of its kind. A G_IMAGE is a Xmonochrome bit image. For examples, see the images within the various GEM alert Xboxes. Note that monochrome does not necessarily mean black. The image may be Xany color, but all parts of it are the SAME color. G_IMAGEs are used as visual Xcues in dialogs. They are seldom used as selectable items because their entire Xrectangle is inverted when they are clicked. This effect is seldom visually Xpleasing, particularly if the image is colored.
X.PP
XG_IMAGE objects have an OB_SPEC which is a pointer to a further structure Xtype: the BITBLK. By now, you should guess that you will find it in the C file Xin the array rs_bitblk. The BITBLK contains fields describing the height and Xwidth of the image in pixels, its color,nd it also contains a long pointer to Xthe actual bits which make up the image. In the C file, the images are encoded Xas hexadecimal words and stored in arrays named IMAG0, IMAG1, and so on.
X.PP
XThe last type of object is the G_ICON. Like the G_IMAGE, the G_ICON is a bit Ximage, but it adds a mask array which selects what portions of the image will be Xdrawn, as well as an explanatory text field. A G_ICON may also specify Xdifferent colors for its "foreground" pixels (the ones that are normally black), Xand its "background" pixels (which are normally white).
X.PP
XThe pictures which you see in Desktop windows are G_ICONs, and so are the Xdisks and trashcan on the desktop surface. With the latter you will notice the Xeffects of the mask. The desktop shows through right up to the edge of the XG_ICON, and only the icon itself (not a rectangle) is inverted when a disk is Xselected.
X.PP
XThe OB_SPEC of an icon points to another structure called an ICONBLK. It is Xshown in the C file as rs_iconblk. The ICONBLK contains long pointers to its Xforeground bit array, to the mask bit array, and to the ASCII string of Xexplanatory text. It also has the foreground and background colors as well as Xthe location of the text area from the upper left of the icon. The most common Xuse of G_ICONs and ICONBLKs is not in dialogs, instead they are used frequently Xin trees which are build at run-time, such as Desktop windows. In a future Xarticle, we will return to a discussion of building such "on-the-fly" trees with XG_ICONs.
X.PP
XNow, let's recap the hierarchy of resource structures: The highest level Xstructures are the resource header, and then the tree index. The tree index Xpoints to the beginning of each object tree. The objects making up the tree are Xof several types, and depending on that type, they may contain pointers to ASCII Xstrings, or to TEDINFO, ICONBLK, or BITBLK structures. TEDINFOs contain further Xpointers to strings; BITBLKs have pointers to bit images; and ICONBLKs have Xboth.
X.SH PUTTING IT TO WORK
XThe most common situations requiring you to understand

Xresource structures involve the use of text and editable text objects in
Xdialogs. We'll look at two such techniques.
X.PP
XOften an application requires two or more dialogs which are very similar
Xexcept for one or two title lines. In this circumstance, you can save a good
Xdeal of resource space by building only one dialog, and changing the title at
Xrun time.
X.PP
XIt is easy to go wrong with this practice, however, because the obvious
Xtactic of using a G_STRING and writing over its text at run time can go wrong.
XThe first problem is that you must know in advance the longest title to be used,
Xand put a string that long into the resource. If you don't you will damage other
Xobjects in the resource as you copy in characters. The other problem is that a
XG_STRING is always drawn at the same place in a dialog. If the length of the
Xtitle changes from time to time, the dialog will have an unbalanced and sloppy
Xappearance.
X.PP
XA better way to do this is to exploit the G_TEXT object type, and the TEDINFO
Xstructure. The set_text() routine in the download shows how. The parameters
Xprovided are the tree address, the object number, and the 32-bit address of the
Xstring to be substituted. For this to work, the object referenced should be
Xdefined as a G_TEXT type object.   Additionally, the Centered text type should
Xbe chosen, and the object should have been "stretched" so that it fills the
Xdialog box from side to side.
X.PP
XIn the code, the first action is to get the OB_SPEC from the object which was
Xreferenced. Since we know that the object is a G_TEXT, the OB_SPEC must point
Xto a TEDINFO. We need to change two fields in the TEDINFO. The TE_PTEXT field
Xis the pointer to the actual string to be displayed; we replace it with the
Xaddress of our new string. The TE_TXTLEN field is loaded with the new string's
Xlength. Since the Centered attribute was specified for the object, changing the
XTE_TXTLEN will cause the string to be correctly positioned in the middle of the
Xdialog!
X.PP
XEditing text also requires working with the TEDINFO structure. One way of
Xdoing this is shown in the download. The object to be used (EDITOBJ) is assumed
Xto be a G_FTEXT or G_FBOXTEXT. Since we will replace the initialized text at
Xrun time, that field may be left empty when building the object in the RCS.
X.PP
XThe basic trick of this code is to point the TEDINFO's TE_PTEXT at a string
Xwhich is defined in your code's local stack. The advantages of this technique
Xare that you save resource space, save static data by putting the string in
Xreusable stack memory, and automatically create a scratch string which may be
Xdiscarded if the dialog is cancelled.
X.PP
XThe text string shown is arbitrarily 41 characters long. You should give
Xyours a length equal to the number of blanks in the object's template field plus
Xone. Note that the code is shown as a segment, rather than a subroutine. This
Xis required because the text string must be allocated within the context of
Xdialog handling routine itself, rather than a routine which it calls!
X.PP
XAfter the tree address is found, the code proceeds to find the TEDINFO and
Xmodify its TE_PTEXT as described above. However, the length which is inserted

Xinto TE_TXTLEN must be the maximum string length, including the null!
X.PP
XThe final line of code inserts a null into the first character of the
Xuninitialized string. This will produce an empty editing field when the dialog
Xis displayed. If there is an existing value for the object, you
Xshould instead use strcpy() to move it into text[]. Once the dialog is
Xcomplete, you should check its final status as described in the last
Xarticle. If an "OK" button was clicked, you will then use strcpy() to
Xmove the value in text[] back to its static location.
X.PP
XAlthough I prefer this method of handling editable text, another method
Xdeserves mention also. This procedure allocates a full length text string of
Xblanks when creating the editable object in the RCS. At run-time, the TE_PTEXT
Xlink is followed to find this string's location in the resource, and any
Xpre-existing value is copied in. After the dialog is run, the resulting value is
Xcopied back out if the dialog completed successfully.
X.PP
XNote that in both editing techniques a copy of the current string value is
Xkept within the application's data area. Threading the resource whenever you
Xneed to check a string's value is extremely wasteful.
X.PP
XOne final note on editable text objects: GEM's editor uses the commercial at
Xsign '@' as a "meta-character". If it is the first byte of the initialized
Xtext, then the field is displayed blank no matter what follows. This can be
Xuseful, but is sometimes confusing when a user in all innocence enters an @ and
Xhas his text disappear the next time the dialog is drawn!
X.SH LETTERS, WE GET LETTERS
XThe Feedback section on ANTIC ST ONLINE is now
Xfunctional and is producing a gratifying volume of response. A number of
Xrequests were made for topics such as ST hardware and ST BASIC which are beyond
Xthe intended scope of this column. These have been referred to ANTIC's
Xeditorial staff for action.
X.PP
XSo many good GEM questions were received that I will devote part of the next
Xcolumn to answering several of general interest. Also, your requests have
Xresulting in scheduling future columns on VDI text output and on the principles
X(or mythology) of designing GEM application interfaces. Finally, a tip of the
Xhat to the anonymous reader who suggested including the actual definitions of
Xall macro symbols, so that those without the appropriate H files can follow
Xalong. As a result of this suggestion, the definitions for this column and the
Xprevious three are included at the end of the download. Future articles will
Xcontinue this practice.
X.SH STRAW POLL!
XI'd like to make a practice of using the Feedback to get your
Xopinions on the column's format. As a first trial, I'd like to know your
Xfeelings about my use of "portability macros" in the sample code. These macros,
XLLGET for example, are used for compatibility between 68K GEM systems like the
XST, and Intel based systems like the IBM PC. This may be important to many
Xdevelopers. On the other hand, omitting them results in more natural looking C
Xcode. For instance, in the download you will find a second version of
Xset_text() as described above, but without the portability macros. So, I would
Xlike to know if you think we should (A) Keep the macros - portability is
Ximportant to serious developers, (B) Get rid of them - who cares about Intel

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Xchips anyway, or (C) Who cares? I'll tally the votes in two weeks and announce
Xthe results here.
X.SH STAY TUNED!
XAs well as answers to feedback questions, the next column will
Xdiscuss how GEM objects are linked to form trees, and how to use AES calls and
Xyour own code to manipulate them for fun and profit.  In the following
Xinstallment, we'll look at the VDI raster operations (also known as "blit"
Xfunctions).
X.!
X.!
X.!*****************************************************************************
X.!*                                                 *
X.!*               End Part 4                             *
X.!*                                                 *
X.!*****************************************************************************
SHAR_EOF
if test 18602 -ne "`wc -c 'wind4.prf'`"
then
     echo shar: error transmitting "'wind4.prf'" '(should have been 18602
characters)'
fi
echo shar: extracting "'wind5.prf'" '(17957 characters)'
if test -f 'wind5.prf'
then
     echo shar: over-writing existing file "'wind5.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind5.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!
X.!*****************************************************************************
X.!
X.!           Begin Part 5
X.!
X.!*****************************************************************************
X.!
X.PART V Resource Tree Structures
X.PP
XThis is the fifth issue of ST PROFESSIONAL GEM, concluding our
```

Xtrek through GEM dialogs and resources with a look at the internal
Xstructure of object trees. Also, I'll answer a number of questions
Xof general interest which have been received via the ANTIC ONLINE
XFEEDBACK. As always, there is a download file associated with this
Xcolumn: GEMCL5.C, which you will find in DL3 of the new Atari 16-bit
XSIG (type GO PCS-58 or GO ATARI16).
X.PP
XEven if you have no immediate use for this issue's code, be sure
Xto take the download anyway; some of the routines will be used in
Xlater articles.
X.PP
XIn the last installment, we established that resources trees are
Xpointed to by the tree index, and that they are composed of objects
Xwhich contain pointers onward to other structures. However, we
Xpassed over the issue of linkage among the objects within a tree. It
Xis now time to go back and cure this omission.
X.PP
XThe technical term for the linkage scheme of an object tree is a
X"right-threaded binary tree".   If you already know what this is, you
Xcan skim over the next few paragraphs. If you happen to have access
Xto a copy of the book "FUNDAMENTAL ALGORITHMS", which is part of the
Xseries THE ART OF COMPUTER PROGRAMMING by Donald E. Knuth, you might
Xwant to read his excellent discussion of binary trees beginning on
Xpage 332.
X.PP
XFor the following discussion, you should have a listing of the C
Ximage of a resource tree in front of you. For those who do not have
Xthe listing from the last column, I have included a fragment at the
Xbeginning of the download. Before we begin, I should warn you of one
Xpeculiarity of "computer trees": They grow upside-down! That is,
Xwhen they are diagrammed or described, their root is at the top, and
Xthe "leaves" grow downward. You will see this both in the listing,
Xand in the way the following discussion talks about moving through
Xtrees.
X.PP
XEach GEM object tree begins at its ROOT object, numbered zero,
Xwhich is the object pointed at by the tree index. There are three
Xlink fields at the beginning of each object. They are called
XOB_NEXT, OB_HEAD, and OB_TAIL, which is the order in which they
Xappear.
X.PP
XEach of the links is shown as an index relative to the root of
Xthe current tree. This means that the link '0' would refer to the
Xroot of the tree, while '2' would indicate the object two lines below
Xit. The special link -1 is called NIL, and means that there is no
Xlink in the given direction.
X.PP
XEach object, or node, in a tree may have "offspring" or nodes
Xwhich are nested below it. If it does, then its OB_HEAD will point
Xto its first (or "leftmost") "child", while the OB_TAIL will point to
Xthe last ("rightmost") of its offspring. The OB_NEXT pointer links
Xthe children together, with the OB_NEXT of the first pointing to the
Xsecond, and so on, until the OB_NEXT of the last finally points back

Xto its parent, the object at which we started.
X.PP
XRemember that each of these children may in turn have offspring
Xof their own, so that the original "parent" may have a large and
Xcomplex collection of "descendents".
X.PP
XLet's look at the first tree in the download to see an example
Xof this structure. The very first object is the ROOT. Note that its
XOB_NEXT is NIL, meaning that there are no more objects in the tree:
Xthe ROOT is both the beginning and the end of the tree. In this
Xcase, the OB_HEAD is 1 and the OB_TAIL is 3, showing that there are
Xat least two different children.
X.PP
XFollowing OB_HEAD down to the next line, we can trace through
Xthe OB_NEXT links (2, 3, 0) as they lead through a total of three
Xchildren and back to the ROOT. You will notice that the first two
Xchildren have NIL for the OB_HEAD and OB_TAILs, indicating that they
Xhave no further offspring.
X.PP
XHowever, node three, the last child of the ROOT, does have the
Xvalue 4 for both its OB_HEAD and OB_TAIL. By this we can tell that
Xit has one, and only one, offspring. Sure enough, when we look at
Xnode four, we see that its OB_NEXT leads immediately back to node
Xthree. Additionally, it has no further offspring because its OB_HEAD
Xand OB_TAIL are NIL.
X.PP
XYou will find that object trees are always written out by the
XResource Construction Set in "pre-order". (Again, see Knuth if you
Xhave a copy.) This means that the ROOT is always written first, then
Xits offspring left to right. This rule is applied recursively, that
Xis, we go down to the next level and write out each of these nodes,
Xthen THEIR children left to right, and so on.
X.PP
XFor a further example, look at the next tree in rs_object in the
Xdownload. You will see that the ROOT has an OB_HEAD of 1 and an
XOB_TAIL of 6, but that it actually has only three offspring (nodes 1,
X2 and 6). We see that node 2 itself had children, and applying the
Xrule given above, they were written out before continuing with the
Xnext child of the ROOT.
X.PP
XWhy was this seemingly complex structure chosen for GEM? The
Xreason has do with the tasks of drawing objects in their proper
Xlocations on the screen, and determining which object was "hit" when
Xa mouse click is detected.
X.PP
XTo find out how this works, we must look at four more fields
Xfound in each object: OB_X, OB_Y, OB_WIDTH, and OB_HEIGHT. These
Xfields are the last four on each line in the sample trees.
X.PP
XEach object in a tree "owns" a rectangle on the screen. These
Xfields define that rectangle. When a resource is stored "outside"
Xthe program the fields are in character units, so that an object
Xwith OB_WIDTH of 10 and OB_HEIGHT of 2 (for instance) would define a

Xscreen area 10 characters wide and 2 high.
X.PP
XWhen the resource is read into memory with an rsrc_load call,
XGEM multiplies the appropriate character dimension in pixels into
Xeach of these fields. In this way portability is achieved: the same
Xresource file works for any of the ST's three resolutions. Knowing
Xhow rsrc_load works, your code should treat these fields as pixel
Xcoordinates.
X.PP
XI have committed one oversimplification above. If an object is
Xnot created on a character boundary in the RCS, then the external
Xstorage method described will not work. In this case, the lower byte
Xof each rectangle field is used to store the nearest character
Xposition, while the upper byte stores the pixel remainder to be added
Xafter the character size is multiplied in.
XNon-character-boundary objects may only be created in the "FREE"
Xtree mode of the Resource Construction Set (also called "PANEL" in
XRCS 2.0). You should use them only in programs which will run in a
Xsingle ST screen mode, because pixel coordinates are not portable
Xbetween resolutions.
X.PP
XThe first real secret of object rectangles is that each OB_X and
XOB_Y is specified RELATIVE to the X and Y coordinate of its parent
Xobject within the tree. This is the first property we have seen
Xthat is actually "inherited" from level to level within the tree.
X.PP
XThe second secret is more subtle: Every object's rectangle must
Xbe entirely contained within the rectangle of its parent. This
Xprinciple goes by the names "bounding rectangles" or "visual
Xhierarchy". We'll see in a moment how useful it is when detecting
Xmouse/object collisions.
X.SH HOW GEM DOES IT.
XKnowing these secrets, and the linkage structure of object
Xtrees, we can deduce how a number of the GEM operations must work.
XFor instance, consider objc_offset, which returns the actual screen
XX and Y of an object. We can see now that simply loading the OB_X
Xand OB_Y fields of the object does not suffice: they only give the
Xoffset relative to the parent object. So, objc_offset must BEGIN
Xwith these values, and then work its way back up to the ROOT of the
Xtree, adding in the offsets found at each level.
X.PP
XThis can be done by following the OB_NEXT links from the chosen
Xobject. Whenever OB_NEXT points to an object whose OB_TAIL points
Xright back to the same location, then the new node is another level,
Xor "parent" in the tree, and objc_offset adds its OB_X and OB_Y into
Xthe running totals. When OB_NEXT becomes NIL, then the ROOT has been
Xreached and the totals are the values to return. (By the way,
Xremember that the OB_X and OB_Y of the ROOT are undefined until
Xform_center has been called for the tree. They are shown as zeroes
Xin the sample trees.)
X.PP
XWe can also figure out objc_draw. It works its way DOWN the
Xtree, drawing each object as it comes to it. It, too, must keep a

Xrunning X and Y variable, adding in object offsets as it descends
Xtree levels (using OB_HEAD), and subtracting them again as it returns
Xfrom each level. Since the larger objects are nearer the ROOT, we
Xcan now see why they are drawn first, with smaller objects drawn
Xlater or "on top of" them.
X.PP
XIf you write an application which needs to move portions of a
Xdialog or screen with respect to each other, you can take advantage
Xof inheritance of screen position in objc_draw. Simply by changing
Xthe OB_X and/or OB_Y of an object, you can move it and its entire
Xsub-tree to a new location in the dialog. For instance, changing the
Xcoordinates of the parent box of a set of radio buttons will cause
Xall of the buttons to move along with it.
X.PP
XObjc_draw also gives us an example of the uses of visual
Xhierarchy. Recall that a clipping rectangle is specified when calling
Xobjc_draw. At each level of the tree we know that all objects below
Xare contained in the screen rectangle of the current object. If the
Xcurrent rectangle falls completely outside the specified clipping
Xrectangle, we know immediately that we need not draw the object, or
Xany of its descendents! This ability to ignore an entire subtree is
Xcalled "trivial rejection".
X.PP
XNow it's rather easy to figure out objc_find. It starts out by
Xsetting its "object found" variable to NIL. It begins a "walk"
Xthrough the entire object tree, following OB_HEAD and OB_NEXT links,
Xand keeping a current X and Y, just like objc_draw.
X.PP
XAt each node visited, it simply checks to see if the "mouse" X,Y
Xspecified in the call are inside the current object's rectangle. If
Xthey are, that object becomes the found object, and the tree walk
Xcontinues with the object's offspring, and then siblings. Notice how
Xthis checking of offspring makes sure that a smaller object nested
Xwithin, i.e., below, a larger object is found correctly.
X.PP
XIf the mouse X,Y position is not within the object being
Xchecked, then by visual hierarchy it cannot be within any of its
Xoffspring, either. Trivial rejection wins again, and the entire
Xsub-tree is skipped! Objc_find moves on to the OB_NEXT of the
Xrejected object.
X.SH THOUGHT EXPERIMENTS
XThinking about the objc_find algorithm reveals some information
Xabout its performance, and a few tricks we may use in improving the
Xappearance of dialogs and other object trees.
X.PP
XFirst consider the problem of a dialog which contains many
Xobjects. If we lay them all out "side-by-side", then they will all be
Ximmediate offspring of the ROOT object. In this situation, the
Xtrivial rejection method will gain nothing. The time objc_find takes
Xto complete will vary linearly with the total number of objects.
XThis is called an "Order N" process.
X.PP
XSuppose that instead we broke up the dialog into two areas with

Xinvisible boxes, then broke up each of these areas in a like fashion,
Xand so on until we got down to the size of the individual selectable
Xobjects. The number of bottom level objects in this scheme is a
Xpower of two equal to the depth of the tree. Trivial rejection is
Xused to its fullest in this case. It is called an "Order Log N"
Xprocess, and is much more efficient for large numbers of objects.
X.PP
XIn practice, the speed of the ST will allow you to ignore this
Xdistinction for most dialogs and other trees. But if you get into a
Xsituation when speed is critical in searching a large tree, remember
Xthat nesting objects can improve performance dramatically.
X.PP
XIf you have been following closely, you may have also noticed a
Xhole in the visual hierarchy rule. It says that all of a node's
Xchildren must lie within its rectangle, but it does NOT guarantee
Xthat the children's rectangles will be disjoint, that is, not
Xoverlap one another. This peculiarity is the basis of several useful
Xtricks.
X.PP
XFirst, remember that objc_find always tries to scan the entire
Xtree. That is, it doesn't quit when it finds the first object on the
Xgiven coordinates. As mentioned above, this normally guarantees that
Xnested objects will be found. Consider, however, what happens when
Xthe mouse coordinates are on a point where two or more objects AT
XTHE SAME LEVEL overlap: they will replace one another as the "found
Xobject" until objc_find returns with the one which is "last", that
Xis, rightmost in the tree.
X.PP
XThis quirk can be used to advantage in a number of cases.
XSuppose that you have in a dialog an image and a string which you
Xwould like to be selected together when either is clicked. Nesting
Xwithin a common parent achieves nothing in this case. Instead,
Xknowing that form_do must use objc_find, you could use our trick.
X.PP
XYou have to know that the Resource Construction Set normally
Xadds objects in a tree left to right, in the order in which you
Xinserted them. You proceed to build the dialog in the following
Xorder: insert the image first, the string next, then carefully add
Xan invisible box which is not nested within either, and size it to
Xcover them both. Set the SELECTABLE attribute for the box, and the
Xdialog manager will find it, and invert the whole area, when either
Xthe image or string is clicked.
X.PP
XBy the way, remember that the SORT option in the RCS will change
Xthe order of an object's offspring. If you are going to try this
Xtrick, don't use SORT! It will undo all of your careful work.
X.SH A TREEWALKER OF OUR OWN
XSince the GEM system gets so much mileage out of walking object
Xtrees, it seems reasonable that the same method should be useful in
Xapplication programs. In the download you will find map_tree(). As
Xmany LISP veterans might guess from the name, this code will traverse
Xall or part of an object tree, applying a function to each node. It
Xalso allows the function to return a true/false value specifying

Xwhether the sub-tree below a particular node should be ignored.
XLet's examine map_tree() in more detail as a final review of object
Xtree structure.
X.PP
XFirst, look at the parameters. "tree" is the long address of
Xthe object tree of interest, as retrieved by rsrc_gaddr. "this" is
Xthe node at which to begin the traverse, and "last" is the node at
Xwhich to terminate.
X.PP
XIn most cases, the beginning node will be ROOT, and the final
Xvalue will be NIL. This will result in the entire tree being
Xtraversed. You may use other values, but be sure that you CAN get to
X"last" from "this" by following tree links! Although map_tree()
Xincludes a safety check to prevent "running off" the tree, you could
Xget some very strange results from incorrect parameters.
X.PP
XThe declaration for the final parameter, "routine", makes use of
XC construct which may be new to some. It is a pointer to a
Xsubroutine which returns a WORD as a result.
X.PP
XMap_tree() begins by initializing a temporary variable, tmp1,
Xwhich is used to store the number of the last node visited. Since no
Xnode will follow itself, setting tmp1 to the starting node is safe.
X.PP
XThe main loop of the routine simply repeats visiting a new node
Xuntil the last value is reached, or the safety check for end of tree
Xis satisfied.
X.PP
XAt any node visited, we can be in one of two conditions. Either
Xwe are at a node which is "new", that is, not previously visited, or
Xelse we are returning to a parent node which has already been
Xprocessed. We can detect the latter condition by comparing the last
Xnode visited (tmp1) with the OB_TAIL pointer of the current node. If
Xthe node is "old", it is not processed a second time, we simply
Xupdate tmp1 and continue.
X.PP
XIf the node is new, we call "routine" to process it, sending the
Xtree address and object number as parameters. If a FALSE is
Xreturned, we will ignore any subtree below this node. On a TRUE
Xreturn, we load up the OB_HEAD pointer and follow it if a subtree
Xexists. (If you don't care about rejecting subtrees, simply remove
Xthe if condition.) Finally, if the new node had no subtree, or was
Xrejected by "routine", we follow along its OB_NEXT link to the next
Xnode.
X.PP
XA simple application of our new tool shows its power. From a
Xprevious column you may recall the tedium of deselecting every button
Xinside a dialog after it was completed. Using map_tree(), you can
Xdeselect EVERY OBJECT in the tree by using map_tree(tree, ROOT, NIL,
Xdesel_obj); You must use a slightly modified version of desel_obj()
X(included in the download) which always returns TRUE. Be sure to
Xdefine or declare desel_obj() in your code BEFORE making the map_tree
Xcall!

```
X.PP
XIn future columns, I will return to map_tree() and show how it
Xcan be used for advanced techniques such as animated dialogs.  In the
Xmeantime, experiment and enjoy!
X.!
X.!
X.!*************************************************************************
X.!*                                                *
X.!*               End Part 5                            *
X.!*                                                *
X.!*************************************************************************
SHAR_EOF
if test 17957 -ne "`wc -c 'wind5.prf'`"
then
     echo shar: error transmitting "'wind5.prf'" '(should have been 17957
characters)'
fi
echo shar: extracting "'wind6.prf'" '(20611 characters)'
if test -f 'wind6.prf'
then
     echo shar: over-writing existing file "'wind6.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind6.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 6
X.!
X.!*************************************************************************
X.!
X.PART VI Raster operations
X.SH SEASONS GREETINGS
XThis is the Yuletide installment of ST PRO GEM, devoted to
Xexplaining the raster, or "bit-blit" portion of the Atari ST's VDI
Xfunctions.
X.PP
XPlease note that this is NOT an attempt to show how to write
```

Xdirectly to the video memory, although you will be able to deduce a
Xgreat deal from the discussion.
X.PP
XAs usual, there is a download with this column. You will find
Xit in ATARI16 (PCS-58) in DL3 under the name of GEMCL6.C.
X.SH DEFINING TERMS
XTo understand VDI raster operations, you need to understand the
Xjargon used to describe them. (Many programmers will be tempted to
Xskip this section and go directly to the code. Please don't do it
Xthis time: Learning the jargon is the larger half of understanding
Xthe raster operations!)
X.PP
XIn VDI terms a raster area is simply a chunk of contiguous words
Xof memory, defining a bit image. This chunk is called a "form". A
Xform may reside in the ST's video map area or it may be in the data
Xarea of your application. Forms are roughly analogous to "blits" or
X"sprites" on other systems. (Note, however, that there is no sprite
Xhardware on the ST.)
X.PP
XUnlike other systems, there is NO predefined organization of the
Xraster form. Instead, you determine the internal layout of the form
Xwith an auxiliary data structure called the MFDB, or Memory Form
XDefinition Block. Before going into the details of the MFDB, we need
Xto look at the various format options. Their distinguishing features
Xare monochrome vs. color, standard vs. device-specific and even-word
Xvs. fringed.
X.SH MONOCHROME VS. COLOR
XAlthough these terms are standard, it might be better to say
X"single-color vs. multi-color". What we are actually defining is the
Xnumber of bits which correspond to each dot, or pixel, on the screen.
XIn the ST, there are three possible answers. The high-resolution mode
Xhas one bit per pixel, because there is only one "color": white.
X.PP
XIn the medium resolution color mode, there are four possible
Xcolors for each pixel. Therefore, it takes two bits to represent
Xeach dot on the screen. (The actual colors which appear are
Xdetermined by the settings of the ST's pallette registers.)
X.PP
XIn the low resolution color mode, sixteen colors are generated
Xrequiring four bits per pixel. Notice that as the number of bits per
Xpixel has been doubled for each mode, so the number of pixels on the
Xscreen has been halved: 640 by 400 for monochrome, 640 by 200 for
Xmedium-res, and 320 by 200 by low-res. In this way the ST always
Xuses the same amount of video RAM: 32K.
X.PP
XNow we have determined how many bits are needed for each pixel,
Xbut not how they are laid out within the form. To find this out, we
Xhave to see whether the form is device-dependent or not.
X.SH STANDARD VS. DEVICE-SPECIFIC FORMAT
XThe standard raster form format is a constant layout which is
Xthe same for all GEM systems. A device-specific form is one which is
Xstored in the internal format of a particular GEM system. Just as
Xthe ST has three different screen modes, so it has three different

Xdevice-specific form formats. We will look at standard form first,
Xthen the ST-specific forms.
X.PP
XFirst, it's reasonable to ask why a standard format is used. Its
Xmain function is to establish a portability method between various
XGEM systems. For instance, an icon created in standard format on an
XIBM PC GEM setup can be moved to the ST, or a GEM Paint picture from
Xan AT&T 6300 could be loaded into the ST version of Paint.
X.PP
XThe standard format has some uses even if you only work with the
XST, because it gives a method of moving your application's icons and
Ximages amongst the three different screen modes. To be sure, there
Xare limits to this. Since there are different numbers of pixels in
Xthe different modes, an icon built in the high-resolution mode will
Xappear twice as large in low-res mode, and would appear oblong in
Xmedium-res. (You can see this effect in the ST Desktop's icons.)
XAlso, colors defined in the lower resolutions will be useless in
Xmonochrome.
X.PP
XThe standard monochrome format uses a one-bit to represent
Xblack, and uses a zero for white. It is assumed that the form begins
Xat the upper left of the raster area, and is written a word at a
Xtime left to right on each row, with the rows being output top to
Xbottom. Within each word, the most significant bit is the left-most
Xon the screen.
X.PP
XThe standard color form uses a storage method called "color
Xplanes". The high-order bits for all of the pixels are stored just as
Xfor monochrome, followed by the next-lowest bit in another contiguous
Xblock, and so on until all of the necessary color bits have been
Xstored.
X.PP
XFor example, on a 16-color system, there would be four different
Xplanes. The color of the upper-leftmost bit in the form would be
Xdetermined by concatenating the high-order bit in the first word of
Xeach plane of the form.
X.PP
XThe system dependent form for the ST's monochrome mode is very
Xsimple: it is identical to the standard form! This occurs because
Xthe ST uses a "reverse-video" setup in monochrome mode, with the
Xbackground set to white.
X.PP
XThe video organization of the ST's color modes is more
Xcomplicated. It uses an "interleaved plane" system to store the bits
Xwhich make up a pixel. In the low-resolution mode, every four words
Xdefine the values of 16 pixels. The high-order bits of the four
Xwords are merged to form the left-most pixel, followed by the next
Xlower bit of each word, and so on. This method is called
Xinterleaving because the usually separate color planes described
Xabove have been shuffled together in memory.
X.PP
XThe organization of the ST's medium-resolution mode is similar
Xto low-res, except the only two words are taken at a time. These are

Xmerged to create the two bits needed to address four colors.
X.PP
XYou should note that the actual color produced by a particular
Xpixel value is NOT fixed. The ST uses a color remapping system
Xcalled a palette. The pixel value in memory is used to address a
Xhardware register in the palette which contains the actual RGB
Xlevels to be sent to the display. Programs may set the palette
Xregisters with BIOS calls, or the user may alter its settings with
Xthe Control Panel desk accessory. Generally, palette zero
X(background) is left as white, and the highest numbered palette is
Xblack.
X.SH EVEN-WORD VS. FRINGES
XA form always begins on a word boundary, and is always stored
Xwith an integral number of words per row. However, it is possible
Xto use only a portion of the final word. This partial word is called
Xa "fringe". If, for instance, you had a form 40 pixels wide, it
Xwould be stored with four words per row: three whole words, and one
Xword with the eight pixel fringe in its upper byte.
X.SH MFDB's
XNow we can intelligently define the elements of the MFDB. Its
Xexact C structure definition will be found in the download. The
Xfd_nplanes entry determines the color scheme: a value of one is
Xmonochrome, more than one denotes a color form. If fd_stand is zero,
Xthen the form is device-specific, otherwise it is in standard format.
X.PP
XThe fd_w and fd_h fields contain the pixel width and height of
Xthe form respectively. Fd_wdwidth is the width of a row in words.
XIf fd_w is not exactly equal to sixteen times fd_wdwidth, then the
Xform has a fringe.
X.PP
XFinally, fd_addr is the 32-bit memory address of the form
Xitself. Zero is a special value for fd_addr. It denotes that this
XMFDB is for the video memory itself. In this case, the VDI
Xsubstitutes the actual address of the screen, and it ignores ALL of
Xthe other parameters. They are replaced with the size of the whole
Xscreen and number of planes in the current mode, and the form is (of
Xcourse) in device-specific format.
X.PP
XThis implies that any MFDB which points at the screen can only
Xaddress the entire screen. This is not a problem, however, since the
Xthe VDI raster calls allow you to select a rectangular region within
Xthe form. (A note to advanced programmers: If this situation is
Xannoying, you can retrieve the address of the ST's video area from
Xlow memory, add an appropriate offset, and substitute it into the
XMFDB yourself to address a portion of the screen.)
X.SH LET'S OPERATE
XNow we can look at the VDI raster operations themselves. There
Xare actually three: transform form, copy raster opaque, and copy
Xraster transparent. Both copy raster functions can perform a variety
Xof logic operatoins during the copy.
X.SH TRANSFORM FORM
XThe purpose of this operation is to change the format of a form:
Xfrom standard to device-specific, or vice-versa. The calling

Xsequence is:
X.FB vr_trnfm()
Xvr_trnfm(vdi_handle, source, dest);
X.FE
Xwhere source and dest are each pointers to MFDBs. They ARE allowed
Xto be the same. Transform form checks the fd_stand flag in the
Xsource MFDB, toggles it and writes it into the destination MFDB after
Xrewriting the form itself. Note that transform form CANNOT change
Xthe number of color planes in a form: fd_nplanes must be identical in
Xthe two MFDBs.
X.PP
XIf you are writing an application to run on the ST only, you
Xwill probably be able to avoid transform form entirely. Images and
Xicons are stored within resources as standard forms, but since they
Xare monochrome, they will work "as is" with the ST.
X.PP
XIf you may want to move your program or picture files to another
XGEM system, then you will need transform form. Screen images can be
Xtransformed to standard format and stored to disk. Another system
Xwith the same number of color planes could the read the files, and
Xtransform the image to ITS internal format with transform form.
X.PP
XA GEM application which will be moved to other systems needs to
Xcontain code to transform the images and icons within its resource,
Xsince standard and device-specific formats will not always coincide.
X.PP
XIf you are in this situation, you will find several utilities in
Xthe download which you can use to transform G_ICON and G_IMAGE
Xobjects. There is also a routine which may be used with map_tree()
Xfrom the last column in order to transform all of the images and
Xicons in a resource tree at once.
X.SH COPY RASTER OPAQUE
XThis operation copies all or part of the source form into the
Xdestination form. Both the source and destination forms must be in
Xdevice-specific form. Copy raster opaque is for moving information
Xbetween "like" forms, that is, it can copy from monochrome to
Xmonochrome, or between color forms with the same number of planes.
XThe calling format is:
X.FB vro_cpyfm()
Xvro_cpyfm(vdi_handle, mode, pxy, source, dest);
X.FE
XAs above, the source and dest parameters are pointers to MFDBs
X(which in turn point to the actual forms). The two MFDBs may point
Xto memory areas which overlap. In this case, the VDI will perform
Xthe move in a non-destructive order. Mode determines how the pixel
Xvalues in the source and destination areas will be combined. I will
Xdiscuss it separately later on.
X.PP
XThe pxy parameter is a pointer to an eight-word integer array.
XThis array defines the area within each form which will be affected.
XPxy[0] and pxy[1] contain, respectively, the X and Y coordinates of
Xthe upper left corner of the source rectangle. These are given as
Xpositive pixel displacements from the upper left of the form.

XPxy[2] and pxy[3] contain the X and Y displacements for the lower
Xright of the source rectangle.
X.PP
XPxy[4] through pxy[7] contain the destination rectangle in the
Xsame format. Normally, the destination and source should be the same
Xsize. If not, the size given for the source rules, and the whole are
Xis transferred beginning at the upper left given for the destination.
X.PP
XThis all sounds complex, but is quite simple in many cases.
XConsider an example where you want to move a 32 by 32 pixel area
Xfrom one part of the display to another. You would need to allocate
Xonly one MFDB, with a zero in the fd_addr field. The VDI will take
Xcare of counting color planes and so on. The upper left raster
Xcoordinates of the source and destination rectangles go into pxy[0],
Xpxy[1] and pxy[4], pxy[5] respectively. You add 32 to each of these
Xvalues and insert the results in the corresponding lower right
Xentries, then make the copy call using the same MFDB for both source
Xand destination. The VDI takes care of any overlaps.
X.SH COPY RASTER TRANSPARENT
XThis operation is used for copying from a monochrome form to a
Xcolor form. It is called transparent because it "writes through" to
Xall of the color planes. Again, the forms need to be in
Xdevice-specific form. The calling format is:
X.FB vrt_cpyfm()
Xvrt_cpyfm(vdi_handle, mode, pxy, source, dest, color);
X.FE
XAll of the parameters are the same as copy opaque, except that
Xcolor has been added. Color is a pointer to a two word integer
Xarray. Color[0] contains the color index which will be used when a
Xone appears in the source form, and color[1] contains the index for
Xuse when a zero occurs.
X.PP
XIncidentally, copy transparent is used by the AES to draw
XG_ICONs and G_IMAGEs onto the screen. This explains why you do not
Xneed to convert them to color forms yourself.
X.PP
XA note for advanced VDI programmers: The pxy parameter in both
Xcopy opaque and transparent may be given in normalized device
Xcoordinates (NDC) if the workstation associated with vdi_handle was
Xopened for NDC work.
X.SH THE MODE PARAMETER
XThe mode variable used in both of the copy functions is an
Xinteger with a value between zero and fifteen. It is used to select
Xhow the copy function will merge the pixel values of the source and
Xdestination forms. The complete table of functions is given in the
Xdownload. Since a number of these are of obscure or questionable
Xusefulness, I will only discuss the most commonly used modes.
X.SH REPLACE MODE
XA mode of 3 results in a straight-forward copy: every
Xdestination pixel is replaced with the corresponding source form
Xvalue.
X.SH ERASE MODE
XA mode value of 4 will erase every destination pixel which

Xcorresponds to a one in the source form. (This mode corresponds to
Xthe "eraser" in a Paint program.) A mode value of 1 will erase every
Xdestination pixel which DOES NOT correspond to a one in the source.
X.SH XOR MODE
XA mode value of 6 will cause the destination pixel to be toggled
Xif the corresponding source bit is a one. This operation is
Xinvertable, that is, executing it again will reverse the effects.
XFor this reason it is often used for "software sprites" which must be
Xshown and then removed from the screens. There are some problems
Xwith this in color operations, though - see below.
X.SH TRANSPARENT MODE
XDon't confuse this term with the copy transparent function
Xitself. In this case it simply means that ONLY those destination
Xpixels corresponding with ones in the source form will be modified
Xby the operation. If a copy transparent is being performed, the
Xvalue of color[0] is substituted for each one bit in the source form.
XA mode value of 7 selects transparent mode.
X.SH REVERSE TRANSPARENT MODE
XThis is like transparent mode except that only those destination
Xpixels corresponding to source ZEROS are modified. In a copy
Xtransparent, the value of color[1] is substituted for each zero bit.
XMode 13 selects reverse transparent.
X.SH THE PROBLEM OF COLOR
XI have discussed the various modes as if they deal with one and
Xzero pixel values only. This is exactly true when both forms are
Xmonochrome, but is more complex when one or both are color forms.
X.PP
XWhen both forms are color, indicating that a copy opaque is
Xbeing performed, then the color planes are combined bit-by-bit using
Xthe rule for that mode. That is, for each corresponding source and
Xdestination pixel, the VDI extracts the top order bits and processes
Xthem, then operates on the next lower bit, and so on, stuffing each
Xbit back into the destination form as the copy progresses. For
Xexample, an XOR operation on pixels valued 7 and 10 would result in a
Xpixel value of 13.
X.PP
XIn the case of a copy transparent, the situation is more
Xcomplex. The source form consists of one plane, and the destination
Xform has two or more. In order to match these up, the color[] array
Xis used. Whenever a one pixel is found, the value of color[0] is
Xextracted and used in the bit-by-bit merge process described in the
Xlast paragraph. When a zero is found, the value of color[1] is
Xmerged into the destination form.
X.PP
XAs you can probably see, a raster copy using a mode which
Xcombines the source and destination can be quite complex when color
Xplanes are used! The situation is compounded on the ST, since the
Xactual color values may be remapped by the palette at any time.   In
Xmany cases, just using black and white in color[] may achieve the
Xeffects you desire. If need to use full color, experimentation is
Xthe best guide to what looks good on the screen and what is garish
Xor illegible.
X.SH OPTIMIZING RASTER OPERATIONS

XBecause the VDI raster functions are extremely generalized, they
Xare also slower than hand-coded screen drivers which you might write
Xfor your own special cases. If you want to speed up your
Xapplication's raster operations without writing assembl language
Xdrivers, the following hints will help you increase the VDI's
Xperformance.
X.SH AVOID MERGED COPIES
XThese are copy modes, such as XOR, which require that words be
Xread from the destination form. This extra memory access increases
Xthe running time by up to fifty percent.
X.SH MOVE TO CORRESPONDING PIXELS
XThe bit position within a word of the destination rectangle
Xshould correspond with the bit position of the source rectangle's
Xleft edge. For instance, if the source's left edge is one pixel in,
Xthen the destination's edge could be at one, seventeen, thirty-three,
Xand so. Copies which do not obey this rule force the VDI to shift
Xeach word of the form as it is moved.
X.SH AVOID FRINGES
XPut the left edge of the source and destination rectangles on
Xan even word boundary, and make their widths even multiples of
Xsixteen. The VDI then does not have to load and modify partial words
Xwithin the destination forms.
X.SH USE ANOTHER METHOD
XSometimes a raster operation is not the fastest way to
Xaccomplish your task. For instance, filling a rectangle with zeros
Xor ones may be accomplished by using raster copy modes zero and
Xfifteen, but it is faster to use the VDI v_bar function instead.
XLikewise, inverting an area on the screen may be done more quickly
Xwith v_bar by using BLACK in XOR mode. Unfortunately, v_bar cannot
Xaffect memory which is not in the video map, so these alternatives
Xdo not always work.
X.SH FEEDBACK RESULTS
XThe results of the poll on keeping or dropping the use of
Xportability macros are in. By a slim margin, you have voted to keep
Xthem. The vote was close enough that in future columns I will try to
Xinclude ST-only versions of routines which make heavy use of the
Xmacros. C purists and dedicated Atarians may then use the alternate
Xcode.
X.SH THE NEXT QUESTION
XThis time I'd like to ask you to drop by the Feedback Section
Xand tell me whether the technical level of the columns has been:
X.br
X.sp 1
X.in +4
XA) Too hard! Who do you think we are, anyway?
X.br
XB) Too easy! Don't underestimate Atarians.
X.br
XC) About right, on the average.
X.in -4
X.PP
XIf you have the time, it would also help to know a little about
Xyour background, for instance, whether you are a professional

```
Xprogrammer, how long you have been computing, if you owned an 8-bit
XAtari, and so on.
X.SH COMING UP SOON
XThe next column will deal with GEM menus: How they are
Xconstructed, how to decipher menu messages, and how to change menu
Xentries at run-time.  The following issue will contain more feedback
Xresponse, and a discussion on designing user interfaces for GEM
Xprograms.
X.!
X.!
X.!*****************************************************************************
X.!*                                                *
X.!*               End Part 6                           *
X.!*                                                *
X.!*****************************************************************************
SHAR_EOF
if test 20611 -ne "`wc -c 'wind6.prf'`"
then
     echo shar: error transmitting "'wind6.prf'" '(should have been 20611
characters)'
fi
#    End of shell archive
exit 0

--
                      Jwahar R. Bammi
                    Usenet:  .....!decvax!cwruecmp!bammi
                     CSnet:  bammi@case
                   Arpa:  bammi%case@csnet-relay
                 CompuServe:  71515,155


From 7395218402488303579
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,40d12bd9b444b45d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:27:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 3 of 6
Message-ID: <1443@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:27:36 EST
Article-I.D.: cwruecmp.1443
Posted: Fri Mar 21 23:27:36 1986
Date-Received: Sun, 30-Mar-86 08:29:52 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 1462

#!/bin/sh
# This is a shell archive, meaning:
```

```
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    wind7.prf
#    wind8.prf
#    wind9.prf
# This archive created: Fri Mar 21 22:40:54 1986
# By:     Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'wind7.prf'" '(17805 characters)'
if test -f 'wind7.prf'
then
     echo shar: over-writing existing file "'wind7.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind7.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 7
X.!
X.!*************************************************************************
X.!
X.PART VII Menu Structures
X.SH HAPPY NEW YEAR
XThis is article number seven in the ST
XPRO GEM series, and the first for 1986.  In this installment,
XI will be discussing GEM menu structures and how to use them
Xin your application.  There is  also a short Feedback
Xresponse section.  You will find the download file containing
Xthe code for this column in the file GEMCL7.C in DL3 of the
XATARI16 SIG (PCS-58).
X.SH MENU BASICS
XIn ST GEM, the menu consists of a bar
Xacross the top of the screen which displays several sub-menu
Xtitles.  Touching one of the titles causes it to highlight,
Xand an associated "drop-down" to be drawn  directly below on
Xthe screen.  This drop-down may be dismissed by moving  to
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Xanother title, or by clicking the mouse off of the drop-down.
X.PP
XTo make a selection, the mouse is moved over the
Xdrop-down. Each valid selection is highlighted when the
Xmouse touches it. Clicking the mouse while over one of
Xthese selections picks that item. GEM then undraws the
Xdrop-down, and sends a message to your application giving the
Xobject number of the title bar entry, and the object number
Xof the drop-down item which were selected by the user. The
Xselected title entry is left highlighted while your code
Xprocesses the request.
X.SH MENU STRUCTURES
XThe data structure which defines a GEM
Xmenu is (surprise!) an object tree, just like the dialogs and
Xpanels which we have discussed before. However, the
Xoperations of the GEM menu manager are quite different from
Xthose of the form manager, so the internal design of the menu
Xtree has some curious constraints.
X.PP
XThe best way to understand these constraints is to look
Xat an example. The first item in the download is the object
Xstructure (only) of the menu tree from the GEM Doodle/Demo
Xsample application.
X.PP
XThe ROOT of a menu tree is sized to fit the entire
Xscreen. To satisfy the visual hierarchy principle (see
Xarticle #5), the screen is divided into two parts: THE BAR,
Xcontaining the menu titles, and THE SCREEN, while contains
Xthe drop-downs when they are drawn. Each of these areas is
Xdefined by an object of the same name, which are the only two
Xobjects linked directly below the ROOT of a menu tree. You
Xwill notice an important implication of this structure: The
Xmenu titles and their associated drop-downs are stored in
Xentirely different subtrees of the menu!
X.PP
XWhile examining THE BAR in the example listing, you may
Xnotice that its OB_HEIGHT is very large (513). In
Xhexadecimal this is 0x0201. This defines a height for THE
XBAR of one character plus two pixels used for spacing. THE
XBAR and its subtree are the only objects which are drawn on
Xthe screen in the menu's quiescent state.
X.PP
XThe only offspring object of THE BAR is THE ACTIVE. This
Xobject defines the part of THE BAR which is covered by menu
Xtitles. The screen rectangle belonging to THE ACTIVE is used
Xby the GEM screen manager when it waits for the mouse to
Xenter an active menu title. Notice that THE ACTIVE and its
Xoffspring also have OB_HEIGHTs with pixel residues.
X.PP
XThe actual menu titles are linked left to right in order
Xbelow THE ACTIVE. Their OB_Xs and OB_WIDTHs are arranged so
Xthat they completely cover THE ACTIVE. Normally, the title
Xobjects are typed G_TITLE, a special type which assures that

Xthe title bar margins are correctly drawn.
X.PP
XTHE SCREEN is the parent object of the drop-down boxes
Xthemselves. They are linked left to right in an order
Xidentical with their titles, so that the menu manager can
Xmake the correct correspondence at run-time. The OB_X of
Xeach drop-down is set so that it is positioned below its
Xtitle on the screen.
X.PP
XNotice that it is safe to overlap the drop-downs within a
Xmenu, since only one of them will be displayed at any time.
XThere is one constraint on the boxes however: They must be
Xno greater than a quarter screen in total size. This is the
Xsize of the off-screen blit buffer which is used by GEM to
Xstore the screen contents when the drop-down is drawn. If
Xyou exceed this size, not all the screen under the drop-down
Xwill be restored, or the ST may crash!
X.PP
XThe entries within a drop-down are usually G_STRINGs,
Xwhich are optimized for drawing speed. The rectangles of
Xthese entries must completely cover the drop-down, or the
Xentire drop-down will be inverted when the mouse touches an
Xuncovered area! Techniques for using objects other than
XG_STRINGs are discussed later in this column.
X.PP
XThe first title and its corresponding drop-down are
Xspecial. The title name, by custom, is set to DESK. The
Xdrop-down must contain exactly eight G_STRING objects. The
Xfirst (again by custom) is the INFO entry, which usually
Xleads to a dialog displaying author and copyright information
Xfor your application. The next is a separator string of
Xdashes with the DISABLED flag set. The following six objects
Xare dummy strings which GEM fills in with the names of desk
Xaccessories when your menu is loaded.
X.PP
XThe purpose of this description of menu trees is to give
Xyou an understanding of what lies "behind the scenes" in the
Xnext section, which describes the run-time menu library
Xcalls. In practice, the Resource Construction Set provides
X"blank menus" which include all of the required elements, and
Xit also enforces the constraints on internal structure. You
Xonly need to worry about these if you modify the menu tree
X"on-the-fly".
X.SH USING THE MENU
Xonce you have loaded the application's
Xresource, you can ask the AES to install your menu. You must
Xfirst get the address of the menu tree within the resource
Xusing:
X.FB rsrc_gaddr()
Xrsrc_gaddr(R_TREE, MENUTREE, &ad_menu);
X.FE
Xassuming that MENUTREE is the name you gave the menu in the
XRCS, and that ad_menu is a LONG which will receive the

Xaddress. Then you call the AES to establish the menu:
X.FB menu_bar()
Xmenu_bar(ad_menu, TRUE);
X.FE
XAt this point, the AES draws your menu bar on the screen and
Xanimates it when the user moves the mouse into the title
Xarea.
X.PP
XThe AES indicates that the user has made a menu selection
Xby sending your application a message. The message type is
XMN_SELECTED, which will be stored in msg[0], the first
Xlocation in the message returned by evnt_multi().
X.PP
XThe AES also stores the object number of the selected
Xmenu's title in msg[3], and the object number of the
Xselected menu item in msg[4]. Generally, your application
Xwill process menu messages with nested C switch statements.
XThe outer switch will have one case for each menu title, and
Xthe inner switch statements will have a case for each entry
Xwithin the selected menu. (This implies that you must give a
Xname to each title and to each menu entry when you create the
Xmenu in the RCS.)
X.PP
XAfter the user has made a menu selection, the AES leaves
Xthe title of the chosen menu in reverse video to indicate
Xthat your application is busy processing the message. When
Xyou done with whatever action is indicated, you need to
Xreturn the title to a normal state. This is done with
X.FB menu_tnormal()
Xmenu_tnormal(ad_menu, msg[3], TRUE);
X.FE
X.sp 1
X.ce 1
X(Remember that msg[3] is the title's object number.)
X.sp 1
XWhen your application is ready to terminate, it should
Xdelete its menu bar. Do this with the call:
Xmenu_bar(ad_menu, FALSE);
X.SH GETTING FANCY
XThe techniques above represent the bare
Xminimum to handle menus. In most cases, however, you will
Xwant your menus to be more "intelligent" in displaying the
Xuser's options. For instance, you can prevent many user
Xerrors by disabling inappropriate choices, or you can save
Xspace on drop-downs by showing only one line for a toggle and
Xaltering its text or placing and removing a check mark when
Xthe state is changed. This section discusses these and other
Xadvanced techniques.
X.PP
XIt is a truism of user interface design that the best way
Xto deal with an error is not to let it happen in the first
Xplace. It many cases, you can apply this principle to GEM
Xmenus by disabling choices which should not be used. If

Xyour application uses a "selection precedes action" type of
Xinterface, the type of object selected may give the
Xinformation needed to do this.   Alternately, the state of
Xthe underlying program may render certain menu choices
Xillegal.
X.PP
XGEM provides a call to disable and re-enable menu
Xoptions. The call is:
X.FB menu_ienable()
Xmenu_ienable(ad_menu, ENTRY, FALSE);
X.FE
Xto disable a selection. The entry will be grayed out when
Xit is drawn, and will not invert under the mouse and will not
Xbe selected by the user. Substituting TRUE for FALSE
Xre-enables the option. ENTRY is the name of the object
Xwhich is being affected, as assigned in the RCS.
X.PP
XNote that menu_ienable() will not normally affect the
Xappearance or operation of menu TITLE entries. However,
Xthere is an undocumented feature which allows this. If ENTRY
Xis replaced by the object number of a title bar entry with
Xits top bit set, then the entire associated drop-down will be
Xdisabled or re-enabled as requested, and the title's
Xappearance will be changed. But, be warned that this feature
Xdid not work reliably in some early versions of GEM. Test it
Xon your copy of ST GEM, and use it with caution when you
Xcannot control the version under which your application may
Xrun.
X.PP
XIt is also possible to disable menu entries by directly
Xaltering the DISABLED attribute within the OB_STATE word.
XThe routines enab_obj() and disab_obj() in the download show
Xhow this is done. They are also used in set_menu(), which
Xfollows them immediately.
X.PP
XSet_menu() is a utility which is useful when you wish to
Xsimultaneously enable or disable many entries in the menu
Xwhen the program's state changes or a new object is selected
Xby the user.   It is called with
X.FB set_menu()
Xset_menu(ad_menu, vector);
X.FE
Xwhere vector is a pointer to an array of WORDs. The first
Xword of the array determines the default state of menu
Xentries. If it is TRUE, then set_menu() enables all entries
Xin every drop-down of the menu tree, except that the DESK
Xdrop-down is unaffected. If it is FALSE, then every menu
Xentry is disabled.
X.PP
XThe following entries in the array are the numbers of
Xmenu entries which are to be toggled to the reverse of the
Xdefault state. This list is terminated by a zero entry.
X.PP

XThe advantage of set_menu() is that it allows you to
Xbuild a collection of menu state arrays, and associate one
Xwith each type of user-selected object, program state, and so
Xon. Changing the status of the menu tree may then be
Xaccomplished with a single call.
X.SH CHECK, PLEASE?
XOne type of state indicator which may
Xappear within a drop-down is a checkmark next to an entry.
XYou can add the checkmark with the call:
X.FB menu_icheck()
Xmenu_icheck(ad_menu, ENTRY, TRUE);
X.FE
Xand remove it by replacing the TRUE with FALSE. As above,
XENTRY is the name of the menu entry of interest. The
Xcheckmark appears inside the left boundary of the entry
Xobject, so leave some space for it.
X.PP
XThe menu_icheck() call is actually changing the state of
Xthe CHECKED flag within the entry object's OB_STATE word. If
Xnecessary, you may alter the flag directly using do_obj() and
Xundo_obj() from the download.
X.SH NOW YOU SEE IT, NOW YOU DON'T
XYou can also alter the
Xtext which appears in a particular menu entry (assuming that
Xthe entry is a G_STRING object). The call
X.FB menu_text()
Xmenu_text(ad_menu, ENTRY, ADDR(text));
X.FE
Xwill substitute the null-terminated string pointed to by
Xtext for whatever is currently in ENTRY. Remember to make
Xthe drop-down wide enough to handle the largest text string
Xwhich you may substitute. In the interests of speed,
XG_STRINGs drawn within drop-downs are not clipped, so you may
Xget garbage characters on the desktop if you do not size the
Xdrop-down properly!
X.PP
XThe menu_text() call actually alters the OB_SPEC field of
Xthe menu entry object to point to the string which you
Xspecify. Since the menu tree is a static data structure
Xwhich may be directly accessed by the AES at any time, be
Xsure that the string is also statically allocated and that it
Xis not modified without first being delinked from the menu
Xtree. Failure to do this may result in random crashes when
Xthe user accesses the drop-down!
X.SH LUNCH AND DINNER MENUS
XSome applications may have such
Xa wide range of operations that they need more than one menu
Xbar at different times. There is no problem with having
Xmore than one menu tree in a resource, but the AES can only
Xkeep track of one at a time. Therefore, to switch menus you
Xneed to use menu_bar(ad_menu1, FALSE); to release the first
Xmenu, then use menu_bar(ad_menu2, TRUE); to load the second
Xmenu tree.

X.PP
XChanging the entire menu is a drastic action. Out of
Xconsideration for your user, it should be associated with
Xsome equally obvious change in the application which has just
Xbeen manually requested. An example might be changing from
Xspreadsheet to data graphing mode in a multi-function
Xprogram.
X.SH DO IT YOURSELF
XIn a future column, I will discuss how
Xto set up user-defined drawing objects. If you have already
Xdiscovered them on your own, you can use them within a
Xdrop-down or as a title entry.
X.PP
XIf the user-defined object is within a drop-down, its
Xassociated drawing code will be called once when the
Xdrop-down is first drawn. It will then be called in
X"state-change" mode when the entry is highlighted (inverted).
XThis allows you to use non-standard methods to show
Xselection, such as outlines.
X.PP
XIf you try to insert a user-defined object within the
Xmenu title area, remember that the G_TITLE object which you
Xare replacing includes part of the dark margin of the bar.
XYou will need to experiment with your object drawing code to
Xreplicate this effect.
X.SH MAKE PRETTY
XThere are a number of menu formatting
Xconventions which have become standard practice. Using these
Xgives your application a recognizable "look-and-feel" and
Xhelps users learn it. The following section reviews these
Xconventions, and supplies a few hints and tricks to obtain a
Xbetter appearance for you menus.
X.PP
XThe second drop-down is customarily used as the FILE
Xmenu. It contains options related to loading and saving the
Xfiles used by the application, as well as entries for
Xclearing the workspace and terminating the program.
X.PP
XYou should avoid crowding the menu bar. Leave a couple
Xof spaces between each entry, and try not to use more than
X70% of the bar. Not only does this look better, but you will
Xhave space for longer words if you translate your application
Xto a foreign language.
X.PP
XSimilarly, avoid cluttering menu drop-downs. Try to keep
Xthe number of options to no more than ten unless they are
Xclearly related, such as colors. Separate off dissimilar
Xentries with the standard disabled dashes line. (If you are
Xusing set_menu(), remember to consider the separators when
Xsetting up the state vectors.)
X.PP
XIf the number of options grows beyond this bound, it may
Xbe time to move them to a dialog box. If so, it is a

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Xconvention to put three dots following each menu entry which
Xleads to a dialog. Also, allow a margin on the menu entries.
XTwo leading blanks and a minimum of one trailing blank is
Xstandard, and allows room for checkmarks if they are used.
X.PP
XDangerous menu options should be far away from common
Xused entries, and are best separated with dashed lines.  Such
Xoptions should either lead to a confirming go/no-go alert, or
Xshould have associated "undo" options.
X.PP
XAfter you have finished defining a menu drop-down with
Xthe RCS,  be sure that its entries cover the entire box.
XThen use ctrl-click to  select the drop-down itself, and SORT
Xthe entries top to bottom.  This  way the drop-down draws in
Xsmoothly top to bottom.
X.PP
XFinally, it is possible to put entries other than
XG_STRINGs into drop-downs.  In the RCS, you will need to
Ximport them via the clipboard from the Dialog mode.
X.PP
XSome non-string object, such as icons and images, will
Xlook odd  when they are inverted under the mouse.  There is a
Xstandard trick for  dealing with this problem.  Insert the
Xicon or whatever in the drop-down first.  Then get a G_IBOX
Xobject and position and size it so that it covers the first
Xobject as well as the extra area you would like to be
Xinverted.
X.PP
XEdit the G_IBOX to remove its border, and assign the
Xentry name  to it.  Since the menu manager uses objc_find(),
Xit will detect and invert this second object when the mouse
Xmoves into the drop-down.  (To see why, refer to article #5.)
XFinally, DO NOT SORT a drop-down which has been set  up this
Xway!
X.SH  THAT'S IT FOR NOW!
XThe next column will discuss some of
Xthe principles of designing GEM interfaces for applications.
XThis topic is irreverantly known as GEM mythology or
Xinterface religion.  The subject for the following column is
Xundecided.  I am considering mouse and keyboard messages, VDI
Xdrawing primitives, and the file selector as topics.  Let me
Xknow your preferences in the Feedback!
X.!
X.!
X.!*****************************************************************************
X.!*                                                *
X.!*              End Part 7                             *
X.!*                                                *
X.!*****************************************************************************
SHAR_EOF
if test 17805 -ne "`wc -c 'wind7.prf'`"
then
     echo shar: error transmitting "'wind7.prf'" '(should have been 17805
```

```
characters)'
fi
echo shar: extracting "'wind8.prf'" '(25511 characters)'
if test -f 'wind8.prf'
then
     echo shar: over-writing existing file "'wind8.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind8.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!
X.!*************************************************************************
X.!
X.!           Begin Part 8
X.!
X.!*************************************************************************
X.!
X.PART VIII  USER INTERFACES
X.SH AND NOW FOR SOMETHING COMPLETELY DIFFERENT!
XIn response to a
Xnumber of requests, this installment of ST PRO GEM will be devoted
Xto examining a few of the principles of computer/human interface
Xdesign, or "religion" as some would have it.  I'm going to start
Xwith basic ergonomic laws, and try to draw some conclusions which
Xare fairly specific to designing for the ST.  If this article
Xmeets with general approval, further "homilies" may appear at
Xirregular intervals as part of the ST PRO GEM series.
X.PP
XFor those who did NOT ask for this topic, it seems fair to
Xexplain why your diet of hard-core technical information has been
Xinterrupted by a sermon!  As a motivater, we might consider why
Xsome programs are said by reviewers to have a "hot" feel (and
Xhence sell well!) while others are "confusing" or "boring".
X.PP
XAlan Kay has said that "user interface is theatre".  I think
Xwe may be able to take it further, and suggest that a successful
Xprogram works a bit of magic, persuading the user to suspend his
Xdisbelief and enter an imaginary world behind the screen, whether
Xit is the mathematical world of a spreadsheet, or the land of Pacman
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Xpursued by ghosts.
X.PP
XA reader of a novel or science fiction story also suspends
Xdisbelief to participate in the work.  Bad grammar and clumsy plotting
Xby the author are jarring, and break down the illusion.  Similarly,
Xa programmer who fails to pay attention to making his interface
Xfast and consistent will annoy the user, and distract him from
Xwhatever care has been lavished on the functional core of the program.
X.SH CREDIT WHERE IT'S DUE
XBefore launching into the discussion
Xof user interface, I should mention that the general treatment and
Xmany of the specific research results are drawn from Card, Newell,
Xand Moran's landmark book on the topic, which is cited at the end
Xof the article.  Any errors in interpretation and application to
XGEM and the ST are entirely my own, however.
X.SH FINGERTIPS
XWe'll start right at the user's fingers with the
Xbasic equation governing positioning of the mouse, Fitt's Law,
Xwhich is given as
X.sp 1
X.ce 1
XT = I * LOG2( D / S + .5)
X.sp 1
Xwhere T is the amount of time to move to a target, D is the distance
Xof the target from the current position, and S is the size of the
Xtarget, stated in equivalent units.  LOG2 is the base 2 (binary)
Xlogarithm function, and I is a proportionality constant, about
X100 milliseconds per bit, which corresponds to the human's "clock
Xrate" for making incremental movements.
X.PP
XWe can squeeze an amazing amount of information out of this
Xformula when attempting to speed up an interface.  Since motion time
Xgoes up with distance, we should arrange the screen with the
Xusual working area near the center, so the mouse will have to move
Xa smaller distance on average from a selected object to a menu or
Xpanel.  Likewise, any items which are usually used together should
Xbe placed together.
X.PP
XThe most common operations will have the greater impact on
Xspeed, so they should be closest to the working area and perhaps
Xlarger than other icons or menu entries.  If you want to have
Xall other operations take about the same time, then the targets
Xfarthest from the working area should be larger, and those closer
Xmay be proportionately smaller.
X.PP
XConsider also the implications for dialogs.  Small check boxes
Xare out.  Large buttons which are easy to hit are in.  There should
Xbe ample space between selectable items to allow for positioning
Xerror.  Dangerous options should be widely separated from common
Xselections.
X.SH MUSCLES
XAnyone who has used the ST Desktop for any period
Xof time has probably noticed that his fingers now know where to find
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Xthe File menu. This phenomenon is sometimes called "muscle memory",
Xand its rate of onset is given by the Power Law of Practice:
X.sp 1
X.ce 1
XT(n) = T(1) * n ** (-a)
X.sp 1
Xwhere T(n) is the time on the nth trial, T(1) is the time on the
Xfirst trial, and a is approximately 0.4. (I have appropriated
X** from Fortran as an exponentiation operator, since C lacks one.)
X.PP
XThis first thing to note about the Power Law is that it only
Xworks if a target stays in the same place! This should be a potent
Xargument against rearranging icons, menus, or dialogs without some
Xexplicit request by the user. The time to hit a target which moves
Xaround arbitrarily will always be T(1)!
X.PP
XIn many cases, the Power Law will also work for sequences of
Xoperations to even greater effect. If you are a touch typist, you
Xcan observe this effect by comparing how fast you can enter "the"
Xin comparison to three random letters. We'll come back shortly
Xto consider what we can do to encourage this phenomenon.
X.SH EYES
XJust as fingers are the way the user sends data to the
Xcomputer, so the eyes are his channel from the machine. The rate
Xat which information may be passed to the user is determined by
Xthe "cycle time" of his visual processor. Experimental results
Xshow that this time ranges between 50 and 200 milliseconds.
X.PP
XEvents separated by 50 milliseconds or less are always
Xperceived as a single event. Those separated by more than 200
Xmilliseconds are always seen as separate. We can use these
Xfacts in optimizing user of the computer's power when driving the
Xinterface.
X.PP
XSuppose your application's interface contains an icon which
Xshould be inverted when the mouse passes over it. We now know
Xthat flipping it within one twentieth of a second is necessary
Xand sufficient. Therefore, if a "first cut" at the program achieves
Xthis performance, there is no need for further optimization, unless
Xyou want to interleave other operations. If it falls short, it will
Xbe necessary to do some assembly coding to achieve a smooth feel.
X.PP
XOn the other hand, two actions which you want to appear distinct
Xor convey two different pieces of information must be separated
Xby an absolute minimum of a fifth of a second, even assuming that
Xthey occur in an identical location on which the user's attention
Xis already focused.
X.PP
XWe are able to influence the visual processing rate within the
X50 to 200 millisecond range by changing the intensity of the stimulus
Xpresented. This can be done with color, by flashing a target, or
Xby more subtle enhancements such as bold face type. For instance,
Xmost people using GEM soon become accustomed to the "paper white"

Xbackground of most windows and dialogs. A dialog which uses a
Xreverse color scheme, white letters on black, is visually shocking
Xin its starkness, and will immediately draw the user's eyes.
X.PP
XIt should be quickly added that stimulus enhancement will only
Xwork when it unambiguously draws attention to the target. Three or
Xfour blinking objects scattered around the screen are confusing, and
Xworse than no enhancement at all!
X.SH SHORT-TERM MEMORY
XBoth the information gathered by the eyes
Xand movement commands on their way to the hand pass through short-term
Xmemory (also called working memory). The amount of information which
Xcan be held in short-term memory at any one time is limited. You can
Xdemonstrate this limit on yourself by attempting to type a sheet of
Xrandom numbers by looking back and forth from the numbers to the
Xscreen. If you are like most people, you will be able to remember
Xbetween five and nine numbers at a time. So universal is this
Xfinding that it is sometimes called "the magic number seven, plus
Xor minus two".
X.PP
XThis short-term capacity sets a limit on the number of choices
Xwhich the user can be expected to grasp at once. It suggests that
Xthe number of independent choices in a menu, for instance, should
Xbe around seven, and never exceed nine. If this limit is violated,
Xthen the user will have to take several glances, with pauses to
Xthink, in order to make a choice.
X.SH CHUNKING
XThe effective capacity of short-term memory can be
Xincreased when several related items are mentally grouped as a "chunk".
XHumans automatically adopt this strategy to save themselves time.
XFor instance, random numbers had to be used instead of text in the
Xexample above, because people do not type their native language as
Xindividual characters. Instead, they combine the letters into words
Xand remember these chunks instead. Put another way, the characters
Xare no longer considered as individual choices.
X.PP
XA well designed interface should promote the use of chunking
Xas a strategy by the user. One easy way is to gather together
Xrelated options in a single place. This is one reason that like
Xcommands are grouped into a single menu which is hidden except for
Xits title. If all of the menu options were "in the open", the user
Xwould be overwhelmed with dozens of alternatives at once. Instead, a
X"Show Info" command, for instance, becomes two chunks: pick File
Xmenu, then pick Show.
X.PP
XSometimes the interface can accomplish the chunking for the user.
XConsider the difference between a slider bar in a GEM program, and
Xa three digit entry field in a text mode application. Obviously,
Xthe GEM user has fewer decisions to make in order to set the associated
Xvariable.
X.SH THINK!
XWhile we are puttering around trying to speed up
Xthe keyboard, the mouse, and the screen, the user is actually

Xtrying to get some work done. We need to back off now, and
Xlook at the ways of thinking, or cognitive processes, that go into
Xaccomplishing the job.
X.PP
XThe user's goal may be to enter and edit a letter, to retrieve
Xinformation from a database, or simply draw a picture, but it
Xprobably has very little to do with programming. In fact, the
XProblem Space Principle says that the task can be described as
Xa set of states of knowledge, a set of operators and associated
Xconstraints for changing the states, and the knowledge to
Xchoose the appropriate operator, which resides in the user's head.
X.PP
XThose with a background in systems theory can consider this
Xas a somewhat abstract, but straightforward, statement in terms of
Xstate variables and operators. A programmer might compare the
Xknowledge states to the values of variables, the operators to
Xarithmetic and logic operations, the constraints to the rules of
Xsyntax, and the user's knowledge to the algorithm embodied by a
Xprogram.
X.SH ARE WE NOT MEN?
XA rational person will try to attain his
Xgoals (get the job done) by changing the state of his problem space
Xfrom its initial state to the goal state. The initial state,
Xfor instance, might be a blank word processor screen. The desired
Xfinal state is to have a completed business letter on the screen.
X.PP
XThe Rationality Principle says that the user's behavior in
Xtyping, mousing, and so on, can be explained by considering the
Xtasks required to achieve the goal, the operators available to
Xcarry out the tasks, and the limitations on the user's knowledge,
Xobservations, and processing capacity. This sounds like the
Xtypical user of a computer program must spend a good deal of time
Xscratching his head and wondering what to do next. In fact, one
Xof Card and Moran's key results is that this is NOT what takes place.
X.PP
XWhat happens, in fact, is that the trained user strikes a sort
Xof "modus vivendi" with his tool and adopts a set of repetitive,
Xtrained behavior patterns as the best way to get the job done.
XHe may go so far as to ignore some functions of the program in
Xorder to set up a reliable pattern. What we are looking for is a
Xway of measuring and predicting the "quality" of this trained
Xbehavior. Since using computers is a human endeavor, we should
Xconsider not only the speed with which the task is completed, but
Xthe degree of annoyance or pleasure associated with the process.
X.PP
XCard and Moran constructed a series of behavioral models which
Xthey called GOMS models, for Goals-Operators-Methods-Selection.
XThese models suggested that in the training process the user
Xlearned to combine the basic operators in sequences (chunks!)
Xwhich then became methods for reaching the goals. Then these
Xfirst level methods might be combined again into second level
Xmethods, and so forth, as the learning progressed.
X.PP

XThe GOMS models were tested in a lengthy series of trials
Xat Xerox PARC using a variety of word processing software. (Among
Xthe subjects of these experiments were the inventors of
Xthe windowing methods used in GEM!) The results were again
Xsurprising: the level of detail in the models was really unimportant!
X.PP
XIt turned out to be sufficient to merely count up the number
Xof keystrokes, mouse movements, and thought intervals required
Xby each task. After summing up all of the tasks, any extra time
Xfor the computer to respond, or the user to move his hands from
Xkeyboard to mouse, or eyes from screen to printed page is added in.
XThis simplified version is called the Keystroke-Level Model.
X.PP
XAs an example of the Keystroke Model, consider the task of
Xchanging a mistyped letter on the screen of a GEM word processor.
XThis might be broken down as follows: 1) find the letter on the screen;
X2) move hand to mouse; 3) point to letter; 4) click mouse button;
X5) move hand to keyboard; 6) strike "Delete" key; 7) strike key
Xfor new character.
X.PP
XThe sufficiency of the Keystroke Model is great news for our
Xattempt to design faster interfaces. It says we can concentrate
Xour efforts on minimizing the number of total actions to be taken,
Xand making sure that each action is as fast as possible. We have
Xalready discussed some ways to speed up the mouse and keyboard
Xactions, so let's now consider how to speed up the thought intervals,
Xand cut the number of actions.
X.PP
XOne way to cut down "think time" is to make sure that the
Xcapacity of short-term memory is not exceeded during the course of
Xa task. For example, the fix-a-letter task described above required
Xthe user to remember 1) his place in the overall job of typing the
Xdocument; 2) the task he is about to perform; 3) where the bad
Xcharacter appeared, and 4) what the new character was. When this
Xtotal of items creeps toward seven, the user often loses his place
Xand commits errors.
X.PP
XYou can appreciate the ubiquity of this problem by considering
Xhow many times you have made mistakes nesting parentheses,
Xor had to go back to count them, because too many things happened
Xwhile typing the line to remember the nesting levels. The moral is that
Xoperations with long strings of operands should be avoided when
Xdesigning an interface.
X.PP
XThe single most important factor in making an interface
Xcomfortable to use is increasing its predictability, and
Xdecreasing the amount of indecision present at each step during
Xa task. There is (inevitably) an Uncertainty Principle which
Xrelates the number of choices at each step to the associated
Xtime for thought:
X.sp 1
X.ce 1
XT = I * LOG2 (N + 1)

X.sp 1
Xwhere LOG2 is the binary logarithm function, N is the number of
Xequally probable choices, and I is a constant of approximately
X140 msec/bit. When the alternates are not equally probable, the
Xfunction is more complex:
X.sp 1
X.ce 1
XT = I * SUM-FOR-i-FROM-1-TO-N (P(i) * LOG2(1 / P(i) + 1))
X.sp 1
Xwhere the P(i) are the probabilities of each of the choices (which
Xmust sum to one). (SUM-FOR-i... is the best I can do for a sigma
Xoperator on-line!) Those of you with some information theory
Xbackground will recognize this formula as the entropy of
Xthe decision; we'll come back to that later.
X.PP
XSo what can we learn from this hash? It turns out, as we might
Xexpect, that we can decrease the decision time by making some
Xof the user's choices more probable than others. We do that by
Xmeans of feedback cues from the interface.
X.PP
XThe important of reliable, continuous meaningful feedback
Xcannot be emphasized enough. It helps the beginner learn the system,
Xand its predictability makes the program comfortable for the expert.
XPrograms with no feedback, or unreliable cues, produce confusion,
Xdissonance, and frustration in the user.
X.PP
XThis principle is so important that I going to give several
Xexamples from common GEM practice. The Desktop provides several
Xinstances. When an object is selected and a menu drops down, only
Xthose choices which are legal for the object are in black. The
Xothers are dimmed to grey, and are therefore removed from the
Xdecision. When a pick is made from the menu, the bar entry remains
Xblack until the operation is complete, reassuring the user that
Xthe correct choice was made. In both the Desktop and the RCS,
Xitems which are double-clicked open up with a "zoom box" from
Xthe object, again showing that the right object was picked.
X.PP
XOther techniques are useful when operator icons are exposed on
Xthe screen. When an object is picked, the legal operations might
Xbe outlined, or the bad choices might be dimmed. If the screen
Xflashing produced by this is objectionable, the legal icons can
Xbe made mouse sensitive, so they will "light up" when the cursor
Xpasses over - again showing the user which choices are legal.
X.PP
XThe desire for feedback is so strong that it should be provided
Xeven while the computer is doing an operation on its own. The hour
Xglass mouse form is a primitive example of this. More sophisticated
Xare "progress indicators" such as animated thermometer bars,
Xclocks, or text displays of the processing steps. The ST Desktop
Xprovides examples in the Format and Disk Copy functions. The purpose
Xof all of these is to reassure the user that the operation is
Xprogressing normally. Their lack can lead to amusing spectacles
Xsuch as secretaries leaning over to hear if their disk drives are

Xworking!
X.PP
XAnother commonly overlooked feature is error prevention and
Xcorrection. Card and Moran's results showed that in order to go
Xfaster, people will tolerate error rates of up to 30% in their
Xwork. Any program which does not give a fast way to fix mistakes
Xwill be frustrating indeed!
X.PP
XThe best way to cope with an error is to "make it didn't happen",
Xto quote a common child's phrase. The same feedback methods
Xdiscussed above are also effective in preventing the user from
Xpicking inappropriate combinations of objects and operations.
XReplacement of numeric type-ins with sliders or other visual
Xcontrols eliminates the common "Range Error". The use of radio
Xbuttons prevents the user from picking incompatible options.
XWhen such techniques are used consistently, the beginner also
Xgains confidence that he may explore the program without blundering
Xinto errors.
X.PP
XOnce an error has occured, the best solution is to have an
X"inverse operation" immediately available. For instance, the way
Xto fix a bad character is to hit the backspace key. If a line is
Xinadvertantly deleted, there should be a way to restore it.
X.PP
XSometimes the mechanics of providing true inverses are
Ximpractical, or end up cluttering the interface themselves. In
Xthese cases, a global "Undo" command should be provided to
Xreverse the effect of the last operation, no matter what it was.
X.SH OF MODES AND BANDWIDTH
XNow I am going to depart from
Xthe Card, Newell and Moran thread of discussion to consider
Xhow we can minimize the number of operations in a task by
Xaltering the modes of the interface. Although "no modes" has
Xbeen a watchword of Macintosh developers, the term may need
Xdefinition for Atarians.
X.PP
XSimply stated, a mode exists any time you cannot get to
Xall of the capabilities of the program without taking some
Xintermediate step. Familiar examples are old-style "menu-driven"
Xprograms, in which user must make selections from a number of
Xnested menus in order to perform any operation. The options
Xof any one menu are unavailable from the others.
X.PP
XRecall that the user is trying to accomplish work in his
Xown problem space, by altering its states. A mode in the
Xprogram adds additional states to the problem space, which he is
Xforced to consider in order to get the job done. We might call
Xan interface which is completely modeless "transparent", because it
Xadds no states between the user and his work. One of the best
Xexamples of a transparent program is the 15-puzzle in the Macintosh
Xdesk accessory set. The problem space of rearranging the tiles
Xis identical between the program and a physical puzzle.
X.PP

XUnfortunately, most programmers find themselves forced to
Xput modes of some sort into their programs. These often arise
Xdue to technological limitations, such as memory space, screen
X"real estate", or performance limitations of peripherals. The
Xquestion is how the modes can be made least offensive.
X.PP
XI will make the general claim that the frustration which a
Xmode produces is directly proportional to the amount of the user's
Xbandwidth which it consumes. In other words, we need to consider
Xhow many keystrokes, mouse clicks, eye movements, and so on, are
Xgoing into manipulating the true problem states, and how many
Xare being absorbed by the modes of the program. If the interface
Xis wasting a large amount of the user's effort, it will be perceived
Xas slow and annoying.
X.PP
XHere we can consider again the hierarchy of goals and methods
Xwhich the user employs. When the mode is low in the hierarchy,
Xand close to the user's "fingertips", it is encountered the most
Xfrequently. For instance, consider how frustrating it would be
Xto have to hit a function key before typing in each character!
X.PP
XThe "menu-driven" style of programs mentioned above are
Xalmost as bad, since usually only one piece of information is
Xcollected at each menu. Such a program becomes a labyrinth of
Xstates better suited to an adventure game!
X.PP
XThe least offensive modes are found at the higher, goal
Xrelated levels of the hierarchy. The better they align with
Xchanges in the state of the original problem, the more they
Xare tolerated. For example, a word processing program might
Xhave one screen layout for program editing, another for writing
Xletters, and yet another while printing the documents. A
Xmulti-function business package might have one set of menus for
Xthe spreadsheet, another for a graphing module, and a third
Xfor a database.
X.PP
XIn some cases the problem solved by the program has convenient
X"fracture lines" which can be used to define the modes. An
Xexample in my own past is the RCS, where the editing of each
Xtype of resource tree forms its own mode, with each of the modes
Xnested within the overall mode and problem of composing the
Xentire resource tree.
X.SH TO DO IS TO BE!
XAny narrative description of user interface
Xis bound to be lacking. There is no way text can convey the vibrancy
Xand tactile pleasure of a good interface, or the sullen boredom
Xof a bad one. Therefore, I encourage you to experiment. Get out
Xyour favorite arcade game and see if you can spot some of the
Xelements I have described. Dig into your slush pile for the most
Xannoying program you have ever seen, run it and see if you can see
Xmistakes. How would you fix them? Then... go do it to your own
Xprogram!
X.SH AMEN...

```
XThis concludes the sermon.  I'd like some Feedback
Xas to whether you found this Boring Beyond Belief or Really Hot
XStuff.  If enough people are interested, homily number two will
Xappear a few episodes from now.   The very next installment of ST
XPRO GEM will go back to basics to explore VDI drawing primitives.
XIn the meantime, you might investigate some of the Good Books on
Xinterface design referenced below.
X.br
X.ne 4
X.bold 1
XREFERENCES
X.sp 1
X.in +4
XStuart K. Card, Thomas P. Moran, and Allen
XNewell, THE PSYCHOLOGY OF HUMAN-COMPUTER INTERACTION, Lawrence
XErlbaum Associates, Hillsdale, New Jersey, 1983.
X.br
X(Fundamental
Xand indispensible.  The volume of experimental results make it
Xweighty.  The Good Parts are at the beginning and end.)
X.sp 1
X"Macintosh User Interface Guidelines", in INSIDE MACINTOSH,
XApple Computer, Inc., 1984.
X.br
X(Yes, Atarians, we have something to
Xlearn here.  Though not everything "translates", this is a fine
Xpiece of principled design work.  Read and appreciate.)
X.sp 1
XJames D. Foley, Victor L. Wallace, and Peggy Chan, "The
XHuman Factors of Computer Graphics Interaction Techniques",
XIEEE Computer Graphics (CG & A), November 1984, pp. 13-48.
X.br
X(A good overview, including higher level topics which I have
Xpostponed to a later article.  Excellent bibliography.)
X.sp 1
XJ. D. Foley and A. Van Dam, FUNDAMENTALS OF INTERACTIVE
XCOMPUTER GRAPHICS, Addison Wesley, 1984, Chapters 5 and 6.
X.br
X(If you can't get the article above, read this.  If you are designing
Xgraphics apps, buy the whole book!  Staggering bibliography.)
X.sp 1
XBen Schneidermann, "Direct Manipulation: A Step Beyond
XProgramming Languages", IEEE Computer, August 1983, pp. 57-69.
X.br
X(What do Pacman and Visicalc have in common?  Schneidermann's
Xanalysis is vital to creating hot interfaces.)
X.in -4
X.!
X.!
X.!*************************************************************************
X.!*                                          *
X.!*              End Part 8                       *
X.!*                                          *
```

```
X.!************************************************************************
SHAR_EOF
if test 25511 -ne "`wc -c 'wind8.prf'`"
then
     echo shar: error transmitting "'wind8.prf'" '(should have been 25511
characters)'
fi
echo shar: extracting "'wind9.prf'" '(21188 characters)'
if test -f 'wind9.prf'
then
     echo shar: over-writing existing file "'wind9.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'wind9.prf'
X.!************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!************************************************************************
X.!
X.!
X.!************************************************************************
X.!
X.!           Begin Part 9
X.!
X.!************************************************************************
X.!
X.PART IX VDI Graphics: Lines and Solids
X.PP
XThis  issue  of ST PRO GEM is the first in a  series  of  two
Xwhich  will explore the fundamentals of VDI graphics  output.   In
Xthis installment, we will take a look at the commands necessary to
Xoutput simple graphics such as lines,  squares and circles as well
Xas  more complex figures such as polygons.   The following episode
Xwill  take a first look at graphics text output,  with an emphasis
Xon  ways  to  optimize its drawing speed.   It will  also  include
Xanother  installment  of ONLINE Feedback.   As usual,  there is  a
Xdownload  with  this column.   You should find it under  the  name
XGEMCL9.C in DL3 of ATARI16 (PCS-58).
X.SH A  BIT  OF HISTORY
XOne  of  the reasons that the VDI can  be  confusing  is  that
Xdrawing anything at all,  even a simple line,  can involve setting
Xaround four different VDI parameters before making the draw  call!
X(Given  the state of the GEM documents,  just FINDING them can  be
```

Xfun!) Looking backwards a bit sheds some light on why the VDI is
Xstructured this way, and also gives us a framework for organizing
Xa discussion of graphics output.
X.PP
XThe GEM VDI closely follows the so-called GKS standard, which
Xdefines capabilities and calling sequences for a standardized
Xgraphic input/output system.   GKS is itself an evolution from an
Xearly system called "Core".   Both of these standards were born in
Xthe days when pen plotters, vectored graphics displays, and
Xminicomputers were the latest items.   So, if you wonder why
Xsetting the drawing pen color is a separate command, just think
Xback a few years when it actually meant what it says!   (The
Xcynical   may   choose   instead   to   ponder   the   benefits   of
Xstandardization.)
X.PP
XWhen doing VDI output, it helps if you pretend that the
Xdisplay screen really is a plotter or some other separate device,
Xwhich has its own internal parameters which you can set up and
Xread back.   The class of VDI commands called Attribute Functions
Xlet you set the parameters.   Output Functions cause the "device"
Xto actually draw someone once it is configured.   The Inquire
XFunctions let you read back the parameters if necessary.
X.PP
XThere are two parameters which are relevant no matter what
Xtype of object you are trying to draw.   They are the writing mode
Xand the clipping rectangle.   The writing mode is similar to that
Xdiscussed in the column on raster operations.   It determines what
Xeffect the figure you are drawing will have on data already on the
Xscreen. The writing mode is set with the call:
X.FB vswr_mode()
Xvswr_mode(vdi_handle, mode);
X.FE
XVdi_handle, here and below, is the handle obtained from
Xgraf_handle at the beginning of the program. Mode is a word which
Xmay be one of:
X.sp 1
X.in +8
X1 - Replace Mode
X.br
X2 - Transparent Mode
X.br
X3 - XOR mode
X.br
X4 - Reverse Transparent Mode
X.in -8
X.PP
XIn replace mode, whatever is on the screen is overwritten.
XIf you are writing characters, this means the background of each
Xcharacter cell will be erased.
X.PP
XIn transparent mode, only the pixels directly under the
X"positive" part of the image, that is, where 1-bits are being
Xwritten, will be changed. When writing characters, the background

Xof the cell will be left intact.
X.PP
XIn XOR mode, an exclusive or is performed between the screen Xcontents and what is being written. The effect is to reverse the Ximage under areas where a 1-bit occurs.
X.PP
XReverse transparent is like transparent, but with a "reverse Xcolor scheme". That is, only places where a 0-bit is to be Xput are changed to the current writing color. When you Xwrite characters in reverse transparent (over white), the effect Xis reverse video.
X.PP
XThe other common parameter is the clipping rectangle. It Xdefines the area on the screen where the VDI is permitted to draw. XAny output which would fall outside of this area is ignored; it is Xeffectively a null operation. The clip rectangle is set with the Xcall:
X.FB vs_clip()
Xvs_clip(vdi_handle, flag, pxy);
X.FE
XPxy is a four-word array. Pxy[0] and pxy[1] are the X and Y Xscreen coordinates, respectively, of one corner of your clipping Xrectangle. Pxy[2] and pxy[3] are the coordinates of the Xdiagonally opposite corner of the rectangle. (When working with Xthe AES, use of a GRECT to define the clip is often more Xconvenient. The routine set_clip() in the download does this.)
X.PP
XFlag is set to TRUE if clipping is to be used. If you set it Xto FALSE, the entire screen is assumed to be fair game.
X.PP
XNormally, you should walk the rectangle list for the current Xwindow to obtain your clipping rectangles. (See ST PRO GEM #2 for Xmore details.) However, turning off the clip speeds up all output Xoperations, particularly text. You may do this ONLY when you are Xabsolutely certain that the figure you are drawing will not extend Xout of the top-most window, or out of a dialog.
X.SH THE LINE FORMS ON THE LEFT
XThe VDI line drawing operations include polyline, arc, Xelliptical arc, and rounded rectangle. I'll first look at the XAttribute Functions for line drawing, then go through the drawing Xprimitives themselves.
X.PP
XThe most common used line attributes are color and width. XThe color is set with:
X.FB vsl_color()
Xvsl_color(vdi_handle, color);
X.FE
Xwhere color is one of the standard VDI color indices, ranging Xfrom zero to 15. (As discussed in column #6, the color which Xactually appears will depend on the pallette setting of your ST.)
X.PP
XThe line width may only be set to ODD positive values, for Xreasons of symmetry. If you try to set an even value, the VDI

Xwill take the next lower odd value. The call is:
X.FB vsl_width()
Xvsl_width(vdi_handle, width);
X.FE
XThe two less used line parameters are the end style and
Xpattern. With the end style you can cause the output line to
Xhave rounded ends or arrowhead ends. The call is:
X.FB vsl_ends()
Xvsl_ends(vdi_handle, begin_style, end_style);
X.FE
XBegin_style and end_style are each words which may have the
Xvalues zero for square ends (the default), one for arrowed ends,
Xor two for rounded ends. They determine the styles for the
Xstarting and finishing ends of the line, respectively.
X.PP
XThe line pattern attribute can select dotted or dashed lines
Xas well as more complicated patterns. Before continuing, you
Xshould note one warning: VDI line output DOES NOT compensate for
Xpixel aspect ratio. That is, the dashes on a line will look twice
Xas long drawn vertically on a medium-res ST screen as they do when
Xdrawn horizontally. The command for setting the pattern is:
X.FB vsl_type()
Xvsl_type(vdi_handle, style);
X.FE
XStyle is a word with a value between 1 and 7. The styles
Xselected are:
X.sp 1
X.in +8
X1 - Solid (the default)
X.br
X2 - Long Dash
X.br
X3 - Dot
X.br
X4 - Dash, Dot
X.br
X5 - Dash
X.br
X6 - Dash, Dot, Dot
X.br
X7 - (User defined style)
X.in -8
X.PP
XThe user defined style is determined by a 16-bit pattern
Xsupplied by the application. A one bit in the pattern turns a
Xpixel on, a zero bit leaves it off. The pattern is cycled through
Xrepeatedly, using the high bit first. To use a custom style, you
Xmust make the call:
X.FB vsl_udsty()
Xvsl_udsty(vdi_handle, pattern);
X.FE
Xbefore doing vsl_type().
X.PP

XAs I mentioned above, the line type Output Functions
Xavailable are polyline, circular and ellliptical arc, and rounded
Xrectangle. Each has its own calling sequence. The call for a
Xpolyline is:
X.FB v_pline()
Xv_pline(vdi_handle, points, pxy);
X.FE
XPoints tells how many vertices will appear on the polyline. For
Xinstance, a straight line has two vertices: the end and the
Xbeginning. A closed square would have five, with the first and
Xlast identical. (There is no requirement that the figure
Xdescribed be closed.)
X.PP
XThe pxy array contains the X and Y raster coordinates for the
Xvertices, with a total of 2 * points entries. Pxy[0] and pxy[1]
Xare the first X-Y pair, and so on.
X.PP
XIf you happen to be using the XOR drawing mode, remember that
Xdrawing twice at a point is equivalent to no drawing at all.
XTherefore, for a figure to appear closed in XOR mode, the final
Xstroke should actually stop one pixel short of the origin of the
Xfigure.
X.PP
XYou may notice that in the GEM VDI manual the rounded
Xrectangle and arc commands are referred to as GDPs (Generalized
XDrawing Primitives). This denotation is historical in nature, and
Xhas no effect unless you are writing your own VDI bindings.
X.PP
XThe rounded rectangle is nice to use for customized buttons
Xin windows and dialogs. It gives a "softer" look to the screen
Xthan the standard square objects. The drawing command is:
X.FB v_rbox()
Xv_rbox(vdi_handle, pxy);
X.FE
XPxy is a four word array giving opposite corners of the
Xrectangle, just as for the vs_clip() call. The corner rounding
Xoccurs within the confines of this rectangle. Nothing will
Xprotrude unless you specify a line thickness greater than one.
XThe corner rounding is approximately circular; there is no user
Xcontrol over the degree or shape of rounding.
X.PP
XBoth the arc and elliptical arc commands use a curious method
Xof specifying angles. The units are tenths of degrees, so an
Xentire circle is 3600 units. The count starts at ninety degrees
Xright of vertical, and proceeds counterclockwise. This means that
X"3 o'clock" is 0 units, "noon" is 900 units, "9 o'clock" is 1800
Xunits, and 2700 units is at "half-past". 3600 units take you back
Xto "3 o'clock".
X.PP
XThe command for drawing a circular arc is:
X.FB v_arc()
Xv_arc(vdi_handle, x, y, radius, begin, end);
X.FE

XX and y specify the raster coordinates of the center of the
Xcircle. Radius specifies the distance from center to all points
Xon the arc. Begin and end are angles given in units as described
Xabove, both with values between 0 and 3600. The drawing of the
Xarc ALWAYS proceeds counterclockwise, in the direction of
Xincreasing arc number. So values of 0 and 900 for begin and end
Xwould draw a quarter circle from "three o'clock" to "noon".
XReversing the values would draw the other three quarters of the
Xcircle.
X.PP
XA v_arc() command which specifies a "full turn" is the
Xfastest way to draw a complete circle on the screen. Be warned,
Xhowever, that the circle drawing algorithm used in the VDI seems
Xto have some serious shortcomings at small radii! You can
Xexperiment with the CIRCLE primitive in ST Logo, which uses
Xv_arc(), to see what I mean.
X.PP
XNotice that if you want an arc to strike one or more given
Xpoints on the screen, then you are in for some trigonometry. If
Xyour math is a bit rusty, I highly recommend the book "A
XProgrammer's Geometry", by Bowyer and Woodwark, published by
XButterworths (London, Boston, Toronto).
X.PP
XFinally, the elliptical arc is generated with:
X.FB v_ellarc()
Xv_ellarc(vdi_handle, x, y, xrad, yrad, begin, end);
X.FE
XX, y, begin, and end are just as before. Xrad and yrad give the
Xhorizontal and vertical radii of the defining ellipse. This means
Xthat the distance of the arc from center will be yrad pixels at
X"noon" and "half-past", and it will be xrad pixels at "3 and 9
Xo'clock". Again, the arc is always drawn counterclockwise.
X.PP
XThere are a number of approaches to keeping the VDI's
Xattributes "in sync" with the actual output operations. Probably
Xthe LEAST efficient is to use the Inquire Functions to determine
Xthe current attributes. For this reason, I have omitted a
Xdiscussion of these calls from this column.
X.PP
XAnother idea is to keep a local copy of all significant
Xattributes, use a test-before-set method to minimize the number of
XAttribute Functions which need to be called. This puts a burden
Xon the programmer to be sure that the local attribute variables
Xare correctly maintained. Failure to do so may result in obscure
Xdrawing bugs. If your application employs user defined AES
Xobjects, you must be very careful because GEM might call your draw
Xcode in the middle of a VDI operation (particularly if the user
Xdefined objects are in the menu).
X.PP
XAlways setting the attributes is a simplistic method, but
Xoften proves most effective. The routines pl_perim() and
Xrr_perim() in the download exhibit this approach. Modification
Xfor other primitives is straightforward. This style is most

Xuseful when drawing operations are scattered throughout the Xprogram, so that keeping track of the current attribute status is Xdifficult. Although inherently inefficient, the difference is not Xvery noticable if the drawing operation requested is itself time Xconsuming.
X.PP
XIn many applications, such as data graphing programs or X"Draw" packages, the output operations are centralized, forming Xthe primary functionality of the code. In this case, it is both Xeasy and efficient to keep track of attribute status between Xsuccessive drawing operations.
X.SH SOLIDS
XThere are a wider variety of VDI calls for drawing solid Xfigures. They include rectangle or bar, disk, pie, ellipse, Xelliptical pie, filled rounded rectangle, and filled polygonal Xarea. Of course, filled figure calls also have their own set of Xattributes which you will need to set.
X.PP
XThe fill color index determines what pen color will be used Xto draw the solid. It is set with:
X.FB vsf_color()
Xvsf_color(vdi_handle, color);
X.FE
XColor is just the same as for line drawing. A solid may or Xmay not have a visible border. This is determined with the call:
X.FB vsf_perimeter()
Xvsf_perimeter(vdi_handle, vis);
X.FE
XVis is a Boolean. If it is true, the figure will be given a Xsolid one pixel outline in the current fill color index. This is Xoften useful to improve the appearance of solids drawn with a Xdithered fill pattern. If vis is false, then no outline is drawn.
X.PP
XThere are two parameters which together determine the pattern Xused to fill your figure. They are called interior style and Xinterior index. The style determines the general type of fill, Xand the index is used to select a particular pattern if necessary. XThe style is set with the command:
X.FB vsf_interior()
Xvsf_interior(vdi_handle, style);
X.FE
Xwhere style is a value from zero through four. Zero selects a Xhollow style: the fill is performed in color zero, which is Xusually white. Style one selects a solid fill with the current Xfill color. A style of two is called "pattern" and a three is Xcalled "hatch", which are terms somewhat suggestive of the options Xwhich can then be selected using the interior index. Style four Xselects the user defined pattern, which is described below.
X.PP
XThe interior index is only significant for styles two and Xthree. To set it, use:
X.FB vsf_style()
Xvsf_style(vdi_handle, index);

X.FE
X(Be careful here: it is very easy to confuse this call with the
Xone above due to the unfortunate choice of name.) The index
Xselects the actual drawing pattern. The GEM VDI manual shows fill
Xpatterns corresponding to index values from 1 to 24 under style 2,
Xand from 1 to 12 under style 3. However, some of these are
Ximplemented differently on the ST. Rather than try to describe
Xthem all here, I would suggest that you experiment. You can do so
Xeasily in ST Logo by opening the Graphics Settings dialog and
Xplaying with the style and index values there.
X.PP
XThe user defined style gives you some interesting options for
Xmulti-color fills. It is set with:
X.FB vsf_udpat()
Xvsf_udpat(vdi_handle, pattern, planes);
X.FE
XPlanes determines the number of color planes in the pattern
Xwhich you supply. It is set to one if you are setting a
Xmonochrome pattern. (Remember, monochrome is not necessarily
Xblack). It may be set to higher values on color systems: two for
XST medium-res mode, or four for low-res mode. If you use a number
Xlower than four under low-res, the other planes are zero filled.
X.PP
XThe pattern parameter is an array of words which is a
Xmultiple of 16 words long. The pattern determined is 16 by 16
Xpixels, with each word forming one row of the pattern. The rows
Xare arranged top to bottom, with the most significant bit to the
Xleft. If you have selected a multi-plane pattern, the entire
Xfirst plane is stored, then the second, and so on.
X.PP
XNote that to use a multi-plane pattern, you set the writing
Xmode to replace using vswr_mode(). Since the each plane can be
Xdifferent, you can produce multi-colored patterns. If you use a
Xwriting color other than black, some of the planes may
X"disappear".
X.PP
XMost of the solids Output Functions have analogous line
Xdrawing commands. The polyline command corresponds to the filled
Xarea primitive. The filled area routine is:
X.FB v_fillarea()
Xv_fillarea(vdi_handle, count, pxy);
X.FE
XCount and pxy are just the same as for v_pline(). If the
Xpolygon defined by pxy is not closed, then the VDI will force
Xclosure with a straight line from the last to the first point.
XThe polygon may be concave or self-intersecting. If perimeter
Xshow is on, the area will be outlined.
X.PP
XOne note of caution is necessary for both v_fillarea() and
Xv_pline(). There is a limit on the number of points which may be
Xstored in pxy[]. This limit occurs because the contents of pxy[]
Xare copied to the intin[] binding array before the VDI is called.
XYou can determine the maximum number of vertices by checking

Xintout[14] after using the extended inquire function vq_extnd().
X.PP
XFor reasons unknown to this writer, there are TWO different
Xfilled rectangle commands in the VDI. The first is
X.FB vr_recfl()
Xvr_recfl(vdi_handle, pxy);
X.FE
XPxy is a four word array defining two opposite corners of the
Xrectangle, just as in vs_clip(). Vr_recfl() uses the fill
Xattribute settings, except that it NEVER draws a perimeter.
X.PP
XThe other rectangle routine is v_bar(), with exactly the same
Xarguments as vr_recfl(). The only difference is that the
Xperimeter setting IS respected. These two routines are the
Xfastest way to produce a solid rectangle using the VDI. They may
Xbe used in XOR mode with a BLACK fill color to quickly invert an
Xarea of the screen. You can improve the speed even further by
Xturning off the clip (if possible), and byte aligning the left and
Xright edges of the rectangle.
X.PP
XSeparate commands are provided for solid circle and ellipse.
XThe circle call is:
X.FB v_circle()
Xv_circle(vdi_handle, x, y, radius);
X.FE
Xand the ellipse command is:
X.FB v_ellipse()
Xv_ellipse(vdi_handle, x, y, xrad, yrad);
X.FE
XAll of the parameters are identical to those given above for
Xv_arc() and v_ellarc(). The solid analogue of an arc is a "pie
Xslice". The VDI pie commands are:
X.FB v_pieslice()
Xv_pieslice(vdi_handle, x, y, radius, begin, end);
X.FE
Xfor a slice from a circular pie, and
X.FB v_ellpie()
Xv_ellpie(vdi_handle, x, y, xrad, yrad, begin, end);
X.FE
Xfor a slice from a "squashed" pie. Again, the parameters are
Xidentical to those in v_arc() and v_ellarc(). The units and
Xdrawing order of angles are also the same. The final solids
XOutput Function is:
X.FB v_rfbox()
Xv_rfbox(vdi_handle, pxy);
X.FE
Xwhich draws a filled rounded rectangle. The pxy array defines
Xtwo two opposite corners of the bounding box, as shown for
Xvs_clip().
X.PP
XThe issues involved in correctly setting the VDI attributes
Xfor a fill operation are identical to those in drawing lines. For
Xthose who want to employ the "always set" method, I have again

```
Xincluded  two  skeleton  routines in the download,  which  can  be
Xmodified as desired.
X.SH TO  BE  CONTINUED
XThis concludes the first part of our expedition  through  basic
XVDI  operations.   The  next  issue will tackle  the  problems  of
Xdrawing  bit mapped text at a reasonable speed.   This first  pass
Xwill  not attempt to tackle alternate or  proportional  fonts,  or
Xalternate font sizes.   Instead,  I will concentrate on techniques
Xfor  squeezing greater performance out of the standard  monospaced
Xsystem fonts.
X.!
X.!
X.!*****************************************************************************
X.!*                                                *
X.!*              End Part 9                             *
X.!*                                                *
X.!*****************************************************************************
SHAR_EOF
if test 21188 -ne "`wc -c 'wind9.prf'`"
then
     echo shar: error transmitting "'wind9.prf'" '(should have been 21188
characters)'
fi
#    End of shell archive
exit 0

--
```


```
                       Jwahar R. Bammi
                    Usenet:  .....!decvax!cwruecmp!bammi
                     CSnet:  bammi@case
                   Arpa:  bammi%case@csnet-relay
                CompuServe:  71515,155
```



```
From -4769883673545701216
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3c3554a0f56d1304,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:28:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 4 of 6
Message-ID: <1444@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:28:58 EST
Article-I.D.: cwruecmp.1444
Posted: Fri Mar 21 23:28:58 1986
Date-Received: Mon, 31-Mar-86 03:33:34 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 975
```

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    apndx1.prf
#    apndx2.prf
#    apndx3.prf
#    apndx4.prf
# This archive created: Fri Mar 21 22:40:57 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'apndx1.prf'" '(5146 characters)'
if test -f 'apndx1.prf'
then
     echo shar: over-writing existing file "'apndx1.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx1.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 1
X.!
X.!*************************************************************************
X.!
X.!
X.AP I Sample Code for Part II
X/* >>>>>>>>>>>>>>>>>>>>>>>> Sample Redraw Code <<<<<<<<<<<<<<<<<<<<<<<< */
X
XVOID
Xdo_redraw(wh, area)        /* wh = window handle from msg[3] */
XWORD    wh;      /* area = pointer to redraw rect- */
XGRECT   *area;        /*   tangle in msg[4] thru msg[7] */
X{
X    GRECT    box;
X
X    graf_mouse(M_OFF, 0x0L);
X    wind_update(BEG_UPDATE);
X
X    wind_get(wh, WF_FIRSTXYWH, &box.g_x, &box.g_y, &box.g_w, &box.g_h);
```

```
X    while ( box.g_w && box.g_h )
X    {
X         if (rc_intersect(full, &box))      /* Full is entire screen */
X             if (rc_intersect(area, &box))
X             {
X                  if (wh == w1_handle)      /* Test for window 1 handle */
X                  {           /* AES redraw example      */
X                       objc_draw(w1_tree, ROOT, MAX_DEPTH, box.g_x,
X                            box.g_y, box.g_w, box.g_h);
X                  }
X                  else if (wh == w2_handle) /* Test for window 2 handle */
X                  {           /* VDI redraw example      */
X                       set_clip(TRUE, &box);
X                       /*  Put VDI drawing calls here */
X                  }
X                  /* add more windows here */
X             }
X         wind_get(wh, WF_NEXTXYWH, &box.g_x, &box.g_y, &box.g_w,
X               &box.g_h);
X    }
X
X    wind_update(END_UPDATE);
X    graf_mouse(M_ON, 0x0L);
X}
X.bp
X/* >>>>>>>>>>>>>>>>>>>>>>>> Utilities used in do_redraw <<<<<<<<<<<<<<<<<<<< */
X
XVOID
Xset_clip(clip_flag, area)  /* set clip to specified area
     */
XWORD    clip_flag;
XGRECT   *area;
X{
X    WORD pxy[4];
X
X    grect_to_array(area, pxy);
X    vs_clip(vdi_handle, clip_flag, pxy);
X}
X
XVOID
Xgrect_to_array(area, array)     /* convert x,y,w,h to upr lt x,y and
     */
XGRECT   *area;        /*             lwr rt x,y   */
XWORD    *array;
X{
X    *array++ = area->g_x;
X    *array++ = area->g_y;
X    *array++ = area->g_x + area->g_w - 1;
X    *array = area->g_y + area->g_h - 1;
X}
X
XWORD
Xrc_intersect(p1, p2)       /* compute intersect of two rectangles
```

```
    */
XGRECT   *p1, *p2;
X{
X    WORD tx, ty, tw, th;
X
X    tw = min(p2->g_x + p2->g_w, p1->g_x + p1->g_w);
X    th = min(p2->g_y + p2->g_h, p1->g_y + p1->g_h);
X    tx = max(p2->g_x, p1->g_x);
X    ty = max(p2->g_y, p1->g_y);
X    p2->g_x = tx;
X    p2->g_y = ty;
X    p2->g_w = tw - tx;
X    p2->g_h = th - ty;
X    return( (tw > tx) && (th > ty) );
X}
X.bp
X/* >>>>>>>>>>>>>>>>>>>>>> "Self-redraw" Utility <<<<<<<<<<<<<<<<<<<<<<< */
X
XVOID
Xsend_redraw(wh, p)
XWORD    wh;
XGRECT   *p;
X{
X    WORD msg[8];
X
X    msg[0] = WM_REDRAW;         /* Defined in GEMBIND.H    */
X    msg[1] = gl_apid;       /* As returned by appl_init */
X    msg[2] = 0;
X    msg[3] = wh;            /* Handle of window to redraw */
X    msg[4] = p->g_x;
X    msg[5] = p->g_y;
X    msg[6] = p->g_w;
X    msg[7] = p->g_h;
X    appl_write(gl_apid, 16, &msg);   /* Use ADDR(msg) for portability */
X}
X.bp
X/* >>>>>>>>>>>>>>>>>>>> Utilities for Window Requests <<<<<<<<<<<<<<<<<< */
X
XVOID
Xrc_constrain(pc, pt)
XGRECT        *pc;
XGRECT        *pt;
X{
X    if (pt->g_x < pc->g_x)
X        pt->g_x = pc->g_x;
X    if (pt->g_y < pc->g_y)
X        pt->g_y = pc->g_y;
X    if ((pt->g_x + pt->g_w) > (pc->g_x + pc->g_w))
X        pt->g_x = (pc->g_x + pc->g_w) - pt->g_w;
X    if ((pt->g_y + pt->g_h) > (pc->g_y + pc->g_h))
X        pt->g_y = (pc->g_y + pc->g_h) - pt->g_h;
X}
X
```

```
XWORD
Xalign(x,n)        /* Snap position x to an n-bit grid         */
XWORD    x, n;   /* Use n = 16 for horizontal word alignment */
X{
X    x += (n >> 2) - 1;      /* Round and... */
X    x = n * (x / n);        /* remove residue */
X    return (x);
X}
X.bp
X/* >>>>>>>>>>>>>>>>>>>>>> Window full utility <<<<<<<<<<<<<<<<<<<<<< */
X
XVOID
Xhndl_full(wh)          /* depending on current window state, make window    */
XWORD    wh;  /*   full size -or- return to previous shrunken size */
X{       /* graf_ calls are optional special effects.       */
X    GRECT    prev;
X    GRECT    curr;
X    GRECT    full;
X
X    wind_get(wh, WF_CXYWH, &curr.g_x, &curr.g_y, &curr.g_w, &curr.g_h);
X    wind_get(wh, WF_PXYWH, &prev.g_x, &prev.g_y, &prev.g_w, &prev.g_h);
X    wind_get(wh, WF_FXYWH, &full.g_x, &full.g_y, &full.g_w, &full.g_h);
X    if ( rc_equal(&curr, &full) )
X    {        /* Is full, change to previous       */
X         graf_shrinkbox(prev.g_x, prev.g_y, prev.g_w, prev.g_h,
X                    full.g_x, full.g_y, full.g_w, full.g_h);
X         wind_set(wh, WF_CXYWH, prev.g_x, prev.g_y, prev.g_w, prev.g_h);
X         /* put send_redraw here if you need it */
X    }
X    else
X    {        /* is not full, so set to full       */
X         graf_growbox(curr.g_x, curr.g_y, curr.g_w, curr.g_h,
X                   full.g_x, full.g_y, full.g_w, full.g_h);
X         wind_set(wh, WF_CXYWH, full.g_x, full.g_y, full.g_w, full.g_h);
X    }
X}
X
XWORD
Xrc_equal(p1, p2)       /* tests for two rectangles equal
     */
XGRECT   *p1, *p2;
X{
X    if ((p1->g_x != p2->g_x) ||
X        (p1->g_y != p2->g_y) ||
X        (p1->g_w != p2->g_w) ||
X        (p1->g_h != p2->g_h))
X        return(FALSE);
X    return(TRUE);
X}
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 1
```

```
X.!
X.!************************************************************************
SHAR_EOF
if test 5146 -ne "`wc -c 'apndx1.prf'`"
then
     echo shar: error transmitting "'apndx1.prf'" '(should have been 5146
characters)'
fi
echo shar: extracting "'apndx2.prf'" '(2869 characters)'
if test -f 'apndx2.prf'
then
     echo shar: over-writing existing file "'apndx2.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx2.prf'
X.!************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!************************************************************************
X.!
X.!           Begin Appendix 2
X.!
X.!************************************************************************
X.!
X.!
X.AP II Sample Code for Part III
X/*
X>>>>>>>>>>>>>>>>>>>>>> Basic Dialog Handler <<<<<<<<<<<<<<<<<<<<<<
X*/
X
XWORD
Xhndl_dial(tree, def, x, y, w, h)
XLONG    tree;
XWORD    def;
XWORD    x, y, w, h;
X{
X    WORD xdial, ydial, wdial, hdial, exitobj;
X
X    form_center(tree, &xdial, &ydial, &wdial, &hdial);
X    form_dial(0, x, y, w, h, xdial, ydial, wdial, hdial);
X    form_dial(1, x, y, w, h, xdial, ydial, wdial, hdial);
X    objc_draw(tree, ROOT, MAX_DEPTH, xdial, ydial, wdial, hdial);
X    exitobj = form_do(tree, def) & 0x7FFF;
```

```
X    form_dial(2, x, y, w, h, xdial, ydial, wdial, hdial);
X    form_dial(3, x, y, w, h, xdial, ydial, wdial, hdial);
X    return (exitobj);
X}
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>> Object rectangle utility <<<<<<<<<<<<<<<<<<<<<<<
X*/
X
XVOID
Xobjc_xywh(tree, obj, p)         /* get x,y,w,h for specified object
     */
XLONG    tree;
XWORD    obj;
XGRECT   *p;
X{
X    objc_offset(tree, obj, &p->g_x, &p->g_y);
X    p->g_w = LWGET(OB_WIDTH(obj));
X    p->g_h = LWGET(OB_HEIGHT(obj));
X}
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>> Object flag utilities <<<<<<<<<<<<<<<<<<<<<<<<
X*/
X
XVOID
Xundo_obj(tree, which, bit) /* clear specified bit in object state
     */
XLONG    tree;
XWORD    which, bit;
X{
X    WORD state;
X
X    state = LWGET(OB_STATE(which));
X    LWSET(OB_STATE(which), state & ~bit);
X}
X
XVOID
Xdesel_obj(tree, which)     /* turn off selected bit of spcfd object*/
XLONG    tree;
XWORD    which;
X{
X    undo_obj(tree, which, SELECTED);
X}
X
XVOID
Xdo_obj(tree, which, bit)   /* set specified bit in object state
     */
XLONG    tree;
XWORD    which, bit;
X{
X    WORD state;
X
```

```
X    state = LWGET(OB_STATE(which));
X    LWSET(OB_STATE(which), state | bit);
X}
X
XVOID
Xsel_obj(tree, which)       /* turn on selected bit of spcfd object
     */
XLONG    tree;
XWORD    which;
X{
X    do_obj(tree, which, SELECTED);
X}
X
XBOOLEAN
Xstatep(tree, which, bit)
XLONG    tree;
XWORD    which;
XWORD    bit;
X{
X    return ( (LWGET(OB_STATE(which)) & bit) != 0);
X}
X
XBOOLEAN
Xselectp(tree, which)
XLONG    tree;
XWORD    which;
X{
X    return statep(tree, which, SELECTED);
X}
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>> Sample radio buttons after dialog <<<<<<<<<<<<<<<<<<<<<
X*/
X
X
XWORD
Xencode(tree, ob1st, num)
XLONG    tree;
XWORD    ob1st, num;
X{
X    for (; num--; )
X         if (selectp(ob1st+num))
X              return(num);
X    return (-1);
X}
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 3
X.!
X.!*****************************************************************************
SHAR_EOF
if test 2869 -ne "`wc -c 'apndx2.prf'`"
```

```
then
     echo shar: error transmitting "'apndx2.prf'" '(should have been 2869
characters)'
fi
echo shar: extracting "'apndx3.prf'" '(11344 characters)'
if test -f 'apndx3.prf'
then
     echo shar: over-writing existing file "'apndx3.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx3.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 3
X.!
X.!*************************************************************************
X.!
X.!
X.AP III Sample Code for Part IV
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>> Sample C output file from RCS <<<<<<<<<<<<<<<<<<<<
X*/
X                       /* (Comments added)    */
XBYTE *rs_strings[] = {          /* ASCII data      */
X"Title String",
X"Exit",
X"Centered Text",
X"",
X"",
X"Butt",
X"Tokyo",
X"",
X"Time: __:__:__",
X"999999",
X"",
X"Time: __:__:__  ",
X"999999",
X"New York"};
X
XWORD IMAG0[] = {               /* Bitmap for G_IMAGE */
```

```
X0x7FF, 0xFFFF, 0xFF80, 0xC00,
X0x0, 0xC0, 0x183F, 0xF03F,
X0xF060, 0x187F, 0xF860, 0x1860,
X0x187F, 0xF860, 0x1860, 0x187F,
X0xF860, 0x1860, 0x187F, 0xF860,
X0x1860, 0x187F, 0xF860, 0x1860,
X0x187F, 0xF860, 0x1860, 0x187F,
X0xF860, 0x1860, 0x187F, 0xF860,
X0x1860, 0x187F, 0xF860, 0x1860,
X0x187F, 0xF860, 0x1860, 0x187F,
X0xF860, 0x1860, 0x183F, 0xF03F,
X0xF060, 0xC00, 0x0, 0xC0,
X0x7FF, 0xFFFF, 0xFF80, 0x0,
X0x0, 0x0, 0x3F30, 0xC787,
X0x8FE0, 0xC39, 0xCCCC, 0xCC00,
X0xC36, 0xCFCC, 0xF80, 0xC30,
X0xCCCD, 0xCC00, 0x3F30, 0xCCC7,
X0xCFE0, 0x0, 0x0, 0x0};
X
XWORD IMAG1[] = {                /* Mask for first icon */
X0x0, 0x0, 0x0, 0x0,
X0x7FFE, 0x0, 0x1F, 0xFFFF,
X0xFC00, 0xFF, 0xFFFF, 0xFF00,
X0x3FF, 0xFFFF, 0xFFC0, 0xFFF,
X0xFFFF, 0xFFF0, 0x3FFF, 0xFFFF,
X0xFFFC, 0x7FFF, 0xFFFF, 0xFFFE,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0x7FFF,
X0xFFFF, 0xFFFE, 0x3FFF, 0xFFFF,
X0xFFFC, 0xFFF, 0xFFFF, 0xFFF0,
X0x3FF, 0xFFFF, 0xFFC0, 0xFF,
X0xFFFF, 0xFF00, 0x1F, 0xFFFF,
X0xF800, 0x0, 0x7FFE, 0x0};
X
XWORD IMAG2[] = {                /* Data for first icon */
X0x0, 0x0, 0x0, 0x0,
X0x3FFC, 0x0, 0xF, 0xC003,
X0xF000, 0x78, 0x180, 0x1E00,
X0x180, 0x180, 0x180, 0x603,
X0x180, 0xC060, 0x1C00, 0x6,
X0x38, 0x3000, 0x18C, 0xC,
X0x60C0, 0x198, 0x306, 0x6000,
X0x1B0, 0x6, 0x4000, 0x1E0,
X0x2, 0xC000, 0x1C0, 0x3,
X0xCFC0, 0x180, 0x3F3, 0xC000,
X0x0, 0x3, 0x4000, 0x0,
X0x2, 0x6000, 0x0, 0x6,
X0x60C0, 0x0, 0x306, 0x3000,
```

```
X0x0, 0xC, 0x1C00, 0x0,
X0x38, 0x603, 0x180, 0xC060,
X0x180, 0x180, 0x180, 0x78,
X0x180, 0x1E00, 0xF, 0xC003,
X0xF000, 0x0, 0x3FFC, 0x0};
X
XWORD IMAG3[] = {           /* Mask for second icon */
X0x0, 0x0, 0x0, 0x0,
X0x7FFE, 0x0, 0x1F, 0xFFFF,
X0xFC00, 0xFF, 0xFFFF, 0xFF00,
X0x3FF, 0xFFFF, 0xFFC0, 0xFFF,
X0xFFFF, 0xFFF0, 0x3FFF, 0xFFFF,
X0xFFFC, 0x7FFF, 0xFFFF, 0xFFFE,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X0xFFFF, 0xFFFF, 0xFFFF, 0x7FFF,
X0xFFFF, 0xFFFE, 0x3FFF, 0xFFFF,
X0xFFFC, 0xFFF, 0xFFFF, 0xFFF0,
X0x3FF, 0xFFFF, 0xFFC0, 0xFF,
X0xFFFF, 0xFF00, 0x1F, 0xFFFF,
X0xF800, 0x0, 0x7FFE, 0x0};
X
XWORD IMAG4[] = {           /* Data for second icon */
X0x0, 0x0, 0x0, 0x0,
X0x3FFC, 0x0, 0xF, 0xC003,
X0xF000, 0x78, 0x180, 0x1E00,
X0x180, 0x180, 0x180, 0x603,
X0x180, 0xC060, 0x1C00, 0x6,
X0x38, 0x3000, 0x18C, 0xC,
X0x60C0, 0x198, 0x306, 0x6000,
X0x1B0, 0x6, 0x4000, 0x1E0,
X0x2, 0xC000, 0x1C0, 0x3,
X0xCFC0, 0x180, 0x3F3, 0xC000,
X0x0, 0x3, 0x4000, 0x0,
X0x2, 0x6000, 0x0, 0x6,
X0x60C0, 0x0, 0x306, 0x3000,
X0x0, 0xC, 0x1C00, 0x0,
X0x38, 0x603, 0x180, 0xC060,
X0x180, 0x180, 0x180, 0x78,
X0x180, 0x1E00, 0xF, 0xC003,
X0xF000, 0x0, 0x3FFC, 0x0};
X
XLONG rs_frstr[] = {            /* Free string index - unused */
X0};
X
XBITBLK rs_bitblk[] = {         /* First entry is index to image data */
X0L, 6, 24, 0, 0, 0};
X
XLONG rs_frimg[] = {            /* Free image index - unused */
```

```
X0};
X
XICONBLK rs_iconblk[] = {
X1L, 2L, 10L, 4096,0,0, 0,0,48,24, 9,24,30,8,  /* First pointer is mask */
X3L, 4L, 17L, 4864,0,0, 0,0,48,24, 0,24,48,8}; /* Second is data, third */
X                           /* is to title string   */
XTEDINFO rs_tedinfo[] = {
X2L, 3L, 4L, 3, 6, 2, 0x1180, 0x0, -1, 14,1,   /* First pointer is text */
X7L, 8L, 9L, 3, 6, 2, 0x2072, 0x0, -3, 11,1,   /* Second is template
     */
X11L, 12L, 13L, 3, 6, 0, 0x1180, 0x0, -1, 1,15,    /* Third is validation
     */
X14L, 15L, 16L, 3, 6, 1, 0x1173, 0x0, 0, 1,17};
X
XOBJECT rs_object[] = {
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 18,12, /* Pointers are to: */
X2, -1, -1, G_STRING, NONE, NORMAL, 0x0L, 3,1, 12,1,    /* rs_strings
    */
X3, -1, -1, G_BUTTON, 0x7, NORMAL, 0x1L, 5,9, 8,1, /* rs_strings
    */
X0, 4, 4, G_BOX, NONE, NORMAL, 0xFF1172L, 3,3, 12,5,
X3, -1, -1, G_IMAGE, LASTOB, NORMAL, 0x0L, 3,1, 6,3,    /* rs_bitblk
    */
X-1, 1, 6, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 23,12,
X2, -1, -1, G_TEXT, NONE, NORMAL, 0x0L, 0,1, 23,1, /* rs_tedinfo
    */
X6, 3, 5, G_IBOX, NONE, NORMAL, 0x1100L, 6,3, 11,5,
X4, -1, -1, G_BUTTON, 0x11, NORMAL, 0x5L, 0,0, 11,1,    /* rs_strings
    */
X5, -1, -1, G_BUTTON, 0x11, NORMAL, 0x6L, 0,2, 11,1,    /* rs_strings
    */
X2, -1, -1, G_BOXCHAR, 0x11, NORMAL, 0x43FF1400L, 0,4, 11,1,
X0, -1, -1, G_BOXTEXT, 0x27, NORMAL, 0x1L, 5,9, 13,1,   /* rs_tedinfo
    */
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 32,11,
X2, -1, -1, G_ICON, NONE, NORMAL, 0x0L, 4,1, 6,4,  /* rs_iconblk
    */
X3, -1, -1, G_FTEXT, EDITABLE, NORMAL, 0x2L, 12,2, 14,1,
    /* rs_tedinfo */
X0, 4, 4, G_FBOXTEXT, 0xE, NORMAL, 0x3L, 3,5, 25,4,/* rs_tedinfo
    */
X3, -1, -1, G_ICON, LASTOB, NORMAL, 0x1L, 1,0, 6,4};    /* rs_iconblk
    */
X
XLONG rs_trindex[] = {          /* Points to start of trees in */
X0L,                    /* rs_object             */
X5L,
X12L};
X
Xstruct foobar {                /* Temporary structure used by    */
X    WORD dummy;            /* RSCREATE when setting up image */
X    WORD *image;           /* pointers.             */
X    } rs_imdope[] = {
```

```
X0, &IMAG0[0],
X0, &IMAG1[0],
X0, &IMAG2[0],
X0, &IMAG3[0],
X0, &IMAG4[0]};
X                       /* Counts of structures defined */
X#define NUM_STRINGS 18
X#define NUM_FRSTR 0
X#define NUM_IMAGES 5
X#define NUM_BB 1
X#define NUM_FRIMG 0
X#define NUM_IB 2
X#define NUM_TI 4
X#define NUM_OBS 17
X#define NUM_TREE 3
X
XBYTE pname[] = "DEMO.RSC";
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>>>>> Title change utility <<<<<<<<<<<<<<<<<<<<<<
X*/
X    VOID
Xset_text(tree, obj, str)
X    LONG tree, str;
X    WORD obj;
X    {
X    LONG obspec;
X
X    obspec = LLGET(OB_SPEC(obj));         /* Get TEDINFO address  */
X    LLSET(TE_PTEXT(obspec), str);         /* Set new text pointer */
X    LWSET(TE_TXTLEN(obspec), LSTRLEN(str)); /* Set new length
     */
X    }
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>> Text edit code segment <<<<<<<<<<<<<<<<<<<<<<<<<
X*/
X    LONG tree, obspec;
X    BYTE text[41];
X
X    rsrc_gaddr(R_TREE, DIALOG, &tree);    /* Get tree address  */
X    obspec = LLGET(OB_SPEC(EDITOBJ));     /* Get TEDINFO address  */
X    LLSET(TE_PTEXT(obspec), ADDR(str));   /* Set new text pointer */
X    LWSET(TE_TXTLEN(obspec), 41);         /* Set max length
     */
X    text[0] = '\0';                  /* Make empty string */
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>> Sample 68K only source code <<<<<<<<<<<<<<<<<<<<<<
X*/
X    VOID
Xset_text(tree, obj, str)
X    OBJECT   *tree;
```

```
X    WORD obj;
X    BYTE *str;
X    {
X    TEDINFO  *obspec;
X
X    obspec = (TEDINFO *) (tree + obj)->ob_spec;
X                            /* Get TEDINFO address  */
X    obspec->te_ptext = str;          /* Set new text pointer */
X    obspec->te_txtlen = strlen(str); /* Set new length  */
X    }
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>>>> Symbol definitions <<<<<<<<<<<<<<<<<<<<<<<<<
X*/
X                            /* Window parts */
X#define NAME 0x0001
X#define CLOSER 0x0002
X#define FULLER 0x0004
X#define MOVER 0x0008
X#define INFO 0x0010
X#define SIZER 0x0020
X#define UPARROW 0x0040
X#define DNARROW 0x0080
X#define VSLIDE 0x0100
X#define LFARROW 0x0200
X#define RTARROW 0x0400
X#define HSLIDE 0x0800
X
X#define WF_KIND 1               /* wind_get/set parameters */
X#define WF_NAME 2
X#define WF_INFO 3
X#define WF_WXYWH 4
X#define WF_CXYWH 5
X#define WF_PXYWH 6
X#define WF_FXYWH 7
X#define WF_HSLIDE 8
X#define WF_VSLIDE 9
X#define WF_TOP 10
X#define WF_FIRSTXYWH 11
X#define WF_NEXTXYWH 12
X#define WF_NEWDESK 14
X#define WF_HSLSIZ 15
X#define WF_VSLSIZ 16
X                            /* window messages */
X#define WM_REDRAW 20
X#define WM_TOPPED 21
X#define WM_CLOSED 22
X#define WM_FULLED 23
X#define WM_ARROWED 24
X#define WM_HSLID 25
X#define WM_VSLID 26
X#define WM_SIZED 27
X#define WM_MOVED 28
```

```
X#define WM_NEWTOP 29
X                           /* arrow messages  */
X#define WA_UPPAGE 0
X#define WA_DNPAGE 1
X#define WA_UPLINE 2
X#define WA_DNLINE 3
X#define WA_LFPAGE 4
X#define WA_RTPAGE 5
X#define WA_LFLINE 6
X#define WA_RTLINE 7
X
X#define R_TREE 0               /* Redraw definitions  */
X#define ROOT 0
X#define MAX_DEPTH 8
X                           /* update flags        */
X#define  END_UPDATE 0
X#define  BEG_UPDATE 1
X#define  END_MCTRL  2
X#define  BEG_MCTRL  3
X                           /* Mouse state changes   */
X#define M_OFF 256
X#define M_ON 257
X                           /* Object flags         */
X#define NONE       0x0
X#define SELECTABLE 0x1
X#define DEFAULT    0x2
X#define EXIT       0x4
X#define EDITABLE   0x8
X#define RBUTTON   0x10
X                           /* Object states   */
X#define SELECTED  0x1
X#define CROSSED   0x2
X#define CHECKED   0x4
X#define DISABLED  0x8
X#define OUTLINED 0x10
X#define SHADOWED 0x20
X
X#define G_BOX     20
X#define G_TEXT    21
X#define G_BOXTEXT 22
X#define G_IMAGE   23
X#define G_IBOX    25
X#define G_BUTTON  26
X#define G_BOXCHAR 27
X#define G_STRING  28
X#define G_FTEXT   29
X#define G_FBOXTEXT 30
X#define G_ICON    31
X#define G_TITLE   32
X                           /* Data structures */
Xtypedef struct grect
X    {
X    int  g_x;
```

```
X    int  g_y;
X    int  g_w;
X    int  g_h;
X    } GRECT;
X
Xtypedef struct object
X    {
X    int      ob_next;  /* -> object's next sibling */
X    int      ob_head;  /* -> head of object's children */
X    int      ob_tail;  /* -> tail of object's children */
X    unsigned int  ob_type;  /* type of object- BOX, CHAR,...*/
X    unsigned int  ob_flags;/* flags           */
X    unsigned int  ob_state;/* state- SELECTED, OPEN, ...
     */
X    long     ob_spec;  /* "out"- -> anything else  */
X    int      ob_x;         /* upper left corner of object
     */
X    int      ob_y;         /* upper left corner of object
     */
X    int      ob_width;/* width of obj             */
X    int      ob_height;    /* height of obj       */
X    } OBJECT;
X
Xtypedef struct text_edinfo
X    {
X    long     te_ptext;/* ptr to text (must be 1st)     */
X    long     te_ptmplt;    /* ptr to template     */
X    long     te_pvalid;    /* ptr to validation chrs.  */
X    int      te_font;  /* font                */
X    int      te_junk1;/* junk word           */
X    int      te_just;  /* justification- left, right...*/
X    int      te_color;/* color information word   */
X    int      te_junk2;/* junk word           */
X    int      te_thickness; /* border thickness         */
X    int      te_txtlen;    /* length of text string    */
X    int      te_tmplen;    /* length of template string
     */
X    } TEDINFO;
X
X                        /* "Portable" data definitions */
X#define OB_NEXT(x) (tree + (x) * sizeof(OBJECT) + 0)
X#define OB_HEAD(x) (tree + (x) * sizeof(OBJECT) + 2)
X#define OB_TAIL(x) (tree + (x) * sizeof(OBJECT) + 4)
X#define OB_TYPE(x) (tree + (x) * sizeof(OBJECT) + 6)
X#define OB_FLAGS(x) (tree + (x) * sizeof(OBJECT) + 8)
X#define OB_STATE(x) (tree + (x) * sizeof(OBJECT) + 10)
X#define OB_SPEC(x) (tree + (x) * sizeof(OBJECT) + 12)
X#define OB_X(x) (tree + (x) * sizeof(OBJECT) + 16)
X#define OB_Y(x) (tree + (x) * sizeof(OBJECT) + 18)
X#define OB_WIDTH(x) (tree + (x) * sizeof(OBJECT) + 20)
X#define OB_HEIGHT(x) (tree + (x) * sizeof(OBJECT) + 22)
X
X#define TE_PTEXT(x)  (x)
```

```
X#define TE_TXTLEN(x)  (x + 24)
X.!
X.!*************************************************************************
X.!
X.!           End Appendix 3
X.!
X.!*************************************************************************
SHAR_EOF
if test 11344 -ne "`wc -c 'apndx3.prf'`"
then
     echo shar: error transmitting "'apndx3.prf'" '(should have been 11344
characters)'
fi
echo shar: extracting "'apndx4.prf'" '(5968 characters)'
if test -f 'apndx4.prf'
then
     echo shar: over-writing existing file "'apndx4.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx4.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 4
X.!
X.!*************************************************************************
X.!
X.!
X.AP IV Sample Code for Part V
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>> Sample object trees <<<<<<<<<<<<<<<<<<<<<<<<
X*/
X
XOBJECT rs_object[] = {
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 18,12, /* Tree # 1 */
X2, -1, -1, G_STRING, NONE, NORMAL, 0x0L, 3,1, 12,1,
X3, -1, -1, G_BUTTON, 0x7, NORMAL, 0x1L, 5,9, 8,1,
X0, 4, 4, G_BOX, NONE, NORMAL, 0xFF1172L, 3,3, 12,5,
X3, -1, -1, G_IMAGE, LASTOB, NORMAL, 0x0L, 3,1, 6,3,
X-1, 1, 6, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 23,12,  /* Tree # 2 */
X2, -1, -1, G_TEXT, NONE, NORMAL, 0x0L, 0,1, 23,1,
```

```
X6, 3, 5, G_IBOX, NONE, NORMAL, 0x1100L, 6,3, 11,5,
X4, -1, -1, G_BUTTON, 0x11, NORMAL, 0x5L, 0,0, 11,1,
X5, -1, -1, G_BUTTON, 0x11, NORMAL, 0x6L, 0,2, 11,1,
X2, -1, -1, G_BOXCHAR, 0x11, NORMAL, 0x43FF1400L, 0,4, 11,1,
X0, -1, -1, G_BOXTEXT, 0x27, NORMAL, 0x1L, 5,9, 13,1,
X-1, 1, 3, G_BOX, NONE, OUTLINED, 0x21100L, 0,0, 32,11,  /* Tree # 3 */
X2, -1, -1, G_ICON, NONE, NORMAL, 0x0L, 4,1, 6,4,
X3, -1, -1, G_FTEXT, EDITABLE, NORMAL, 0x2L, 12,2, 14,1,

X0, 4, 4, G_FBOXTEXT, 0xE, NORMAL, 0x3L, 3,5, 25,4,
X3, -1, -1, G_ICON, LASTOB, NORMAL, 0x1L, 1,0, 6,4};
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>>> Object tree walk utility <<<<<<<<<<<<<<<<<<<<<<<<
X*/
X       VOID
Xmap_tree(tree, this, last, routine)
X       LONG            tree;
X       WORD            this, last;
X       WORD            (*routine)();
X       {
X       WORD            tmp1;
X
X       tmp1 = this;            /* Initialize to impossible value: */
X                               /* TAIL won't point to self!       */
X                               /* Look until final node, or off   */
X                               /* the end of tree                 */
X       while (this != last && this != NIL)
X                               /* Did we 'pop' into this node     */
X                               /* for the second time?            */
X               if (LWGET(OB_TAIL(this)) != tmp1)
X                       {
X                       tmp1 = this;    /* This is a new node       */
X                       this = NIL;
X                                       /* Apply operation, testing  */
X                                       /* for rejection of sub-tree */
X                       if ((*routine)(tree, tmp1))
X                               this = LWGET(OB_HEAD(tmp1));
X                                       /* Subtree path not taken,   */
X                                       /* so traverse right         */
X                       if (this == NIL)
X                               this = LWGET(OB_NEXT(tmp1));
X                       }
X               else                    /* Revisiting parent:        */
X                                       /* No operation, move right  */
X                       {
X                       tmp1 = this;
X                       this = LWGET(OB_NEXT(tmp1));
X                       }
X       }
X.bp
X/*
X>>>>>>>>>>>>>>>>>> Sample routine to use with map_tree() <<<<<<<<<<<<<<<
```

```
X*/
X    VOID
Xundo_obj(tree, which, bit) /* clear specified bit in object state
     */
X    LONG tree;
X    WORD which, bit;
X    {
X    WORD state;
X
X    state = LWGET(OB_STATE(which));
X    LWSET(OB_STATE(which), state & ~bit);
X    }
X
X    VOID
Xdesel_obj(tree, which)     /* turn off selected bit of spcfd object*/
X    LONG tree;
X    WORD which;
X    {
X    undo_obj(tree, which, SELECTED);
X    return (TRUE);
X    }
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>> Sample .ICN Files <<<<<<<<<<<<<<<<<<<<<<<<<<<<
X>>>>>>>>>> Save everything between >>><<< lines as CLOCK.ICN <<<<<<<<<<<<<
X*/
X
X/* GEM Icon Definition: */
X#define ICON_W 0x0030
X#define ICON_H 0x0018
X#define DATASIZE 0x0048
XUWORD clock[DATASIZE] =
X{ 0x0000, 0x0000, 0x0000, 0x0000,
X  0x3FFC, 0x0000, 0x000F, 0xC003,
X  0xF000, 0x0078, 0x0180, 0x1E00,
X  0x0180, 0x0180, 0x0180, 0x0603,
X  0x0180, 0xC060, 0x1C00, 0x0006,
X  0x0038, 0x3000, 0x018C, 0x000C,
X  0x60C0, 0x0198, 0x0306, 0x6000,
X  0x01B0, 0x0006, 0x4000, 0x01E0,
X  0x0002, 0xC000, 0x01C0, 0x0003,
X  0xCFC0, 0x0180, 0x03F3, 0xC000,
X  0x0000, 0x0003, 0x4000, 0x0000,
X  0x0002, 0x6000, 0x0000, 0x0006,
X  0x60C0, 0x0000, 0x0306, 0x3000,
X  0x0000, 0x000C, 0x1C00, 0x0000,
X  0x0038, 0x0603, 0x0180, 0xC060,
X  0x0180, 0x0180, 0x0180, 0x0078,
X  0x0180, 0x1E00, 0x000F, 0xC003,
X  0xF000, 0x0000, 0x3FFC, 0x0000
X};
X/*
X>>>>>>>>>>>>>>>>>>>>>>>>>>>>>> End of CLOCK.ICN <<<<<<<<<<<<<<<<<<<<<<<<
```

```
X*/
X.bp
X/*
X>>>>>>>>> Save everything between >>>><<<<< lines as CLOCKM.ICN <<<<<<<<<<
X*/
X
X/* GEM Icon Definition: */
X#define ICON_W 0x0030
X#define ICON_H 0x0018
X#define DATASIZE 0x0048
XUWORD clockm[DATASIZE] =
X{ 0x0000, 0x0000, 0x0000, 0x0000,
X  0x7FFE, 0x0000, 0x001F, 0xFFFF,
X  0xFC00, 0x00FF, 0xFFFF, 0xFF00,
X  0x03FF, 0xFFFF, 0xFFC0, 0x0FFF,
X  0xFFFF, 0xFFF0, 0x3FFF, 0xFFFF,
X  0xFFFC, 0x7FFF, 0xFFFF, 0xFFFE,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0xFFFF,
X  0xFFFF, 0xFFFF, 0xFFFF, 0x7FFF,
X  0xFFFF, 0xFFFE, 0x3FFF, 0xFFFF,
X  0xFFFC, 0x0FFF, 0xFFFF, 0xFFF0,
X  0x03FF, 0xFFFF, 0xFFC0, 0x00FF,
X  0xFFFF, 0xFF00, 0x001F, 0xFFFF,
X  0xF800, 0x0000, 0x7FFE, 0x0000
X};
X/*
X>>>>>>>>>>>>>>>>>>>>>>>> End of CLOCKM.ICN <<<<<<<<<<<<<<<<<<<<<<<<<<
X*/
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 4
X.!
X.!*****************************************************************************
SHAR_EOF
if test 5968 -ne "`wc -c 'apndx4.prf'`"
then
     echo shar: error transmitting "'apndx4.prf'" '(should have been 5968
characters)'
fi
#    End of shell archive
exit 0

--
```


Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay

CompuServe: 71515,155

From -6756470245121997562
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76d4133715d251d3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:30:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 5 of 6
Message-ID: <1445@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:30:19 EST
Article-I.D.: cwruecmp.1445
Posted: Fri Mar 21 23:30:19 1986
Date-Received: Mon, 31-Mar-86 03:33:55 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 600

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    apndx5.prf
#    apndx6.prf
#    apndx7.prf
#    apndx8.prf
# This archive created: Fri Mar 21 22:40:59 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'apndx5.prf'" '(5475 characters)'
if test -f 'apndx5.prf'
then
     echo shar: over-writing existing file "'apndx5.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx5.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
```

```
X.!
X.!*****************************************************************************
X.!
X.!           Begin Appendix 5
X.!
X.!*****************************************************************************
X.!
X.!
X.AP V Sample Code for Part VI
X/* >>>>>>>>>>>>>>>>>>>>>>>>> MFDB Structure <<<<<<<<<<<<<<<<<<<<<<<<< */
X                       /* Memory Form Definition Block */
Xtypedef struct fdbstr
X{
X    long     fd_addr;  /* Form address             */
X    int      fd_w;          /* Form width in pixels     */
X    int      fd_h;          /* Form height in pixels    */
X    int      fd_wdwidth;    /* Form width in memory words
     */
X    int      fd_stand; /* Standard form flag       */
X    int      fd_nplanes;    /* Number of color planes   */
X    int      fd_r1;         /* Dummy locations:         */
X    int      fd_r2;         /* Reserved for future use  */
X    int      fd_r3;
X} MFDB;
X.bp
X/* >>>>>>>>>>>>>>>>>>>> Resource Transform Utilities <<<<<<<<<<<<<<<<<< */
X/*-----------------------------*/
X/*  vdi_fix            */
X/*-----------------------------*/
XVOID
Xvdi_fix(pfd, theaddr, wb, h)         /* This routine loads the MFDB */
X    MFDB     *pfd;          /* Input values are the MFDB's */
X    LONG     theaddr;  /* address, the form's address,*/
X    WORD     wb, h;         /* the form's width in bytes,  */
X    {                   /* and the height in pixels    */
X    pfd->fww = wb >> 1;
X    pfd->fwp = wb << 3;
X    pfd->fh = h;
X    pfd->np = 1;            /* Monochrome assumed         */
X    pfd->mp = theaddr;
X    }
X
X/*-----------------------------*/
X/*  vdi_trans     */
X/*-----------------------------*/
XWORD
Xvdi_trans(saddr, swb, daddr, dwb, h)     /* Transform the standard form */
X    LONG     saddr;         /* pointed at by saddr and     */
X    UWORD         swb;      /* store in the form at daddr  */
X    LONG     daddr;         /* Byte widths and pixel height*/
X    UWORD         dwb;      /* are given              */
X    UWORD         h;
X    {
```

```
X    MFDB     src, dst;/* These are on-the-fly MFDBs  */
X
X    vdi_fix(&src, saddr, swb, h);    /* Load the source MFDB
            */
X    src.ff = TRUE;              /* Set it's std form flag      */
X
X    vdi_fix(&dst, daddr, dwb, h);    /* Load the destination MFDB   */
X    dst.ff = FALSE;             /* Clear the std flag          */
X    vr_trnfm(vdi_handle, &src, &dst );   /* Call the VDI
            */
X    }
X
X/*-----------------------------*/
X/*  trans_bitblk       */
X/*-----------------------------*/
XVOID
Xtrans_bitblk(obspec)            /* Transform the image belonging */
X    LONG obspec;           /* to the bitblk pointed to by   */
X    {                  /* obspec.  This routine may also*/
X    LONG taddr;             /* be used with free images  */
X    WORD wb, hl;
X
X    if ( (taddr = LLGET(BI_PDATA(obspec))) == -1L)
X         return;            /* Get and validate image address */
X    wb = LWGET(BI_WB(obspec));  /* Extract image dimensions
       */
X    hl = LWGET(BI_HL(obspec));
X    vdi_trans(taddr, wb, taddr, wb, hl); /* Perform a transform
       */
X    }                      /* in place          */
X
X/*-----------------------------*/
X/*  trans_obj     */
X/*-----------------------------*/
XVOID
Xtrans_obj(tree, obj)            /* Examine the input object.  If  */
X    LONG tree;              /* it is an icon or image, trans- */
X    WORD obj;          /* form the associated raster      */
X    {                  /* forms in place.       */
X    WORD type, wb, hl;      /* This routine may be used with  */
X    LONG taddr, obspec;          /* map_tree() to transform an     */
X                       /* entire resource tree       */
X
X    type = LLOBT(LWGET(OB_TYPE(obj)));        /* Load object type */
X    if ( (obspec = LLGET(OB_SPEC(obj))) == -1L)    /* Load and check   */
X         return (TRUE);                  /* ob_spec pointer  */
X    switch (type) {
X         case G_IMAGE:
X              trans_bitblk(obspec);       /* Transform image  */
X              return (TRUE);
X         case G_ICON:                /* Load icon size   */
X              hl = LWGET(IB_HICON(obspec));
X              wb = (LWGET(IB_WICON(obspec)) + 7) >> 3;
```

```
X                               /* Transform data   */
X             if ( (taddr = LLGET(IB_PDATA(obspec))) != -1L)
X                  vdi_trans(taddr, wb, taddr, wb, hl);
X                               /* Transform mask   */
X             if ( (taddr = LLGET(IB_PMASK(obspec))) != -1L)
X                  vdi_trans(taddr, wb, taddr, wb, hl);
X             return (TRUE);
X         default:
X             return (TRUE);
X         }
X    }
X.bp
X/* >>>>>>>>>>>>>>>>  Macro definitions for the code above <<<<<<<<<<<<<<< */
X
X#define BI_PDATA(x)    (x)
X#define BI_WB(x)  (x + 4)
X#define BI_HL(x)  (x + 6)
X#define OB_TYPE(x)     (tree + (x) * sizeof(OBJECT) + 6)
X#define OB_SPEC(x)     (tree + (x) * sizeof(OBJECT) + 12)
X#define IB_PMASK(x)    (x)
X#define IB_PDATA(x)    (x + 4)
X#define IB_WICON(x)    (x + 22)
X#define IB_HICON(x)    (x + 24)
X.bp
X/* >>>>>>>>>>>>>>>>>>>>>>>> VDI Copy Mode Table <<<<<<<<<<<<<<<<<<<<<<<< */
X
XSymbols: N = new destination pixel value (0 or 1)
X     D = old destination pixel value (0 or 1)
X     S = source pixel value (0 or 1)
X     ~ = Boolean not (inversion)
X     & = Boolean and
X     | = Boolean or
X     ^ = Boolean xor (exclusive-or)
X
XMode Number  Action
X----------   ------
X    0        N = 0         (USE V_BAR INSTEAD)
X    1        N = S & D
X    2        N = S & ~D
X    3        N = S         (REPLACE)
X    4        N = ~S & D    (ERASE)
X    5        N = D         (USELESS)
X    6        N = S ^ D (XOR)
X    7        N = S | D (TRANSPARENT)
X    8        N = ~ (S | D)
X    9        N = ~ (S ^ D)
X   10        N = ~D        (USE V_BAR INSTEAD)
X   11        N = S | ~D
X   12        N = ~S
X   13        N = ~S | D    (REVERSE TRANSPARENT)
X   14        N = ~ (S & D)
X   15        N = 1         (USE V_BAR INSTEAD)
X
```

```
X/* >>>>>>>>>>>>>>>>>>>>>>> END OF DOWNLOAD <<<<<<<<<<<<<<<<<<<<<<< */
X.!
X.!*************************************************************************
X.!
X.!           End Appendix 5
X.!
X.!*************************************************************************
SHAR_EOF
if test 5475 -ne "`wc -c 'apndx5.prf'`"
then
     echo shar: error transmitting "'apndx5.prf'" '(should have been 5475
characters)'
fi
echo shar: extracting "'apndx6.prf'" '(5246 characters)'
if test -f 'apndx6.prf'
then
     echo shar: over-writing existing file "'apndx6.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx6.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
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X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 6
X.!
X.!*************************************************************************
X.!
X.!
X.AP VI Sample Code for Part VII
X/*
X>>>>>>>>>>>>>>>>>>>>> Download file for GEM column #7 <<<<<<<<<<<<<<<<<<<<
X>>>>>>>>>>>>>>>>>>>>>>>>>> Sample Menu Tree <<<<<<<<<<<<<<<<<<<<<<<<<<<<
X*/
X
X-1, 1, 6, G_IBOX, NONE, NORMAL, 0x0L, 0,0, 80,25, /* ROOT */
X6, 2, 2, G_BOX, NONE, NORMAL, 0x1100L, 0,0, 80,513,    /* THE BAR */
X1, 3, 5, G_IBOX, NONE, NORMAL, 0x0L, 2,0, 20,769, /* THE ACTIVE */
X4, -1, -1, G_TITLE, NONE, NORMAL, 0x0L, 0,0, 6,769,    /* Title #1 */
X5, -1, -1, G_TITLE, NONE, NORMAL, 0x1L, 6,0, 6,769,    /* Title #2 */
X2, -1, -1, G_TITLE, NONE, NORMAL, 0x2L, 12,0, 8,769,   /* Title #3 */
X0, 7, 22, G_IBOX, NONE, NORMAL, 0x0L, 0,769, 80,19,    /* THE SCREEN */
```

```
X16, 8, 15, G_BOX, NONE, NORMAL, 0xFF1100L, 2,0, 20,8,  /* Drop-down #1 */
X9, -1, -1, G_STRING, NONE, NORMAL, 0x3L, 0,0, 19,1,    /* About... entry */
X10, -1, -1, G_STRING, NONE, DISABLED, 0x4L, 0,1, 20,1,
X11, -1, -1, G_STRING, NONE, NORMAL, 0x5L, 0,2, 20,1,   /* Desk acc entries */
X12, -1, -1, G_STRING, NONE, NORMAL, 0x6L, 0,3, 20,1,
X13, -1, -1, G_STRING, NONE, NORMAL, 0x7L, 0,4, 20,1,
X14, -1, -1, G_STRING, NONE, NORMAL, 0x8L, 0,5, 20,1,
X15, -1, -1, G_STRING, NONE, NORMAL, 0x9L, 0,6, 20,1,
X7, -1, -1, G_STRING, NONE, NORMAL, 0xAL, 0,7, 20,1,
X22, 17, 21, G_BOX, NONE, NORMAL, 0xFF1100L, 8,0, 13,5, /* Drop-down #2 */
X18, -1, -1, G_STRING, NONE, NORMAL, 0xBL, 0,0, 13,1,
X19, -1, -1, G_STRING, NONE, DISABLED, 0xCL, 0,1, 13,1,
X20, -1, -1, G_STRING, NONE, NORMAL, 0xDL, 0,4, 13,1,
X21, -1, -1, G_STRING, NONE, NORMAL, 0xEL, 0,2, 13,1,
X16, -1, -1, G_STRING, NONE, DISABLED, 0xFL, 0,3, 13,1,
X6, 23, 25, G_BOX, NONE, NORMAL, 0xFF1100L, 14,0, 26,3, /* Drop down #3 */
X24, -1, -1, G_STRING, NONE, NORMAL, 0x10L, 0,2, 26,1,
X25, -1, -1, G_STRING, NONE, NORMAL, 0x11L, 0,0, 26,1,
X22, -1, -1, G_STRING, LASTOB, DISABLED, 0x12L, 0,1, 26,1
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>>>>> Menu enable/disable utility <<<<<<<<<<<<<<<<<<<<<<
X*/
X
X/*------------------------------*/
X/*  undo_obj      */
X/*------------------------------*/
X    VOID
Xundo_obj(tree, which, bit)
X    LONG tree;
X    WORD which;
X    UWORD    bit;
X    {
X    WORD state;
X
X    state = LWGET(OB_STATE(which));
X    LWSET(OB_STATE(which), state & ~bit);
X    }
X
X/*------------------------------*/
X/*  enab_obj      */
X/*------------------------------*/
X    WORD
Xenab_obj(tree, which)
X    LONG tree;
X    WORD which;
X    {
X    undo_obj(tree, which, (UWORD) DISABLED);
X    return (TRUE);
X    }
X
X/*------------------------------*/
X/*  do_obj        */
```

```
X/*------------------------------*/
X    VOID
Xdo_obj(tree, which, bit)
X    LONG tree;
X    WORD which;
X    UWORD    bit;
X    {
X    WORD state;
X
X    state = LWGET(OB_STATE(which));
X    LWSET(OB_STATE(which), state | bit);
X    }
X
X/*------------------------------*/
X/*  disab_obj     */
X/*------------------------------*/
X    WORD
Xdisab_obj(tree, which)
X    LONG tree;
X    WORD which;
X    {
X    do_obj(tree, which, (UWORD) DISABLED);
X    return (TRUE);
X    }
X
X/*------------------------------*/
X/*  set_menu      */
X/*------------------------------*/
X    VOID
Xset_menu(tree, change)          /* change[0] TRUE selects all entries*/
X    LONG tree;              /* FALSE deselects all.  Change list */
X    WORD *change;      /* of items is then toggled.          */
X    {
X    WORD dflt, screen, drop, obj;
X
X    dflt = *change++;           /* What is default?   */
X    screen = LWGET(OB_TAIL(ROOT));       /* Get SCREEN
          */
X    drop = LWGET(OB_HEAD(screen));       /* Get DESK drop-down */
X                           /* and skip it        */
X    for (; (drop = LWGET(OB_NEXT(drop))) != screen; )
X         {
X         obj = LWGET(OB_HEAD(drop));
X         if (obj != NIL)
X         if (dflt)
X              map_tree(tree, obj, drop, enab_obj);
X         else
X              map_tree(tree, obj, drop, disab_obj);
X         }
X
X    for (; *change; change++)
X         if (dflt)
X              disab_obj(tree, *change);
```

```
X         else
X              enab_obj(tree, *change);
X    }
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>> Definitions used in this article <<<<<<<<<<<<<<<<<<<<
X*/
X
X#define ROOT 0
X
X#define G_IBOX    25
X#define G_STRING  28
X#define G_TITLE   32
X
X#define R_TREE     0
X
X#define MN_SELECTED 10
X
X#define CHECKED   0x4
X#define DISABLED  0x8
X
X#define OB_NEXT(x) (tree + (x) * sizeof(OBJECT) + 0)
X#define OB_HEAD(x) (tree + (x) * sizeof(OBJECT) + 2)
X#define OB_TAIL(x) (tree + (x) * sizeof(OBJECT) + 4)
X#define OB_TYPE(x) (tree + (x) * sizeof(OBJECT) + 6)
X#define OB_FLAGS(x) (tree + (x) * sizeof(OBJECT) + 8)
X#define OB_STATE(x) (tree + (x) * sizeof(OBJECT) + 10)
X#define OB_SPEC(x) (tree + (x) * sizeof(OBJECT) + 12)
X#define OB_X(x) (tree + (x) * sizeof(OBJECT) + 16)
X#define OB_Y(x) (tree + (x) * sizeof(OBJECT) + 18)
X#define OB_WIDTH(x) (tree + (x) * sizeof(OBJECT) + 20)
X#define OB_HEIGHT(x) (tree + (x) * sizeof(OBJECT) + 22)
X
X#define M_OFF     256
X#define M_ON      257
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 6
X.!
X.!*****************************************************************************
SHAR_EOF
if test 5246 -ne "`wc -c 'apndx6.prf'`"
then
     echo shar: error transmitting "'apndx6.prf'" '(should have been 5246
characters)'
fi
echo shar: extracting "'apndx7.prf'" '(3278 characters)'
if test -f 'apndx7.prf'
then
     echo shar: over-writing existing file "'apndx7.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx7.prf'
```

```
X.!****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
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X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
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X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!****************************************************************************
X.!
X.!           Begin Appendix 7
X.!
X.!****************************************************************************
X.!
X.!
X.AP VII Sample Code for Part IX
X/*
X>>>>>>>>>>>>>>>> Routines to set clip to a GRECT <<<<<<<<<<<<<<<<
X*/
X
X       VOID
Xgrect_to_array(area, array)     /* convert x,y,w,h to upr lt x,y and    */
X       GRECT   *area;          /*                    lwr rt x,y        */
X       WORD    *array;
X       {
X       *array++ = area->g_x;
X       *array++ = area->g_y;
X       *array++ = area->g_x + area->g_w - 1;
X       *array = area->g_y + area->g_h - 1;
X       }
X
X       VOID
Xset_clip(clip_flag, s_area)     /* set clip to specified area          */
X       WORD    clip_flag;
X       GRECT   *s_area;
X       {
X       WORD    pxy[4];
X
X       grect_to_array(s_area, pxy);
X       vs_clip(vdi_handle, clip_flag, pxy);
X       }
X.bp
X/*
X>>>>>>>>>> Routines to set attributes before output <<<<<<<<<<
X*/
X       VOID
Xrr_perim(mode, color, type, width, pxy)      /* Draw a rounded    */
```

```
X	WORD	mode, color, width, *pxy;	/* rectangle outline */
X	{
X	vswr_mode(vdi_handle, mode);
X	vsl_color(vdi_handle, color);
X	vsl_type(vdi_handle, type);
X	vsl_width(vdi_handle, width);
X	v_rbox(vdi_handle, pxy);
X	vswr_mode(vdi_handle, MD_REPLACE);
X	}
X
X	VOID
Xpl_perim(mode, type, color, width, npts, pxy)	/* Draw a polygonal */
X						/* figure	    */
X	WORD	mode, type, color, width, npts, *pxy;
X	{
X	vswr_mode(vdi_handle, mode);
X	vsl_type(vdi_handle, type);
X	vsl_color(vdi_handle, color);
X	vsl_width(vdi_handle, width);
X	v_pline(vdi_handle, npts, pxy);
X	}
X
X	VOID			/* Draw a filled polygonal area */
Xpl_fill(mode, perim, color, interior, style, npts, pxy)
X	WORD	mode, perim, color, interior, style, npts, *pxy;
X	{
X	vswr_mode(vdi_handle, mode);
X	vsf_color(vdi_handle, color);
X	vsf_style(vdi_handle, style);
X	vsf_interior(vdi_handle, interior);
X	vsf_perimeter(vdi_handle, perim);
X	v_fillarea(vdi_handle, npts, pxy);
X	}
X
X	VOID			/* Draw a filled rectangle    */
Xrect_fill(mode, perim, color, interior, style, pxy)
X	WORD	mode, perim, color, style, interior, *pxy;
X	{
X	vswr_mode(vdi_handle, mode);
X	vsf_color(vdi_handle, color);
X	vsf_style(vdi_handle, style);
X	vsf_interior(vdi_handle, interior);
X	vsf_perimeter(vdi_handle, perim);
X	vr_recfl(vdi_handle, pxy);
X	}
X.!
X.!*****************************************************************************
X.!
X.!		End Appendix 7
X.!
X.!*****************************************************************************
SHAR_EOF
if test 3278 -ne "`wc -c 'apndx7.prf'`"
```

```
then
     echo shar: error transmitting "'apndx7.prf'" '(should have been 3278
characters)'
fi
echo shar: extracting "'apndx8.prf'" '(2151 characters)'
if test -f 'apndx8.prf'
then
     echo shar: over-writing existing file "'apndx8.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'apndx8.prf'
X.!*************************************************************************
X.!
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X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
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X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*************************************************************************
X.!
X.!           Begin Appendix 8
X.!
X.!*************************************************************************
X.!
X.!
X.AP VIII Sample Code for Part X
X/*
X>>>>>>>>>>> Demonstration of byte alignment of window interior <<<<<<<<<<<
X*/
X
X#define FEATURES    0x0fef /* what border features are used   */
XWORD    msg[8];            /* message from evnt_multi     */
XGRECT   work_area;         /* defines working area        */
XWORD    w_hndl;            /* handle for window being changed */
X
X    wind_calc(1, FEATURES, msg[4], msg[5], msg[6], msg[7],
X         &work_area.g_x, &work_area.g_y, &work_area.g_w,
X         &work_area.g_h);
X    work_area.g_x = align_x(work_area.g_x);
X    work_area.g_w = align_x(work_area.g_w);
X    wind_calc(0, FEATURES, work_area.g_x, work_area.g_y,
X         work_area.g_w, work_area.g_h, &msg[4], &msg[5],
X         &msg[6], &msg[7]);
X    wind_set(w_hndl, WF_CXYWH, msg[4], msg[5], msg[6], msg[7]);
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>> Subroutine for above <<<<<<<<<<<<<<<<<<<<<<<<<<<<
```

```
X*/
X    WORD
Xalign_x(x)        /* forces word alignment for column position
     */
X    WORD x;       /*   rounding to nearest word        */
X    {
X    return((x & 0xfff0) + ((x & 0x0008) ? 0x0010 : 0));
X    }
X.bp
X/*
X>>>>>>>>>>>>>>>>>>>> Standard v_gtext binding <<<<<<<<<<<<<<<<<<<<<<<<
X*/
X    WORD
Xv_gtext( handle, x, y, string)
X    WORD handle, x, y;
X    BYTE *string;
X    {
X    WORD i;
X    ptsin[0] = x;
X    ptsin[1] = y;
X    i = 0;
X    while (intin[i++] = *string++)   /* Copy characters to intin    */
X         ;             /* There is NO error checking! */
X    contrl[0] = 8;
X    contrl[1] = 1;
X    contrl[3] = --i;
X    contrl[6] = handle;
X    vdi();
X    }
X.!
X.!*****************************************************************************
X.!
X.!           End Appendix 8
X.!
X.!*****************************************************************************
SHAR_EOF
if test 2151 -ne "`wc -c 'apndx8.prf'`"
then
     echo shar: error transmitting "'apndx8.prf'" '(should have been 2151
characters)'
fi
#    End of shell archive
exit 0

--
                      Jwahar R. Bammi
                   Usenet:  .....!decvax!cwruecmp!bammi
                    CSnet:  bammi@case
                  Arpa:  bammi%case@csnet-relay
               CompuServe:  71515,155


From 4775804504868424024
```

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,4a57166dd81bf487,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 20:31:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: ProGEM part 6 of 6
Message-ID: <1446@cwruecmp.UUCP>
Date: Fri, 21-Mar-86 23:31:44 EST
Article-I.D.: cwruecmp.1446
Posted: Fri Mar 21 23:31:44 1986
Date-Received: Mon, 31-Mar-86 03:34:12 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 331

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #!/bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#    macros.prf
#    cover.prf
#    toc.prf
#    tut.prf
#    read.me
# This archive created: Fri Mar 21 22:41:00 1986
# By:    Jwahar R. Bammi ()
export PATH; PATH=/bin:$PATH
echo shar: extracting "'macros.prf'" '(1170 characters)'
if test -f 'macros.prf'
then
     echo shar: over-writing existing file "'macros.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'macros.prf'
X.!*************************************************************************
X.!
X.!               Macros
X.!
X.!*************************************************************************
X.!
X.! Begin New Part
X.!
X.define PART
X.he /Professional GEM//#/
X.bp
X.bold on
X.ce 1
XPART - $1
X.br
X.sp 1
```

```
X.ce 1
X$2 $3 $4 $5 $6 $7 $8 $9
X.bold off
X.cl 0 PART - $1.  $2 $3 $4 $5 $6 $7 $8 $9
X.he /Professional GEM/Part $1/#/
X.sp 1
X.en
X.!
X.! Section Heading
X.!
X.define SH
X.cl 1 $1 $2 $3 $4 $5 $6 $7 $8 $9
X.ne 5
X.sp 2
X.bold 1
X$1 $2 $3 $4 $5 $6 $7 $8 $9
X.br
X.sp 1
X.ti +5
X.en
X.!
X.! Figure Begin
X.!
X.define FB
X.ne 3
X.br
X.cl 2 $1
X.sp 1
X.ce on
X.en
X.!
X.! Figure End
X.!
X.define FE
X.br
X.ce off
X.sp 1
X.en
X.!
X.! Paragraph
X.!
X.define PP
X.ne 3
X.sp 1
X.ti +5
X.en
X.!
X.! Begin Option
X.!
X.define BO
X.sp 1
X.in +4
X.en
```

```
X.!
X.! End Option
X.define EO
X.in -4
X.en
X.!
X.!
X.define AP
X.fi
X.he /Professional GEM/Appendix $1/#/
X.bp
X.cl 1 Appendix - $1 $2 $3 $4 $5 $6
X.ce on
X.bold on
XAppendix - $1
X.br
X$2 $3 $4 $5 $6
X.bold off
X.ce off
X.sp 3
X.nf
X.en
X.!
X.!
X.!*************************************************************************
X.!
X.!                End Macros
X.!
X.!*************************************************************************
SHAR_EOF
if test 1170 -ne "`wc -c 'macros.prf'`"
then
     echo shar: error transmitting "'macros.prf'" '(should have been 1170
characters)'
fi
echo shar: extracting "'cover.prf'" '(714 characters)'
if test -f 'cover.prf'
then
     echo shar: over-writing existing file "'cover.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'cover.prf'
X.!*************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
```

```
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Cover
X.!
X.!*****************************************************************************
X.!
X.!
X.ce 100
X.st 8
XProfessional GEM
X.sp
Xby
X.sp
XTim Oren
X.br
X.st -8
XANTIC PUBLISHING INC., COPYRIGHT 1985.
X.br
XREPRINTED BY PERMISSION.
SHAR_EOF
if test 714 -ne "`wc -c 'cover.prf'`"
then
     echo shar: error transmitting "'cover.prf'" '(should have been 714
characters)'
fi
echo shar: extracting "'toc.prf'" '(871 characters)'
if test -f 'toc.prf'
then
     echo shar: over-writing existing file "'toc.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'toc.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Table of Contents
X.!
X.!*****************************************************************************
X.!
```

```
X.!
X.br
X.pn roman
X.he //#//
X.bp 1
X.nf
X.fo ////
X.bold on
X.ce
XTable of Contents
X.bold off
X.sp
X.pc
X.!*****************************************************************************
X.!
X.!                     THE END
X.!
X.!*****************************************************************************
SHAR_EOF
if test 871 -ne "`wc -c 'toc.prf'`"
then
     echo shar: error transmitting "'toc.prf'" '(should have been 871 characters)'
fi
echo shar: extracting "'tut.prf'" '(1144 characters)'
if test -f 'tut.prf'
then
     echo shar: over-writing existing file "'tut.prf'"
fi
sed 's/^X//' << \SHAR_EOF > 'tut.prf'
X.!*****************************************************************************
X.!
X.! ANTIC PUBLISHING INC., COPYRIGHT 1985.  REPRINTED BY PERMISSION.
X.!
X.! ** Professional GEM ** by Tim Oren
X.!
X.! Proff File by ST enthusiasts at
X.! Case Western Reserve University
X.! Cleveland, Ohio
X.! uucp : decvax!cwruecmp!bammi
X.! csnet: bammi@case
X.! arpa : bammi%case@csnet-relay
X.! compuserve: 71515,155
X.!
X.!*****************************************************************************
X.!
X.!           Begin Tutorial
X.!
X.!*****************************************************************************
X.!
X.!
X.so macros.prf
X.so wind1.prf
X.so wind2.prf
```

```
X.so wind3.prf
X.so wind4.prf
X.so wind5.prf
X.so wind6.prf
X.so wind7.prf
X.so wind8.prf
X.so wind9.prf
X.!
X.! Add any further Parts Above
X.!
X.cl 0 APPENDICES
X.so apndx1.prf
X.so apndx2.prf
X.so apndx3.prf
X.so apndx4.prf
X.so apndx5.prf
X.so apndx6.prf
X.so apndx7.prf
X.so apndx8.prf
X.!
X.! Add any further Appendicies Above
X.!
X.so toc.prf
X.!
X.!
X.!*************************************************************************
X.!
X.!           End Tutorial
X.!
X.!*************************************************************************
SHAR_EOF
if test 1144 -ne "`wc -c 'tut.prf'`"
then
     echo shar: error transmitting "'tut.prf'" '(should have been 1144
characters)'
fi
echo shar: extracting "'read.me'" '(1020 characters)'
if test -f 'read.me'
then
     echo shar: over-writing existing file "'read.me'"
fi
sed 's/^X//' << \SHAR_EOF > 'read.me'
XThis file is read.me
X    After unshar'ing the 6 parts of the this posting you should
Xend up with the following files.
X
Xapndx1.prf   apndx6.prf    read.me       wind3.prf wind8.prf
Xapndx2.prf   apndx7.prf    toc.prf       wind4.prf wind9.prf
Xapndx3.prf   apndx8.prf    tut.prf       wind5.prf
Xapndx4.prf   cover.prf wind1.prf wind6.prf
Xapndx5.prf   macros.prf    wind2.prf wind7.prf
X
XTo get a neat looking copy of the tutorial you need to issue only two
```

```
Xcommands:
X
X    proff -po8 cover.prf cover
X    proff -po8 tut.prf tut
X
Xtut.prf includes all the required file in the correct order. You may
Xneed to fool around with the page offset ( -po<n> ) to adjust the left
Xmargin correctly on your printer.
X
XWe will post further parts of this tutorial as they become available.
XAppropriate lines may be inserted into tut.prf to include the new
Xparts.
X
X    If you have any further questions/suggestions send mail to
X
X                       Jwahar R. Bammi
X                     Usenet:  .....!decvax!cwruecmp!bammi
X                      CSnet:  bammi@case
X                     Arpa:  bammi%case@csnet-relay
X                  CompuServe:  71515,155
SHAR_EOF
if test 1020 -ne "`wc -c 'read.me'`"
then
     echo shar: error transmitting "'read.me'" '(should have been 1020
characters)'
fi
#    End of shell archive
exit 0

--
                       Jwahar R. Bammi
                     Usenet:  .....!decvax!cwruecmp!bammi
                      CSnet:  bammi@case
                     Arpa:  bammi%case@csnet-relay
                  CompuServe:  71515,155


From 6700418046710579017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e8d0f7b8d0a70e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 09:37:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihnet.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: Bug in MEGAMAX C ?
Message-ID: <398@ihnet.UUCP>
Date: Sat, 22-Mar-86 12:37:23 EST
Article-I.D.: ihnet.398
Posted: Sat Mar 22 12:37:23 1986
Date-Received: Mon, 24-Mar-86 00:25:34 EST
```

Distribution: net
Organization: AT&T Bell Laboratories
Lines: 20

I was over at a friends house who just got the MEGAMAX "C"
compiler for his 520ST. There seems to be a bug with the
printf function. For example:

```
#include <stdio.h>
main()
{
     int c;

     printf("Hello world\n");
     printf("Enter a Char:");
     c = getchar();
}
```

Does not Work until you put a "\n" in the second
printf statement.

ihnet!bryan
p.s. We tried calling the program a.tos, but that did not help either

From 7532675234809821985
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d8c10a011997a9d1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 10:04:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!ittatc!dcdwest!sdcsvax!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA (John H. Sangster)
Newsgroups: net.micro.atari16
Subject: Query on music-writing packages for the ST?
Message-ID: <8603221804.AA19612@mitre-bedford.ARPA>
Date: Sat, 22-Mar-86 13:04:44 EST
Article-I.D.: mitre-be.8603221804.AA19612
Posted: Sat Mar 22 13:04:44 1986
Date-Received: Wed, 26-Mar-86 06:43:30 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 8

A friend of mine is interested in getting computer assistance with writing music
for the guitar. Does anybody have experience with any packages which might be
suitable for this application? What he needs is a "music word processor" that can
write the
sheet music as well as playing the music. Singing it would I think be
unnecessary.

Any help that is available will be appreciated. Thanks!

-John Sangster
jhs at mitre-bedford.arpa
...!ihnp4!linus!mbunix!jhs

From -9098497906875653005
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b588638ad9707a72,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 13:21:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site mprvaxa.UUCP
Path: utzoo!utcsri!ubc-vision!mprvaxa!rintoul
From: rintoul@mprvaxa.UUCP (Doug Rintoul)
Newsgroups: net.micro.atari16
Subject: unsqueezer
Message-ID: <707@mprvaxa.UUCP>
Date: Sat, 22-Mar-86 16:21:21 EST
Article-I.D.: mprvaxa.707
Posted: Sat Mar 22 16:21:21 1986
Date-Received: Sun, 23-Mar-86 07:16:12 EST
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 33

Am I missing something here? I tried to use stusq.ttp on the pdforth that
was posted to the net a while ago and couldn't get the unsqueezer to work.
I put everything on disk A, clicked on stusq.ttp, entered pdforth.tqs, and
hit return. The disk was accessed for about half a second and the program
came back with nothing. I looked at the uudecoded version and found a bunch
of ^@ at the very beginning. This doesn't seem normal to me. Below is the
first few lines of the uuencoded version of stusq.ttp. Can someone tell me
if this is right and what I am doing wrong? (by the way, I haven't had
any trouble uudecodeing on UNIX and down loading to my 520st, before this)

```
begin 644 stusq.ttp
M
M
M
M
M
M                         !2DZ!3YC<W1R   B7R1)(%]P ! 88 (2V%'(
M__P2O   +PH@74[0  4H) 1C<W1R $[4  4H,@ %*EP !0B:  4J> =C<W1R
```

Thanks in advance.

Doug Rintoul
Microtel Pacific Research
{ihnp4!alberta sun utcsri}!ubc-vision!mprvaxa!rintoul

--

Doug Rintoul
Microtel Pacific Research
{ihnp4!alberta sun utcsri}!ubc-vision!mprvaxa!rintoul

From -5474642210663534636
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c97ac508485ff74
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 14:44:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
harvard!think!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Re: Composite video output from ST
Message-ID: <2588@mit-hermes.ARPA>
Date: Sat, 22-Mar-86 17:44:16 EST
Article-I.D.: mit-herm.2588
Posted: Sat Mar 22 17:44:16 1986
Date-Received: Tue, 25-Mar-86 04:12:48 EST
References: <2587@mit-hermes.ARPA>
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 6

Since noone has answered my question yet, here it is for anyone who's
interested (the question was how do the new ST's generate 60Hz and 70Hz
video simultaneously):

In fact they don't. The 70Hz monitor, if used, is detected and causes the
ST to generate the appropriate video signals. Otherwise 60 Hz (only) is
generated, at least I think this is what happens.

From 5489010547481932722
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dbd6bcee53cc44d4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 17:08:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!gatech!seismo!utah-cs!atwell
From: atwell@utah-cs.UUCP (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Re: more 1st word problems
Message-ID: <3734@utah-cs.UUCP>
Date: Sat, 22-Mar-86 20:08:59 EST
Article-I.D.: utah-cs.3734
Posted: Sat Mar 22 20:08:59 1986
Date-Received: Mon, 24-Mar-86 03:42:08 EST

References: <4607D01@PSUVM>
Reply-To: atwell@utah-cs.UUCP (Bart L. Atwell)
Organization: University of Utah CS Dept
Lines: 39

In article <4607D01@PSUVM> D01@PSUVM.BITNET writes:
>
>   I've had two problems with 1st Word that I could use some help with.
>   First, is there a way of turning off the automatic formfeed when one
>   prints a document? It's a minor annoyance wasting a blank sheet of
>   tractor-fed paper, but it's a major one when using single sheets.
>   I've solved this by converting files to standard ASCII (non-WP),
>   and then printing from the desktop, but this is a major bummer.
>
>   Also occasionally I find I can insert page breaks but can't get
>   rid of them by clicking the mouse on them. Has anyone else had
>   this problem?
>
>   Otherwise I love 1st Word. I think the method it uses to get
>   Greek letters and math symbols is the best I've come across.

I too am a 1st Word fan and have experienced the same problems you have,
but like you don't consider them major problems.

I have come up with a major problem though. I haven't printed out a
copy of the guide.doc that comes with 1st Word since I just load it
and read it on the screen if there is something I can't figure out
without it. Well, last week I loaded the guide and found
the file I was editing right in the middle out it. I hadn't done any disk
swapping (which seems to wreak havoc with TOS) or anything else funny.
Somehow, the file (prolog.doc) just got saved in the middle. So I put
 a fresh copy of the guide on the work disk and went on working on prolog.doc.
The next time I looked at guide.doc, the same thing happened again.

Fortunately, only the Guide (that is backed up) was crashed, but this is
a cause for worry since I don't know when it might occur. Also, I wonder if
it is a bug in TOS (considering my past experiences with swapping disks and
having the old disk's directory written on the new disk). Has TOS in ROM
solved this problem?

Another thing, how do you get 1st Word to double space?

Bart Atwell
atwell@utah-cs.arpa

From 1765029993372706355
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,acef675c75f94f42,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 22:37:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: What is Gdos??
Message-ID: <1447@cwruecmp.UUCP>
Date: Sun, 23-Mar-86 01:37:51 EST
Article-I.D.: cwruecmp.1447
Posted: Sun Mar 23 01:37:51 1986
Date-Received: Tue, 25-Mar-86 03:45:53 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 28

These questions are for Atari or anyone who may know something about them.

1) What exactly is Gdos?

2) It is supposedly available to developers now. Is it?

3) There is apparently a fix to ar68 that is rumored to make the size of the object files even. Is there a fix? What does it fix?

4) Once you put a reasonable number of files on the harddisk it gets ungodly slow when trying to open a file for write/create. Reading files is still fine. Why is this so ? (I use the new AHDI that is making the rounds nowadays).

5) The documentation for DUP and FORCE ($45 and $46 in Gemdos) in the HH guide is very vague. Could you clarify the difference between them?

As they say, thanks in advance.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -8606035678066009893
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6a0e595aa25cffc3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-22 23:30:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!ucbvax!dockmaster.arpa!Pase
From: Pase@DOCKMASTER.ARPA
Newsgroups: net.micro.atari16

Subject: TEX
Message-ID: <860323073001.890612@DOCKMASTER.ARPA>
Date: Sun, 23-Mar-86 02:30:00 EST
Article-I.D.: DOCKMAST.860323073001.890612
Posted: Sun Mar 23 02:30:00 1986
Date-Received: Wed, 26-Mar-86 04:16:39 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

Does anyone know if TEX is/willbe avaliable for the ST? /bill

From -1134486118274245621
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-23 03:43:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!scherzo!
allegra!princeton!orsvax1!pyrnj!caip!seismo!mcvax!vu44!botter!ark!hommel
From: hommel@ark.UUCP (Peter Hommel)
Newsgroups: net.micro.atari16
Subject: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <711@ark.UUCP>
Date: Sun, 23-Mar-86 06:43:52 EST
Article-I.D.: ark.711
Posted: Sun Mar 23 06:43:52 1986
Date-Received: Tue, 25-Mar-86 05:02:48 EST
References: <54600010@iuvax.UUCP> <1988@brl-smoke.ARPA>
Reply-To: hommel@vu44.UUCP (Hommel Peter)
Organization: VU Informatica, Amsterdam
Lines: 7

Rename FONTS.ACC to DESKn.ACC and reboot.
--
  Peter Hommel
  Vrije Universiteit (Free University)
  Amsterdam, The Netherlands
  ...mcvax!vu44!hommel (hommel@vu44.UUCP)

From 2627952555016880824
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e61afcf16863adc7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-23 03:44:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!UMich-MTS.MAILNET!Edward_Vielmetti
From: Edward_Vielmetti@UMICH-MTS.MAILNET
Newsgroups: net.micro.atari16

Subject: Kermit for Atari ST ?
Message-ID: <1204254@UMich-MTS.Mailnet>
Date: Sun, 23-Mar-86 06:44:58 EST
Article-I.D.: UMich-MT.1204254
Posted: Sun Mar 23 06:44:58 1986
Date-Received: Tue, 25-Mar-86 04:33:11 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I'm interested in the status of Kermit on the Atari ST. Do you folks
have any idea of where it's available, who's working on it, or
where it might be archived? Ditto any commericial communications
programs that have it implemented.

Edward Vielmetti
Computing Center Microcomputer Support Group
University of Michigan

Edward_Vielmetti@UMich-MTS.Mailnet (Arpa via MIT)

(Respond directly and I'll summarize for the atari net.)

From -2613878276897282195
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,baaea1abc1e3f8d2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-23 08:13:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site trwrba.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!pyramid!hplabs!sdcrdcf!trwrb!trwrba!sansom
From: sansom@trwrba.UUCP (Richard E. Sansom)
Newsgroups: net.micro.atari16
Subject: Re: ST FONTS and FONTLOADER - PART I
Message-ID: <1948@trwrba.UUCP>
Date: Sun, 23-Mar-86 11:13:01 EST
Article-I.D.: trwrba.1948
Posted: Sun Mar 23 11:13:01 1986
Date-Received: Tue, 25-Mar-86 04:58:27 EST
References: <54600010@iuvax.UUCP> <1988@brl-smoke.ARPA>
Reply-To: sansom@trwrba.UUCP (Richard E. Sansom)
Distribution: net
Organization: TRW EDS, Redondo Beach, CA
Lines: 23

In article <1988@brl-smoke.ARPA> geoffs@brl-smoke.ARPA (Geoffrey Sauerborn (TANK)
<geoffs>) writes:
>   I have followed the instuctions to the letter. There is no such
>thing as "ST FONT LOADER" under the desk menu after rebooting. (Only the
>usual things). I even tried coping the ORIGINAL TOS disk on a new disk,

>removing DESK1.ACC & DESK2.ACC, and rebooting with FONTS.ACC as the only
>accessory.
>
>   ...I still do not get "ST FONT LOADER" under the desk menu
>after rebooting. Has anyone got it to work?

I was only able to get this (and any other *.ACC stuff) to work after
naming the program DESKn.ACC (DESK1.ACC, DESK2.ACC, etc.).

Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!trwrba!sansom
--
Richard E. Sansom
TRW Electronics & Defense Sector
{...decvax,ucbvax,ihnp4}!trwrb!trwrba!sansom

From 1231735871438658878
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1c68098411fc94b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-23 10:59:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: ST software
Message-ID: <54600040@iuvax.UUCP>
Date: Sun, 23-Mar-86 13:59:00 EST
Article-I.D.: iuvax.54600040
Posted: Sun Mar 23 13:59:00 1986
Date-Received: Wed, 26-Mar-86 04:08:43 EST
Lines: 36
Nf-ID: #N:iuvax:54600040:000:1858
Nf-From: iuvax!franco   Mar 23 13:59:00 1986

I have ceased transmitting binaries due to several complaints and the
fact that several others were unable to get them off the net intact.

Judging from the mail I have received, I would say there is great interest
in the wide distribution of PD software. Much of this is apparently due
to the many students who own STs and our European friends that do not have
access to the vast quantities of PD stuff available here in the states.
However, many people in other categories are interested in this software
perhaps because there still is relatively little software for sale.

Because of the great interest and in order not to offend anyone on the
net I invite you to send three blank disks to me directly at the address

below. I will load up the disks with all the items I have sent and were planning to send over the net and send the disks back to you. Therefore, the FONTS and fontloader, the FORTH, the SECTOR EDITOR, the UNSQUEEZER, the UUDECODER etc. will be on those disks.

I think this operation can work smoothly if I have your help - please include whatever packaging in which you want the disks sent back, make sure there is adequate postage on the package and don't forget your correct mailing address.

John Franco
2535 Spicewood Lane
Bloomington, IN 47401

Please note: you are taking a gamble sending me those disks - there is the chance they will be lost in the mail or damaged and I can take no responsibility for that. If three disks are too much of a gamble for you then send one disk and I will copy what I have sent out so far. If I become overwhelmed by the response I will raise a flag on the net indicating such.

P.S. A number of my reponses to mail messages were returned to me undelivered. If you were expecting to hear from me and didn't that is probably why. I think the above answers every one's questions pretty much.

From -5139663248629803687
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,59bb445887955354
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-24 07:05:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!hao!hplabs!ucbvax!xerox.com!JDavidson.WBST
From: JDavidson.WBST@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: uudecode
Message-ID: <860324-080549-2647@Xerox>
Date: Mon, 24-Mar-86 10:05:12 EST
Article-I.D.: Xerox.860324-080549-2647
Posted: Mon Mar 24 10:05:12 1986
Date-Received: Wed, 26-Mar-86 04:46:18 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 4

Any chance you could send out the listing of your Basic Program?

     Thanks in Advance,
     John

From 7252764482874844022
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,5eccbab3e00c2cca,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-24 12:38:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!hamlet.caltech.edu!
ccl%Romeo.Caltech.Edu
From: ccl%Romeo.Caltech.Edu@HAMLET.CALTECH.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <860324123826.00i@Romeo.Caltech.Edu>
Date: Mon, 24-Mar-86 15:38:26 EST
Article-I.D.: Romeo.860324123826.00i
Posted: Mon Mar 24 15:38:26 1986
Date-Received: Thu, 27-Mar-86 01:19:13 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 1

This is a test message.....

From -8249027735880857303
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e7951a2a17bfbeeb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-24 18:47:33 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA (John H. Sangster)
Newsgroups: net.micro.atari16
Subject: Mr. DeSmet's question about lab data collection.
Message-ID: <8603250247.AA02136@mitre-bedford.ARPA>
Date: Mon, 24-Mar-86 21:47:33 EST
Article-I.D.: mitre-be.8603250247.AA02136
Posted: Mon Mar 24 21:47:33 1986
Date-Received: Thu, 27-Mar-86 01:19:26 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 22

Based on the stated requirements, I would suggest that you consider the
use of an Atari 800XL, at a cost of around $200 including monitor, rather than an
ST. I think it could do all of
the data collection and comparison
tasks you mention. To pursue this issue in more detail, and to avoid annoying
atari-16 types, you should put your question out on the info-atari8 net.

On the 800XL, the two joystick ports are a general-purpose PIA input/output with
four bits of the 8-bit PIA on each connector. You could connect a simple
interface there to multiplex between the different devices.

The 800XL also has a CPU bus connector on the back, so you can build more ambitious interfaces such as DMA ports to connect there.

The ST family has a DMA port but no direct CPU bus connection available. Certainly you could use either a 520ST or 1040ST to do your task, but it would seem like overkill. However, if you want to include high-resolution graphics displays of your measurement results, or do other calculations that require a lot of computing power, then the ST processors make a good deal of sense.

If you already have a TV set or composite monitor available, an 800XL can be obtained for about $70, which is a very inexpensive way to get a laboratory computer.

The 800XL is in fact very much in the class of computers used in the 60s and early 70s as lab systems, e.g. the PDP-8! In fact, with its 65K of memory, it is comparable to a very big PDP-8 system!

-John Sangster
jhs at mitre-bedford.arpa

From 4300399423571131399
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,a05b0908bedbcbf7,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,a05b0908bedbcbf7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-24 19:29:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site amdahl.UUCP
Path: utzoo!watmath!clyde!cbosgd!hplabs!amdahl!gam
From: gam@amdahl.UUCP (G A Moffett)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: atari articles getting trashed
Message-ID: <2964@amdahl.UUCP>
Date: Mon, 24-Mar-86 22:29:08 EST
Article-I.D.: amdahl.2964
Posted: Mon Mar 24 22:29:08 1986
Date-Received: Wed, 26-Mar-86 03:03:02 EST
References: <2000006@orstcs.UUCP>
Reply-To: gam@amdahl.UUCP (G A Moffett)
Organization: Amdahl Corp, UTS Products Group
Lines: 8
Xref: watmath net.micro.atari8:95 net.micro.atari16:275

Articles cross-posted to net.micro.atari8 and net.micro.atari16 have been getting sent to 'junk' (yes, a real newsgroup). I don't know why this is, or if anyone cares.
--
Gordon A. Moffett   ...!{ihnp4,seismo,hplabs}!amdahl!gam

Her name was McGill, and she called herself Lil, but everyone knew her as Nancy...

From -8764090207704142473
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af097c39f4555859,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-24 20:14:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!UA.BITNET!AAPH332
From: AAPH332@UA.BITNET
Newsgroups: net.micro.atari16
Subject: instrument info
Message-ID: <8603250216.AA09194@ucbvax.berkeley.edu>
Date: Mon, 24-Mar-86 23:14:26 EST
Article-I.D.: ucbvax.8603250216.AA09194
Posted: Mon Mar 24 23:14:26 1986
Date-Received: Thu, 27-Mar-86 01:16:53 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 39

I am seriously considering, among other possibilities, purchasing a 1040st for use as a laboratory data collection/ analysis device. Before I can make up my mind, however, I need to get answers for a few questions.

1. Suppose I want to "read" several (five) 12 or 16 bit digital devices "simultaneously"; i.e. I want to move data from some external digital devices to (possibly sequential) RAM as quickly as possible. The devices should (or will) all be set prior to the read.

2. Suppose I want to output different data to several different digital devices "simultaneously"; i.e. I want to move data from preveously loaded RAM to external digital devices.

3. Suppose I want to read two digital devices, compare the data, and output another digital signal to a third device that depends on the result of the comparison. I want to do this FAST too.

I am willing to put together some hardware to do this. I think I can also manage the software, provided that this can be done at all. What I need to know is where do I "plug in" to get the fastest data flow rate. I guess I should say that I only want to do this once every second or so. Can I "wire" the devices as high order otherwise unused memory locations and then just move the data?

Any help, etc. etc. etc. Thnak you.

D. DeSmet
AAPH332@UA.BITNET

Thought for the day: I feel more like I do now than I did when I started writing this.

****

From -258934425852451836
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 04:57:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!seismo!mcvax!boring!steven
From: steven@boring.uucp (Steven Pemberton)
Newsgroups: net.micro.atari16
Subject: Re: scrolling
Message-ID: <6845@boring.UUCP>
Date: Tue, 25-Mar-86 07:57:11 EST
Article-I.D.: boring.6845
Posted: Tue Mar 25 07:57:11 1986
Date-Received: Fri, 28-Mar-86 04:57:11 EST
References: <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU> <330@drivax.UUCP>
Reply-To: steven@mcvax.UUCP (Steven Pemberton)
Organization: CWI, Amsterdam
Lines: 20
Apparently-To: rnews@mcvax

In article <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU> UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty) wrote:
>   Also, how have people approached window text scrolling? V_gtext
>is far too slow for a complete offset text redraw. I would like to do
>a bit scroll, but the GEM manual was very hazy on how to do this, and I
>am not sure if desk accessories on top of a window would screw up the
>bits when scrolled. I actually would like a scroll rectangle call like
>on the Macintosh, that gives redraw messages for the scrolled area under
>the desk accessory.

To which holloway@drivax.UUCP (Bruce Holloway) replied:
> If you're running a desk accessory or filling out a form or a dialog box or
> something similar, then no background processes are running. If you have
> an active window (hence, on top), you can use the "Copy Raster, Opaque"
> call (vro_cpyfm) to just BitBLT the window up one character height (said
> height can be gotten from Inquire Current Face Information [vqt_fontinfo])
> and another BitBLT to clear out the last row.

But what if the window *isn't* on top? Is there then some way of scrolling?

Steven Pemberton, CWI, Amsterdam; steven@mcvax.uucp

From 8709439764654886160
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,61a6b191411c1f5e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 05:00:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!reading!brueer!ralph
From: ralph@brueer.UUCP (Ralph Mitchell)
Newsgroups: net.micro.atari16
Subject: Re: UNSQUEEZER (uuencoded binary)
Message-ID: <251@brueer.brueer.UUCP>
Date: Tue, 25-Mar-86 08:00:11 EST
Article-I.D.: brueer.251
Posted: Tue Mar 25 08:00:11 1986
Date-Received: Fri, 28-Mar-86 07:48:13 EST
References: <54600024@iuvax.UUCP>
Reply-To: ralph@brueer.UUCP (Ralph Mitchell)
Organization: Dept of EE & E, Brunel University, Uxbridge, U.K.
Lines: 44

=-=-=-=-=-=-=-=-=-= line eater poison :-) =-=-=-=-=-=-=-=-=-=-=-=

I'm having some trouble getting STUSQ to do the right thing...
I used Kermit to get the uuencoded file off a Vax and ran it through
the ST uudecoder provided by franco@indiana.CSNET. When I try to run
STUSQ it appears to load, but then exits normally. This happens using
both CLI and the Desktop. I tried the SID68K debugging tool to see if
I could see where it was going and all I got was "Bus Error at 00049B50".
SID68K itself runs OK, but I get the Bus Error when trying to read STUSQ.

So, I thought I'd try DUMP'ing STUSQ to see if there were any ASCII
strings, just to check that the uudecode worked... Here's a few of the
strings I saw flash past:

```
cstrlen    f_open    f_close    f_read    f_write    f_lseek
gemalign   f_lseek failed       gemfread

You tried to write a read-only file!

Open needs 2 arguments - name and more

process-command-line

This implementation is nearly FORTH-83 standard, but it lacks
mass storage and uses 32-bit stacks

68000 Forth 83 - Atari 520 version
```

From this I think it's fair to assume that the uudecoder is working fine, but for some reason STUSQ won't load and/or run. I have a 520ST with TOS in RAM, monochrome monitor, twin single-sided disks and 512K of RAM. I am not currently using any RamDisk, so there should be enough spare RAM. Also, I have used ST uudecode on other things that worked...

Does anyone have any bright ideas ?? Do I need any particular TOS or other environment ?? Is STUSQ supposed to start with 120 zero words ??

All help gratefully received,

Ralph Mitchell

From 1499007453294460517
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,22568e74fa7b0b77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 12:01:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!decvax!mcnc!akgua!gatech!seismo!lll-crg!lll-lcc!vecpyr!atari!jwt
From: jwt@atari.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Overseas STs
Message-ID: <148@atari.UUcp>
Date: Tue, 25-Mar-86 15:01:05 EST
Article-I.D.: atari.148
Posted: Tue Mar 25 15:01:05 1986
Date-Received: Fri, 28-Mar-86 17:41:40 EST
References: <1658@mtgzy.UUCP> <2896@ukma.UUCP> <2898@ukma.UUCP>
Distribution: na
Organization: Atari Corporation
Lines: 8
Summary: Keyboard Clock is Crystal controlled, not power line

The ST ikbd (intelligent keyboard) microcontroller derives its timing information from the crystal clock, not the power line frequency, so it will be the same world-wide.

I should point out that the ST power supply only provides DC voltages to ST power connector... so the ST's keyboard would not know what the power line frequency was.

From 5649681238131533257
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e8d0f7b8d0a70e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 13:16:11 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site ism780c.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!pyramid!hplabs!sdcrdcf!ism780c!tim
From: tim@ism780c.UUCP (Tim Smith)
Newsgroups: net.micro.atari16
Subject: Re: Bug in MEGAMAX C ?
Message-ID: <1086@ism780c.UUCP>
Date: Tue, 25-Mar-86 16:16:11 EST
Article-I.D.: ism780c.1086
Posted: Tue Mar 25 16:16:11 1986
Date-Received: Thu, 27-Mar-86 07:33:04 EST
References: <398@ihnet.UUCP>
Reply-To: tim@ism780c.UUCP (Tim Smith)
Distribution: net
Organization: Interactive Systems Corp., Santa Monica, CA
Lines: 8

It sounds like stdout is buffered. Try saying

```
    fflush( stdout );
```

before the getchar().
--

Tim Smith   sdcrdcf!ism780c!tim || ima!ism780!tim || ihnp4!cithep!tim

From 1619128471126737372
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5dc16faf5fe87267,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 13:21:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site sdcrdcf.UUCP
Path: utzoo!decvax!decwrl!pyramid!hplabs!sdcrdcf!glenn
From: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Newsgroups: net.micro.atari16
Subject: Student Discounts on ATARI ST's
Message-ID: <2723@sdcrdcf.UUCP>
Date: Tue, 25-Mar-86 16:21:53 EST
Article-I.D.: sdcrdcf.2723
Posted: Tue Mar 25 16:21:53 1986
Date-Received: Wed, 26-Mar-86 22:25:37 EST
Reply-To: glenn@sdcrdcf.UUCP (Glenn C. Scott)
Distribution: na
Organization: System Development Corporation R&D, Santa Monica
Lines: 10

Does anyone know if ATARI offers any discounts (not that one is really needed)
to students ehn purchasing an ATARI 520 or 1040 ST ?

Please reply by e-mail if you know anything. Thanks.

Glenn C. Scott
System Development Corporation, 2525 Colorado Ave, Santa Monica, CA. 90406
213-820-4111 X5653 UUCP: glenn@sdcrdcf.UUCP   ARPA: Scott@DOCKMASTER.ARPA

From -6541358907710813808
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,af097c39f4555859
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 14:07:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!case.CSNET!bammi
From: bammi@CASE.CSNET ("Jwahar R. Bammi")
Newsgroups: net.micro.atari16
Subject: Re: instrument info
Message-ID: <8603260207.AA02917@ucbvax.berkeley.edu>
Date: Tue, 25-Mar-86 17:07:38 EST
Article-I.D.: ucbvax.8603260207.AA02917
Posted: Tue Mar 25 17:07:38 1986
Date-Received: Thu, 27-Mar-86 01:24:30 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

I feel that it would be most appropriate to use the printer port on the ST. All lot of poeple don't realize that it is a bidirectional i/o port rather than just a parallel output port. Your application seems ideal for this. Using the Dma port ofcourse will be a lot more complicated software wise, and also i suspect hardware wise. Hope this helps.

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 2706878259312969409
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,267af3892aadce83,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 17:26:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-gateway.arpa!abrams
From: abrams@MITRE-GATEWAY.ARPA (Marshall D. Abrams)
Newsgroups: net.micro.atari16

Subject: Atari Fest in Maryland suburbs of Washington, DC
Message-ID: <8603260151.AA02555@ucbvax.berkeley.edu>
Date: Tue, 25-Mar-86 20:26:06 EST
Article-I.D.: ucbvax.8603260151.AA02555
Posted: Tue Mar 25 20:26:06 1986
Date-Received: Thu, 27-Mar-86 01:24:18 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

The will be an Atari Fest sponsored by the Atari Users Regional Association on Saturday, May 31st. The hours are 10am to 3 pm. It will be held in the social hall of Holy Cross Elementary School, 4900 Strathmore Avenue, Kensington, MD. Admission is $2 for adults and $1 for children.

Tables are available to exhibitors for $50. Further information is available from John Barnes at 301/652-0667 in the evenings. I will be happy to relay messages.

From 5455491068046275612
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edf275bc0b18f37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 20:19:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site ncrcae.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!ncr-sd!ncrcae!wingard
From: wingard@ncrcae.UUCP (wingard)
Newsgroups: net.micro.atari16
Subject: What's going on here!?!?!!!??
Message-ID: <2277@ncrcae.UUCP>
Date: Tue, 25-Mar-86 23:19:41 EST
Article-I.D.: ncrcae.2277
Posted: Tue Mar 25 23:19:41 1986
Date-Received: Thu, 27-Mar-86 07:46:33 EST
References: <445@aum.UUCP>
Reply-To: wingard@ncrcae.UUCP ()
Distribution: net
Organization: NCR Corp, E&M-Columbia, W Columbia, SC
Lines: 38
Keywords: ATTN: NEIL HARRIS, ATARI CORPORATION
Summary: sorta long flame regarding 1040s

In the hope that I can get a straight answer, or *something* approaching it...

I assume, from Erik Freed's postings ("our office just received 6 1040's") that on the west coast, there seems to be little trouble in getting 1040's. I've been waiting since early February

(when the machine was announced) with my name on my dealer's list. I read all about the arrival of the first shipment (yes, yes, by way of the Phillipines, I know all about that...), but still, to this day, neither my dealer, Data Control Systems of Cayce, SC, nor his "authorized distributor", Allison-Erwin Co. of Charlotte, NC, have even SEEN a 1040, much less sold one. Yes, the orders are stacking up, but all we get is "two more weeks... two more weeks... two more weeks... two more weeks".

Why the relative abundance of machines out west? And *NOTHING* out here? My dealer's experiencing a marked slowdown of 520ST orders because people are holding out for 1040's and he can't get them! He can't even get any TOS ROMs to upgrade the machines he has sold! It's possible that the distributor is using many of the ROM sets for his own field upgrades, but my dealer has even sent a direct order to Atari Corp. for ROMs. It's been 3 weeks since he did that, and still nothing. Meanwhile, a customer of his called Atari to gripe and they sent him a set of ROMs pronto...

I'm hearing rumors that Atari is trying to get dealers to order direct from them now and that to speed the process, they're *deliberately starving* the distributors out here who are crying for machines. That plan doesn't sit too well with my dealer, especially the "$3000 minimum order" that Atari enforces for direct orders...

I'm hoping that there isn't any truth to rumors like that. But when you've been waiting a few months, you begin to think "Well, maybe they *are* true, judging from current events..."

What do you say? I'd sure appreciate some answers, Neil.

Steve Wingard

From 7800286173368953341
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a18a94c72e3579e1
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 23:23:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: ST char screen I/O query!?!
Message-ID: <1448@cwruecmp.UUCP>
Date: Wed, 26-Mar-86 02:23:17 EST
Article-I.D.: cwruecmp.1448
Posted: Wed Mar 26 02:23:17 1986
Date-Received: Thu, 27-Mar-86 07:26:18 EST
References: <96100006@unido.UUCP>
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 22

> Anybody in net-land who can help me?
>
> I'm searching the screen memory of the ST or a pointer to it when the
> ST is in command mode (COMMAND.TOS) or it is in a TOS application.
> I want to do direct character
> screen I/O like you can do on the IBM-PC, that means
> I want to write directly into the character screen memory. I know that you
> can do this in the pixel memory, as there are several hints mentioned in
> the developers kit documentation, but there is no word about a
> character buffer. Any hints are welcome. Please send e-mail to
>
I don't know of any character buffer, but if you want to write raw
characters to the screen (ie. so that the emulator does not intercept
them) you can write to Device 5 using something like Bconout .
Hope tht helps.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From 1135360931253297302
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d5e8d0f7b8d0a70e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-25 23:26:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Bug in MEGAMAX C ?
Message-ID: <1449@cwruecmp.UUCP>
Date: Wed, 26-Mar-86 02:26:46 EST
Article-I.D.: cwruecmp.1449
Posted: Wed Mar 26 02:26:46 1986
Date-Received: Thu, 27-Mar-86 07:25:53 EST
References: <398@ihnet.UUCP>
Distribution: net
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 32

>
> I was over at a friends house who just got the MEGAMAX "C"
> compiler for his 520ST. There seems to be a bug with the
> printf function. For example:
>
> #include <stdio.h>

```
> main()
> {
>    int c;
>
>    printf("Hello world\n");
>    printf("Enter a Char:");
>    c = getchar();
> }
>
> Does not Work  until you put a "\n" in the second
> printf statement.
```

That is not a bug. Printf write to stdout which is a bufferwed stream.
So if you want the prompt to appear before the getchar() you will have
to flush the stream something like

```
     printf("Enter a Char:");
     fflush(stdout);
     c = getchar();
```

     I tried it just now, and it works.

--

                      Jwahar R. Bammi
                  Usenet: .....!decvax!cwruecmp!bammi
                   CSnet: bammi@case
                Arpa: bammi%case@csnet-relay
             CompuServe: 71515,155

From 4640394441423695779
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dbd6bcee53cc44d4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 00:55:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!utah-cs!atwell
From: atwell@utah-cs.UUCP (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Free Ram question
Message-ID: <3736@utah-cs.UUCP>
Date: Wed, 26-Mar-86 03:55:36 EST
Article-I.D.: utah-cs.3736
Posted: Wed Mar 26 03:55:36 1986
Date-Received: Fri, 28-Mar-86 07:47:05 EST
References: <4607D01@PSUVM>
Reply-To: atwell@utah-cs.UUCP (Bart L. Atwell)
Organization: University of Utah CS Dept
Lines: 22

I am very pleased with the INTERSECT ram disk that John Franco posted
a few weeks ago (Thanks, John). The deallocation feature is quite useful.

I have a question though. INTERSECT has a display of the free ram available for use as a ramdisk. Right after I boot (TOS on disk) the free ram shows around 175K. But if I list a file on the screen (by selecting SHOW in the window that appears when you select a non-executable file), the available ram is reduced to 130K the next time I look.

Does anybody know what is causing this?

Also, I've removed DESK1 and DESK2 from the boot disk to get more memory. Without DESK1 though, it appears that the changes I made to the desktop with the Control Panel are no longer invoked. DESKTOP.INFO is still on the disk. Is there any way to get a customized desktop to appear without installing DESK1?

Thanks in advance,

Bart Atwell
atwell@utah-cs

From -6405703136220839652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b588638ad9707a72
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 06:46:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: unsqueezer
Message-ID: <96100007@unido.UUCP>
Date: Wed, 26-Mar-86 09:46:00 EST
Article-I.D.: unido.96100007
Posted: Wed Mar 26 09:46:00 1986
Date-Received: Sat, 29-Mar-86 01:15:01 EST
References: <707@mprvaxa.UUCP>
Sender: notes@unido.UUCP
Lines: 7
Nf-ID: #R:mprvaxa:-70700:unido:96100007:000:216
Nf-From: unido!uh   Mar 26 14:46:00 1986

Totally the same things happens to us!!!

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@unido.uucp, uh@unido.bitnet

From 165182038462346637
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-26 07:43:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!unido!hmm
From: hmm@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Re: scrolling
Message-ID: <96100008@unido.UUCP>
Date: Wed, 26-Mar-86 10:43:00 EST
Article-I.D.: unido.96100008
Posted: Wed Mar 26 10:43:00 1986
Date-Received: Sat, 29-Mar-86 01:14:46 EST
References: <6845@boring.UUCP>
Sender: notes@unido.UUCP
Lines: 8
Nf-ID: #R:boring:-684500:unido:96100008:000:352
Nf-From: unido!hmm   Mar 26 15:43:00 1986

Get my multi-window terminal emulation from mod.sources. I have posted it
today, so it should be around in the next week. I don't scroll th screen but
scroll my internal copy of the window and update the visible portions
afterwards. Maybe it's not the fastest method, but it works well even when
a window is overlapped by four others.

     Hans-Martin

From 8265634797854212777
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e2138cb4b01c04fd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 15:39:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!lll-crg!lll-lcc!ucdavis!ucbvax!media-lab.mit.edu!todd
From: todd@MEDIA-LAB.MIT.EDU
Newsgroups: net.micro.atari16
Subject: Old Power Supplies for the ST
Message-ID: <8603072030.AA01431@MEDIA-LAB.MIT.EDU>
Date: Sun, 9-Mar-86 18:39:35 EST
Article-I.D.: MEDIA-LA.8603072030.AA01431
Posted: Sun Mar 9 18:39:35 1986
Date-Received: Wed, 12-Mar-86 01:53:33 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

When I got my ST, I noticed that my disk drive power supply was
different than the others I've seen. My power supply is black and has
the cable coming out of opposite sides of the box. All the others are
grey and have cables coming out of the same sides of the box. The
cable going from the power supply to the disk drive is thicker on

mine, also.

Here's the question: I heard that the old system unit power supplies had surge problems. The way you could identify one of these power supplies is that the cables came out of opposite sides of the box! My system unit power supply seems to be ok, but should I worry about my disk drive? (I hadn't turned off my ST in about two weeks, and when I did, I had troubles booting).

Thanks.

Todd Fujinaka

From 4103189933179050658
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 22:41:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!eddie.mit.edu!UC.BRI%DEEP-THOUGHT
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Alcyon C: What bugs are there?
Message-ID: <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Mon, 10-Mar-86 01:41:12 EST
Article-I.D.: DEEP-THO.12189506892.49.UC.BRI
Posted: Mon Mar 10 01:41:12 1986
Date-Received: Tue, 11-Mar-86 01:22:50 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 25

     Could anyone tell me what bugs there are in the DRI C compiler? I am working on some GEM programs, and I keep getting bus errors (the ole' double mushrooms...). I couldn't think of anything I did wrong, so I atarted wondering about a bug in the compiler (Yeah...if the program doesn't work blame it on the compiler...I know.). In any case, the bus error comes in on a link instruction, which looks awfully close to a local variable init code. Is there any chance that the DRI C compiler has a frame problem somewhere? I would appreciate any info and possible fixes.

     Also, how have people approached window text scrolling? V_gtext is far too slow for a complete offset text redraw. I would like to do a bit scroll, but the GEM manual was very hazy on how to do this, and I am not sure if desk accessories on top of a window would screw up the bits when scrolled. I actually would like a scroll rectangle call like on the Macintosh, that gives redraw messages for the scrolled area under the desk accessory. Any help here would also be great...

Thanks,

--- Bri

From 6896782321213909307
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7cd95c9fe347869e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 03:18:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!qantel!lll-lcc!lll-crg!seismo!mcvax!ukc!kcl-cs!andrew
From: andrew@kcl-cs.UUCP (Andrew Smith)
Newsgroups: net.micro.atari16
Subject: C compilers for 520ST
Message-ID: <644@neon.kcl-cs.UUCP>
Date: Mon, 10-Mar-86 06:18:28 EST
Article-I.D.: neon.644
Posted: Mon Mar 10 06:18:28 1986
Date-Received: Sat, 15-Mar-86 22:32:09 EST
Reply-To: andrew@kcl-cs.UUCP ()
Organization: Department of Computing, Kings College, University of London.
Lines: 14

Hi,

I am sorry if this has been discussed before, but I am new to this newsgroup.

Could someone point me to any benchtest results for various C compilers for the
ST.

I would also be interested to here peoples views on their experience of C
compilers for the ST. The areas of interest are speed, object code size, and
UNIX compatibility.

Many thanks,

Andrew Smith.

From 3110273980675086641
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,32a9c8869423d309,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 06:58:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!cmcl2!lanl!unm-la!unmvax!nmtvax!rob
From: rob@nmtvax.UUCP (Rob Kenyon -A stranger in a stranger land)

Newsgroups: net.micro.atari16
Subject: Re: ST formatters
Message-ID: <965@nmtvax.UUCP>
Date: Mon, 10-Mar-86 09:58:08 EST
Article-I.D.: nmtvax.965
Posted: Mon Mar 10 09:58:08 1986
Date-Received: Fri, 14-Mar-86 04:23:08 EST
Reply-To: rob@nmtvax.UUCP (Rob Kenyon -A stranger in a stranger land)
Distribution: net
Organization: New Mexico Tech (You call that an Organization?)
Lines: 4

I guess it did take my .signature. Oh Well. At least you won't
see it on this one.

Rob

From -2310542187174572359
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e910ae68c6940c2f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 07:17:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CZHETH5A.BITNET!SIGNAL
From: SIGNAL@CZHETH5A.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603101516.AA24749@ucbvax.berkeley.edu>
Date: Mon, 10-Mar-86 10:17:25 EST
Article-I.D.: ucbvax.8603101516.AA24749
Posted: Mon Mar 10 10:17:25 1986
Date-Received: Wed, 12-Mar-86 05:39:50 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

The main problem with uudecode on several systems seems to come from truncated
lines with originally blank characters at the lineend. The lines have to be
extended with blanks to the length defined in the 1st character of the line.

Max H.Duenki
Dept. for Signal and Information Processing
ETH Zuerich, Switzerland

From -1103068121072630632
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f907e8e68312bcbd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 07:32:08 PST

Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Non Atari monitor?
Message-ID: <8603101512.AA01413@mitre-bedford.ARPA>
Date: Mon, 10-Mar-86 10:32:08 EST
Article-I.D.: mitre-be.8603101512.AA01413
Posted: Mon Mar 10 10:32:08 1986
Date-Received: Wed, 12-Mar-86 05:40:08 EST
References: <860306215129.0.TYSON@SRI-BISHOP.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

Sure, any good component TV monitor with RGB inputs will work just fine,
provided you have the right cable connections.

-John Sangster
jhs at mitre-bedford.arpa

From -3793323370849090662
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 08:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!trwrba.UUCP!sansom
From: sansom@TRWRBA.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <8603111114.AA12268@ucbvax.berkeley.edu>
Date: Mon, 10-Mar-86 11:07:00 EST
Article-I.D.: ucbvax.8603111114.AA12268
Posted: Mon Mar 10 11:07:00 1986
Date-Received: Thu, 13-Mar-86 07:48:33 EST
References: <118@druxu.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

>
>Has anyone been able to move uuencoded files from the net to a 520ST and
>get them to run?
>

With the exception of the first uuencoded posting of micro-emacs, I've
had no difficulty in getting the uuencoded stuff to run on my ST. In

case you are curious, I have been using the uudecode on our UNIX (tm, etc. :-)
system - not the uudecode posted a while back to run on the ST - and
then downloading the binary files to my ST using XMODEM protocol.

--
Richard E. Sansom
TRW Electronics and Defense Sector
...{decvax,ucbvax,ihnp4}!trwrb!trwrba!sansom

From -6580630403930897505
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e88a02419d25486
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 11:10:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Public Domain Disk #4 -- erratum
Message-ID: <8603101528.AA02193@mitre-bedford.ARPA>
Date: Mon, 10-Mar-86 14:10:23 EST
Article-I.D.: mitre-be.8603101528.AA02193
Posted: Mon Mar 10 14:10:23 1986
Date-Received: Wed, 12-Mar-86 05:43:52 EST
References: <136@LaBrea.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 10

For those who don't get too uptight about "Public Domain", the "breakout"
program is, I believe, the one that COMPUTE! mentioned which is on the
developer system disk and which lets you get your hands on the operating
system without GEM on top of it. MSDOS, CPM, or whatever, this is how you can
get at it! (The knowledgeable please comment.)

                            -jhs at mitre-bedford.arpa

"NOW it's in the public domain..."

From 8378685503305697709
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6ec2eba7281f535,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 11:44:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!harvard!bbnccv!bbncca!wanginst!apollo!johnf
From: johnf@apollo.uucp (John Francis)
Newsgroups: net.micro.atari16

Subject: Bugs/Annoyances in TOS, Developers kit, ...
Message-ID: <2c69fde5.917@apollo.uucp>
Date: Mon, 10-Mar-86 14:44:00 EST
Article-I.D.: apollo.2c69fde5.917
Posted: Mon Mar 10 14:44:00 1986
Date-Received: Wed, 12-Mar-86 21:43:27 EST
Organization: Apollo Computer, Chelmsford, Mass.
Lines: 35

I just got my developers kit, and so have at last started to play with my ST.
A few bugs and annoyances have cropped up, so I thowght I would share them
with the net.

My hardware configuration is:
        Vanilla 520ST   (no 1meg upgrade, no TOS in ROM, ...)
        One Single-Sided and one Double-Sided floppy drive.
        Both B/W & RGB monitors (although only one at a time, sigh...)

    o   Eight-Character folder names do not seem to work. I created B:\EXAMPLES\
        and tried to move APSKEL.C and ACCSKEL.C into it. All I got was an error
        message saying "This application is unable to open the folder you named".
        Everything worked just fine if the folder name was B:\DOC\

    o   BATCH.TTP gives up at once (with no error messages) if you supply less
        parameters then it expects. I had created a generic batch script to
        compile, load, and run a C program. As the C program took parameters I
        had a line in the batch script of the form "B:%1.PRG %2". When I tried
        to use this same batch script to test another C program which did not
        take parameters I only supplied the first parameter, and BATCH.TTP gave
        up after printing its banner line. Supplying a dummy second parameter
        made BATCH.TTP happy.

 * o   There is no easy way to make a double-sided bootable system disk.
        The only way I can see is to write a C program myself to create a
        boot sector on the disk.

 * o   It would be really nice if there was a simple application to display
        a source file. I know that MicroEmacs will let me look at a file, but
        I would really like to be able to scroll through a document using
        scroll bars!

If anybody has source code for either of the last two items (flagged with *)
I would love to hear from them. If not, then when I get round to writing them
myself I will post the sources to the net.

From -2765012880285666034
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 12:04:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!
holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <326@drivax.UUCP>
Date: Mon, 10-Mar-86 15:04:38 EST
Article-I.D.: drivax.326
Posted: Mon Mar 10 15:04:38 1986
Date-Received: Wed, 12-Mar-86 22:32:11 EST
References: <118@druxu.UUCP>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 28
Keywords: uudecode

In article <118@druxu.UUCP> rwb@druxu.UUCP (BlackR) writes:
>
>Has anyone been able to move uuencoded files from the net to a 520ST and
>get them to run? I've downloaded the assembler, the clock, and micro
>EMACS, uudecoded them and tried to run them. The screen clears (micro
>EMACS asks for parameters since it is a .TTP file), the disk whirls,
>then I get the desk top back. I would suspect the uudecode program, but
>a dump of the decoded files show character strings that are readable among
>a lot of stuff that is not readable. Since I just received the TOS ROMs, I'm
>going to install those and see if they make any difference. Any other
>suggestions?

You probably haven't yet removed the desk accessories. They take up bunches
of memory, and if the ST doesn't have enough memory to run a program, it
just returns to the desktop. Make a copy of your system disk and remove
anything ending with ".ACC", then boot up with that disk and try again.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -4779915757029167004
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 12:07:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!
holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <327@drivax.UUCP>
Date: Mon, 10-Mar-86 15:07:37 EST
Article-I.D.: drivax.327
Posted: Mon Mar 10 15:07:37 1986
Date-Received: Wed, 12-Mar-86 22:32:30 EST
References: <94469@UB-MTS>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 23

In article <94469@UB-MTS> Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
writes:
>   However, I guess what my friend and I both feel was basically
>correct. Atari did NOT write TOS, it modified CP/M68k. While I
>realize writing an OS is no small feat, I think where the question
>came in is that it was so vehemently stated that TOS is not CP/M68k
>that we were under the impression that it was supposed to be
>a total rewrite (effectively) which resembled it.

TOS was a total rewrite, NOT a modification of CP/M-68K in any form nor
fashion, no sources were the same, different from the ground up. And DRI
did it.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -6609865767318445112
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,333981cf5e2aa081,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 12:16:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site druxu.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: solved problem with uudecode
Message-ID: <120@druxu.UUCP>

Date: Mon, 10-Mar-86 15:16:13 EST
Article-I.D.: druxu.120
Posted: Mon Mar 10 15:16:13 1986
Date-Received: Wed, 12-Mar-86 02:38:58 EST
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 16
Keywords: XMODEM, uudecode

I found the problem with using uuencoded files. I wrote my own file
download program (XMODEM) and it dropped a sector (128 bytes) every time
the record counter wrapped from 255 to 0. Needless to say, downloaded
files could not be expected to be decoded properly. Since then, I've
modified my receive program to handle binary files (how I found the bug)
as well as text and I run uudecode on VAX. When downloaded, the binaries
run fine (except two of us have not had any luck with getting as68.ttp
to run).

Sorry for raising a false alarm.

Rodney Black
AT&T Information Systems
11900 North Pecos St.
Denver, CO 80234
..!ihnp4!druxu

From 7112560465497914536
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 13:03:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.micro.atari16
Subject: Re: C: What bugs are there?
Message-ID: <1011@unmvax.UUCP>
Date: Mon, 10-Mar-86 16:03:47 EST
Article-I.D.: unmvax.1011
Posted: Mon Mar 10 16:03:47 1986
Date-Received: Wed, 12-Mar-86 21:42:36 EST
References: <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Organization: Univ. of New Mexico, Albuquerque
Lines: 10

> Could anyone tell me what bugs there are in the DRI C compiler?
> I am working on some GEM programs, and I keep getting bus errors (the
> ole' double mushrooms...).
The biggest problems I've found with DRI C is that it is VERY
sensitive to parameters matching. I've found several programs
I've ported from MS-DOS that work happily there but give me mushrooms
on the ST. So far, the problem has ALWAYS been mismatched parameters.

You have to pass ints to ints, chars to chars, and pointers to pointers.
(and longs to longs!). Any mismatch, and bye bye. Hope that helps.
  Bruce Wampler - ucbvax!unmvax!wampler

From 1944736769319272007
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,1822d93732eb346c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 13:39:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihnet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: MMU pin-outs
Message-ID: <381@ihnet.UUCP>
Date: Mon, 10-Mar-86 16:39:45 EST
Article-I.D.: ihnet.381
Posted: Mon Mar 10 16:39:45 1986
Date-Received: Wed, 12-Mar-86 02:43:05 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 20

I Think this is the pin-out for the MMU Chip

```
       27 29 31 33 35 37 39 41 43
    26 28 30 32 34 36 38 40 43 45 44
    24 25                      47 46
    22 23                      49 48
    20 21                      51 50
    18 19     Bottom View      53 52
    16 17                      55 54
    14 15                      57 56
    12 13                      59 58
    10 11 08 06 04 02 68 66 64 62 60
       09 07 05 03 01 67 65 63 61
```

If anybody does not agree please tell me.

                  ihnet!bryan

From 4204532113140107825
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,673c378a69fe323e,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 159349,673c378a69fe323e,start
X-Google-Attributes: gid159349,public

X-Google-ArrivalTime: 1986-03-10 13:41:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.sources.bugs,net.micro.atari16
Subject: Bug in NEW tvx for Atari ST
Message-ID: <1012@unmvax.UUCP>
Date: Mon, 10-Mar-86 16:41:19 EST
Article-I.D.: unmvax.1012
Posted: Mon Mar 10 16:41:19 1986
Date-Received: Wed, 12-Mar-86 21:42:51 EST
Distribution: net
Organization: Univ. of New Mexico, Albuquerque
Lines: 23
Xref: watmath net.sources.bugs:721 net.micro.atari16:163

There is a bug in the terminal description for the ATARI ST
in the version of TVX just posted to mod.sources. In file
tvx_term.ic, in the definition for the Atari (#ifdef ATARI520),
change the one line:

```
    EXTERN char cdelchr[8]={27,'M',0,0,0,0,0,0};   /* delete char on screen */
```

to:

```
    EXTERN char cdelchr[8]={0,0,0,0,0,0,0,0};  /* delete char on screen */
```

This was caused by trying to maintain source for too many machines! I
just didn't get the real atari entry back up to the vax before I posted.
Sorry about that! The bogus entry will cause TVX to erase the entire
line rather than just one character. Zeroeing it makes the code use
a different delete character algorithm. The delete character code is
new from the January posting, and really helps on dialups. The change
is insignificant on fast screens.

--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From 7677202987970008288
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 129c11,9fe7248a7c3fdfb3,start
X-Google-Attributes: gid129c11,public
X-Google-Thread: 140593,9fe7248a7c3fdfb3,start
X-Google-Attributes: gid140593,public
X-Google-Thread: 159752,9fe7248a7c3fdfb3,start
X-Google-Attributes: gid159752,public
X-Google-ArrivalTime: 1986-03-10 13:45:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!

seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP (Bruce Wampler)
Newsgroups: net.sources,net.micro,net.micro.atari16
Subject: NEW version of TVX posted
Message-ID: <1013@unmvax.UUCP>
Date: Mon, 10-Mar-86 16:45:16 EST
Article-I.D.: unmvax.1013
Posted: Mon Mar 10 16:45:16 1986
Date-Received: Wed, 12-Mar-86 21:43:07 EST
Distribution: net
Organization: Univ. of New Mexico, Albuquerque
Lines: 9
Xref: watmath net.sources:4526 net.micro:14016 net.micro.atari16:164

A new improved version of TVX with vi and emacs emulation,
as well as its native command set, has just been posted to mod.sources.
If you don't get mod.sources, please contact me directly for methods
on getting the source. The first bug notice (relating to the ATARI
version only) was also posted to net.sources.bugs.
--
Bruce E. Wampler
..{ucbvax | seismo!gatech | pur-ee | ihnp4!lanl}!unmvax!wampler

From 3415005591123158226
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a91fc57f6d8e28b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 19:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: TINY BASIC DOCUMENTATION
Message-ID: <54600021@iuvax.UUCP>
Date: Mon, 10-Mar-86 22:15:00 EST
Article-I.D.: iuvax.54600021
Posted: Mon Mar 10 22:15:00 1986
Date-Received: Thu, 13-Mar-86 06:49:54 EST
Lines: 423
Nf-ID: #N:iuvax:54600021:000:13783
Nf-From: iuvax!franco Mar 10 22:15:00 1986

Documentation for
Gordo's MC68000 Tiny BASIC version 1.0

This is an adaptation of Li Chen Wang's 'Palo Alto Tiny
BASIC' for the Motorola MC68000 microprocessor. It includes more

functions and program save and load. As distributed, it is set up for a Motorola MEX68KECB Educational Computer Board connected to a host CP/M computer. The source code should give you enough details to allow you to install it on a different system. If you have any problems, you can write to me at:

Gordon Brandly
R.R. 2
Fort Sask., AB, Canada
T8L 2N8

This version for the Atari 520 ST translated by :

Kenneth L. Hurley
1230 W 7th #3
Eugene, OR 97402
(503) 343-7285

The Language

Numbers

In this Tiny BASIC, all numbers are integers and must be in the range 2147483647 to -2147483648.

Variables

There are 26 variables denoted by the letters A through Z. There is also a single array @(I). The dimension of this array (i.e., the range of value of the index I) is set automatically to make use of all the memory space that is left unused by the program (i.e., 0 through SIZE/4, see SIZE function below). All variables and array elements are 4 bytes long.

Functions

There are 4 functions:

ABS(X) gives the absolute value of X.
RND(X) gives a random number between 1 and X (inclusive).
SIZE gives the number of bytes left unused by the program.
PEEK(X) gives the value of the byte at memory location X.

Arithmetic and Compare Operators

/ Divide. (Note that since we have integers only, 2/3=0)
* Multiply.
- Subtract.
+ Add.
> Greater than. (comparison)
< Less than. (comparison)
= Equal to. (comparison) Note that to certain versions of BASIC "LET A=B=0" means "set both A and B to 0". To

this version of Tiny BASIC, it means "set A to the result of comparing B with 0".

<>	Not equal to. (comparison)
>=	Greater than or equal to. (comparison)
<=	Less than or equal to. (comparison)

+, -, *, and / operations result in values between -2147483647 and 2147483647. (-2147483648 is also allowed in some cases.) All compare operators result in a 1 if true and a 0 if not true.

Expressions

Expressions are formed with numbers, variables, and functions with arithmetic and compare operators between them. + and - signs can also be used at the beginning of an expression. The value of an expression is evaluated from left to right, except that * and / are always done first, and then + and - , and then compare operators. Parentheses can also be used to alter the order of evaluation. Note that compare operators can be used in any expression. For example:

```
10 LET A=(X>Y)*123+(X=Y)*456+(X<Y)*789
20 IF (U=1)*(V<2)+(U>V)*(U<99)*(V>3) PRINT "Yes"
30 LET R=RND(100), A=(R>3)+(R>15)+(R>56)+(R>98)
```

In line 10, A will be set to 123 if X>Y, to 456 if X=Y, and to 789 if X<Y. In line 20, the "*" operator acts like a logical AND, and the "+" operator acts like a logical OR. In line 30, A will be a random number between 0 and 4 with a prescribed probability distribution of: 3% of being 0, 15-3=12% of being 1, 56-15=41% of being 2, 98-56=42% of being 3, and 100-98=2% of being 4.

Program Lines

A Tiny BASIC line consists of a line number between 1 and 65534 followed by one or more commands. Commands in the same line are separated by a colon ":".

"GOTO", "STOP", and "RETURN" commands must be the last command on any given line.

Program

A Tiny BASIC program consists of one or more lines. When a direct command "RUN" is issued, the line with the lowest number is executed first, then the one with the next lowest line number, etc. However, the "GOTO", "GOSUB", "STOP", and "RETURN" commands can alter this normal sequence. Within a line, execution of commands is from left to right. The "IF" command can cause the remaining commands on the same line to be skipped over.

Commands

Tiny BASIC commands are listed below with examples. Remember that multiple commands can be put on one line if colons separate them. In order to store the line, you must also have a line number at the beginning of the line. (The line number and multiple-command lines aren't shown in the examples.

REM or REMARK Command

```
REM anything goes

This line will be ignored by Tiny BASIC.
```

LET Command

```
LET A=234-5*6, A=A/2, X=A-100, @(X+9)=A-1
```

Will set the variable A to the value of the expression 234-5*6 (i.e. 204), set the variable A (again) to the value of the expression A/2 (i.e. 102), set the variable X to the value of the expression A-100 (i.e. 2), and then set the variable @(11) to 101 (where 11 is the value of the expression X+9 and 101 is the value of the expression A-1).

```
LET U=A<>B, V=(A>B)*X+(A<B)*Y
```

Will set the variable U to either 1 or 0 depending on whether A is not equal to or is equal to B; and set the variable V to either X, Y or 0 depending on whether A is greater than, less than, or equal to B.

Print Command

```
PRINT
```

Will cause a carriage-return (CR) and a line-feed (LF) on the output device.

```
PRINT A*3+1, "abc 123 !@#", ' cba '
```

Will print the value of the expression A*3+1 (i.e. 307), the string of characters "abc 123 !@#" and the string" cba ", and then a CR-LF. Note that either single or double quotes can be used to quote strings, but pairs must be matched.

```
PRINT A*3+1, "abc 123 !@#", ' cba ',
```

Will produce the same output as before, except that there is no

CR-LF after the last item printed. This enables the program to continue printing on the same line with another "PRINT".

PRINT A, B, #3, C, D, E, #10, F, G

Will print the values of A and B in 11 spaces, the values of C, D, and E in 3 spaces, and the values of F and G in 10 spaces. If there aren't enough spaces specified for a given value to be printed, the value will be printed in full anyway.

PRINT 'abc',_,'xxx'

Will print the string "abc", a CR without a LF, and then the string "xxx" (over the "abc") followed by a CR-LF.

INPUT Command

INPUT A, B

When this command is executed, Tiny BASIC will print "A:" and wait to read in an expression from the input device. The variable A will be set to the value of this expression, then "B:" is printed and variable B is set to the value of the next expression read from the input device. Note that whole expressions as well as numbers can be entered.

INPUT 'What is the weight'A, "and size"B

This is the same as the command above, except the prompt "A:" is replaced by "What is the weight:" and the prompt "B:" is replaced with "and size:". Again, both single and double quotes can be used as long as they are matched.

INPUT A, 'string',_, "another string", B

The strings and the "_" have the same effect as in "PRINT".

POKE Command

POKE 4000+X,Y

This command puts the value produced by expression "Y" into the byte memory location specified by the expression "4000+X".

CALL Command

CALL X

This command will call a machine language subroutine at the address specified by the expression "X". All of the CPU's

registers (except the stack pointer) can be used in the subroutine.

IF Command

IF A<B LET X=3: PRINT 'this string'

This will test the value of the expression A<B. If it isn't zero (i.e. if it is true), the rest of the commands on this line will be executed. If the value of the expression is zero (i.e. if it is not true), the rest of this line will be skipped over and execution continues on the next line. Note that the word "THEN" is not used.

GOTO Command

GOTO 120

Will cause execution to jump to line 120. Note that the "GOTO" command cannot be followed by a colon and other commands. It must be ended with a CR.

GOTO A*10+B

Will cause the execution to jump to a different line number as computed from the value of the expression.

GOSUB and RETURN Commands

GOSUB 120

Will cause execution to jump to line 120.

GOSUB A*10+B

Will cause execution to jump to different lines as computed from the value of the expression A*10+B.

RETURN

A RETURN command must be the last command on a line and must be followed by a CR. When a RETURN command is encountered, it will cause execution to jump back to the command following the most recent GOSUB command.

GOSUB's can be nested with a depth limited only by the stack space.

FOR and NEXT Commands

FOR X=A+1 TO 3*B STEP C-1

The variable X is set to the value of the expression A+1. The values of the expressions (not the expressions themselves) 3*B and C-1 are remembered. The name of the variable X, the line number and the position of this command within the line are also remembered. Execution then continues the normal way until a NEXT command is encountered.

The step can be positive, negative or even zero. The word STEP and the expression following it can be omitted if the desired step is +1.

NEXT X

The name of the variable X is checked with that of the most recent FOR command. If they do not agree, then that FOR is terminated and the next recent FOR is checked, etc. When a match is found, this variable will be set to its current value plus the value of the step expression saved by the FOR command. The updated value is then compared with the value of the TO expression also saved by the FOR command. If this within the limit, execution will jump back to the command following the FOR command. If this is outside the limit, execution continues following the NEXT command itself.

FOR's can also be nested with a depth limited only by the stack space. If a new FOR command with the same control variable as that of an old FOR command is encountered, the old FOR will be terminated automatically.

STOP Command

STOP

This command stops the execution of the program and returns control to direct commands from the console. It can appear many times in a program but must be the last command on any given line, i.e. it cannot be followed by a colon and other commands.

BYE Command

Will return you to the resident monitor program or operating system. (Tutor in the case of the ECB.)

Direct Commands

As defined earlier, a line consists of a line number followed by commands. If the line number is missing, or if it is 0, the commands will be executed after you have typed the CR. All the commands described above can be used as direct commands. There are five more commands that can be used as direct commands but

not as part of a program line:

RUN

Will start to execute the program starting at the lowest line number.

LIST

Will print out all the lines in numerical order.

LIST 120

Will print out all the lines in numerical order starting at line 120.

NEW

Will delete the entire program.

SAVE

Will save the present program on the storage device you provide. Details on installing this device are given in the source code. As set up for the MEX68KECB Educational Computer Board, this command will send the program out to the host computer in an easily-stored text form. It isn't, however, pure program text as the line numbers are stored in hexadecimal.

LOAD

Will delete the program in memory and load in a file from your storage device.

Stopping Program Execution

The execution of the program or listing of the program can be stopped by pressing the control-C key on the console. Additionally, a listing can be paused by pressing control-S, and then pressing any key to continue.

Abbreviations and Blanks

You may use blanks freely within a program except that numbers, command key words, and function names cannot have embedded blanks.

You may truncate all command key words and function names and follow each by a period. "P.", "PR.", "PRI.", and "PRIN." all stand for "PRINT". The word LET in LET commands may also be omitted. The shortest abbreviations for all the key words are as follows:

```
A.=ABS    C.=CALL   F.=FOR    GOS.=GOSUB     G.=GOTO
IF=IF     I.=INPUT  L.=LIST   LO.=LOAD       N.=NEW
N.=NEXT   P.=PEEK   PO.=POKE  P.=PRINT       REM=REMARK
R.=RETURN R.=RND    R.=RUN    S.=SAVE        S.=SIZE
S.=STEP   S.=STOP   TO=TO
no key word = LET
```

Error Reports

There are only three error conditions in Tiny BASIC. The line with the error is printed out with a question mark inserted at the point where the error is detected.

(1) "What?" means it doesn't understand you. For example:

```
What?
260 LET A=B+3, C=(3+4?. X=4
```

(2) "How?" means it understands you but doesn't know how to do it.

```
How?
210 P?TINT "This"   <- where PRINT is misspelled

How?
310 LET A=B*C?+2    <- where B*C is larger than 2147483647

How?
380 GOTO 412?       <- where 412 does not exist
```

(3) "Sorry." means it understands you and knows how to do it but there isn't enough memory to accomplish the task.

Error Corrections

If you notice an error in your entry before you press the CR, you can delete the last character with the backspace (control-H) key or delete the entire line with control-X. To correct a line, you can retype the line number and the correct commands. Tiny BASIC will replace the old line with the new one. To delete a line, type the line number and a CR only. You can verify the corrections to line 'nnnn' by typing "LIST nnnn" and pressing the control-C key while the line is being printed.


```
From -8710669983879348222
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 19:33:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site apr.UUCP
```

Path: utzoo!watmath!clyde!cbosgd!osu-eddie!apr!dag
From: dag@apr.UUCP (Daniel A. Glasser)
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST
Message-ID: <141@apr.UUCP>
Date: Mon, 10-Mar-86 22:33:23 EST
Article-I.D.: apr.141
Posted: Mon Mar 10 22:33:23 1986
Date-Received: Wed, 12-Mar-86 06:19:23 EST
References: <2018@uwmacc.UUCP>
Reply-To: dag@apr.UUCP (Daniel A. Glasser)
Distribution: net
Organization: Advanced Programming Resources, Columbus OH
Lines: 89
Keywords: Lattice-C ST-development
Summary: Lattice-C is now AVAILABLE

<Eat this line and call me in the morning>

I've purchased and am now using the Lattice-C compiler for the ST...
What follows is a brief review:

Product: Lattice-C compiler

Developer: MetaComCo plc
        26 Portland Square
        Bristol, BS2 8RZ
        England

        5353 Scotts Valley Dr.
        Scotts Valley, CA 95060

List Price: $149.00

Included: Compiler (Two files -- Seperate passes)
(Brief)   Driver Program (Short-hand, runs the two passes together)
        Editor -- screen with command mode
        Linker (GST)
        C Library (Both GST and LINK68 formats)
        GEM interface library (Both GST and LINK68 formats)
        GEM interface library source (MetaComCo Macro Assembler format)
        Manual -- Paperback (270 or so pages)
        3.5" SS/DD Disk
        Bookshelf case
        Warranty/Registration card

Compiler: The compiler is a fairly complete implementation including
        bitfields, floating point, unsigned char, and the like.
        Preprocessor is a little limited (No good expression
        processing using defined symbols in #if lines.) The code
        generated seems to run quite well, but the linked program
        is slightly larger than the same code compiled with the
        Alcyon (DRI) C compiler and the library supplied with the

toolkit. For MicroEmacs (my version) the difference is about 3K (36000bytes vs 33000bytes), but the library with Lattice C seems to be more robust. The compiler has options to generate DRI format files, to specify A6 or A5 for frame pointers, and position-independent code.

Library: Not the fullest library, but adequate. The memory allocation routines have a weirdness about them -- By default, the program snarfs up all but 4K of the available space on the system, but you can specify, either at compile/link or run time, just how much space you want available for malloc. This is not bad if you don't want to execute child processes or are not going to use an undetermined amount of dynamic memory -- This switch would be nice if you could specify how much memory to leave available to the system rather than requiring you to specify the amount of pool to allocate. Anyway -- There is no realloc(), getenv(), or access to the "Line A" interface. There are extensive, and useful, string functions including pattern search. The GEM library is complete, so far as I can tell. The libraries are provided in both GST and DRI format. Source for the GEM interface library is included.

Linker: Does what it says. This is the GST linker. Uses command files which are easy to understand. Well documented. Produces link map files (can be supressed.) Allows definition of globals at link time including simple arithmetic using globals from object modules. Reasonably fast.

Documents: Clear, concise and well layed out. Seems to be hastily put together, though, lacking good examples. Appendix D, the function index, is from the MS-DOS Version for the 8086. Would be more convenient in loose-leaf form.

Summary: For the price (I got it for about $105.00) this seems to be a good choice. It compiles faster and produces more robust code than the Alcyon compiler. If you intend to use GEM from a program, a GEM programmers manual would be useful.

Disclaimer: Other than being a customer, I've no association with ATARI, MetaComCo, Digital Research, or anybody else with any clout. Everything is a registered trademark of someone or another -- Don't blame me -- I didn't do it, I just look guilty.

--

Daniel Glasser
(One of those things that goes "BUMP (Ouch!)"
in the night.)

Path: ...!cbosgd!apr!dag (Daniel Glasser at APR -- Formerly at
DEC ...!decvax!sultan!dag)

From -7681541790517192653
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9b82cfaa66d39cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 20:36:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-gsb-how.arpa!CON.REILLY
From: CON.REILLY@SU-GSB-HOW.ARPA (Brian Reilly)
Newsgroups: net.micro.atari16
Subject: posting of source code
Message-ID: <8603110442.AA05477@ucbvax.berkeley.edu>
Date: Mon, 10-Mar-86 23:36:54 EST
Article-I.D.: ucbvax.8603110442.AA05477
Posted: Mon Mar 10 23:36:54 1986
Date-Received: Wed, 12-Mar-86 04:48:27 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 8

What is the policy in this group concerning distribution
of sources? That 68000 disassebler caused some problems here
with my mailer, and I have no use for it yet since I do not
own an ST. And I did not send this message to the atari8 group...

- Brian Reilly

From -6017413626090652206
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,21fd617ac3138abd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-10 21:38:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!petrus!scherzo!allegra!princeton!
orsvax1!pyrnj!caip!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Public domain ramdisk
Message-ID: <134@atari.UUcp>
Date: Tue, 11-Mar-86 00:38:24 EST
Article-I.D.: atari.134
Posted: Tue Mar 11 00:38:24 1986
Date-Received: Thu, 13-Mar-86 07:37:10 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 293
Keywords: ramdisk, Atari ST

Here is a silly little ramdisk that is being placed in the
public domain. Cut carefully at the dotted line, bring it
down to your ST, assemble it, link it, relmod it, and you're
on your way. Install it by double-clicking it, or put it
in the \AUTO folder and forget about it. It installs itself
as device M:.

```
- - - - - - - - - - - - cut here - - - - - - - - - - - - - - - - - - - - - -
* ramdisk.s

*--------------------------------------------------------------------------
*                                       :
*    ST RAMDISK driver (M:)                     :
*    Conditional assembly for 128K/512K Ramdisk
     :
*                                       :
*    Public Domain (give it away, folks!)              :
*    This program, or any work derived from it, may not be sold
     :
*    without permission from Atari Corp.               :
*                                       :
*----                                        :
*    Stick this program in the \AUTO folder of the boot volume.  Or,
     :
*    you can simply double-click it after the desktop comes up.
     :
*                                       :
*----                                        :
*  9-Aug-1985 lmd  Hacked it up                    :
*  9-Jan-1986 lmd  Fixed sign-extension problem in _rw: and added
     :
*             conditional assembly for two kinds of ramdisk.
     :
*  9-Jan-1986 lmd  Make it "M:"                    :
*                                       :
*--------------------------------------------------------------------------


*+
*  Define one of the following to `1':
*
*-
_128k         equ  1        ; 128K ramdisk
_512k         equ  0        ; 512K ramdisk

 ifne _128k
ramdisk_size  equ  $20000       ; size of 128K ramdisk
 endc
 ifne _512k
ramdisk_size  equ  $80000       ; size of 512K ramdisk
 endc
```

```
*+
*  OS variables and vectors;
*  (stuff we have to subvert.)
*
*-
hdv_init  equ  $46a     ; hdv_init()
hdv_bpb       equ  $472     ; hdv_bpb(dev)
hdv_rw        equ  $476     ; hdv_rw(rw, buf, count, recno, dev)
hdv_boot  equ  $47a     ; hdv_boot()
hdv_mediach   equ  $47e     ; hdv_mediach(dev)
_drvbits  equ  $4c2     ; block device bitVector
_dskbufp  equ  $4c6     ; pointer to common disk buffer


*+
*  Install driver;
*  setup ramdisk, then
*  terminate and stay resident.
*
*-
     move.l   4(sp),a4      ; a4 -> our basepage
     lea  stack,a7      ; new user stack
     clr.l    -(sp)             ; get superuser mode
     move.w   #$20,-(sp)
     trap #1
     addq #6,sp
     move.l   d0,-(sp)      ; save old SSP on stack

     bset.b   #4,_drvbits+2      ; set bit for M:
     clr.l    a5            ; easy zero-based pointer
     move.l   hdv_bpb(a5),o_bpb  ; save old disk vectors
     move.l   hdv_rw(a5),o_rw
     move.l   hdv_mediach(a5),o_mediach
     move.l   #hbpb,hdv_bpb(a5)  ; install ramdisk's vectors
     move.l   #hrw,hdv_rw(a5)
     move.l   #hmediach,hdv_mediach(a5)

     move.w   #$20,-(sp)         ; back to user mode
     trap #1            ; (SSP already on the stack)
     addq #6,sp

*--- clear first 8K of ramdisk:
     lea  ramdisk(pc),a0
     move.w   #$400-1,d0
clrit:   clr.l    (a0)+
     clr.l    (a0)+
     dbra d0,clrit

*--- compute size of memory we want to keep:
     move.l   $c(a4),d3     ; d3 = size of text
     add.l    $14(a4),d3         ; d3 += size of data
     add.l    $1c(a4),d3         ; d3 += size of bss
```

```
     add.l    #$0100,d3     ; d3 += size of basepage
     add.l    #ramdisk_size,d3   ; d3 += size of ramdisk

     pea  message(pc)       ; print something informative
     move.w   #9,-(sp)
     trap #1
     addq #6,sp

*--- terminate and stay resident
     clr.w    -(sp)             ; return code of zero
     move.l   d3,-(sp)      ; # bytes to keep
     move.w   #$31,-(sp)        ; Ptermres()
     trap #1            ; do it
     illegal                ; "cannot happen"



*+
* LONG hbpb(dev) - return ptr to BPB (or NULL)
*
* Passed: dev  4(sp).W
*
*-
hbpb:
     move.w   4(sp),d0      ; d0 = devno
     move.l   o_bpb,a0      ; a0 -> pass-through vector
     lea  _bpb(pc),a1       ; a1 -> our handler
     bra  check_dev     ; do it


*+
* LONG rw(rw, buf, count, recno, dev)
*
* Passed: dev  $e(sp).W
*         recno    $c(sp).W
*         count    $a(sp).W
*         buf  6(sp).L
*         rw   4(sp).W
*
*-
hrw:
     move.w   $e(sp),d0     ; d0 = devno
     move.l   o_rw,a0           ; a0 -> pass-through vector
     lea  _rw(pc),a1        ; a1 -> our handler
     bra  check_dev     ; do it


*+
* LONG mediach(dev)
*
* Passed: dev  4(sp).W
*
*-
```

```
hmediach:
     move.w    4(sp),d0       ; d0 = devno
     move.l    o_mediach,a0       ; a0 -> pass-through vector
     lea  _mediach(pc),a1     ; a1 -> our handler


*+
* check_dev - use handler, or pass vector through
*
* Passed: d0.w = device#
*         a0 ->  old handler
*         a1 ->  new handler
*         a5 ->  $0000 (zero-page ptr)
*
* Jumps-to:   (a1) if dev in range for this handler
*         (a0) otherwise
*
*-
check_dev:
     cmp.w     #12,d0             ; M:?
     bne  chkd_f             ; (no)
     move.l    a1,a0              ; yes -- follow success vector
chkd_f:  jmp  (a0)           ; do it



*+
* _bpb - return BPB for RAMDISK
*  Synopsis:  LONG _bpb(dev)
*         WORD dev;
*
*  Returns:   NULL, or a pointer to the BPB buffer
*
*-
_bpb:
     move.l    #thebpb,d0
     rts


*+
* _rw - read/write ramdisk sectors
*  Synopsis:  _rw(rw, buf, count, recno, dev)
*
*  Passed:    dev  $e(sp).W
*         recno    $c(sp).W
*         count    $a(sp).W
*         buf  6(sp).L
*         rw   4(sp).W
*
*-
_rw:
     lea  ramdisk(pc),a0          ; a0 -> base of ramdisk
     moveq     #0,d0
```

```
     move.w    $c(sp),d0     ; d0 = sect# << 9
     lsl.l     #8,d0
     lsl.l     #1,d0
     add.l     d0,a0              ; a0 -> ramdisk mem

     moveq     #0,d2              ; d2 = byte count / 32
     move.w    $a(sp),d2
     lsl.l     #4,d2              ; log2(512 / 32) = 4

     move.l    6(sp),a1      ; a1 -> buffer
     tst.w     4(sp)              ; if (rw) exchange(a0, a1)
     beq  _rrw1
     exg  a0,a1              ; swap src & dest

_rrw1:
_rrw2:    move.l    (a0)+,(a1)+        ; move 32 bytes
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     move.l    (a0)+,(a1)+
     subq.l    #1,d2              ; while (--d2)
     bmi  _rrwq
     bne  _rrw2

_rrwq:    clr.l     d0            ; return OK
     rts


*++
* _mediach - return FALSE media change (RAMDISK never changes)
* Synopsis:   _mediach(dev)
*         WORD dev;
*
* Returns:    0L
*
*-
_mediach:
     clr.l     d0
     rts


*++
*  BPB for ramdisk
*
*-
thebpb:
     dc.w 512           ; #bytes/sector
     dc.w 2             ; #sectors/cluster
     dc.w 1024          ; #bytes/cluster
     dc.w 4             ; rdlen (64 files)
```

```
    dc.w 2              ; fat size
    dc.w 2              ; 2nd FAT start
    dc.w 8              ; 1st cluster start
 ifne _128k
    dc.w 124            ; #clusters (128K)
 endc
 ifne _512k
    dc.w 508            ; #clusters (512K)
 endc
    dc.w 1              ; flags (16-bit FATs)



o_init:       dc.l 0        ; old hdv_init
o_bpb:        dc.l 0        ; old hdv_bpb
o_rw:         dc.l 0        ; old hdv_rw
o_mediach:    dc.l 0        ; old hdv_mediach

 ifne _128k
message: dc.b '128K'
 endc
 ifne _512k
message: dc.b '512K'
 endc
         dc.b ' RAMDISK installed as M:'
         dc.b 13,10
         dc.b 'version 9-Jan-1986 lmd.'
         dc.b 13,10
         dc.b 0

    even
ramdisk: dc.w 0        ; beginning of Ramdisk
stack         equ  ramdisk+ramdisk_size
```

```
From 4748668527481300867
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6ec2eba7281f535
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 05:18:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!nswc-wo.arpa!sscalsk
From: sscalsk@NSWC-WO.ARPA
Newsgroups: net.micro.atari16
Subject: Re:  Bugs/Annoyances in TOS, Developers kit, ...
Message-ID: <8603111322.AA13828@ucbvax.berkeley.edu>
Date: Tue, 11-Mar-86 08:18:45 EST
Article-I.D.: ucbvax.8603111322.AA13828
Posted: Tue Mar 11 08:18:45 1986
Date-Received: Fri, 14-Mar-86 03:34:19 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
```

Lines: 8

I have had similiar problems with folders with names equal to 8 chars. The
difficulty even extends to not being able to delete any folder with an
8 character name.

There is an easy way to create a double-sided bootable system disk. A
utility is already available called WBOOT.PRG and it is listed in the
bloomington st users group PD software catalog that they publish here
on the net 03/10/86.

From -1529770604793329229
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,410d91e319211f10
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 05:36:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: KERMIT
Message-ID: <302@imagen.UUCP>
Date: Tue, 11-Mar-86 08:36:05 EST
Article-I.D.: imagen.302
Posted: Tue Mar 11 08:36:05 1986
Date-Received: Fri, 14-Mar-86 04:12:33 EST
References: <8603092227.AA11775@ucbvax.berkeley.edu>
Organization: The Houses of the Holy
Lines: 25

> The KERMIT given with the Development Kit doesn't work with the new
> TOS (197kbyte). After starting it from TOS I get a hangup. Even with
> the old TOS there are certain problems resulting in a hangup. Did
> anybody have the same experience? There is still no public domain
> version of KERMIT available. The KERMIT people are still working on
> it. By the way, the KERMIT given with the kit looks like a very
> old version.
> Johann Zuschlag (I6191008@DBSTU1.BITNET)

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

i have the same problem (more or less) when i try to download from a
host, it works fine uploading. playing around with the delay
parameter on the host (making it shorter) seems to help.
--

     The master is not yet married, nor do I think he ever will be.
               -Rocky Horror Picture Show

Name: James Turner

Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 7237456028249652021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e2138cb4b01c04fd
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 05:40:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Old Power Supplies for the ST
Message-ID: <303@imagen.UUCP>
Date: Tue, 11-Mar-86 08:40:57 EST
Article-I.D.: imagen.303
Posted: Tue Mar 11 08:40:57 1986
Date-Received: Fri, 14-Mar-86 04:13:06 EST
References: <8603072030.AA01431@MEDIA-LAB.MIT.EDU>
Organization: The Houses of the Holy
Lines: 27

> Here's the question: I heard that the old system unit power supplies
> had surge problems. The way you could identify one of these power
> supplies is that the cables came out of opposite sides of the box! My
> system unit power supply seems to be ok, but should I worry about my
> disk drive? (I hadn't turned off my ST in about two weeks, and when I
> did, I had troubles booting).
>
> Thanks.
>
> Todd Fujinaka

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

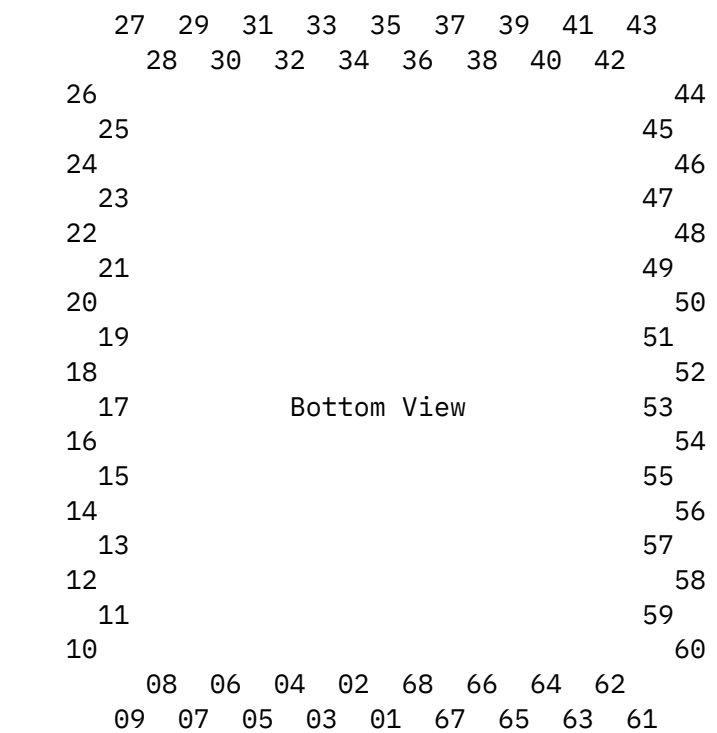
get rid of that old power supply, i have had nothing but trouble
with my ST until they traced the problem to the power supply and
gave me a new one (both cables on the same side).
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400

UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From -3827270527955767770
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ae7982e34a6a613c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 08:04:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihnet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: Re: MMU Pins
Message-ID: <382@ihnet.UUCP>
Date: Tue, 11-Mar-86 11:04:37 EST
Article-I.D.: ihnet.382
Posted: Tue Mar 11 11:04:37 1986
Date-Received: Thu, 13-Mar-86 06:53:59 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 24



Here is the revised layout of the MMU

From -6672667716028572540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 08:16:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!sam.cs.cmu.edu!Jim.Large
From: Jim.Large@SAM.CS.CMU.EDU
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <1986.3.11.15.55.57.Jim.Large@sam.cs.cmu.edu>
Date: Tue, 11-Mar-86 11:16:24 EST
Article-I.D.: sam.1986.3.11.15.55.57.Jim.Large
Posted: Tue Mar 11 11:16:24 1986
Date-Received: Fri, 14-Mar-86 03:35:50 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 28

> From: ... (John Francis)
> Organization: Apollo Computer, Chelmsford, Mass.
> Subject: Bugs/Annoyances in TOS, Developers kit, ...
>
>   It would be really nice if there was a simple application to display
>   a source file. I know that MicroEmacs will let me look at a file, but
>   I would really like to be able to scroll through a document using
>   scroll bars!

the COMMAND.PRG that came with my developer's kit has several undocumented
commands. There are others that I have forgotten, or don't understand.
Also, there are unix synonyms (LS CAT MV etc). To see them all, look in
COMMAND.PRG.

```
  TYPE filename             -- display on screen as text
  COPY from-file to-file    -- copies one file
  RENAME from-file to-file  -- renames one file (to same folder only)
  DIR wild-name             -- list matching files
  DEL filename              -- deletes a single file
  MD directory-name         -- Creates a folder
  RD directory-name         -- deletes a folder
  CD directory-name         -- path to a folder
  CD ..                 -- path to parent folder
```

*** NOTE ***
  none of these are recognized by BATCH.PRG

                  -- Jim Large

From 8709159626000503373
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 08:42:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!qantel!lll-lcc!lll-crg!seismo!mcvax!boring!steven
From: steven@boring.uucp (Steven Pemberton)
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <6823@boring.UUCP>
Date: Tue, 11-Mar-86 11:42:04 EST
Article-I.D.: boring.6823
Posted: Tue Mar 11 11:42:04 1986
Date-Received: Sat, 15-Mar-86 22:33:24 EST
References: <118@druxu.UUCP>
Reply-To: steven@mcvax.UUCP (Steven Pemberton)
Organization: CWI, Amsterdam
Lines: 12
Keywords: uudecode
Apparently-To: rnews@mcvax

In article <118@druxu.UUCP> rwb@druxu.UUCP writes:
> Has anyone been able to move uuencoded files from the net to a 520ST and
> get them to run? I've downloaded the assembler, the clock, and micro
> EMACS, uudecoded them and tried to run them. The screen clears (micro
> EMACS asks for parameters since it is a .TTP file), the disk whirls,
> then I get the desk top back.

This can happen if you uudecode first, and then transfer the files with
kermit without using image mode. Then extra characters get inserted in the
binary, and anything can happen.

Steven Pemberton, CWI, Amsterdam; steven@mcvax.uucp

From -382133904960192611
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76ce4625b0112148,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 08:51:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 (USS@Tek, v1.1) based on 4.3bsd-beta 6/6/85;
site dadla.UUCP
Path: utzoo!decvax!decwrl!pyramid!hplabs!tektronix!teklds!dadla!dcall
From: dcall@dadla.UUCP (Dale Call)
Newsgroups: net.micro.atari16
Subject: Query: Atari 1040 keyboard replacement
Message-ID: <592@dadla.UUCP>
Date: Tue, 11-Mar-86 11:51:34 EST
Article-I.D.: dadla.592
Posted: Tue Mar 11 11:51:34 1986
Date-Received: Thu, 13-Mar-86 00:11:05 EST
Distribution: na
Organization: Tektronix, Inc., Beaverton, OR
Lines: 7
Keywords: atari keyboard

I really like the 1040ST except for one thing - I can't stand the keyboard!
I would buy a 1040ST if I could get a full travel type keyboard to replace
the standard keyboard ... does anyone know of such a product? Or of a way
to improve the touch on the standard keyboard?

Dale Call
tektronix!dadla!dcall

From 5760405821685870003
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 10:08:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!
holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Re: Alcyon C: What bugs are there?
Message-ID: <330@drivax.UUCP>
Date: Tue, 11-Mar-86 13:08:29 EST
Article-I.D.: drivax.330
Posted: Tue Mar 11 13:08:29 1986
Date-Received: Fri, 14-Mar-86 04:10:28 EST
References: <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Reply-To: holloway@drivax.UUCP (Bruce Holloway)
Organization: Digital Research, Monterey, CA
Lines: 43

In article <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU> UC.BRI%DEEP-
THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>   Could anyone tell me what bugs there are in the DRI C compiler?
>I am working on some GEM programs, and I keep getting bus errors (the
>ole' double mushrooms...). I couldn't think of anything I did wrong,
>so I atarted wondering about a bug in the compiler (Yeah...if the program
>doesn't work blame it on the compiler...I know.). In any case, the bus
>error comes in on a link instruction, which looks awfully close to a local
>variable init code. Is there any chance that the DRI C compiler has a
>frame problem somewhere? I would appreciate any info and possible fixes.

There ARE bugs in the Alcyon compiler (the one in the Atari developer's kit),
but they mostly have to do with automatic type conversion to/from LONGs.
Occasionally it actually ignores a line for no apparent reason (I hate it
when that happens). It's very rare, though. Either you ran out of stack
space, or it's an error in your program. I've never gotten a bus error using
the Alcyon C compiler and traced it to the compiler.

>   Also, how have people approached window text scrolling? V_gtext
>is far too slow for a complete offset text redraw. I would like to do
>a bit scroll, but the GEM manual was very hazy on how to do this, and I
>am not sure if desk accessories on top of a window would screw up the

>bits when scrolled. I actually would like a scroll rectangle call like
>on the Macintosh, that gives redraw messages for the scrolled area under
>the desk accessory. Any help here would also be great...

If you're running a desk accessory or filling out a form or a dialog box or
something similar, then no background processes are running. If you have
an active window (hence, on top), you can use the "Copy Raster, Opaque"
call (vro_cpyfm) to just BitBLT the window up one character height (said
height can be gotten from Inquire Current Face Information [vqt_fontinfo])
and another BitBLT to clear out the last row.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From 919765774424308624
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,576e104fb1197b14,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 12:39:26 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site decwrl.DEC.COM
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!dec-rhea!dec-lymph!
mccamy
From: mccamy@lymph.DEC
Newsgroups: net.micro.atari16
Subject: Display Neochrome Drawing w/BASIC
Message-ID: <1624@decwrl.DEC.COM>
Date: Tue, 11-Mar-86 15:39:26 EST
Article-I.D.: decwrl.1624
Posted: Tue Mar 11 15:39:26 1986
Date-Received: Fri, 14-Mar-86 04:08:52 EST
Sender: daemon@decwrl.DEC.COM
Organization: Digital Equipment Corporation
Lines: 4

Does anyone know if a neochrome drawing can be displayed using an ST
BASIC command?

From 8356195042526703221
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,50822b45f525d202,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 16:56:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watcgl.UUCP
Path: utzoo!watmath!watnot!watcgl!drforsey
From: drforsey@watcgl.UUCP (Dave Forsey)
Newsgroups: net.micro.atari16
Subject: Posting Binaries
Message-ID: <430@watcgl.UUCP>
Date: Tue, 11-Mar-86 19:56:23 EST
Article-I.D.: watcgl.430
Posted: Tue Mar 11 19:56:23 1986
Date-Received: Wed, 12-Mar-86 06:13:21 EST
References: <54600015@iuvax.UUCP>
Reply-To: drforsey@watcgl.UUCP (Dave Forsey)
Organization: U of Waterloo, Ontario
Lines: 56
Keywords: binary source
Summary: Mail binaries, post sources

In article <54600015@iuvax.UUCP> someone@iuvax.UUCP writes:

>This is the best WHATCHAMACALLIT so far for the ST.
>
>Below are the .acc and .rsc files needed...
>--------------------------cut here-----------------------------

       325 lines of uuencoded data follow.

A Suggestion:

  One can easily see how net.sources (and perhaps the net in general) has dropped in quality over the past year or so. (if your site archives net.sources just have a look at all the subject lines, Waterloo just recently culled its archives and the results were not impressive.)

This particular newsgroup has been very informative and it would be a shame to see it degrade to the point where it became a forum for posting binaries and follow the pattern of net.micro.mac (which has now become 3 newsgroups, mod.mac.binaries, net.sources.mac, and net.micro.mac).

The suggestion is merely this:

  If you have a binary to distribute, in whatever form, you post your e-mail address (with alternate routes) to net.micro.atari16 to announce its availability.

Interested parties can then use mail to request a copy from the author.

  Personally I would prefer that only source gets posted. Yes not everyone has a developers kit, yes mail fouls up, and yes, source never seems to

compile correctly on your particular system/compiler, but it is much
more enlightening for the reader to see how someone has done something,
and it reduces the net traffic.

  But consider, how many people who have access to usenet don't also have
access to someone with a compiler for the ST (either friends or on a BBS),
and how often, as has happened with hack, has one source distribution
for a particular machine/compiler proliferated onto several different
machines/compilers.

  Posting binaries distributes programs, posting source distributes
knowledge, and knowledge helps to make more programs for everyone!

I don't really expect the above appeal to make any difference but...
one lives in hope.

Dave Forsey
Computer Graphics Laboratory
University of Waterloo
Waterloo Ont. CANADA

uucp: {decvax,utzoo,allegra,ihnp4}!watmath!watcgl!drforsey
csnet: drforsey@waterloo.csnet

From 5639002705645857017
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fc56fac7b6eb12ed,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 17:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- Neochrome display from Basic ---
Message-ID: <8603120117.AA25526@ucbvax.berkeley.edu>
Date: Tue, 11-Mar-86 20:01:00 EST
Article-I.D.: ucbvax.8603120117.AA25526
Posted: Tue Mar 11 20:01:00 1986
Date-Received: Fri, 14-Mar-86 03:46:56 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 6

There wouldn't be a -command- to do so, but a program could if you
could find out what the NeoChrome picture file format is.....
              -Richard Hartman
              max.hartman@ames-vmsb

From 6267960396207228357
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eba314d0722b005d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 17:40:55 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!rochester!ritcv!ccivax!rb
From: rb@ccivax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Alcyon C: What bugs are there?
Message-ID: <464@ccivax.UUCP>
Date: Tue, 11-Mar-86 20:40:55 EST
Article-I.D.: ccivax.464
Posted: Tue Mar 11 20:40:55 1986
Date-Received: Sat, 15-Mar-86 04:07:48 EST
References: <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Reply-To: rb@ccivax.UUCP (What's in a name ?)
Organization: CCI Telephony Systems Group, Rochester NY
Lines: 28
Keywords: Pointers/Ints
Summary: A general caution

In article <12189506892.49.UC.BRI@DEEP-THOUGHT.MIT.EDU> UC.BRI%DEEP-
THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>
>   Could anyone tell me what bugs there are in the DRI C compiler?
>I am working on some GEM programs, and I keep getting bus errors (the
>ole' double mushrooms...). I couldn't think of anything I did wrong,
>so I atarted wondering about a bug in the compiler (Yeah...if the program
>doesn't work blame it on the compiler...I know.). In any case, the bus
>error comes in on a link instruction, which looks awfully close to a local
>variable init code. Is there any chance that the DRI C compiler has a
>frame problem somewhere? I would appreciate any info and possible fixes.

This may be obvious to you or not, but it is important and of general interest.

The DRI C compiler uses 16 bit ints, and 32 bit pointers (only 24 bits
significant). Having worked with another such compiler (also 68K), there
are a few "gotchas" to worry about. In particular, even though you may
have casted, cleaned, and linted (unix 'C' verifier) your code, it can
still go crazy. I had a similar link problem when passing a pointer as
an int, going the other way can cause problems on the return. Of course,
a pointer casted as integer loses significant bits, and casting the other
way can either be sign extended (used to force a crash), or trunkated,
which can do interesting things if the code is modified.

For some of the other "gotchas", look at some of the archives in net.lang.c

This is "acceptable" behavior, but other compilers using 32 bit ints
are more predictable (and slower). The DRI version is faster, but code

needs to be very carefully checked.

From -3353777873253276761
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 18:20:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!rochester!ritcv!ccivax!rb
From: rb@ccivax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <465@ccivax.UUCP>
Date: Tue, 11-Mar-86 21:20:05 EST
Article-I.D.: ccivax.465
Posted: Tue Mar 11 21:20:05 1986
Date-Received: Sat, 15-Mar-86 04:08:02 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu>
Reply-To: rb@ccivax.UUCP (What's in a name ?)
Organization: CCI Telephony Systems Group, Rochester NY
Lines: 51
Summary: Plan for compatibility now. What was that guy talking about?

In article <8603092319.AA12627@ucbvax.berkeley.edu> burman@BRL-TBD.ARPA ("Norbert M. Burman", TBD-PMB-MRL) writes:
>
>   I read the March Byte article on the 1040ST and resulting info-atari16
>questions on the future inclusion of a graphics processor with great interest.
>From the comments made by Shiraz Shivji in the Byte interview and other Atari
>personnel on info-atari16, I get the impression that we are in for a spate of
>Atari machines based on the origonal 520ST architecture but incorporating ram
>and peripheral improvements, built-in and add-on, ad nauseum.
>
>   The thing that worries me about this is that with all these models
>stretching into the future how compatible will they all be? How will the
>software houses write their programs if the target machines are constantly
>changing.

Software is the easy part, if programs are written in a kosher Application/OS fashion, the trap vectors will provide transparency between the application and the hardware. These "rumors" are a simple warning, "cute code" is unconditionally unacceptable. If the code tries to "capture" the operating system, it will be obsolete. Drivers might be sold as drivers, but to make them integral to the application (ALA 1-2-3, EA,...) is a good way to exclude new markets as they arrive.

>There are now two STs (all within a few months) on the market
>with at least one (with more ram) and/or another (with graphics co-processor)
>machine(s) in the wings (that's what Atari have told us about anyway). I
>believe in progress sure, but every time I go to order an ST there is
>talk/rumour of a new model, (Yes I have not purchased an ST yet!).

My biggest concerns are hardware upgrade path and industry compatibilty.
You can do major surgury on a 520 to make it a 1040, but new 520's don't
seem to be any easier to expand, and neither have a good clear "Co-processor"
interface. The CPU's are still soldered directly into the box. The other
concern is the DMA bus. Atari knows about SCSI, supports the protocol, but
seems determined to stick with their own bus (Not SCSI compatible). This
is the same attitude that Commodore/Atari used on the old machines. I may
go ahead and buy a "K-Mart ST" because I like most of what they did, but
I don't want to invest in a bunch of "Atari only" peripherals, no matter
how cheap they get (well maybe a $100 CD-Rom). I would be willing to
"gamble" on a peripheral with a standard interface. If some other
company, or Atari for that matter comes up with a better price/performance
machine with the same interface, the old ST can go to the kids, but the
hard drives are still usable.

Some questions of my own:
In the interview, a 1024x1024 display was mentioned. The ST seems to have
the bandwidth to support this at 70hz interlaced, is it a software hack,
or is new hardware required?

When is the PC industry gonna "Grow up" and adopt even minimal standards?
Does IBM have to do everything??!!!

From -1401415885593529143
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a728f81834fbbb3
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 18:41:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site atari.UUcp
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!qantel!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: More ST Basic
Message-ID: <135@atari.UUcp>
Date: Tue, 11-Mar-86 21:41:09 EST
Article-I.D.: atari.135
Posted: Tue Mar 11 21:41:09 1986
Date-Received: Sat, 15-Mar-86 21:05:59 EST
References: <2155@islenet.UUCP>
Organization: Atari Corp/Mktg
Lines: 30

.....................................this line reserved for pacmen
In article <2155@islenet.UUCP>, jons@islenet.UUCP (Jonathan Spangler) writes:
> I have a few questions about ST Basic:
>
>   1) How do you get more than 16 colors in Basic?

You don't! You must go to the BIOS to get to the interrupt that lets you change the color palette on the fly.

>   2) Are there plans for a compiled basic in
>   the forseeable future?

Philon is planning to market one under the name "Fast BASIC".

>   3) I can only get sound channel #1 to work. How do I get
>   the other channels to work?

Use the WAVE command to turn on the additional channels before using the SOUND command. WAVE 7,0,0,0,0 will do the trick.

> I suppose all these questions should be prefaced with the more
> general question: when is a newer release of the basic expected?

We are working on one. Perhaps within the next 2 months we will see one.

--->Neil @ Atari
     Usenet: ...lll-crg!vecpyr!atari!neil
     CIS: 70007,1135
     BIX: neilharris
     Atari BBS: 408-745-5308 or 745-2642

From 4454829935454128623
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,475ca5a4272ed714,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-11 20:26:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site isrnix.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!isrnix!
apratt
From: apratt@isrnix.UUCP (Allan Pratt)
Newsgroups: net.micro.atari16
Subject: ST color monitor as a TV?
Message-ID: <717@isrnix.UUCP>
Date: Tue, 11-Mar-86 23:26:46 EST
Article-I.D.: isrnix.717
Posted: Tue Mar 11 23:26:46 1986
Date-Received: Fri, 14-Mar-86 04:57:37 EST
Organization: Institute for Social Research (Indiana University, Bloomington)
Lines: 10

I know that the monitor which comes with the Amiga has inputs which let one use it as TV (with a VCR supplying the input, for example), and I know that the ST monitor does not have such an input (I believe it's called "composite").

My question is: is there hope for Atari users? Is there any device which will turn composite video/audio into RGB plus audio, as the SC1224 needs?

-- Allan Pratt
...ihnp4!inuxc!iubugs!isrnix!apratt

From -952178735193305832
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,22568e74fa7b0b77,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 08:01:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.PCS 1/10/84; site mtgzy.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!houxm!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: More ST TROUBLES
Message-ID: <1658@mtgzy.UUCP>
Date: Wed, 12-Mar-86 11:01:57 EST
Article-I.D.: mtgzy.1658
Posted: Wed Mar 12 11:01:57 1986
Date-Received: Fri, 14-Mar-86 04:59:48 EST
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 28

Well, another week has gone by and I still don't have a working 520ST.
It has been in repair since January 16th.

Would you believe that I sent the computer and power supply together
along with a note stating the power supply was blown and they only
fixed the computer. They sent me back a fixed (?) 520 and the same
blown power supply. Thank goodness I checked the power supply before
plugging it into the computer.

I now have to send back the power supply and they will send back a new one.
Note, I MUST send mine back first even though I was told the old black
one will be replaced (supposedly they have a design problem that causes
+5 to go to +15V). Therefore I assume it will take another week
to get another supply, assuming they are available.

A word of advise. I have been told that if you have the old black "brick"
power supply for the 520ST (P/N CO70099-3) you can be in the same situation
as me. There is a design problem that can cause the +5 volt supply to
provide +15 volts. This extra voltage does not make the computer work
three times faster (3 X 5 = 15). It puts you in the same position
I am in. Your computer will have to take a trip to the local repair
shop for an extended vacation, hopefully not > 2 months as in my case.

The advise I've been given is to get ATARI to replace your old power
supply with the newer model. Supposedly the old supply is a disaster
waiting to happen. Again, let me emphasize I am repeating what
I was told. This is not my opinion and do not claim originality
for these claims.

From 4093292356582034810
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7df26bb64f0f5b8e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 08:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!pwp
From: pwp@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: niel harris ... help!
Message-ID: <54600022@iuvax.UUCP>
Date: Wed, 12-Mar-86 11:31:00 EST
Article-I.D.: iuvax.54600022
Posted: Wed Mar 12 11:31:00 1986
Date-Received: Fri, 14-Mar-86 07:08:34 EST
References: <299@imagen.UUCP>
Lines: 5
Nf-ID: #R:imagen:-29900:iuvax:54600022:000:251
Nf-From: iuvax!pwp   Mar 12 11:31:00 1986

Please read your loader documentation again. Hex 0007 means the corresponding instruction word is the first word of an instruction. I forget what 0000 means, but I believe it indicate a following word of the same instruction that needs no relocation.

From 5544149475853303286
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2f5623803ab2a11,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 09:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: UUENCODE.DOC - How to do it
Message-ID: <54600023@iuvax.UUCP>
Date: Wed, 12-Mar-86 12:10:00 EST
Article-I.D.: iuvax.54600023
Posted: Wed Mar 12 12:10:00 1986
Date-Received: Fri, 14-Mar-86 07:09:45 EST
Lines: 31
Nf-ID: #N:iuvax:54600023:000:1073
Nf-From: iuvax!franco   Mar 12 12:10:00 1986

Stephen Leicht of the Technical university of Darmstadt has requested information on how to UUENCODE and UUDECODE files. Since I cannot figure out how to send that info to him directly and since many others are probably

curious I am posting this info to the net. Here it is:

  From isrnix!apratt Wed Jan 8 23:52:00 1986
  Date: Wed, 8 Jan 86 21:12:31 EST
  From: Allan Pratt <isrnix!apratt>
  Received: by isrnix.UUCP; id AA19728; Wed, 8 Jan 86 21:12:31 EST
  To: iuvax!franco
  Subject: uuencode
  Status: R

  I admit it's a little strange... uuencode is intended for use
  by mail programs, not by human beings. To encode a file called
  "foo", type

     %uuencode foo foo > foo.encoded

  and it will create a file called foo.encoded on your directory.
  (You can use any name you want after the >, except the name
  of your input file). To decode foo.encoded back into foo,
  type

     %uudecode foo.encoded

  and it will create foo. But remember that you have to have
  uudecode on the destination machine (like your ST) or it won't
  do much good.
                        -- Allan

From 6120577441643149431
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 09:40:37 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site hplabs.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!hplabs!rodrique
From: rodrique@hplabs.UUCP (Mike Rodriquez)
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST
Message-ID: <2133@hplabs.UUCP>
Date: Wed, 12-Mar-86 12:40:37 EST
Article-I.D.: hplabs.2133
Posted: Wed Mar 12 12:40:37 1986
Date-Received: Fri, 14-Mar-86 05:11:24 EST
References: <2018@uwmacc.UUCP> <54600017@iuvax.UUCP>
Organization: Hewlett Packard Labs, Palo Alto CA
Lines: 11

> ...(I had a few special favors to ask and these
> were granted before I knew what happened - I am too ashamed to tell you what
> those favors were because they involved privileges that almost no one else
> has at this time).

>
     You ought to be ashamed for mentioning it, then. THe
fact that you got "special" favors, hush-hush, and then mentioned
them will probably ensure that you not receive such favors in the
future. Having admitted that you got them, now why don't you
let the rest of us know what they are???
Mike "another ST-lover" Rodriquez

From 7710526287955801699
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9b82cfaa66d39cf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 13:14:27 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: posting of source code
Message-ID: <304@imagen.UUCP>
Date: Wed, 12-Mar-86 16:14:27 EST
Article-I.D.: imagen.304
Posted: Wed Mar 12 16:14:27 1986
Date-Received: Fri, 14-Mar-86 08:21:38 EST
References: <8603110442.AA05477@ucbvax.berkeley.edu>
Organization: The Houses of the Holy
Lines: 25

>
> What is the policy in this group concerning distribution
> of sources? That 68000 disassebler caused some problems here
> with my mailer, and I have no use for it yet since I do not
> own an ST. And I did not send this message to the atari8 group...
>
> - Brian Reilly
> -------

~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

my apoligizes to everyone whose mailer choked on the posting of the
68k disassembler, this time im going to do it correctly and send it
to mod.sources for posting. live and learn !
--

     The master is not yet married, nor do I think he ever will be.
               -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
~~~~~~~~~~~~~~~~~~~~

UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 1618149667277522021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 15:56:19 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST
Message-ID: <8603122148.AA23189@mitre-bedford.ARPA>
Date: Wed, 12-Mar-86 18:56:19 EST
Article-I.D.: mitre-be.8603122148.AA23189
Posted: Wed Mar 12 18:56:19 1986
Date-Received: Fri, 14-Mar-86 05:39:43 EST
References: <2133@hplabs.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 6

That's it, Mike, play on his guilt and insecurity until WE get the special
favors too!

                              -John S.
                              jhs @ MITRE-Bedford.arpa
                              <path>!ihnp4!linus!mbunix!jhs

From -1734288849222538250
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c9b82cfaa66d39cf
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 16:54:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: posting of source code
Message-ID: <54600025@iuvax.UUCP>
Date: Wed, 12-Mar-86 19:54:00 EST
Article-I.D.: iuvax.54600025
Posted: Wed Mar 12 19:54:00 1986
Date-Received: Fri, 14-Mar-86 07:09:03 EST
References: <13175850@ucbvax.UUCP>
Lines: 2
Nf-ID: #R:ucbvax:-1317585000:iuvax:54600025:000:30
Nf-From: iuvax!franco   Mar 12 19:54:00 1986

I vote for plenty of sources.

From -2103332016682791898
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6ceb8972e00f577c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 19:27:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!hplabs!qantel!lll-lcc!lll-crg!seismo!rochester!ritcv!moscom!jgpvax!mqh
From: mqh@jgpvax.UUCP (Mike Hojnowski)
Newsgroups: net.micro.atari16
Subject: lmd's ramdisk -- installation difficulty & solution
Message-ID: <134@jgpvax.UUCP>
Date: Wed, 12-Mar-86 22:27:34 EST
Article-I.D.: jgpvax.134
Posted: Wed Mar 12 22:27:34 1986
Date-Received: Sun, 16-Mar-86 10:53:17 EST
Organization: any unified, consolidated group of elements
Lines: 20

<Mmmmmm, tasty>

I just installed Landon Dyer's PD ramdisk tonight. It works admirably, but
I thought I'd pass along some installation tips so you folks don't waste as
much time as I did. The instructions say to assemble, link, and relmod the
program. Do just like he says, but for the link, do something like:

     link68 [u] ramdisk.68k=ramdisk

This will link the ramdisk without the GEM or desk accessory stuff. It won't
work with that stuff included. I discovered the problem when I used a public
domain "cc" program to do everything, and it assumed I was linking a normal
program which needs all the GEM junk linked in. The linker whimpered about
_main being undefined, and the program got two 'shrooms when I tried to run
it. I got the same results when I tried to link in the desk accessory stuff.
Landon's program doesn't need all that stuff the rest of us mortals take for
granted.
--
Mike Hojnowski   UUCP: ..rochester!moscom!jgpvax!mqh
                        CSNET: "moscom!jgpvax!mqh"@ritcv

From -5681858770271995505
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 19:32:02 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mit-multics.arpa!Terry_Conklin%UB-MTS%UMich-MTS.MAILNET
From: Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <105622@UB-MTS>
Date: Wed, 12-Mar-86 22:32:02 EST
Article-I.D.: UB-MTS.105622
Posted: Wed Mar 12 22:32:02 1986
Date-Received: Sat, 15-Mar-86 19:06:59 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 53

Subject: Secret message in TOS?!
TO: All, but you especially Neil...

Hey, someone at Atari do me a favor
and give my regards to Dave and Bea.

    Everyone here at the Club Network
would like to wish them the best of
luck in their future. We also congratulate
them on the public nature of their
commitment in the form of "Dave Stagas
loves Bea Hablig" in the middle of
new TOS!

     All the hard core programming staff
would like to also give someone an "A"
for effort in getting these few ASCII
characters out under Atari's nose and
into the hands of the general public.
I mean, it sure beats Jack's face in the
character set!

    Give 'em a hand folks, we need more
of this kind of thing as OSes get
bigger and bigger! It's a good laugh
after a few long hours and sore eyes
of staring at numbers to get a "message"
from someone "out there!"

    As a note: We found this creative
message on our new TOS disk with the
TTOOL.ACC accesory. As I do 1 meg
upgrades, I dearly love it and someone
mentioned somewhere that it could
stand to be polished. Well if someone
will get me the source code I would
be happy to work on it. We found a
handful of little bugs just today. If
anyone knows where it came from, pass

the word.

   And I hope everyone else enjoyed our
"TOS (Two 'Oltime Sweethearts) Trivia"
section for the day!

      Terry Conklin
   @ Info-atari16@Umich-MTS.Mailnet
or better yet
      The Club   (517) 372-3131 300/1200
      The Club II (313) 334-8877 300/1200

"Females should be docile" (?)
   -Ringworld Engineers

From -1318457182442989916
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,50822b45f525d202
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-12 20:24:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Posting Binaries
Message-ID: <54600026@iuvax.UUCP>
Date: Wed, 12-Mar-86 23:24:00 EST
Article-I.D.: iuvax.54600026
Posted: Wed Mar 12 23:24:00 1986
Date-Received: Fri, 14-Mar-86 07:09:23 EST
References: <430@watcgl.UUCP>
Lines: 10
Nf-ID: #R:watcgl:-43000:iuvax:54600026:000:457
Nf-From: iuvax!franco   Mar 12 23:24:00 1986

I most strongly disagree with the author of the previous note. I think
most people are very interested in receiving any useful software that is
available. i think there is room for both code and talk on this net.
However, if alot of people want source listings stopped then so be it.
I am sorry to say that the suggestion of emailing code is unacceptable
to me as the cost is too high and the number of people benefitting is too
low.

franco@indiana.CSNET

From 3930702593658450097
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,663bf8fe2851b052,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-03-12 20:28:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Public Domain FORTH for the ST
Message-ID: <54600027@iuvax.UUCP>
Date: Wed, 12-Mar-86 23:28:00 EST
Article-I.D.: iuvax.54600027
Posted: Wed Mar 12 23:28:00 1986
Date-Received: Fri, 14-Mar-86 07:12:17 EST
Lines: 5
Nf-ID: #N:iuvax:54600027:000:222
Nf-From: iuvax!franco   Mar 12 23:28:00 1986

A UUENCODED STSQUEEZED Public Domain FORTH in four parts has been
posted to net.sources. You need to reassemble the four pieces in order
(e.g. cat for1 for2 for3 for4 > forth) then UUDECODE then use the
ST unsqueezer.

From 2408410816760852247
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c2cc6699280b1a7b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 02:54:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!linus!philabs!cmcl2!
harvard!seismo!mcvax!philmds!prle1!prle2!slavenbg
From: slavenbg@prle2.UUCP (Gert Slavenburg)
Newsgroups: net.micro.atari16
Subject: Re: Ram disks - Ram Cache?
Message-ID: <5@prle2.UUCP>
Date: Thu, 13-Mar-86 05:54:21 EST
Article-I.D.: prle2.5
Posted: Thu Mar 13 05:54:21 1986
Date-Received: Sun, 16-Mar-86 10:44:57 EST
References: <12267320@ee.UUCP> <500044@iuvax.UUCP> <442@ccivax.UUCP>
Reply-To: slavenbg@prle2.UUCP (PUT YOUR NAME HERE)
Organization: Philips Research Laboratories Eindhoven
Lines: 28

Can anyone tell me what exactly a RAM cache is. I am the person who
originally made the 520ST RAMdisk, and am thinking about also making a
RAMcache if such proves usefull. However, I have never seen one (though
I can guess a lot) and need some ideas on the functionality.

What I guessed is :
  write through (keep disks updated)
  cache on read miss
  cache on write

  adjustable size cache

What I don't know is :
  do you want it to be completely invisible (no commands)
  how pessimistic should it be about disk exchanges

I can imagine the usefullness of such a tool. However, you still also need
a smaller RAMdisk, since a lot of time goes into write & verify of intermediate
files for C compilers etc.

Any experience and suggestions please DIRECTLY to me, I'll summarize on the
net.

Gert Slavenburg
..mcvax!prle1!prle2!slavenbg
"mcvax!prle1!prle2!slavenbg"@seismo.ARPA
gert@su-pescadero.ARPA

From -3792476989981563696
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6ec2eba7281f535
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 12:07:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!linus!philabs!cmcl2!
harvard!seismo!mcvax!boring!steven
From: steven@boring.uucp (Steven Pemberton)
Newsgroups: net.micro.atari16
Subject: Re: Bugs/Annoyances in TOS, Developers kit, ...
Message-ID: <6829@boring.UUCP>
Date: Thu, 13-Mar-86 15:07:13 EST
Article-I.D.: boring.6829
Posted: Thu Mar 13 15:07:13 1986
Date-Received: Sun, 16-Mar-86 10:45:27 EST
Reply-To: steven@mcvax.UUCP (Steven Pemberton)
Organization: CWI, Amsterdam
Lines: 32
Apparently-To: rnews@mcvax

johnf@apollo.UUCP said:
> I just got my developers kit, and so have at last started to play with my ST.
> A few bugs and annoyances have cropped up, so I thowght I would share them
> with the net.
[...]
> * o   It would be really nice if there was a simple application to display
>   a source file. I know that MicroEmacs will let me look at a file, but
>   I would really like to be able to scroll through a document using
>   scroll bars!

I agree. It would be much nicer if when you double clicked a file, instead
of getting that terrible 'more', you just got a window on the file which you
could scroll. And that warning thet you can only show or print the file is a

pain too. It would be nicer to select the icon, and then select a print menu item.

> If anybody has source code for either of the last two items (flagged with *)
> I would love to hear from them. If not, then when I get round to writing them
> myself I will post the sources to the net.

What would be very nice is a version of MicroEmacs that opens real windows instead of imitating them like it does. Then you could use the scroll bar instead of ^V, ^X-^N, etc.

Another point altogether: some of the example programs use routines beginning rc_. An example is apskel.c which uses rc_intersect to see if two rectangles overlap. I can't find these documented anywhere (or even mentioned in any header file). Anyone got any documentation? Has anyone already dismembered the libraries to see if there are any other goodies hiding in there, and would like to share it with us?

Steven Pemberton, CWI, Amsterdam; steven@mcvax.uucp

From 5863631125954282961
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,76c35132ee7845c4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 12:12:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watrose.UUCP
Path: utzoo!watmath!watnot!watrose!dwrowley
From: dwrowley@watrose.UUCP (David W. Rowley)
Newsgroups: net.micro.atari16
Subject: Config file for Mike's Ramdisk ?
Message-ID: <7900@watrose.UUCP>
Date: Thu, 13-Mar-86 15:12:14 EST
Article-I.D.: watrose.7900
Posted: Thu Mar 13 15:12:14 1986
Date-Received: Fri, 14-Mar-86 06:20:48 EST
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 8

> Is there anyway of specifying the size of the ramdisk by
> using a config file of some sort ? Mike's Ramdisk is good,
> but having to set the size everytime I boot is getting to
> be a pain.

Thanks in advance,
David Rowley

From 7315505113112403837
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,d6fe499eb1eaec8f
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 12:34:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles $Revision: 1.7.0.10 $; site uiucdcs
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!pur-ee!uiucdcs!
mcewan
From: mcewan@uiucdcs.CS.UIUC.EDU
Newsgroups: net.micro.atari16
Subject: Re: Ultima II help needed
Message-ID: <177500003@uiucdcs>
Date: Thu, 13-Mar-86 15:34:00 EST
Article-I.D.: uiucdcs.177500003
Posted: Thu Mar 13 15:34:00 1986
Date-Received: Sat, 15-Mar-86 03:35:37 EST
References: <103@mit-amt.MIT.EDU>
Lines: 20
Nf-ID: #R:mit-amt.MIT.EDU:103:uiucdcs:177500003:000:871
Nf-From: uiucdcs.CS.UIUC.EDU!mcewan   Mar 13 14:34:00 1986

> I hope you don't mind the game question here, but I think this problem
> might be ST specific (I asked this question to someone who had the
> Apple II version long ago, and he didn't have this problem).
>
> I can't seem to get any provisions. I always starve to death. I see
> wandering shopkeepers who ask me if I want to buy apples, but I can't
> find a way to buy them. I just keep getting the same query.

Well, if it's the same as the C64 version, you can (o)ffer the shopkeepers
money, but you won't get anything from them. The only way I know to get
food is to go to a food shop (they have names like McDonald's or Alfred's
Fish and Chips). Not every town has a food shop. Try looking in different
towns.

Scott McEwan
{ihnp4,pur-ee}!uiucdcs!mcewan

"I'm sorry, sir. According to your identification you're not even born
 yet. Come back in 500 years."

From -5348033532790454628
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 13:52:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST

Message-ID: <54600028@iuvax.UUCP>
Date: Thu, 13-Mar-86 16:52:00 EST
Article-I.D.: iuvax.54600028
Posted: Thu Mar 13 16:52:00 1986
Date-Received: Sat, 15-Mar-86 21:46:10 EST
References: <2018@uwmacc.UUCP>
Lines: 4
Nf-ID: #R:uwmacc:-201800:iuvax:54600028:000:157
Nf-From: iuvax!franco   Mar 13 16:52:00 1986

If you want special favors and can show a legitimate need then simply ask!
I am sure the staff at Atari will be glad to help you! And I won't mind one
bit.

From 937084614072383720
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,35493fc8f21cdbc2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 15:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Write boot sector utility
Message-ID: <54600029@iuvax.UUCP>
Date: Thu, 13-Mar-86 18:09:00 EST
Article-I.D.: iuvax.54600029
Posted: Thu Mar 13 18:09:00 1986
Date-Received: Sat, 15-Mar-86 21:46:43 EST
Lines: 11
Nf-ID: #N:iuvax:54600029:000:534
Nf-From: iuvax!franco   Mar 13 18:09:00 1986

Did I hear someone say he needed a way to write boot sectors onto disks?
I have posted the UUENCODED wboot.ttp to net.sources for your information.
Only catch - I haven't used it yet so I can't give advice on it.

I think I figured out what happened to the UUENCODED microemacs binary I
posted earlier - I think UUENCODING it resulted in a file that was too big
to be transmitted in its entirety. I will soon repost in two pieces.
Is everyone happy if I post to net.sources?

Coming attractions: C source for KERMIT, crash analyzer

From -1722591204029049326
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4fcdb5f5286ddb7,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-03-13 15:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!sumex-aim.arpa!RALL.OTTER%BIONET
From: RALL.OTTER%BIONET@SUMEX-AIM.ARPA (RICHARD OTTER)
Newsgroups: net.micro.atari16
Subject: Molecular Biology Software
Message-ID: <12190473331.57.RALL.OTTER@IC2060>
Date: Thu, 13-Mar-86 18:10:00 EST
Article-I.D.: IC2060.12190473331.57.RALL.OTTER
Posted: Thu Mar 13 18:10:00 1986
Date-Received: Sat, 15-Mar-86 19:12:49 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Does any have information on the availability of Molecular Biology software
for the atari 520st ? We are interested in analyzing DNA and protein
sequences.
Thanks,
Richard Otter
Gladstone Foundation Laboratories- Univ. of Calif./ San Francisco
----

From 5627256019202783005
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,328b81c65c9b9731,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-13 21:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Double sided disk write boot util
Message-ID: <54600030@iuvax.UUCP>
Date: Fri, 14-Mar-86 00:01:00 EST
Article-I.D.: iuvax.54600030
Posted: Fri Mar 14 00:01:00 1986
Date-Received: Sat, 15-Mar-86 21:47:17 EST
Lines: 5
Nf-ID: #N:iuvax:54600030:000:261
Nf-From: iuvax!franco   Mar 14 00:01:00 1986

A utility for writing boot sectors to double sided disks is posted
in net.sources just a few postings away from the single sided write boot
sector utility. The program is supposed to be user friendly - it prompts
for the single sided then double sided disks.

From 6642885315300800379

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 00:20:28 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!CZHETH5A.BITNET!SIGNAL
From: SIGNAL@CZHETH5A.BITNET
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603140819.AA12564@ucbvax.berkeley.edu>
Date: Fri, 14-Mar-86 03:20:28 EST
Article-I.D.: ucbvax.8603140819.AA12564
Posted: Fri Mar 14 03:20:28 1986
Date-Received: Sat, 15-Mar-86 19:47:20 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 14

The main problem with uudecode on several systems seems to come from truncated
lines with originally blank characters at the lineend. The lines have to be
extended with blanks to the length defined in the 1st character of the line.
A slightly corrected version of uudecode.c can be sent if needed.

Max H.Duenki
Dept. for Signal and Information Processing
Swiss Federal Institute of Technology
ETH Zuerich, Switzerland

SIGNAL@CZHETH5A.BITNET

From 1989969370596882612
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a92c98ba2dee4cb8
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 02:53:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!whuxl!whuxlm!akgua!gatech!seismo!
mcvax!ukc!reading!minster!nigel
From: nigel@minster.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Comparing hard disks
Message-ID: <726@minster.UUCP>
Date: Fri, 14-Mar-86 05:53:35 EST
Article-I.D.: minster.726
Posted: Fri Mar 14 05:53:35 1986
Date-Received: Mon, 17-Mar-86 04:21:48 EST
References: <743@well.UUCP>
Reply-To: nigel@minster.UUCP (nigel)

Organization: University of York, England
Lines: 35

In article <743@well.UUCP> wvucenic@well.UUCP writes:
>I'm interested in the 20Meg Atari hard disk. I had heard rumors to
>the effect that the developers hard disks have a faster data transfer rate
>than the soon-to-be-available commercial 20Meg Atari hard disks. I asked
>about this at my local dealer, but the fellow there told me that the
>only differences were cosmetic: metal case vs. plastic case. I'm not sure
>he's got the straight story on data transfer rates, as he was quoting
>10Mbits/sec to me. I realize that the DMA controller can transfer at that
>speed, but I had heard that the hard disk controllers were actually
>running at 7.5Mbits or 5Mbits.
...
The developers drives have two boards in - a standard hard drive controller,
and a bus convertor board. I was told around Christmas time that before
selling commercially, Atari wanted to get this onto one board, and into a
plastic case, so your dealer is on the right lines. 5MBits is the quoted
rate for the drive, but some timings I made using an analyser (very rough)
suggested the acknowledges were closer to 7MBits. If Atari wish to use a
single board, then the new board may be faster. The developer setup looks like
a standard SASI board, with a SASI to Atari convertor (one PAL, about 6 TTL).

>   Anyway, back to hard disks... the developers hard disk I
>   looked at had a fan that seemed to be about average for
>   fan noise.)

Yes - average, fine by me.

>
>Other differences of more minor interest would include requirements for
>parking the heads. I understand that the developer's hard disk requires
>this, but I can't imagine that a commercial version would.

There is a utility to move the heads to a safe landing point (!) for
transport. The importance is not heavily stressed, just suggested.

Nigel Roles

From 3089912967473219692
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,162291ed64745f16,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 05:13:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: MicroEmacs Retry
Message-ID: <54600031@iuvax.UUCP>
Date: Fri, 14-Mar-86 08:13:00 EST

Article-I.D.: iuvax.54600031
Posted: Fri Mar 14 08:13:00 1986
Date-Received: Mon, 17-Mar-86 04:22:59 EST
Lines: 4
Nf-ID: #N:iuvax:54600031:000:206
Nf-From: iuvax!franco   Mar 14 08:13:00 1986

I have posted a two part microemacs binary to net.sources. You must
concatenate the two files, strip away the lines put in by the mailer
(at the beginning and end of each file) , UUDECODE and ST UNSQUEEZE.

From 2280044100767007697
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,663bf8fe2851b052
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 05:30:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Public Domain FORTH for the ST
Message-ID: <54600032@iuvax.UUCP>
Date: Fri, 14-Mar-86 08:30:00 EST
Article-I.D.: iuvax.54600032
Posted: Fri Mar 14 08:30:00 1986
Date-Received: Mon, 17-Mar-86 04:22:35 EST
References: <54600027@iuvax.UUCP>
Lines: 10
Nf-ID: #R:iuvax:54600027:iuvax:54600032:000:598
Nf-From: iuvax!franco   Mar 14 08:30:00 1986

Woops...it appears that something adds lines at the beginning and end
of each transmitted file. therefore, you must strip away the added lines
after concatenating (it is best to do it then since it is easy to search
for the added lines (they are very distinctive) and when you get it all
fixed you will know it - if you strip away the lines before concatenating
you might get an extra newline character or you might be minus a newline
character when you concatenate (of course you can go in later to check this
but then you don't have a good way of finding precisely where the files
were joined))

From 7732850313057541594
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,663bf8fe2851b052
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 07:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP

Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Public Domain FORTH for the ST
Message-ID: <54600033@iuvax.UUCP>
Date: Fri, 14-Mar-86 10:07:00 EST
Article-I.D.: iuvax.54600033
Posted: Fri Mar 14 10:07:00 1986
Date-Received: Mon, 17-Mar-86 04:22:47 EST
References: <54600027@iuvax.UUCP>
Lines: 8
Nf-ID: #R:iuvax:54600027:iuvax:54600033:000:381
Nf-From: iuvax!franco   Mar 14 10:07:00 1986

I just took all four parts of PDFORTH from net.sources, cated them,
applied emacs to take out the extra lines, UUDECODED the result,
downloaded to my ST and ST UNSQUEEZED. Believe it or not - it worked.

I did have one minor problem, though - I couldn't get the unsqueezer
to work in the RAMDISK. But, running it from drive A succeeded (with
the file pdforth.tqs on the ramdisk).

From 8074945129234955892
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d09f8214824c2e75,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 07:22:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!glacier!oliveb!
hplabs!hao!noao!terak!mot!anasazi!john
From: john@anasazi.UUCP (John Moore)
Newsgroups: net.micro.atari16
Subject: 1040ST Upgrade
Message-ID: <648@anasazi.UUCP>
Date: Fri, 14-Mar-86 10:22:20 EST
Article-I.D.: anasazi.648
Posted: Fri Mar 14 10:22:20 1986
Date-Received: Mon, 17-Mar-86 03:33:49 EST
Reply-To: john@anasazi.UUCP (John Moore)
Organization: Anasazi, Phoenix Az.
Lines: 17

I have heard that you can upgrade a 1040ST to 4 Meg by swapping the
256K RAM's out and putting in 1 Meg RAM chips. Anyone know if this is true?
Also, is there any difference in external expansion connections on the
1040 vs the 520?

--
John Moore (NJ7E/XE1HDO)

{decvax|ihnp4|hao}!noao!terak!anasazi!john
{hao!noao|decvax|ihnp4|seismo}!terak!anasazi!john
terak!anasazi!john@SEISMO.CSS.GOV
(602) 861-7607 (day or evening)
7525 Clearwater Pkwy, Paradise Valley, AZ, 85253 (Home Address)

The opinions expressed here are obviously not mine, so they must be
someone else's.

From -5989042823275093728
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6b14dfc7ea292eda,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 10:07:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: 1040 ST Disk problems
Message-ID: <444@aum.UUCP>
Date: Fri, 14-Mar-86 13:07:35 EST
Article-I.D.: aum.444
Posted: Fri Mar 14 13:07:35 1986
Date-Received: Sat, 15-Mar-86 22:05:46 EST
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 15

We received 6 1040ST's here at Aurora and At least two of them developed
problems with the internal floppy disk drive. After a while the disk has
trouble accessing the disk and makes awful whining/grinding noises. I
solved this on one machine by changing the resonant frequency
of the head assembly which seemed to be oscillating something fierce.
So far I have done this by tacking a wad of masking tape on the head.
Obviously this is temporary. My question is: Has anyone experienced
and possibly solved this in some cute/easy way? I like the machine and
would rather not send it back for something seemingly easy to fix.
--

                          Erik James Freed
                 Aurora Systems
                 San Francisco, CA
                 {dual,ptsfa}!aum!freed

From -5035125939492729741
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,8b3c250ff6aa2391,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,8b3c250ff6aa2391,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 10:26:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihnet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16,net.micro.atari
Subject: Help! 5.25_on_520ST
Message-ID: <390@ihnet.UUCP>
Date: Fri, 14-Mar-86 13:26:07 EST
Article-I.D.: ihnet.390
Posted: Fri Mar 14 13:26:07 1986
Date-Received: Sat, 15-Mar-86 21:48:29 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 16
Xref: watmath net.micro.atari16:204 net.micro.atari:2963

HELP!

I am trying to get a Mitsubishi 5.25 #M4853 80 track drive
to work with my ST.

I had problems with the select lead not selecting the drive
but I was able to buffer it and get the ST to find the drive
on power up. But know it will not format. There seems to
be a problem with stepping the head. The Mitsubishi drive
has a 3ms step rate and should work with the ST. Also
the drive does work on another (non ST) system.

Do any other lead(s) need to be buffered ?

ihnp4!ihnet!bryan

From -5445539105329455082
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee546e3ac9db488b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 10:27:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site well.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!amdcad!lll-crg!lll-
lcc!well!espen
From: espen@well.UUCP (Peter Espen)
Newsgroups: net.micro.atari16
Subject: What is the new 520ST Price?
Message-ID: <771@well.UUCP>
Date: Fri, 14-Mar-86 13:27:36 EST
Article-I.D.: well.771
Posted: Fri Mar 14 13:27:36 1986
Date-Received: Sat, 15-Mar-86 21:26:46 EST

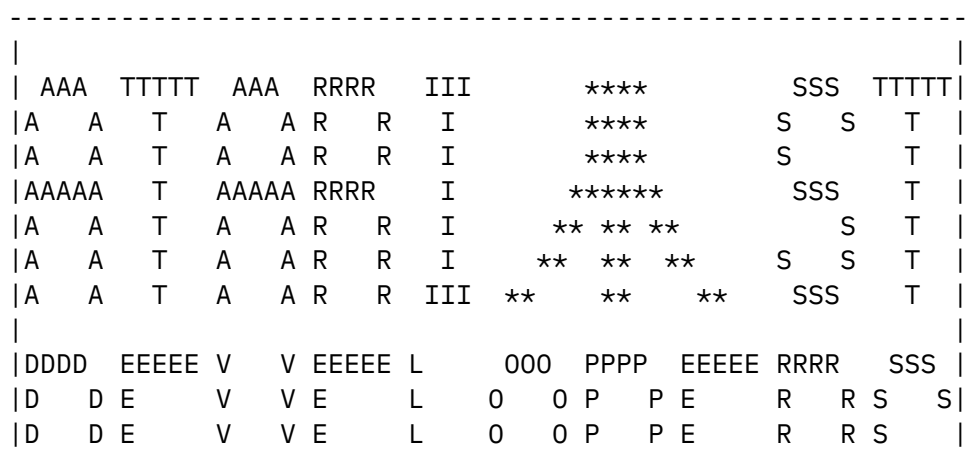
References: <96100001@unido.UUCP>
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 5
Summary: Current 520ST retail price?

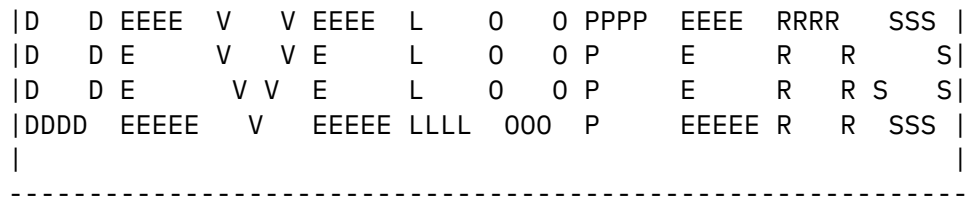
Now that the 1020ST is coming out at a retail price of $999, will the 520ST still be available, will it have a new price, and if so what will that new price be?
Peter Espen

From -8057258699607945376
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,77d9c7e9ab447b73,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-14 19:59:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!whuxl!whuxlm!akgua!gatech!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUCP
Newsgroups: net.micro.atari16
Subject: Atari ST Developer Q/A #2
Message-ID: <139@atari.UUcp>
Date: Fri, 14-Mar-86 22:59:38 EST
Article-I.D.: atari.139
Posted: Fri Mar 14 22:59:38 1986
Date-Received: Mon, 17-Mar-86 04:38:26 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 265
Keywords: Atari ST Developers, TOS, GEM

"Most Asked Questions #2"

This was posted on COMPUSERVE, and it is being re-posted on Usenet:





Question and Answer Bulletin March 1986
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1196 Borregas Ave., Sunnyvale, Ca. 94086

Here are the latest questions from the Atari developers mailbag as answered by John Feagans, Director of Software Technology. Leave questions on Compuserve for PIN 70007,1072 or GO PCS57 for Atari developer SIG information.

How can I print the special characters in the Atari character set between codes 0 and 31?

You can use either the bios or the VDI. Device 5 on Bconout is a raw character output device that does not do an interpretation of character codes. You can alternate between output to console and this device to do cursor positioning and new lines. The VDI call to use is v_gtext. This routine accepts character indices between 0 and 255. You should be careful in using these character codes because they are only defined in the three system fonts: 6 x 6, 8 x 8, and 8 x 16. The VDI specification does not require loadable fonts to have characters in these positions.

When I dump a file to my printer, the first line prints across and then printing hangs up at the right margin. What is going on?

Check if your printer has a switch select position for generating a line feed after a carriage return is received. Some software will generate only a return and count on the Bios to generate the line-feed--TOS does not do this. If your printer does not have this facility, some programs such as STWriter and 1st Word have configuration files which define the end of line sequence which you can set for proper operation with your printer.

Why don't the numeric pad and the cursor keys work in the VT 52 emulator?

The layout of the ST keyboard is patterned after the DEC VT 220. The VT 52 is an older but still popular terminal and there is a dramatic difference--there are no cursor keys or a numeric pad. The VT-52 emulator is a faithful reproduction of this terminal--it does not use the cursor keys or the numeric pad. Here is a brief summary of cursor escapes. The full list is contained in the Hitchhiker's Guide.

ESC A	Cursor up
ESC B	Cursor down
ESC C	Cursor forward
ESC D	Cursor backward

I am writing a terminal emulator program. How can I smooth scroll the screen?

Refer to section 6 of the VDI manual on raster operations. You can use the copy raster functions, vro_cpyfm and vrt_cpyfm, to move blocks of data on the screen. You may also want to double buffer the screen. Furthermore you can move the pointer to the start of display memory.

My C program compiles fine but I get the following undefined symbols in the link68 step -- getscanf, printf, fpmult, and iob. I am linking with GEMLIB and LIBF.

There is no symbol getscanf. Perhaps you mean getchar and scanf? To resolve the other undefined symbols you must be sure to #include stdio.h and also be sure the start file you link with is gemstart.o

How can I write boot sector information? Is there an entry in the DOS or BIOS for doing this?

Use the protobt() extended BIOS call to create a boot sector. The disktype parameter should be 2 or 3 for 1 or 2 sided media respectively. The serialno parameter should be a random number. The execflag should be zero unless the prototyping buffer contains code (such as a copy of the loader) that you want executed when the disk is booted. Write the boot sector protyped in the buffer to track 0, side 0, sector 1 of the new disk. Use the extended bios function flopwr().

I am using funtion 7 of line-A. I am trying to use a pattern but I don't know what to put in the variable pattern_mask. pattern_address seems to be set up correctly because my pattern seems to almost come through.

The pattern_mask variable is actually the length of the pattern. That should be what will make your pattern work.

Question and Answer Bulletin

How can I put an icon on the desktop?

There is no way to place an icon other than those built into the system onto the desktop. The desktop is an application program and it was not designed to interface the other way from GEM AES. If you write your own application and create a new desktop, there is nothing to prevent you from using your own icons. A good example of this is the Resource Construction Set. If you want to represent a desk accessory by an icon you could open a nearly invisible window and print the icon on it. The limitation on this method would be that you could not drag other icons to it and be able to tell what was moved. If you want to be able to drag things to your program you must use the system icons. The procedure is to build a loadable driver and change the desktop.inf to contain the proper label information.

In the resource construction set, what is the difference between a free-tree and a dialog box?

A dialog box is a fixed format object list whose net result when you draw it is obviously--a dialog box. Its format is designed to work with the form library. The free tree is used to define other object lists. Of course you could define a structure for a dialog box with it--but you could also define a dialog box that had a different border and worked with your own form handler.

P_exec has two parameters which the documentation does make clear. They are the pointer to an environment string and a pointer to a command tail. What are these strings and how do I construct them?

The command tail is an array of strings terminated by a zero. If you do not use it then point to two consecutive zeros. The command tail is used by the run application dialog box for a TTP application. What you type in is inserted in the command tail. The environment string is something that is inherited by a process. It is just a simple string.

How can I display two dialog boxes at the same time?

The form library routines are designed for handling only one dialog box at a time. If you want to simultaneously display two of them then you will have to write your own form handler. They can be displayed using the object draw commands. You may also want to try form_button and form_keyboard which do not grab control of the screen. Look for documentation on these functions in this space soon.

My menus seem to have so many entries that they are of a certain size which prevents the AES from restoring what was under them when they pop back. What are the maximum size menus that I can have?

The total width times height in pixels cannot exceed 8k bytes for hi-res, 4k bytes for medioum res, and 2k bytes for low res. Assuming and 8 x 8 font or 8 bytes per character, a maximum for low res might be 256 characters--16 entries of 16 characters each.

What is the mechanism by which ST Writer reads the directory and prints the file names?

STWriter uses the F_sfirst and F_snext to read the directory entries. Furthermore, it uses some special data at the beginning of each file to indicate that it is an STWriter file.

How do I get the command tail from my C program?

TOS passes your program a count of parameters and a pointer to the array. Here is an example of how to declare them in your program:

```
main(argc,argv)
     int  argc;
     char *argv[];
     {
      /*    your program   */
     }
```

Are there any variables around so I can get the position of the cursor?

Since the orignal line-a variables offsets were frozen, we decided to expand the list. At a negative offset from the line a address there are two variables. v_cur_cx is at -14 words and v_cur_cy is at -13 words.

How can I ring a bell without going through the trouble of do_sound?

Send a control-G to console output: Bconout(2,7).

How do I access the data in an editable field from a dialog box that was created by the Resource Construction Set?

When you create the dialog box, use the Name function to give both the tree and the object a name which you can use later. Have the RCS create a .h file for your resource and #include it in your program. Define a pointer of type OBJECT and use rsc_gaddr with this pointer and the label for your tree to get the address of the start of the object list for the dialog. Later, you can index [label of object].ob_spec to get the pointer to the tedinfo structure. Do one more indirection to get the pointer to the actual string.

From -7749655267665504849
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-15 04:07:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!info-atari16-request
From: info-atari16-request@SU-SCORE.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603151207.AA04675@ucbvax.berkeley.edu>
Date: Sat, 15-Mar-86 07:07:16 EST
Article-I.D.: ucbvax.8603151207.AA04675
Posted: Sat Mar 15 07:07:16 1986
Date-Received: Mon, 17-Mar-86 03:17:01 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 7494275796911924577
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d09f8214824c2e75
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-15 07:58:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!whuxl!whuxlm!akgua!gatech!seismo!hao!
noao!terak!mot!anasazi!john
From: john@anasazi.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1040ST Upgrade
Message-ID: <650@anasazi.UUCP>
Date: Sat, 15-Mar-86 10:58:58 EST
Article-I.D.: anasazi.650
Posted: Sat Mar 15 10:58:58 1986
Date-Received: Mon, 17-Mar-86 04:48:13 EST
References: <648@anasazi.UUCP>
Reply-To: john@anasazi.UUCP (John Moore)
Organization: Anasazi, Phoenix Az.
Lines: 21

In article <648@anasazi.UUCP> john@anasazi.UUCP (John Moore) writes:
>I have heard that you can upgrade a 1040ST to 4 Meg by swapping the
>256K RAM's out and putting in 1 Meg RAM chips. Anyone know if this is true?
To answer my own question, it is true according to the interview in
Byte magazine, so I'll post another question:
     The upgrade of the 1040ST to 4 meg involves swapping the 256K RAM's
to 1 Meg. The 1 Megs have two more pins which the article said could
be bent out. DO they need to be connected to something (like more
address lines)?. Also, is there any reason this same trick cannot be
done with a 520 (using piggybacked 1 Meg chips)?

--
John Moore (NJ7E/XE1HDO)
{decvax|ihnp4|hao}!noao!terak!anasazi!john
{hao!noao|decvax|ihnp4|seismo}!terak!anasazi!john
terak!anasazi!john@SEISMO.CSS.GOV
(602) 861-7607 (day or evening)
7525 Clearwater Pkwy, Paradise Valley, AZ, 85253 (Home Address)

The opinions expressed here are obviously not mine, so they must be
someone else's.

From -2213009297926407516
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15517a,908230ef4adacfbd,start
X-Google-Attributes: gid15517a,public
X-Google-Thread: 140593,908230ef4adacfbd,start
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-03-15 09:06:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site islenet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16,net.micro.pc
Subject: Atari's IBM Box
Message-ID: <2168@islenet.UUCP>
Date: Sat, 15-Mar-86 12:06:21 EST
Article-I.D.: islenet.2168
Posted: Sat Mar 15 12:06:21 1986
Date-Received: Fri, 21-Mar-86 03:22:32 EST
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 32
Xref: watmath net.micro.atari16:242 net.micro.pc:7459

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TITLE: First Look at Atari's IBM Box
microbytes/items #113 Thu Mar 13 14:44:36 1986

At the opening of the Hannover Fair in West Germany, Atari of Sunnyvale, CA, exhibited its IBM PC-compatibility box for the 520ST and 1040ST computers. While the product will not be ready for shipping until September at the earliest, its display to the public is thought to indicate that Atari is willing to go on record as backing this particular design. The box has its own 8088 built-in with a socket for the 8087. It also has 512K bytes of RAM. Connection to the Atari computer is via the DMA port.

With actual product introduction at least six to seven months away, Atari representatives would not discuss pricing beyond a statement that reaffirmed the company's history of producing "in high volume at low cost."

The announcement in Hannover reportedly does not signal an intention by the firm to earmark initial-release products for the European market in preference to North America. Company officials noted that this was simply the first public forum for which the unit was functional enough to be shown. Initially, Atari had planned to show the compatibility box last week in London but had to change its plans and move to Hannover when the unit proved not quite ready.

--
Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons
"On Thursday, the world came to an end."

From -278858692639367930
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,8d196d98fdb604ab,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-15 14:19:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: [JEB6589%RITVAXC.BITNET@WISCVM.WISC.EDU: Archives]
Message-ID: <12190988402.16.G.ABRAMS@SU-SCORE.ARPA>
Date: Sat, 15-Mar-86 17:19:23 EST
Article-I.D.: SU-SCORE.12190988402.16.G.ABRAMS
Posted: Sat Mar 15 17:19:23 1986
Date-Received: Mon, 17-Mar-86 03:19:53 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 47

I thought these were good questions, the answers to which would be of
general interest.

1) All messages are in the archives. In addition, some contributed
programs are also there. The archives are in [SU-SCORE]<info-atari>.

2) The archives are stored in TOPS-20 message format (MM is the mail
handler used). After you have obtained a copy (see 3) below) your mailer
may be able to read these files. Probably not! I would suggest using
an editor to search for "Subject:" or whatever you are interested
in.

3) If you are on ARPANET or MILNET you can FTP from the archive. I don't
know how you can get the files otherwise. Any suggestions would be appreciated.
Te files are too big to mail; at least some mailers reject some of the files.
In general, the internet mail forwarders tend to reject very large files.
Also, and I don't mean to even appear unfriendly, the moderators just don't
have the time to respond to special requests. Be be honest, I sort of
regret volunteering to moderate this list. Even though I've gotten
help, it takes more time than I have and introduces a certain level of
frustration that I don't need. I'm not quiting (yet), but I don't see
any way to help you if you can't FTP.

     - Marshall Abrams

Return-Path: <JEB6589%RITVAXC.BITNET@WISCVM.WISC.EDU>
Received: from WISCVM.WISC.EDU by SU-SCORE.ARPA with TCP; Fri 14 Mar 86 08:33:07-
PST
Received: from (JEB6589)RITVAXC.BITNET by WISCVM.WISC.EDU on 03/14/86
  at 10:36:06 CST
Date: 14 MAR 86 11:07-EST
From: JEB6589%RITVAXC.BITNET@WISCVM.WISC.EDU
To: INFO-ATARI-REQUEST@SU-SCORE.ARPA
Subject: Archives

As I am new to this list, I am wondering if you can explain something to me.

1) Are all the messages that come across the net in the Archives?
2) How do I find out what the subjects of these are so I can determine if I want to read any of them?
3) How to I get the messages/programs from the archieves when I have determined which I want?

Thank you for you time.

Jim Berg

From 4593850723184147826
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fcf08b6346350eee,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-16 04:35:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site pur-ee.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)
Newsgroups: net.micro.atari16
Subject: OSS Pascal Development Notes
Message-ID: <3901@pur-ee.UUCP>
Date: Sun, 16-Mar-86 07:35:24 EST
Article-I.D.: pur-ee.3901
Posted: Sun Mar 16 07:35:24 1986
Date-Received: Mon, 17-Mar-86 04:24:15 EST
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 79

In article <2018@uwmacc.UUCP> you write:
>*** REPLACE THIS LINE WITH YOUR MUSHROOMS ***
> Well, I don't (yet!) have my ST, but I want to be able to plug it in and
>start programming immediately (1/2 :-), so I'm going to be ordering software
>soon. Here's a very short summary of what I've seen here so far on the
>subject of languages:
>
>TDI Modula-2: Exciting, but has a bizarre object file format
>
>OSS Personal Pascal: Great! Impressive! Nifty!
>

  I don't want anyone to get the wrong impression; but I have been in the process of writing a multi-screen Tek 4010 emulator for the ST in OSS. Generaly, I am pleased with it but I have a few critical comments of the language, maybe someone can tell me (us) why these limits exist :

1) Arrays are limited to occupy less than 32K. Why is this? I thought that the 68000 had a continuous address space? I could very well be totally off base; but this is a minor problem as I can save the Tek screens in different arrays rather than the more elegent scheme of a multi-dimensional array.

2) Procedures (and I assume functions as well) are limited to 32K. Again, Why? This is a problem for me only when a single large procedure makes logical sense, and I have taken to writing in smaller chunks to get around this.

3) You can (on a 512K machine) compile up to a limit where the compiler generates an error something like 'Stack run into Heap', though it is documented in the manual this still puts an upper limit on the size of compiled modules to be linked later. This is OSS's suggestion: Chop your big program into smaller pieces and then compile seperately and link back together. I have personally found this limit on compile size to be about 1200 lines.

4) This is coupled to the previous one - The Linker will only allow you to link three user *.o files together. This with the limit above sets a limit to the size of program you can write on a 512K TOS on disk (standard) machine. This limit I have found to be *about* 3600 lines. This limit I have hit and now have to put TOS in ROM and get a 1Meg upgrade to finish the programming. I don't expect the terminal emulator to need more than the standard machine to run; but to get the program developed it takes quite a bit more.

5) This final item concerns an out and out error in the compiler and/or manual. The code is as follows:

```
var
  file_name : Path_Name;      { this is the file name I will use }
  Data_File : File of integer;  { This is the file type }
  i : integer;
  ...

begin
  ...
  file_name:='stuff.dat';
  Reset( Data_File, file_name );    { ready the file for reading }
  read( Data_File, i );        { read an integer }
                ^
               'Error in Standard procedure parameter'
```

The error is generated by the compiler. The manual shows this as a valid use of the procedures, but it will not compile. I have found (also from the manual) that Get() will do the job; but it is not a very 'clean' solution to the problem. The error also occurs when you use Rewrite() and write() together.

In general, for every problem there is a workable solution, but it would have been nice to not have to fight the compiler/linker to get a

big project through.
  To be fair, I still consider the OSS system to be a good buy, and a good system to develop in; but I don't want others to get stumped or surprised by finding what I have found.
  Please don't flame, I am just trying to help out with some lessons I have found out at the school of hard knocks.

          Bob

From 160270384303561259
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,da952af1cef562b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-16 06:44:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: SECTOR EDITOR for the ST
Message-ID: <54600037@iuvax.UUCP>
Date: Sun, 16-Mar-86 09:44:00 EST
Article-I.D.: iuvax.54600037
Posted: Sun Mar 16 09:44:00 1986
Date-Received: Tue, 18-Mar-86 07:59:17 EST
Lines: 66
Nf-ID: #N:iuvax:54600037:000:3377
Nf-From: iuvax!franco   Mar 16 09:44:00 1986

I have posted a very useful sector editor (in binary) to net.sources. It is only UUENCODED (not squeezed). Below is the documentation.

franco@indiana

THE NO-FRILLS ST SECTOR EDITOR v1.01

30 November 1985
James M. Eli
74176,2137

No-Frills Documentation:
     The author takes no responsiblity as to the quality or performance of this software. Use this at your own risk... preferably on backup copies. You can easily render programs, or entire disks useless, believe me I know!
     To Run: First set your screen resolution to MEDIUM, then simply double click on the program name. The title screen will prompt to insert your working disk and press RETURN (remember: use backups). The program will now initialize and read sector '0' of drive 'A'. From here on the program will

accept input in both upper and lower case. Use only the commands which are displayed, as there is limited error checking. Here is a breif description of the commands available:

O Toggles between the lower and upper halves of the 512 byte sector. Each time it displays 256 bytes (1-256/257-512) in both hexadecimal and ASCII format.

N New sector number to read or write. Be careful not to outstep the bounds of single (0-719) or double (0-1439) density drives. The noise this makes is enough to keep you from trying this more than once. If a sector less than 0 is requested, on the next read operation sector 0 is substituted.

R Read current sector.

W Write to current sector. You are given one chance to bail-out before you make a permanent change. Before going through with this operation check the drive & sector #'s, and be sure this is what you want.

+/- Respectively inrements or decrements the sector number, and then reads this sector. Should (!?) not step out-of-bounds.

M Modify data. Enter the location (1-512, making sure you are displaying the correct half), followed by the new byte. If a new location is not specified, consectutive bytes are accessed. Just hit RETURN when finished. Be careful now!

D Drive swap. Toggle between drive A and B.

P Prints the current sector in the buffer in both hex & ASCII. Dumps the data out the parallel port.

B Changes the background color (Did I say no frills?).

Q Quit and exit back to the Desktop.

The Read and Write status returned will be '0' for successful operations. Occasionally '-1' will pop up (which means: 'Anti-Success'), just check to make sure you requested a legal sector, your media is not write protected, etc. and try again. If everything checks out you probably found a bad or missing sector (intentional or otherwise). If you have used any of the sector editors for the 8-bit line you'll have no trouble here.

This program started out in Haba HIPPO-C, but was finished in the Alcyon C supplied with the developer's kit. HIPPO-C has a good programming environment which makes going from the editor to compiler to linker easy. Unfortunately HIPPO-C lacks the support in their library to make extended BIOS calls, this was the main reason to change C's. If there is enough interest in this out there, I'll consider enhancements (add drop-down menus and all that good GEM stuff), and possible future 'No-Frills' programs... how does a 'No-Frills ST Custom Formatter' sound?

From 1662345412823083920
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-16 10:10:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!info-atari16-request

From: info-atari16-request@SU-SCORE.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603161810.AA24389@ucbvax.berkeley.edu>
Date: Sun, 16-Mar-86 13:10:36 EST
Article-I.D.: ucbvax.8603161810.AA24389
Posted: Sun Mar 16 13:10:36 1986
Date-Received: Tue, 18-Mar-86 01:37:04 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 7031139984930442430
X-Google-Language: Unknown,Unknown
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-16 10:14:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!su-score.arpa!info-atari16-request
From: info-atari16-request@SU-SCORE.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8603161814.AA24457@ucbvax.berkeley.edu>
Date: Sun, 16-Mar-86 13:14:06 EST
Article-I.D.: ucbvax.8603161814.AA24457
Posted: Sun Mar 16 13:14:06 1986
Date-Received: Tue, 18-Mar-86 01:37:29 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 0

From 4754835023700237531
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-16 19:09:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site reed.UUCP
Path: utzoo!watmath!clyde!cbosgd!hplabs!tektronix!reed!rosalia
From: rosalia@reed.UUCP (Mark Galassi)
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <2807@reed.UUCP>
Date: Sun, 16-Mar-86 22:09:08 EST
Article-I.D.: reed.2807
Posted: Sun Mar 16 22:09:08 1986
Date-Received: Tue, 18-Mar-86 07:35:52 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu> <465@ccivax.UUCP>

Reply-To: rosalia@reed.UUCP (Mark Galassi)
Organization: Reed College, Portland, Oregon
Lines: 25

>
>
>Some questions of my own:
>In the interview, a 1024x1024 display was mentioned. The ST seems to have
>the bandwidth to support this at 70hz interlaced, is it a software hack,
>or is new hardware required?

The answer is New Hardware. What limits the resolution on the ST is the
amount of video memory (currently 32K). You would need to increase that
to get more resolution.

>When is the PC industry gonna "Grow up" and adopt even minimal standards?
>Does IBM have to do everything??!!!

Don't praise IBM. They have not produced "state of the art" personal
computers yet. What they have come out with is a family of horrible
personal computers for abominable prices. Maybe their new RISC machine
will finally be a good product, but that is not an attempt to establish
standards.
--

Mark Galassi
...!tektronix!reed!rosalia

{ these opinions are mine and should be everybody else's :-) }

From 3164657484995373384
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b6ec2eba7281f535
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 00:02:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Bugs/Annoyances in TOS, Developers kit, ...
Message-ID: <1434@cwruecmp.UUCP>
Date: Mon, 17-Mar-86 03:02:09 EST
Article-I.D.: cwruecmp.1434
Posted: Mon Mar 17 03:02:09 1986
Date-Received: Tue, 18-Mar-86 08:37:07 EST
References: <6829@boring.UUCP>
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 33

>
> What would be very nice is a version of MicroEmacs that opens real windows

> instead of imitating them like it does. Then you could use the scroll bar
> instead of ^V, ^X-^N, etc.
>
    We thought of that when we did the port of microEmacs here.
(that was posted to the net a while ago). The problem is that Vdi
text (v_gtext) is soooo slloooow. For the same reason a window (Vdi/Aes)based
browser would not be very useful.

> Another point altogether: some of the example programs use routines
> beginning rc_. An example is apskel.c which uses rc_intersect to see if two
> rectangles overlap. I can't find these documented anywhere (or even
> mentioned in any header file). Anyone got any documentation? Has anyone
> already dismembered the libraries to see if there are any other goodies
> hiding in there, and would like to share it with us?
>
> Steven Pemberton, CWI, Amsterdam; steven@mcvax.uucp

    Almost all the rc_XX routine I have seen were written by Tim
Oren and are fully described in his Professional GEM seminar series
on Antic online. Another place to see the rc_XX routines are in the
Doodle source (which is where they originate from, also writen by Tim
Oren). I highly recommend the Professional Gem series and the
associated sources. If there is enough interest I can post them
(I have parts 1-10 and the associated sources), but i guess most
people have downloaded them by now.
--

                    Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                 CSnet: bammi@case
               Arpa: bammi%case@csnet-relay
            CompuServe: 71515,155

From -3213605295793245411
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,475ca5a4272ed714
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 09:25:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: ST color monitor as a TV?
Message-ID: <8603171609.AA05081@mitre-bedford.ARPA>
Date: Mon, 17-Mar-86 12:25:01 EST
Article-I.D.: mitre-be.8603171609.AA05081
Posted: Mon Mar 17 12:25:01 1986
Date-Received: Wed, 19-Mar-86 00:54:30 EST
References: <717@isrnix.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

Conversion of RGB to Composite signal can be done with a small amount of circuitry. I think there are IC chips that do most of the work. You have to construct luminance and chroma signals, which is just matrixing with resistors, and then modulate the chroma signal on a 3.57945-MHz color subcarrier and add it to the luminance to get the composite. Or something like that. (I can get exact details for you if you wish.)

John Sangster
jhs at mitre-bedford.arpa
<anypath to ihnp4>!ihnp4!linus!mbunix!jhs

From -160685597662574811
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5466e5b849965a17,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 10:32:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!spice.cs.cmu.edu!Daniel.Zigmond
From: Daniel.Zigmond@SPICE.CS.CMU.EDU
Newsgroups: net.micro.atari16
Subject: XLISP
Message-ID: <511468366.djz@SPICE.CS.CMU.EDU>
Date: Mon, 17-Mar-86 13:32:00 EST
Article-I.D.: SPICE.511468366.djz
Posted: Mon Mar 17 13:32:00 1986
Date-Received: Wed, 19-Mar-86 00:57:41 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

I am planning to start an INFO-XLISP mailing list. The reasons for this are:

* To exchange XLISP code and ideas
* To provide an easy method of reporting bugs
* To facilitate the distribution of XLISP revisions (few people are aware that there is an XLISP 1.6 already and 1.7 is near completion)
* To collect enhancements to XLISP and collect the changes necessary to port XLISP to new machines

If you are interested in joining the list, please send mail to me at one of the addresses below. I will need your name and net address. I would also appreciate knowing what machine you use to run XLISP. I will then keep you informed about the INFO-XLISP details (such as the address) as they become final.

Dan

djz@spice.cs.cmu.edu
{harvard, ucbvax}!spice.cs.cmu.edu!djz

From 3167595761162859148
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edf275bc0b18f37,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 11:25:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!pyramid!hplabs!
qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: need help: Unix -> ST file transfer
Message-ID: <445@aum.UUCP>
Date: Mon, 17-Mar-86 14:25:14 EST
Article-I.D.: aum.445
Posted: Mon Mar 17 14:25:14 1986
Date-Received: Wed, 19-Mar-86 04:12:27 EST
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 19

I know that it has been discussed a lot but because I just recently
got a 1040 and because I want to know what the *best* way is, could
someone fill me in on the following:

1) The best way to get software from a SysV unisoft machine to
   a ST
2) The best terminal emulator program (price *is* an object)

I have the developers kit on order. I do not have kermit on the Unix box.
I do not have xmodem on the Unix box. I am interested in the cheap and
easy way to get all the software I have stored from the net on to my new
toy. Thanks in advance.

--

                          Erik James Freed
                 Aurora Systems
                 San Francisco, CA
                 {dual,ptsfa}!aum!freed

From -5945304463884834480
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ce5c11d37ad83156,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 14:25:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- UUDECODE/ENCODE info ---
Message-ID: <8603172236.AA17732@ucbvax.berkeley.edu>
Date: Mon, 17-Mar-86 17:25:00 EST
Article-I.D.: ucbvax.8603172236.AA17732
Posted: Mon Mar 17 17:25:00 1986
Date-Received: Wed, 19-Mar-86 00:58:37 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 16

Re the posting of the command description of UUENCODE/UUDECODE in reply
to the request (by Stephen Leicht) about the information.

I would assume that the question was for information of a more technical
nature, i.e. how is the file encoded? The command description does noone
any good unless they have the command on their system, in which case there
SHOULD be a decent on-line manual entry which describes the invocation.

Does anyone have a nice, concise description of the UUENCODE/UUDECODE
process? If it is too long to post to the net, could someone at least
send it directly to me?

          -Richard Hartman
          max.hartman@ames-vmsb

From -1112429893172756682
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ab4a52041915ac0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 14:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ames-vmsb.arpa!nep.pgelhausen
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- RGB <--> composite ---
Message-ID: <8603172301.AA18257@ucbvax.berkeley.edu>
Date: Mon, 17-Mar-86 17:29:00 EST
Article-I.D.: ucbvax.8603172301.AA18257
Posted: Mon Mar 17 17:29:00 1986
Date-Received: Wed, 19-Mar-86 00:59:04 EST
Sender: uucp@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 11

In regards to John Sangster's posting about the simple circuit to convert
RGB signals to composite I would like to thank him for the information.

However I believe that the original request was about converting from
a composite signal to RGB, to enable the Atari monitor to be used with
a VCR. Does anyone have this information as well>

          -Richard Hartman
          max.hartman@ames-vmsb

From 6351689099685202245
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee546e3ac9db488b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 14:50:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: What is the new 520ST Price?
Message-ID: <141@atari.UUcp>
Date: Mon, 17-Mar-86 17:50:31 EST
Article-I.D.: atari.141
Posted: Mon Mar 17 17:50:31 1986
Date-Received: Fri, 21-Mar-86 03:30:25 EST
References: <96100001@unido.UUCP> <771@well.UUCP>
Organization: Atari Corp/Mktg
Lines: 15

In article <771@well.UUCP>, espen@well.UUCP (Peter Espen) writes:
>
>   Now that the 1040ST is coming out at a retail price of $999, will
> the 520ST still be available, will it have a new price, and if so what will
> that new price be?

The 520ST is still available at $799 bundled with drive and monochrome
monitor, or $399 unbundled. The 520ST now includes an Rf modulator and
composite video output.

--->Neil @ Atari
    Usenet: ...lll-crg!vecpyr!atari!neil
    CIS: 70007,1135
    BIX: neilharris
    Atari BBS: 408-745-5308 or 745-2642

From -6768060485778413652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,58263aa3290668e0,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 16:31:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: PDFORTH INFO
Message-ID: <54600039@iuvax.UUCP>
Date: Mon, 17-Mar-86 19:31:00 EST
Article-I.D.: iuvax.54600039
Posted: Mon Mar 17 19:31:00 1986
Date-Received: Wed, 19-Mar-86 05:17:06 EST
Lines: 61
Nf-ID: #N:iuvax:54600039:000:2916
Nf-From: iuvax!franco   Mar 17 19:31:00 1986

I have recently been in touch with the author of the "PDFORTH" that I posted to the net. I hope that at least most of you got that OK (I am frustrated by the fact that so much of what gets sent on the net winds up as garbage on the other end - at least I know the "PDFORTH" left here ok since I pulled it off the net and got it to work). Anyway, I thought you might be interested to know that what I sent out was a preliminary version of a FORTH that will eventually be marketed by a (one-man?) operation called Bradley Forthware. I have given the address below for anyone interested.

Also, I thought I would post part of our conversation which presents some of Mr. Bradley's thoughts on his FORTH. Please note that I am posting the information below only because some of you are porbably interested in the info provided. I am in no way endorsing this product. For all I know the info could be totally wrong. I have never met Mr. Bradley nor do I know anything about him except that he claims to have authored the "PDFORTH" (which, I suppose, should be relabeled BFORTH). Mr. Bradley does not know that I am posting the text of part of our conversation. The sentences preceeded by > are mine, the rest are his.

franco@indiana.CSNET

The address is:

Bradley Forthware
295 Hans Ave.
Mountain View CA 94040

> By the way - it works with TOS in ROM (at least on my machine).

I got around to trying out the version you posted after I sent you the message. I couldn't get it to work at all, but I found out enough to figure out why it works with the ROMs. The version you have copies itself to a fixed location in memory, which is about 0x50000 as I recall. This works okay but it fragments memory and doesn't give

you the full benefit of the memory that is available.

(note: The above applies only to the version I posted)

> By the way, from some crude benchmarks I
> ran it seems that your FORTH is at least as fast as DRAGON FORTH.

My analysis shows that my Forth is faster than Dragon Forth without
the accelerators, and slower than Dragon Forth with the accelerators.
The difference is due to my use of direct threaded code versus the
the indirect threaded code used by Dragon Forth. Direct threaded code
eliminates a memory fetch from the NEXT routine, so that NEXT becomes
2 instructions assembled in-line -- specifically

```
    MOVE.L  (A5)+,A0
    JMP  (A0)
```

I believe that this is the best that can be done with the 68000, short
of compiling directly to machine code. On the 68000, Direct Threaded
Code is even faster then subroutine threaded code, which many people
erroneously believe is the fastest.

The Dragon Forth accelerators work by compiling sections of machine
code in-line, eliminating NEXT overhead entirely. I think that Dragon
Forth is a very good system. The multitasking especially is very
complete.

From -105481089951376218
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,2ab4a52041915ac0
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 16:42:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: --- RGB <--> composite ---
Message-ID: <8603172324.AA13984@mitre-bedford.ARPA>
Date: Mon, 17-Mar-86 19:42:46 EST
Article-I.D.: mitre-be.8603172324.AA13984
Posted: Mon Mar 17 19:42:46 1986
Date-Received: Wed, 19-Mar-86 00:59:51 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 43

Composite to RGB is similarly easy. Chips exist that do most of the work.
The National Semiconductor LM1828 an LM1848 for example (called "Chroma
Demodulators") take a composite or chroma input signal and give you "color
difference signals" out at 3 pins. Then you need to form three well-defined
linear combinations of these outputs, which requires hardly more than a
resistor network, to get RGB outputs. You will also need a Phase-Locked Loop

circuit to recover the color subcarrier and maybe some amplifier circuits to set levels and impedances, but the whole thing should be just a few chips.

There may be more sophisticated chips than the LM1828 and 1848 available as these were 1980-vintage stuff.

Incidentally, a tidbit of info from my video-expert cousin: if you are AC coupling composite or luminance video signals (as I plan to to in making my TV set into a monochrome monitor), use BIG FAT capacitors like 50 microFarads or you will get noticeable black level drift across the picture. The right way to do it is to DC couple, but you can get away with AC coupling if you use a big enough capacitor.

The chroma signal, being centered on 3.58 MHz, is less critical of low-frequency coupling and is shown in "typical application" diagrams for the LM1828 as being coupled through a .01 uFd capacitor into the 1K-ohm chroma input.

Hmm... I think this diagram is telling me that the correct mixing ratios (which would be reciprocals of resistor ratios going to the summing point) are as follows:

	LM1828	LM1848
R-Y	0.8	0.95
G-Y	0.25	0.35
B-Y	1.0	1.0

If anybody really wants to build converters for either direction, I could probably wheedle schematic diagrams out of my cousin, who is a fellow Atari owner and so should be sympathetic.

-John Sangster
jhs at mitre-bedford.arpa
<anypath.to.ihnp4>!ihnp4!linus!mbunix!jhs

From 7497026198499915026
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,518c494f885196d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 17:31:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: more video conversions
Message-ID: <8603172338.AA14276@mitre-bedford.ARPA>
Date: Mon, 17-Mar-86 20:31:47 EST
Article-I.D.: mitre-be.8603172338.AA14276

Posted: Mon Mar 17 20:31:47 1986
Date-Received: Wed, 19-Mar-86 01:00:18 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 23

Browsing thru the 1980 National Semiconductor catalog, I find some other cute chips.

The LM1886 is a Video Matrix D-to-A Converter. This chip takes 3-bit inputs for Red, Green and Blue and produces luminance and color-difference outputs. The gadget can produce either NTSC ("Never Twice the Same Color") or PAL (European standard) outputs.

These analog outputs can be very easily turned into true RGB or Composite output, although you will need additional circuitry to come up with the sync pulses.

The LM1889 chip takes audio, color-difference and luminance signals and produces RF for your TV set antenna input terminals. (Or you can buy a whole TV modulator if you are lazy.)

Anybody interested in doing these kinds of things clearly should call up your nearest National rep and wheedle a Linear Data Book out of him. They are made to be given away if you ask nicely.

-John Sangster
jhs @ mitre-bedford.arpa
 <...!ihnp4>!linus!mbunix!jhs

From -8661469712630200783
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,26637847c17b5acf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 17:40:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: more on video converters
Message-ID: <8603172353.AA14419@mitre-bedford.ARPA>
Date: Mon, 17-Mar-86 20:40:21 EST
Article-I.D.: mitre-be.8603172353.AA14419
Posted: Mon Mar 17 20:40:21 1986
Date-Received: Wed, 19-Mar-86 01:00:48 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

Signetics evidently has some good stuff too, including a new chip that my 1985 catalog doesn't list but which I think does NTSC to RGB decoding and has the

matrix built in. It is called the TDA3563, and is designed for use in TV receivers (all of which eventually have to produce RGB signals internally).

Related hint: If you own a color TV set of high quality, you should be able to add Composite and/or RGB inputs to it if you aren't afraid to tear it apart! Also you could modify it to do composite to RGB conversion but of course you might as well use its CRT display too in that case!

-John S.

From 6663484999352287223
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d19f0fba06192dc4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-17 19:09:48 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!utah-cs.arpa!atwell
From: atwell@UTAH-CS.ARPA (Bart L. Atwell)
Newsgroups: net.micro.atari16
Subject: Problems with 1st Word
Message-ID: <8603180309.AA02225@utah-cs.ARPA>
Date: Mon, 17-Mar-86 22:09:48 EST
Article-I.D.: utah-cs.8603180309.AA02225
Posted: Mon Mar 17 22:09:48 1986
Date-Received: Wed, 19-Mar-86 01:02:35 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 22

I have started to do some school work with 1st Word and it is working very nicely as a word processor (the price is right). I have run into some problems, however, that disturb me. After working some time on a document (with many incremental saves), I needed to look up a function in the 1st Word Guide. I loaded the Guide and did a FIND. What the find found was my document stuck right in the middle of the Guide. I rebooted and tried the same thing again and sure enough, my document was still part of the guide.

What is going on? Is 1st Word doing this or (horrors) is TOS doing this? I don't have TOS in ROM yet so I guess there is still hope if TOS is the culprit but it is very disconcerting not knowing when or what files will get zapped. Maybe Neil at Atari can help on this one.

BTW, before this happened I noted some instances of similar things happening with the Guide where parts of it were copied spuriously into other files so this seems to be an ongoing problem.

Help, before I buy a hard disk.

Bart Atwell
atwell@utah-20

From -1773772468980814006
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-18 10:16:32 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpg.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpg!tainter
From: tainter@ihlpg.UUCP (Tainter)
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <1715@ihlpg.UUCP>
Date: Tue, 18-Mar-86 13:16:32 EST
Article-I.D.: ihlpg.1715
Posted: Tue Mar 18 13:16:32 1986
Date-Received: Wed, 19-Mar-86 05:22:37 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu> <465@ccivax.UUCP>
<2807@reed.UUCP>
Organization: AT&T Bell Laboratories
Lines: 16

> >Some questions of my own:
> >In the interview, a 1024x1024 display was mentioned. The ST seems to have
> >the bandwidth to support this at 70hz interlaced, is it a software hack,
> >or is new hardware required?
> The answer is New Hardware. What limits the resolution on the ST is the
> amount of video memory (currently 32K). You would need to increase that
> to get more resolution.
>   Mark Galassi...!tektronix!reed!rosalia
I don't understand this comment. There is nothing special about the video
memory. The bitmap is just part of memory, restricted by the refresh hardware
to start on a 512 byte boundary. What limits the video memory to 32k at
present is the addressing scheme in the refresh. It strikes me as being
arbitrary and I hope there are hidden capabilities in that refresh circuitry
to support higher res.
--j.a.tainter
Still can't believe "We are the World", even got NOMINATED.

From -5503332344485829900
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7edf275bc0b18f37
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-18 11:05:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site hplabs.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!hplabs!rodrique
From: rodrique@hplabs.UUCP (Mike Rodriquez)
Newsgroups: net.micro.atari16
Subject: Re: need help: Unix -> ST file transfer
Message-ID: <2147@hplabs.UUCP>

Date: Tue, 18-Mar-86 14:05:34 EST
Article-I.D.: hplabs.2147
Posted: Tue Mar 18 14:05:34 1986
Date-Received: Fri, 21-Mar-86 03:13:19 EST
References: <445@aum.UUCP>
Distribution: net
Organization: Hewlett Packard Labs, Palo Alto CA
Lines: 10

>
> 1) The best way to get software from a SysV unisoft machine to
>   a ST
>
> I have the developers kit on order. I do not have kermit on the Unix box.
> I do not have xmodem on the Unix box. I am interested in the cheap and
  ^^
You might, if you have not already done so, check that xmodem
is called umodem, as it is under BSD4.2.
Mike

From 316778323161373715
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,891c84db6c51bcef,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-18 12:42:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site rruxu.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!pyuxww!pyuxv!rruxa!rruxo!rruxu!sitze
From: sitze@rruxu.UUCP (R Sitze)
Newsgroups: net.micro.atari16
Subject: Developers Kit's
Message-ID: <122@rruxu.UUCP>
Date: Tue, 18-Mar-86 15:42:03 EST
Article-I.D.: rruxu.122
Posted: Tue Mar 18 15:42:03 1986
Date-Received: Wed, 19-Mar-86 05:28:52 EST
Organization: Bell Communications Research, Piscataway, NJ
Lines: 17

    There were rumors earlier to the effect of Atari
    (DRI??) rewritting the documentation for the
    developers kit, as well as improving the compiler,
    linker, assembler. Can anyone fill us in on the
    status of these??? Are they for real?? Should we
    wait for them or are they so far in the future
    that one shouldn't wait?? I desperately need the
    info, but don't want to spend my money on "bad"
    documention when there is any better to be had.
    (I have the Abacus dox's already, enough spent
      on unclear documentation...)

Thanx

<ras>

From 6954674139900394426
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-18 19:20:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mit-multics.arpa!Terry_Conklin%UB-MTS%UMich-MTS.MAILNET
From: Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <111726@UB-MTS>
Date: Tue, 18-Mar-86 22:20:08 EST
Article-I.D.: UB-MTS.111726
Posted: Tue Mar 18 22:20:08 1986
Date-Received: Fri, 21-Mar-86 06:07:31 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 16

Subject: Getting TTOOL.ACC
To: Too Fujinaka
(make that Todd this terminal is questionable)

  You can get TTOOL and countless (read
far too many to keep track of) other
files on the Club II (313) 334-8877
or possibly the Club (517) 372-3131,
depending on which ST menu is up. 300/1200
baud for either. As of yesterday though
no one had found/uploaded the source
for TTOOL.ACC to the II yet.

         Terry Conklin
         Online any Club system
         or Info-Atari16@UMich-MTS.Mailnet

From -4517569489034170272
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,22568e74fa7b0b77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-19 02:48:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)

Newsgroups: net.micro.atari16
Subject: Re: More ST TROUBLES
Message-ID: <2896@ukma.UUCP>
Date: Wed, 19-Mar-86 05:48:43 EST
Article-I.D.: ukma.2896
Posted: Wed Mar 19 05:48:43 1986
Date-Received: Fri, 21-Mar-86 03:46:31 EST
References: <1658@mtgzy.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 16

***** Nobody knows the lines I've eaten - song title *****

It's about time I make another comment on the jolly black power supplies. A couple of days ago, my TOS ROM(s) blew. I deduced this from the fact that all went well with the old chips replaced. It took a week for the new chips to stop working. But I gather that these ROMs are really Eproms which happen to be opaque, which makes them somewhat vulnerable to the dreaded power supply surge.
   Now the people who told me about the power supply scandal have consequently informed me that a very simple test will determine whether the power supply is of the evil variety, without having to wait for disaster to visit. It seems that with zero load, a humble voltmeter will demonstrate the true nature of the thing. So this would indicate that the same fault that causes sub-optimal start-up characteristics also causes inappropriate response to zero load. If so, this would help prevent a lot of indecision about what to do with "the black power supplies".

From -3689329102377827441
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,22568e74fa7b0b77
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-19 03:56:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Overseas STs
Message-ID: <2898@ukma.UUCP>
Date: Wed, 19-Mar-86 06:56:14 EST
Article-I.D.: ukma.2898
Posted: Wed Mar 19 06:56:14 1986
Date-Received: Fri, 21-Mar-86 03:47:10 EST
References: <1658@mtgzy.UUCP> <2896@ukma.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 30

***** The lines that ate Paris - film title *****

I've just been shopping around for world ST prices, and these are the results:

In Australia, the standard B/W system that costs some $700 or so here, costs A$2150 x .704 = US$1510. And the government only takes 20%. Someone is making a big profit over there! But then I suppose some sort of voltage conversion has to be made.

In Germany, the cost is DM2898 x .444 = US$1285 for the 1 Meg system with German keyboard and TOS on disk (still!), and the double sided disk drive. That's the 520ST+ that has been mentioned here before.

But in Germany now, it seems they have a 1040STS or something, with a built-in double-sided floppy for DM3298 x .444 = US1465. And these two are also just the B/W system.

The good news for anyone going to these exotic places is that according to the Atari person who answered the phone in CA, the American version will run on 50Hz with a transformer, but that the keyboard clock will run at 5/6 speed!!! Doesn't this suggest that some crucial part of the keyboard circuit can be replaced with a German part to make it run at the speed?

It's very clear to me now that the best policy is to buy here and use a transformer overseas.

Can anyone say whether STs have got beyond the US, Canada, UK, Germany Australia and Switzerland? The Bios listing suggests a French version, but that could conceivably have gone only to Quebec. Perhaps the English language component of TOS will be rejected by the Ministry of Culture. And what is this new French computer language coming out soon? I've seen a sample of French Basic. If anyone has a copy of French Basic for the ST I would gladly know about it.

.....ak.

From -1384675723717934993
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8c3261d8f2e96dc6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-19 09:35:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: RGB<-->composite(NTSC,PAL)
Message-ID: <8603191635.AA12272@mitre-bedford.ARPA>
Date: Wed, 19-Mar-86 12:35:50 EST
Article-I.D.: mitre-be.8603191635.AA12272
Posted: Wed Mar 19 12:35:50 1986
Date-Received: Fri, 21-Mar-86 06:09:58 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 11

I have received several requests for detailed information so I shall try to prevail on my cousin for schematics for the cases mentioned in these requests.

I will post an announcement here when they are available, and will probably also send them out to those who gave mailing addresses as I guess I can afford the present $1 or so of postage. If the list gets a lot longer, I will however request SASEs in the time-honored tradition.

Please allow 2 to 3 weeks for delivery...on this promise. Please feel free to remind me if you haven't heard from me by Tax Day or so.

-John S.

From 948594584811156916
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-19 10:09:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!hplabs!qantel!lll-lcc!lll-crg!gymble!umcp-cs!seismo!rochester!ritcv!ccivax!rb
From: rb@ccivax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <492@ccivax.UUCP>
Date: Wed, 19-Mar-86 13:09:18 EST
Article-I.D.: ccivax.492
Posted: Wed Mar 19 13:09:18 1986
Date-Received: Sun, 23-Mar-86 00:39:22 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu> <465@ccivax.UUCP> <2807@reed.UUCP>
Reply-To: rb@ccivax.UUCP (What's in a name ?)
Organization: CCI Telephony Systems Group, Rochester NY
Lines: 74
Summary: Standards please!!!

In article <2807@reed.UUCP> rosalia@reed.UUCP (Mark Galassi) writes:
>>When is the PC industry gonna "Grow up" and adopt even minimal standards?
>>Does IBM have to do everything??!!!
>
>Don't praise IBM.
Who's praising IBM???

>Maybe their new RISC machine
>will finally be a good product, but that is not an attempt to establish
>standards.
I haven't heard much good about the RISC machine. Who cares, this is Atari group anyway right? :-).

What I am upset about is the appearant contempt for even minimal standards between Atari, Commodore, and Apple. This appears to be changing, Apple is putting SCSI on the Mac, Commodore is considering adopting NAPLPS as a file storage/transfer format. What is Atari doing???

The sooner some simple standards for peripherals, software, and data formats are adopted, the better. In most other Consumer Electronics industries, standards have made it possible for each company to capitalize on their particular strengths.

Atari makes some good computers, but on the 800 line, only Atari peripherals can be used. Even a "generic" modem required the 850 interface box.

To be fair, the main reason I like the Atari 520-ST is because they DID attempt to put some very good standards in their machine. DRI wrote the operating system (better than CP/M68K), they built in the RS-232 and Centronics (with adapter cable) interface, and used a well vectored OS rather than leaving people to go poking and jumping into strange ROM vectors. Good job Atari!!!:-)

What has me concerned is the "Upgrade Path" for this and future machines. Another concern is that I might get tied to Atari's trade-off choices. If Atari comes out with a fully supported SCSI interface, we'll have the choice of over 100 mass storage devices, including removable, winchester, and tape drives. Maybe the SCSI command set isn't complete enough to be truly generic yet?

I can't say I'm thrilled at the prospect of buying a 520 only to discover that the 1040 makes the 520 obsolete, or that the TT series will make the ST series obsolete. In the Byte interview the guy said that upgrading the 1040 to 4 meg would be "Trivial". Yes it will be trivial to add the extra two pins to the design and manufacture process, but don't expect to be able to simply plug in 1 meg chips and have 2 or 4 meg. Expect to have to buy a NEW MACHINE :-(. Don't expect software vendors to stick to 512K either, unless Atari starts making concurrency available, along with a real MMU, the applications will grow to fit the available memory. In other words, unless you upgrade, your 520 may be obsolete in another 6 months. According to some reports, the ST is really only the TERMINAL for their "Real" "Personal Mini" TT computer. Is that another $1000?

Notice the CPU is soldered in? Ever tried de-soldering a 64 pin chip? Notice the RAM is also soldered in? Notice there is no header for a Piggy-Back RAM board? I would hope that these were oversights rather than deliberate choices. All of these choices together might have added $100 to the purchase price. It would have been worth it considering the alternative is either a lot of manual "hot wiring" or buying a new computer every six months. Even adding a few address lines to the DMA ports would have helped.

I've said before, I like the Atari, but I'd like to make sure that "Cheap Computer" doesn't mean "Disposable Computer". What plans are in the works NOW that will keep this from happening? I would definately like to see a socket compatible MMU, and a 68010 upgrade path. Also, higher resolution (1024X1024?) if the 70HZ is to be

justified.

Disclaimer: All opinions subject to change without notice.

From -8960134415798445598
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-19 20:35:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: What next for the ST?
Message-ID: <2043@uwmacc.UUCP>
Date: Wed, 19-Mar-86 23:35:57 EST
Article-I.D.: uwmacc.2043
Posted: Wed Mar 19 23:35:57 1986
Date-Received: Sat, 22-Mar-86 23:11:39 EST
References: <8603092319.AA12627@ucbvax.berkeley.edu> <465@ccivax.UUCP>
<2807@reed.UUCP>
Organization: UWisconsin-Madison Academic Comp Center
Lines: 36

> >When is the PC industry gonna "Grow up" and adopt even minimal standards?
> >Does IBM have to do everything??!!!
>
> Don't praise IBM. They have not produced "state of the art" personal
> computers yet. What they have come out with is a family of horrible
> personal computers for abominable prices. Maybe their new RISC machine
> will finally be a good product, but that is not an attempt to establish
> standards.
>
>   Mark Galassi
>   ...!tektronix!reed!rosalia

This attitude really bothers me. Why does one camp of computer user feel
that they have to put down another camp? Or feel that "our" computer is
better than "theirs?"

I own both an IBM XT (well, "portable," but close enough...same motherboard)
and an Atari 520ST. They are both nice computers...one can do some things the
other can't, and visa versa. (For example, the Atari has a faster processor and
obviously better graphics than the IBM, but I like the programming environment
in the IBM better than that of the Atari.)

When are computer users gonna "Grow up"?

--
                           --- Rob DeMillo

Madison Academic Computer Center
...seismo!uwvax!uwmacc!demillo

"...I suppose you find the concept of a
robot with an artificial leg amusing?"

-- Marvin, the Paranoid Android

From 1458114090148660765
X-Google-Language: DUTCH,ASCII-7-bit
X-Google-Thread: 140593,59bb445887955354,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-20 02:59:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!vu44!botter!ark!hommel
From: hommel@ark.UUCP (Peter Hommel)
Newsgroups: net.micro.atari16
Subject: uudecode
Message-ID: <702@ark.UUCP>
Date: Thu, 20-Mar-86 05:59:59 EST
Article-I.D.: ark.702
Posted: Thu Mar 20 05:59:59 1986
Date-Received: Sat, 22-Mar-86 23:16:54 EST
Reply-To: hommel@vu44.UUCP (Peter Hommel)
Organization: VU Informatica, Amsterdam
Lines: 14

Could someone please post (or mail) an uuencoded uudecoder.
I already have an uudecoder written in basic.
Thanks in advance.
--
Peter Hommel
Vrije Universiteit (Free University)
Amsterdam
The Netherlands
...mcvax!vu44!hommel
hommel@vu44.UUCP

Maarten Jan Huisjes. (maartenj@vu44.UUCP)
{seismo|decvax|philabs}!mcvax!vu44!maartenj

From -7101737149309156038
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5c97ac508485ff74,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-20 12:06:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!ll-xn!mit-amt!mit-eddie!mit-hermes!jpexg
From: jpexg@mit-hermes.ARPA (John Purbrick)
Newsgroups: net.micro.atari16
Subject: Composite video output from ST
Message-ID: <2587@mit-hermes.ARPA>
Date: Thu, 20-Mar-86 15:06:13 EST
Article-I.D.: mit-herm.2587
Posted: Thu Mar 20 15:06:13 1986
Date-Received: Sat, 22-Mar-86 23:20:53 EST
Distribution: net
Organization: The MIT AI Lab, Cambridge, MA
Lines: 12

The 1040ST, and now the 520ST, offer composite video output compatible with normal monitors, or rf-modulated for TVs. There were a few questions here a while back about how the ST reads its video memory to drive the display without slowing down the processor (answer--video reads are done while the processor isn't using the bus, mostly) but now Atari has come out with an additional video output, which can't be compatible with the "normal" display drive as that is 70Hz, non-interlaced and regular monitors are 60Hz, interlaced. Does the new 60Hz display use the same technique as before, using the bus alernately with the processor, so all three of them are banging away? This makes it seem like there would be frequent bus-contention, especially between the 60Hz and 70Hz accesses. Is there some kind of magic that makes this less of a problem?

From -25523311341577905
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,dbd6bcee53cc44d4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-20 13:33:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Version 1.0 Netnews CMS/BITNET 5/19/85; site PSUVM.BITNET
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!burdvax!psuvax1!psuvm.bitnet!d01
From: D01@PSUVM.BITNET
Newsgroups: net.micro.atari16
Subject: more 1st word problems
Message-ID: <4607D01@PSUVM>
Date: Thu, 20-Mar-86 16:33:39 EST
Article-I.D.: PSUVM.4607D01
Posted: Thu Mar 20 16:33:39 1986
Date-Received: Sat, 22-Mar-86 23:48:02 EST
Expires: Fri, 4-Apr-86 00:00:00 EST
Lines: 26

> I've had two problems with 1st Word that I could use some help with.
> First, is there a way of turning off the automatic formfeed when one
> prints a document? It's a minor annoyance wasting a blank sheet of
> tractor-fed paper, but it's a major one when using single sheets.

I've solved this by converting files to standard ASCII (non-WP),
and then printing from the desktop, but this is a major bummer.

Also occasionally I find I can insert page breaks but can't get
rid of them by clicking the mouse on them. Has anyone else had
this problem?

Otherwise I love 1st Word. I think the method it uses to get
Greek letters and math symbols is the best I've come across.

JIM DROSEN
DIV. OF MGMT. SCIENCE   D01 @ PSUVM (BITNET)
310 BAB   ...!PSUVAX1!PSUVM.BITNET!D01 (UUCP <-->
PENN STATE UNIVERSITY   BITNET GATEWAY)
UNIVERSITY PARK, PA 16802   D01%PSUVM.BITNET@WISCVM.ARPA (ARPA)
(814) 863-0672

From -7081451557506230458
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db63be7895b3fb3e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-20 17:09:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!otto.UUCP!jim
From: jim@OTTO.UUCP (Jim Thompson)
Newsgroups: net.micro.atari16
Subject: Re: (yet more) ST Public Domain Software Library, Disks 5 & 6
Message-ID: <8603210109.AA20156@otto.UUCP>
Date: Thu, 20-Mar-86 20:09:03 EST
Article-I.D.: otto.8603210109.AA20156
Posted: Thu Mar 20 20:09:03 1986
Date-Received: Sat, 22-Mar-86 22:58:15 EST
References: <12186853322.28.HALL@SU-SUSHI.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The Las Vegas Sun, Las Vegas, NV
Lines: 16

Where do I get a copy of these disks?
I have several friends who have 520's and
I'm getting a 1040 when they are available.

Jim Thompson

{ihnp4,sdcrdcf}!otto!jim

[Usual disclamer: I have no opinion, therefore I don't exist .]

From 9219358145712793971
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b342a2b9d602db61,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-20 23:17:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!mitre-bedford.arpa!jhs
From: jhs@MITRE-BEDFORD.ARPA (John H. Sangster)
Newsgroups: net.micro.atari16
Subject: update on video conversions
Message-ID: <8603210717.AA04353@mitre-bedford.ARPA>
Date: Fri, 21-Mar-86 02:17:59 EST
Article-I.D.: mitre-be.8603210717.AA04353
Posted: Fri Mar 21 02:17:59 1986
Date-Received: Sat, 22-Mar-86 22:34:34 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 20

I had a talk with my video expert cousin, John Hain, and learned some facts of interest to those contemplating conversion projects.

(NOTE: This is my first login from home on my Atari 800XL, so if anything looks strange please bear with me.)

The most important new information I gor(oops) got was that generating RGB from composite is doomed to lower resolution than a good RGB monitor is capable of providing. That's the bad news. The good news is that if the luminance and chroma signals
are available separately, then you can get darn near the full resolution of the best RGB monitor!

Even better, John and a friend of his in Huntsville, where he lives, are already at work building a real circuit to do just that--take the output of an 800 series Atari, which has chroma available separately, and make RGB. The first attempt was partially successful, but they think they will get more accurate color balance and better resolution with a different IC.

After my inquiry, John says he will get back to his friend to see where the project stands right now and see if he
can expedite completion of the final design. Probably a complete, TESTED design will result.

RGB to composite can apparently be made essentialy as good as the composite monitor can display anyway.

If somebody can start researching the availability of chroma and luminance signals separately in thwill know where we stand. Wait a minute...does the ST already put out RGB or composite? Obviously it is too late at night and I should get back to this
tomorrow!

-JHS

From -4669670973987705231
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 159df4,565f60267c4f168d,start
X-Google-Attributes: gid159df4,public
X-Google-Thread: 140593,565f60267c4f168d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-21 08:12:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!jan
From: jan@looking.UUCP (Jan Gray)
Newsgroups: net.micro.atari16,net.micro.68k
Subject: Looking for 68000 C cross-compilers from IBM PC/AT Xenix System V to CP/M-68K
Message-ID: <507@looking.UUCP>
Date: Fri, 21-Mar-86 11:12:11 EST
Article-I.D.: looking.507
Posted: Fri Mar 21 11:12:11 1986
Date-Received: Sat, 22-Mar-86 06:16:28 EST
Distribution: net
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 11
Xref: watmath net.micro.atari16:251 net.micro.68k:1578

Like the subject says, I'm looking for any decent (*not* Lattice) 68000 C cross-compiler, which would run on an IBM PC/AT running SCO's Xenix System V, and compile to CP/M-68K object format (to eventually run on an Atari ST).

So far I know that Manx (Aztec C) doesn't have anything ready, Greenhills C only runs on VAXen, and of course Megamax, Alcyon, and Hippo C are only native mode.

"Help me Obi-wan Kenobi. You're my only hope."
Jan Gray Looking Glass Software, Waterloo, Ont. (519) 884-7473

From 1291305165558285487
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c67dec1ee1a451be
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-02-26 23:03:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: fxl@AIDS-UNIX (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: Re: Fonts
Message-ID: <8602270711.AA01581@ucbvax.berkeley.edu>
Date: Thu, 27-Feb-86 02:03:49 EST
Article-I.D.: ucbvax.8602270711.AA01581
Posted: Thu Feb 27 02:03:49 1986
Date-Received: Fri, 28-Feb-86 22:01:38 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

I believe that changing the height will work, by using something like
vst_height(handle, height, &dummy1, &dummy2, &dummy3, &dummy4)
with height=6. I've tried this with height=4 and you still get the
6x6 system font. I also would like a pointer to any font editors,
especially one which will work with TOS in ROM.

     Franz

From -4164976557402890002
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6579199c1b64952,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 06:24:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!lll-crg!lll-lcc!ucdavis!ucbvax!info-atari16
From: TETHER@MITLNS.BITNET
Newsgroups: net.micro.atari16
Subject: BITNET mail follows
Message-ID: <8602271424.AA07242@ucbvax.berkeley.edu>
Date: Thu, 27-Feb-86 09:24:47 EST
Article-I.D.: ucbvax.8602271424.AA07242
Posted: Thu Feb 27 09:24:47 1986
Date-Received: Sat, 1-Mar-86 17:28:39 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 102

(* I posted this message last Sunday to INFO-ATARI instead of to *)
(* INFO-ATARI16. My apologies to those who must read it again.   *)

There are a number of bugs in the InOut module for TDI's Modula-2
compiler. I saw recently on info-atari that someone was having touble
reading integers from a disk file. Here's why:

Procedure Read does not convert CR-LF pairs to a single EOL character, but returns both characters individually.

Procedure ReadString does not stop reading when it finds a trailing space, but goes up to the next control character. Since ReadCard and ReadInt use ReadString, if you try to read several integers or cardinals from a single line, you will get a runtime error (#9) because a string with embedded blanks is not valid for conversion to those types.

Due to the bug in Read described above, ReadString will find a null string at the end of every line, sandwiched between the CR and LF.

Procedure Read sets the Done flag to FALSE one character too soon. Upon returning from Read after reading the last character in a file, I find that Done = FALSE. That should be so only after a Read call made AFTER the last character has been input. Done is a signal that Read HAS failed, not that it WILL fail.

Variable termCH is always set to 0C after a call to ReadString, ReadCard, or ReadInt. While it is true that 0C is used internally by TDI Modula-2 to terminate strings, termCH is supposed to be the character on the EXTERNAL medium that caused the procedure to stop reading, e.g., a space, a control character, or EOL.

Procedure Write, when called with EOL as the argument, just writes the one character. Therefore, Write(EOL) is not equivalent to WriteLn, which writes CR-LF.

The following, while not exactly bugs, I consider to be annoying mis-features:

Although the OpenInput and OpenOutput procedures take a string argument called defext, it is ignored. I think that the argument is allowed only for compatibility with other implementations of Modula-2, but the manual doesn't say that.

The screen is not placed in some standard state when a Modula-2 program starts. Therefore, where the first output appears depends upon where a previous program left off, which might be anywhere. I would like to have the screen cleared and the cursor homed automatically on start-up. There seems to be no simple way to do this myself without using VDI.

A null string "" is allowed as an argument to a procedure that has a VAR ARRAY OF CHAR formal parameter, as is a string with multiple characters. A one-character string constant is not, being considered as type CHAR. Apparently this is due to the fact that open array parameters must be declared VAR, that type CHAR is not compatible with ARRAY OF CHAR but only assignment

> compatible, and that the types of arguments given for VAR
> parameters must be compatible with the type of the formal.
> Whew! Isn't this taking strict typing too far?

I called the TDI offices in Dallas about the bugs, and will be sending them documentation sometime this week. I was told that it will probably be a couple of months before fixes are sent out, partly because all development work is done in England, partly because a new release of Modula-2 is planned for then anyway.

To tide me over until then, I am going to write a new implementation module for for InOut. I will gladly share it with anyone who wants it, but I would like to make it as "standard" as possible. There are a few details of the implementation that Wirth does not make clear in "Programming in Modula-2" (second edition).

> Under what circumstances should ReadString return a null
> string? From Wirth's description, it seems that it returns a
> null string at the end of every line that has more than one
> trailing blank. That would be a nuisance if you're trying to
> read a text file word by word.
>
> Shouldn't leading tabs be skipped by ReadString as well as
> leading blanks?
>
> What provision is to be made for signalling end-of-file for
> terminal input? A program that tests the Done flag should be
> able to read from a terminal as well as from a disk file.
>
> Assuming that ReadCard and ReadInt use ReadString, what should
> they do if they read a null string: return zero, cause a
> run-time error, or keep reading (with a prompt for terminal
> input)?

Let's have some discussion about this. After all, programs using InOut are supposed to be portable.

Stephen Tether
MIT Physics Dept. (UA1 group)
SAT@MIT-MC   (ARPANET)
TETHER@MITLNS (BITNET)

From -5275582179919388257
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a099a01f1161ed40,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 06:28:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!lll-crg!lll-lcc!ucdavis!ucbvax!info-atari16
From: burman@BRL-TBD.ARPA ("Norbert M. Burman", TBD-PMB-MRL)
Newsgroups: net.micro.atari16

Subject: Hard and Floppy Drives for the ST???
Message-ID: <8602271439.AA07384@ucbvax.berkeley.edu>
Date: Thu, 27-Feb-86 09:28:53 EST
Article-I.D.: ucbvax.8602271439.AA07384
Posted: Thu Feb 27 09:28:53 1986
Date-Received: Sat, 1-Mar-86 17:07:46 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 53

To all the hackers out there in ST land.

I am posting this in the hope that someone can provide me a few clues to the following questions:

1. Has anyone tried to get their own hard disc up and running on the ST either 520 (512 or upgrade to 1024 k) or 520+ (European 1040)?

2. What hard disc controller and also what make and size of hard disc did you use? Is there a limit to the hard disc size the ST can handle?

3. Does the ST operating system, TDOS, come with software support for the SCSI/ SASI hard disc bus built into the ST?

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5. How does the Habba Hard Disc for the ST handle the software required to run the hard disc? Is there overlay or other software provided by Habba for TDOS or is TDOS smart enough to look at the hard disc port on cold boot? If so can you select to boot from the hard disc and does this provide autoexec software capabilities similar to that available on CP/M and PC machines?

6. What sort of hard disc controller do Habba use? Is it their own design or do they use a WD1000, Shugart 1610 or similar SCSI/SASI type controller?

7. In the November 1985 Antic magazine there is an article which shows you how to attach a 5 1/4" DSDD 40 or 80 track drive to the ST. Has anyone had a go at doing this yet? If so, were there any hassles either in the hardware or with the operation of the drive in the system? Are there any limitations to the use of this type of drive on the ST, ie. incompatability with the OS, sacrifice in file transfer speed, file transfer size limitations?. Could you use two 5 1/4" drives in place of the 3 1/2" drives if you have TDOS in ROM? I would prefer to have 700k odd capacity on discs that costs 1/3 of the 3 1/2" price.

If these questions have been asked and answered previously maybe someone could mail me a copy privately. If not, I am sure that there are others out there somewhere who would like to have a go at rolling their own hard disc and maybe adding a 5 1/4" DSDD disc drive as well.

For anyone interested in the 5 1/4" drives there are 96TPI (80 track) full height 5 1/4" drives available through mail order houses for about $US50 at

the moment. With a case, power supply and cables you can have drive up and running for well under $US100. Beats the ATARI price by quite a few bucks and if you need it (you might want to upgrade your PC, XT, AT to a real machine) you will have built-in 5 1/4" IBM disc reading capability for tranfering text files to your ST.

Thanks in advance for any help.

Norbert Burman
burman@brl-tbd.arpa

From -2480654767694836296
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a896f51fc45c0370,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 07:07:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!pwp
From: pwp@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Redirecting input in C
Message-ID: <54600004@iuvax.UUCP>
Date: Thu, 27-Feb-86 10:07:00 EST
Article-I.D.: iuvax.54600004
Posted: Thu Feb 27 10:07:00 1986
Date-Received: Sat, 1-Mar-86 16:22:34 EST
Lines: 9
Nf-ID: #N:iuvax:54600004:000:380
Nf-From: iuvax!pwp   Feb 27 10:07:00 1986

When redirecting input, i.e. foo <file
I get -1 when doing getw(stdin) or getl(stdin)
on code generated by the DRI C compiler. Does anyone know a way around the problem? Does anyone know if the problem occurs in the C compiler, in the COMMAND.TOS program, or elsewhere?

By the way, I have been quite happy with the DRI C compiler, except for issues relating to input and output.

From 3271070668193209093
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,987cc05e82240968,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 07:16:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!pwp
From: pwp@iuvax.UUCP
Newsgroups: net.micro.atari16

Subject: Re: Using RAM disk with the DRI C-Compil
Message-ID: <54600005@iuvax.UUCP>
Date: Thu, 27-Feb-86 10:16:00 EST
Article-I.D.: iuvax.54600005
Posted: Thu Feb 27 10:16:00 1986
Date-Received: Sat, 1-Mar-86 16:22:17 EST
References: <12317327@ucbvax.UUCP>
Lines: 8
Nf-ID: #R:ucbvax:-1231732700:iuvax:54600005:000:370
Nf-From: iuvax!pwp   Feb 27 10:16:00 1986

Which RAM disk are you using? With the public domain RAM disk I am
using, things don't work after a few compiles. Removing all files
from the disk before each recompile seems to keep it going longer
but that is not convienent if you also put libraries on it.
(I tried to mail this, but my machine does not know how to reach you.)

Paul Purdom (purdom@indiana on CSnet).

From -3905866633914330823
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,d793fcdbc70d0a4
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,d793fcdbc70d0a4
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 07:17:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpm.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpm!rtb
From: rtb@ihlpm.UUCP (Todd)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Re: Electronic Arts succumbs to the inevitable!
Message-ID: <737@ihlpm.UUCP>
Date: Thu, 27-Feb-86 10:17:56 EST
Article-I.D.: ihlpm.737
Posted: Thu Feb 27 10:17:56 1986
Date-Received: Fri, 28-Feb-86 22:31:05 EST
References: <1032@voder.UUCP>
Organization: AT&T Bell Laboratories
Lines: 29
Xref: watmath net.micro.atari8:17 net.micro.atari16:33

>
>   Recently someone posted a letter they had recieved from Electronic
> Arts - a computer game company - in which EA stated they had no intentions
> of developing new (or old) games for the Atari ST or the Atari 8-Bit line.
> The reasons given were that basicaly the ST was crap and that no one owned
> an 8-Bitter.
>
>
>

> So now that we've gotten EA to admit it's error let's make sure that they
> realize that their change of mind is justified. Also, if every EA purchase
> was accompanied by a letter of appreciation and a brief ps on how nice this
> game would look on an ST we may be able to get the ball rolling in that area
> as well. In the meantime, don't you ST owners give up! If EA can admit it's

I have a better idea. Let's admit to ourselves that the ST doesn't need
Electronic Arts products and we ST owners don't care for thier pompous
attitudes. Let's vote with our dollar by not buying any EA products.
If anyone is waiting for a really good game for the ST, wait no longer.
Go out and get a copy of SUNDOG. All of the ST owners I know
have purchased this game and we are all getting really addicted to it.
A lot of other really good ST software is coming, both games and
productivity. Megamax is here, I own a copy and it is a really
great compiler. A lot of software companies that were taking a "wait
and see" attitude are jumping on the bandwagon (Borland for one).
Believe me, ST owners won't be hurting, even if EA goes totally
down the tubes.

R.T. Bradstrum

From -3053594765817496287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65162d86bf45b46a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 07:22:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site inuxj.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!inuxj!wolenty
From: wolenty@inuxj.UUCP (R Wolenty)
Newsgroups: net.micro.atari16
Subject: Where are the 1040ST's
Message-ID: <238@inuxj.UUCP>
Date: Thu, 27-Feb-86 10:22:34 EST
Article-I.D.: inuxj.238
Posted: Thu Feb 27 10:22:34 1986
Date-Received: Fri, 28-Feb-86 22:31:19 EST
Distribution: net
Organization: AT&T Consumer Products, Indianapolis
Lines: 8

I've been faithfully calling Atari dealers for about 3 weeks now
trying to find a 1040ST. I get the same story every week -
Atari has delayed the shipment, but they're supposed to ship
NEXT week. So what's the scoop here - do 1040ST's really exist
or am I just being string along???

Ron Wolenty

From 8717270420081716545

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9bf4b8330daa1e3f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 08:27:25 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!info-atari16
From: burman@BRL-TBD.ARPA ("Norbert M. Burman", TBD-PMB-MRL)
Newsgroups: net.micro.atari16
Subject: Hard/Floppy Disc drives for ST???
Message-ID: <8602271843.AA11219@ucbvax.berkeley.edu>
Date: Thu, 27-Feb-86 11:27:25 EST
Article-I.D.: ucbvax.8602271843.AA11219
Posted: Thu Feb 27 11:27:25 1986
Date-Received: Sat, 1-Mar-86 17:52:51 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 54

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use two 5 1/4" drives in place of the 3 1/2" drives if you have TDOS in ROM? I would prefer to have 700k odd capacity on discs that costs 1/3 of the 3 1/2" price.

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Thanks in advance for any help.

Norbert Burman
burman@brl-tbd.arpa

From 2994003596673019254
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8bf5b9af09433b17,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 10:05:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!amdahl!drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: TOS->CP/M file transfer program
Message-ID: <307@drivax.UUCP>
Date: Thu, 27-Feb-86 13:05:39 EST
Article-I.D.: drivax.307
Posted: Thu Feb 27 13:05:39 1986
Date-Received: Sat, 1-Mar-86 17:58:26 EST
Distribution: net
Organization: Digital Research, Monterey, CA
Lines: 452

The following is a little program I wrote to transfer files from a TOS disk to a CP/M disk. It works all right in test, but when I run it on the ST all the block numbers are off by one. Kludging the program to increment the block number doesn't seem to work. Could someone tell me the format used for the CP/M disks? The "#define"s show the values I've used, and they seem to work mostly, except that the files all begin one block farther along then I think they should.

The program follows.

```
/*****************************************************************************
*    STXFER.C
*
*    Compile with Alcyon C, using the CLIB supplied with the ST Developers
*    Kit.
*
*    Program to transfer files from a TOS formatted diskette to a CP/M
*    formatted disk. CP/M formatted disks are the same as TOS disks, but
*    they have no TOS files, or even a volume label, on them.
*
*    This program is my own creation, and has absolutely nothing to do with
*    Digital Research, Inc., or Atari, and should not be construed as
*    being any part nor portion of any product, announced or no, from either
*    of these two companies.
*
*    This is released to the public domain, and shouldn't be sold or any
*    of that. I reserve the copyright, and the right to change it, or
*    fix it, etc.
*
*    Copyright (c) 1986, Bruce Holloway
*****************************************************************************/

/* ***** Note: This will only work on disks which have a sector size
            <= 1K.
   *****
*/

#include "stdio.h"

#define  TOSDISK  0    /* Code for TOS disk */
#define  CPMDISK  1    /* Code for CP/M disk */
#define  CPMUSER  0    /* CP/M User Number */
#define  SECSIZE  512  /* Size of a sector */
#define  RECSIZE  128  /* Size of a record */
#define  TRACKS   80   /* Number of tracks */
#define  SECS 9    /* Sectors per track */
#define  BLKSIZE  2048 /* Bytes per block */
#define  HIDDEN   18   /* Number of "hidden" sectors */
#define  DIRSIZE  128  /* Max number of directory entries */
#define  FCBSIZE  32   /* Size of an FCB */
#define  DSKSIZE  ((TRACKS*SECS)/(1024/SECSIZE)) /* Kilobytes on disk */
#define  FILSIZE  ((32767/BLKSIZE)*BLKSIZE) /* Size of file buffer */
#define  BLOCK0   (HIDDEN+(FCBSIZE*DIRSIZE)/SECSIZE) /* 1st data sector */
#define  NUMBLKS  ((TRACKS*SECS-BLOCK0)/(BLKSIZE/SECSIZE)) /* # blocks on disk */
#define  MAPSIZE  (NUMBLKS/8+1) /* Size of free block map, in bytes */

char fcbs[SECSIZE/FCBSIZE][FCBSIZE]; /* Buffer for directory entries */
char blkmap[MAPSIZE];       /* Free block map */
char buffer[FILSIZE/BLKSIZE][BLKSIZE]; /* File buffer */
char tosname[40];      /* TOS file name */
char cpmname[40];      /* CP/M name */
```

```
int curdisk;           /* Current disk in drive, 0 == TOS */
int mapmade;           /* Is the map made? */

main(){
    intro();
    do{
     get_names();
     xfer();
     } while(morefiles());
    extro();
    pexit();
}

intro(){
    curdisk = -1;
    mapmade = 0;
    cprintf("Atari TOS -> CP/M File Transfer Program\n\n");
}

get_names(){
    cprintf("Name of the TOS file to transfer? "); getline(tosname,35);
    cprintf("\nName of the CP/M file? "); getline(cpmname,35);
    cprintf("\n");
}

xfer(){
    int handle, left, blocks, fcbnum, blknum, extent, block;
    char fcb[FCBSIZE];
    long f_read();

    select(TOSDISK);
    handle = f_open(tosname,0);
    if(handle < 0){
     cprintf("%%% File Not Found %%%\n");
     return;
     }
    blknum = FCBSIZE/2; extent = -1;
    do{
     if(!(left = (int)f_read(handle,(long)FILSIZE,buffer))) continue;
     if(left < 0){
         cprintf("%%% Error while reading TOS file %%%\n");
         return;
         }
     blocks = left/BLKSIZE + ((left%BLKSIZE) > 0);
     for(left=0; left++ < blocks;){
         if(blknum == FCBSIZE/2){
          if(extent++ != -1){
              if(left == blocks) fcb[15] = 0x80;
              if((fcbnum = getfcb()) == -1){
               cprintf("%%% Out of directory entries %%%\n");
               return;
               }
              putfcb(fcbnum,fcb);
```

```
            }
         makfcb(cpmname,fcb);
         fcb[0] = CPMUSER;
         fcb[12] = extent;
         blknum = 0;
         }
        if((block = firstfree()) == -1){
         cprintf("%%% Out of disk space %%%\n");
         return;
         }

        fcb[16+blknum++] = block+1;

        fcb[15] += BLKSIZE/RECSIZE;
        writeblock(block,buffer[left-1]);
        }
     } while(left == FILSIZE);
    if((fcbnum = getfcb()) == -1){
     cprintf("%%% Out of directory entries %%%\n");
     return;
     }
    putfcb(fcbnum,fcb);
    f_close(handle);
    cprintf("Transfer complete!\n");
}

/* Select the CP/M or TOS disk. Init internal tables if selecting CP/M disk
   for the first time.
*/

select(disk)
int disk;
{
    char iline[5];
    int i, j, dleft, cursec, indx;

    if(disk == curdisk) return;
    cprintf("Please insert %s disk and press <RETURN> -- ",
                           (disk==CPMDISK)?"CP/M":"TOS");
    getline(iline,3);
    if(((curdisk = disk) == CPMDISK) && !mapmade){
     for(i=0; i<MAPSIZE;)
         blkmap[i++] = 0;
     for(dleft=i=0, cursec=HIDDEN; i<DIRSIZE; ++i){
         if(!dleft){
          indx=0;
          readsector(cursec++,fcbs);
          dleft = SECSIZE/FCBSIZE;
          }
         if(fcbs[indx][0] != 0xE5)
          for(j=16; j<32; ++j)
              setblock(fcbs[indx][j]);
         ++indx;
```

```
        --dleft;
        }
     mapmade = 1;
     }
}

/* Mark a block as used */

setblock(block)
int block;
{
    blkmap[block/8] |= (1 << block%8);
}

/* Return the first unused block number, or -1 if the disk is full */

firstfree(){
    int byte, bit, block, found;

    if(!mapmade) select(CPMDISK);
    for(byte=block=found=0, bit=1; block<NUMBLKS; ++block){
     if(!(blkmap[byte] & bit)){ found=1; break; }
     if((bit <<= 1) == 0x100){ ++byte; bit=1; }
     }
    return((found) ? block : -1);
}

/* Write a block to the CPM disk */

writeblock(block,buf)
int block;
char buf[][SECSIZE];
{
    int secnum, i;

    select(CPMDISK);
    setblock(block);
    secnum = BLOCK0 + (block*(BLKSIZE/SECSIZE));
    for(i=0; i<BLKSIZE/SECSIZE; ++i, ++secnum)
     writesector(secnum,buf[i]);
}

/* Return the number of the first free FCB, or -1 if all are used */

getfcb(){
    int free, left, i;

    select(CPMDISK);
    for(free=left=0; free<DIRSIZE; ++free, ++i){
     if(!left){
        readsector(HIDDEN+free/(SECSIZE/FCBSIZE),fcbs);
        left = SECSIZE/FCBSIZE;
        i = 0;
```

```
        }
     if(fcbs[i][0] == 0xE5) return(free);
     --left;
     }
    return(-1);
}

/* Write out an FCB */

putfcb(entry,fcb)
int entry;
char fcb[];
{
    int i, j, sec;

    select(CPMDISK);
    readsector(sec=HIDDEN+entry/(SECSIZE/FCBSIZE),fcbs);
    i = entry%(SECSIZE/FCBSIZE);
    for(j=0; j<FCBSIZE; ++j) fcbs[i][j] = fcb[j];
    writesector(sec,fcbs);
}

/* Write a sector to the CP/M disk */

writesector(secnum,buf)
int secnum;
char *buf;
{
    select(CPMDISK);
    rwabs(1,buf,1,secnum,0);
}

/* Read a sector from the CP/M disk */

readsector(secnum,buf)
int secnum;
char *buf;
{
    select(CPMDISK);
    rwabs(0,buf,1,secnum,0);
}

#define  FCB  struct _fcb
FCB{
    char f_dr, f_name[8], f_ext[3], f_junk[20];
};

makfcb(fspec,fcb)
char *fspec;
FCB *fcb;
{
    static int state, index, i, ch;
    static char thold[40], *ts;
```

```
    state = index = 0;
    for(i=0, ts = (char *)fcb  ; i++ < sizeof(FCB); *ts++ = 0  );
    for(i=1, ts = (char *)fcb+1; i++ < 12         ; *ts++ = ' ');

    do{
     switch(ch = toupper(*fspec++)){
         case ':':
          if(!state){
              state=1;
              thold[index] = 0;
              for(index=0; i = thold[index++];)
               if(isupper(i)) fcb->f_dr = i-'A'+1;
              index=0;
              }
          else goto nch;
          break;
         case '.':
          if(state < 2){
              state=2;
              thold[index]=0;
              for(index=0; (i=thold[index]) && index<8;)
               fcb->f_name[index++] = i;
              index=0;
              }
          else goto nch;
          break;
         case '\0':
          thold[index]=0;
          if(state < 2)
              for(index=0; (i=thold[index]) && index<8;)
               fcb->f_name[index++] = i;
          else
              for(index=0; (i=thold[index]) && index<3;)
               fcb->f_ext[index++] = i;
          goto fixup;
         default:
nch:      thold[index++] = ch;
          break;
         }
     } while(1);
fixup:
}

/* Oddly, I *don't* have the Atari Developer's Kit, so these routines make
   up the TOS entry points. These can be removed or modified if you don't
   need them.
*/

getline(buf,count)
char buf[];
int count;
{
```

```
    buf[0] = count;
    trap1(10,buf);
    buf[buf[1]+2] = 0;
    strcpy(buf,buf+2);
    printf("\n");
}

f_open(pname,mode)
char *pname;
int mode;
{
    return(trap1(0x3D,pname,mode));
}

long f_read(handle,count,buf)
int handle;
long count;
char *buf;
{
    select(TOSDISK);
    return((long)trap1(0x3F,handle,count,buf));
}

f_close(handle)
int handle;
{
    trap1(0x3e,handle);
}

pexit(){
    trap1(0x4c,0);
}

rwabs(rwflag,buf,count,recno,dev)
int rwflag,count,recno,dev;
char *buf;
{
    trap13(4,rwflag,buf,count,recno,dev);
}

morefiles(){
    char iline[10];

    printf("Transfer any more files? ");
    getline(iline,5);
    return(iline[0] == 'y' || iline[0] == 'Y');
}

extro(){
    printf("All transfers completed.\n");
}

co(ch)
```

```
int ch;
{
    trap1(2,ch);
}

flush(){}

/*************************************************************************
*    These are the assembler routines needed to talk to TOS.
*
*    Break these off into a file called "XMSTASM.S" or somesuch and
*    assemble and link them seperately.
*************************************************************************/

#if 0
     .Globl    _trap1,_trap13,_trap14

*************************************************************************
*    TRAP1(fn,p1,p2,...,pn)                         *
*                                          *
*    Call GEMDOS with the specified parameter block.
         *
*************************************************************************

_trap1:
     Move.L    (SP)+,tr1ra
     Trap #1
     Move.L    tr1ra,-(SP)
     Rts

*************************************************************************
*    TRAP14(fn,p1,p2,...,pn)                        *
*                                          *
*    Call Atari BIOS Extension with the specified parameters.
     *
*************************************************************************

_trap14:
     Move.L    (SP)+,tr14ra
     Trap #14
     Move.L    tr14ra,-(SP)
     Rts

*************************************************************************
*    TRAP13(fn,p1,p2,...,pn)                        *
*                                          *
*    Call GEMDOS BIOS with the specified parameters.
         *
*************************************************************************

_trap13:
     Move.L    (SP)+,tr13ra
     Trap #13
```

```
     Move.L    tr13ra,-(SP)
     Rts

     .Bss

tr14ra:   Ds.L 1             Return address from TRAP 14
tr13ra:   Ds.L 1             Return address from TRAP 13
tr1ra:    Ds.L 1             Return address from TRAP 1

     .End

#endif
--

+-------------------------------------------------------------------------+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future.                         |
+-------------------------------------------------------------------------+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)


From -326652164798558036
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,f475224d2fbe19d6,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,f475224d2fbe19d6,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 11:41:24 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16,net.micro.atari
Subject: 5 1/4" drives on the ST
Message-ID: <283@imagen.UUCP>
Date: Thu, 27-Feb-86 14:41:24 EST
Article-I.D.: imagen.283
Posted: Thu Feb 27 14:41:24 1986
Date-Received: Sat, 1-Mar-86 22:34:02 EST
Distribution: net
Organization: The Houses of the Holy
Lines: 16
Xref: watmath net.micro.atari16:62 net.micro.atari:2940

~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

awhile ago there was an article on connecting IBM PC 5 1/4" drives
to the ST, does anyone remember where the article was published ?
```

has anyone tried it ? any horror stories ?
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From -2326229065676047898
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c67dec1ee1a451be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 14:03:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Fonts
Message-ID: <127@atari.UUcp>
Date: Thu, 27-Feb-86 17:03:59 EST
Article-I.D.: atari.127
Posted: Thu Feb 27 17:03:59 1986
Date-Received: Sat, 1-Mar-86 22:29:03 EST
References: <12186590486.9.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Organization: Atari Corp/Mktg
Lines: 14

In article <12186590486.9.UC.BRI@DEEP-THOUGHT.MIT.EDU>, UC.BRI%DEEP-
THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
>
>   Does any one out there know how to use the 6x6 system font
> in GEM programs? I tried using vst_font with all types of values,
> but I kept getting back the standard 8x8 font.

Use vst_point and set the point size to 1. It will use the next larger font,
which will be the 6x6 font you need.

--->Neil @ Atari
    Usenet: ...lll-crg!vecpyr!atari!neil
    CIS: 70007,1135
    BIX: neilharris
    Atari BBS: 408-745-5308

From 8542034870345691229
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,c2b0f77ed3f24546,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 14:06:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!info-atari16
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: connecting floppies to the ST...
Message-ID: <8602272135.AA13949@ucbvax.berkeley.edu>
Date: Thu, 27-Feb-86 17:06:12 EST
Article-I.D.: ucbvax.8602272135.AA13949
Posted: Thu Feb 27 17:06:12 1986
Date-Received: Sat, 1-Mar-86 18:23:34 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

5,25 floppies with 80 tracks (SSor DS) are working properly.

But some caution should be done before connecting them.

1. Drive select should be buffered with a 7407.

   otherwise older drives can overload the sound chip.

2. Remove any pull up R's in the floppy

3. Open floppy 1 and connect your extension cable to the Shugard bus.

***Don't forget the drive select. (from OUT)

Johann Zuschlag (I6191008 at DBSTU1.BITNET)

From -1759721857079605843
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b19cfc7fc1c9f3f7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 19:39:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: HALL@SU-SUSHI.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: ST Public Domain Software Library, Disks 1 & 2
Message-ID: <12186852415.28.HALL@SU-SUSHI.ARPA>
Date: Thu, 27-Feb-86 22:39:43 EST
Article-I.D.: SU-SUSHI.12186852415.28.HALL
Posted: Thu Feb 27 22:39:43 1986
Date-Received: Sat, 1-Mar-86 03:23:07 EST
Sender: uucp@ucbvax.BERKELEY.EDU

Organization: The ARPA Internet
Lines: 273

CURRENT STATE OF THE LIBRARY

This is a followup of my message on Feb. 9. Sorry it took me so long to get organized. I thank everyone who sent me encouraging messages, suggestions, and offers to assist. I have thus far sorted thru approx 600 files, took what I thought would be of most interest to the serious ST user, and compiled a set of 8 single-sided/4 double-sided disks. More disks are on their way. If you don't yet have a library, or are trying to get a user group started, I will distribute disks in our library on either single- or double-sided disks. The charge for a single-sided disk is $6 in which case you can select the disks you want individually. I am posting the directory listing of each single-sided disk on this bulletin bboard in groups of two. If you want double-sided diskettes, please order the pair of disks listed on one of my announcements together (in order to simplify my copying procedure) as one double-sided diskette for $10. I will ship 1st class domestic, so if you are overseas or desire special shipping, please add the appropriate amount.

There is plenty of public domain software, but acquiring, testing, and documenting each piece (I have learned!) is extremely time-consuming. So I ask for others' help: if you are liason to a user group or have written software yourself for the public domain, I will be happy to trade with you disks on a one-for-one basis, which would augment both our libraries. Just drop me a note and we'll compare lists for overlap.

So here are the first two disks:

ST Public Domain Software Library

****** DISK #1 -- MISC UTILITIES ******

READ_ME The contents of this disk (what you are reading).

ACCS (folder) A collection of desk accessories.

  FREERAM.ACC Displays no. of bytes unused (available to application).

  RAMD97K.DOC Instructions for using ramdisk below.

  RAMD97K.ACC Creates 97kbyte ramdisk at system boot. Must install (and can save using SAVE DESKTOP) drive "D".

  RAMDISK.ACC Creates ramdisk and loads entire contents of disk onto ramdisk. Must install pseudo disk drive "D", which will then be the ramdisk.

SAMPLE.ACC	Sample desk accessory which when selected creates full-screen resizable ellipse filled with Atari logo.
SPOOL.ACC	Printing spooler.

BTERM.C	C source for dumb-terminal emulator uses procedures defined in BXFER.C.
BXFER.C	C source for Lattice C which implements file transfer using CompuServe "B" protocol. Untested.
CALC.PRG	Simple, four-function calculator.
COMPARE.PAS	Pascal program to check for equality of two files.
COMPARE.PRG	Compiled version of above.
DEBUG.C	Utility C code which provides "printf-like" procedures for use in debugging in GEM.
DEG2NEO.TTP	Degas to Neochrome format picture converter.
DISKDOC.PRG	VERY useful utility from Antic to inspect and repair disks. Data may be viewed by file or by sector. This program makes full use of GEM features; I was suprised to see a program so polished in the public domain.
DSBOOT.PRG	Makes double-sided disks bootable.
DUMP.DOC	Instructions for program below.
DUMP.TOS	Provides hexadecimal/ASCII dump of file.
EFFCTNEO.PRG	Displays Neochrome (.NEO) files using various special effects.
FILECOPY.PRG	Program to read files into temporary storage then dump them from memory onto (presumably) other disks to make backups.
FIXREAL.PAS	Utility Pascal procedure which rounds real numbers to specifed precision.
FONT.C	Program to convert fonts from 8-bit Ataris to Degas format.
FONT.PRG	Compiled version of above.
FORMATED.PRG	Atari disk format utility which includes setting as executable the boot sector, and defining a serial number in the boot sector. Untested.

HI25.PRG	Program for monochrome systems which adjusts the height of the characters to yield 25 lines of text on the screen.
HI25.S	Assembler source for above.
HI50.PRG	Like HI25.PRG except that the characters' height is adjusted so that 50 lines will fit on the screen.
HI50.S	Assembler source for above.
ICON8.DOC	Instructions for following program.
ICON8.TOS	Icon editor which displays and allows editing of eight icons simultaneously.
KOA2DEG.PRG	Koala to Degas format picture converter.
LISTFILE.PAS	Pascal program to dump source code to a printer, with consideration given to page width and length.
LISTFILE.TOS	Compiled version of above.
MAKE1MEG.TOS	Adjusts values of memory parameters so that machine believes 1 meg of memory is available. (They would normally be set automatically at boot time.) This effect is the opposite of that caused by the following program.
MAKE512K.TOS	Convinces machine that only 512K of memory is available.
MUSH.TOS	Provides interpretation, register dump, and partial stack dump of program state which caused crash. Useful for debugging.
NEO2DEG.PRG	Neochrome to Degas format picture converter.
NOVERIFY.PRG	Cancels the read-after-write verification which normally occurs when writing to disk.
PRINTDIR.DOC	Instructions for program below.
PRINTDIR.PRG	Program to print recursively the directory structure of an entire disk.
PRINTDIR.RSC	Resource file for above.
RAMCOPY.FIL	Text file which contains list of programs to be copied into ramdisk when the following program is executed. Useful, for instance, when collecting various frequently-used utilities in the ramdisk.
RAMCOPY.PRG	Program to copy files listed in RAMCOPY.FIL into ramdisk (device H:).

SECED.DOC Instructions for program below.

SECED.PRG Editor for disk sectors. Useful for inspecting and restoring damaged disks. Hexadecimal and ASCII values are displayed.

SETTIME.TOS Program to query the user for time and date and set the system clock accordingly.

SLIDENEO.PRG Displays all Neochrome pictures in the current directory in succession, creating a slide show.

SLIDEDEG.PRG As above, except for Degas picture files.

SLIDEPIC.PRG As above, except for .PIC (old Neochrome) picture files.

SQUSQ.DOC Instructions for using STSQ.TTP and STUSQ.TTP below.

STSQ.TTP "ST SQueeze": utility to compress binary or text files.

STUSQ.TTP "ST UnSQueeze": the inverse of STSQ.TTP above.

TIMESET.PAS Pascal source for another program to set the system clock.

TIMESET.PRG Compiled version of above.

VARRECS.PAS Type declarations of variant records which can be used to coerce types (i.e., circumvent type-checking).

VERIFY.PRG Cancels the effect of NOVERIFY.PRG. Read-after-write verification resumes when writing to disk.

****** DISK #2 -- DEMOS ******

READ_ME Contents of disk (what you are reading).

BOINK.PRG Bouncing, rotating checkered sphere complete with sound effects; Atari's answer to Amiga demo.

CHESS.PRG Impressive demo of forthcoming 3-D chess game.

CIRCLES.PRG Balls bounce in confines of rectangle with rectangular grid superimposed.

COLOR512.PRG Displays all 512 color simultaneously; RGB components of each color is displayed when pointed to by mouse. Use color monitor in low-res mode. Space bar quits demo.

CORES.PRG Hexagons form colored columns; bad termination sometimes requires reboot.

COSINE.PRG Colored lines form overlapping waves.

CUBE.PRG	3-D rotating cube; space bar quits demo.
HEX.PRG	Colored hexagons spiral to form larger hexagons; bad termination sometimes requires reboot.
KALEIDSC.PRG	Octagonal kaleidoscope.
MANDBROT.PRG	Program to request parameters of, then plot fractal.
MANDELBR.DOC	Explanation of program below.
MANDELBR.PRG	Displays Mandelbrot fractal, and allows region selected by mouse for "zoom-in".
PIECHART.PRG	Sample multi-color piechart.
PIESLICE.PRG	A cylinder is drawn then slices move in and out.
PROFESS.PRG	Demo of VIP-Professional shows layout of spreadsheet.
PROFESS.RSC	Resource file for above.
QAX.PRG	More lines moving around the screen.
QUIX.PRG	Monochrome lines bounce off screen borders (as in arcade game of same name).
QUX.PRG	Collections of moving parallel lines provide illusion of transforming 3-D image.
RTXDEMO.C	C program executed in demo below.
RTXDEMO.PRG	Demo of multitasking OS kernel being developed for ST.
SIEVE.PRG	Sieve of Eratosthenes benchmark for Personal Pascal.
SPARKLER.DOC	Instructions for below.
SPARKLER.PRG	Electronic version of firework.
STARDEMO.PIC	Picture file for program below.
STARDEMO.PRG	Teaser for forthcoming game.
ZAPLINES.C	Demonstrates graphics, sound effects from C.
ZAPLINES.DOC	Instructions for program ZAPLINES.
ZAPLINES.PRG	Compiled version of above.

I can be reached as:

  Keith Hall

  1510 Oak Creek #305
  Palo Alto, CA 94304

  phone: 415-324-0284 (friendly answering machine will talk to
                         you in my absence)

  email: hall@su-sushi.arpa

From -6992751801393554573
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d4e91d9df80ec9e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 19:42:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!info-atari16
From: HALL@SU-SUSHI.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: ST Public Domain Software Library, Disks 3 & 4
Message-ID: <12186852857.28.HALL@SU-SUSHI.ARPA>
Date: Thu, 27-Feb-86 22:42:09 EST
Article-I.D.: SU-SUSHI.12186852857.28.HALL
Posted: Thu Feb 27 22:42:09 1986
Date-Received: Sat, 1-Mar-86 18:32:46 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 145

ST Public Domain Software Library

****** DISK #3 -- BASIC Programs, Misc Resources ******

READ_ME   The contents of this disk (what you are reading).

1STWORD.PRT   (folder) Contains configurations of common printers for
                use with the 1st Word word processor:

  ASCII.HEX   QUME.HEX
  CITOH.HEX   SG10.HEX
  EPS_RX80.HEX   SMM804.HEX
  OLYMPIAN.HEX   TOSHIBA.HEX
  OLYMPIAR.HEX   GEMINI10.HEX

BASIC   (folder) A variety of BASIC programs.

123RANGE.BAS	Program to list the Lotus Range Names used in a spreadsheet file.
BACKGAMN.BAS	The game of backgammon.
CHECK.BAS	Checkbook program for the ST which allows accomodates printing of checks and reports.
CHECK.DOC	Instructions for using above program.
CHECKER.BAS	The use of peeks and pokes to find screen dimensions is demonstrated.
CHIMES.BAS	Sound demo.
FINPAK.BAS	Financial package calculates interest, depreciation, loan schedules, future value.
JOURNE.BAS	Verbal adventure game.
MIDIPLAY.BAS	Sample BASIC program which interacts with midi port.
MOUSE.BAS	Demonstration of accessing the mouse registers in BASIC.
SILENT.BAS	Demo of use of Midi in BASIC (plays "Silent Night").
STMASTER.BAS	The game of Mastermind. Very nicely done.
WAVE.DOC	Tips on using the BASIC Wave function.

DEGAS.PRT (folder) Contains configurations of common printers for use with the Degas program.

EPSON.PRT	JX80C.PRT
EPSON2.PRT	MLN193.PRT
EPSON3.PRT	OKI20B.PRT
IBMPRO.PRT	OKI20C.PRT

FONTS (folder) A collection of fonts.

ADVENTUR.FNT	DAVESNEW.FNT	SCRIPT.FNT
ARCHAILF.FNT	FANCY.FNT	SERIF.FNT
BIGM.FNT	GOTHIC.FNT	SHADOW.FNT
BLOCK.FNT	HEX.FNT	SQUARE.FNT
BOZO.FNT	IBM.FNT	SQUATTY.FNT
COMP.FNT	ITALIC.FNT	STANDARD.FNT
COMPUTER.FNT	MODERN.FNT	STANDRD2.FNT
COMPUTR2.FNT	NEWCOMP.FNT	STYLISH.FNT
CURSIVE.FNT	OLDSTYLE.FNT	SYSTEM.FNT
CURSIVE2.FNT	OUTLINE.FNT	TECHNICL.FNT

DAVES.FNT ROMAN.FNT UNDERLIN.FNT

CLOCK.ICN Sample icon of an analog clock.

CLOCKM.ICN Mask for above icon.

IBMPRO.DOC Configuration tables for IBM Pro-Printer.

****** DISK #4 -- Utilities ******

READ_ME The contents of this disk (what you are reading).

ACCS (folder) More desk accessories.

BREAKOUT.ACC Miniature version of arcade game.

CALENDAR.ACC Shows monthly calendars thru Dec, 2009. Vertical scroll selects year, month.

CLOCK.ACC Analog clock. Variable length, width.

CONTROL.ACC Usual control panel to customize colors, keyboard parms, and set time.

HEXCALC.ACC Decimal, hexadecimal calculator for monochrome system.

HEXCALC.DOC Instructions for using above desk accessory.

PUZZLE.ACC Mac-like puzzle of sliding tiles.

VT52.ACC VT52 terminal emulator.

WATCH.ACC Digital watch and date. Display is undated even when watch window is not selected.

DBMASTER (folder) Programs for DBMaster database program.

MAKEONE.HLP Help file for program below.

MAKEONE.PRG Program to generate database template (schema).

USEONE.HLP Help file for program below.

USEONE.PRG Program to allow entry, editing, and querying of database after schema has been generated by MAKEONE.

CPRIMER.C Demonstration of VDI interface in C, and teaches basics of C programming.

CPRIMER.PRG Compiled version of above.

DVORAK.TOS Program to interpret keys as in DVORAK layout. Doesn't
            switch keycaps for you, however.

MEMTEST.C   Memory test program which additionally shows C access to
            memory parameters.

MEMTEST.PRG Compiled version of above.

QWERTY.TOS Program to revert keyboard layout to QWERTY format.

Keith Hall

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Palo Alto, CA 94304

phone: 415-324-0284
email: hall@su-sushi.arpa

From 941045054249360912
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db63be7895b3fb3e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 19:44:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: HALL@SU-SUSHI.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: (yet more) ST Public Domain Software Library, Disks 5 & 6
Message-ID: <12186853322.28.HALL@SU-SUSHI.ARPA>
Date: Thu, 27-Feb-86 22:44:42 EST
Article-I.D.: SU-SUSHI.12186853322.28.HALL
Posted: Thu Feb 27 22:44:42 1986
Date-Received: Sat, 1-Mar-86 03:19:52 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 150

ST Public Domain Software Library

****** DISK #5 -- Applications ******

READ_ME The contents of this disk (what you are reading).

ADDRESS.DOC Explanation of following program.

ADDRESS.PRG Address and mailing list program that can additionally
             dial telephone numbers thru a smart modem.

AS68.DOC	Instructions for assembler below.
AS68.TTP	Public domain 68000 assembler!
DOODLE.DOC	Instructions for following program.
DOODLE.PRG	Simple color drawing tablet.
DOODLE.RSC	Resource file for above.
JOUST.PRG	Like the arcade game except no score and no sound effects. One- or two-player (requires joysticks).
LIFE1.DOC	Instructions for program below.
LIFE1.PRG	Monochrome version of simulation of Life. Cursor arrows set initial arrangement of live cells. 160 x 100 playing grid.
LIFE2.DOC	Instructions for below.
LIFE2.PRG	Color version of Life. Mouse sets initial configuration. Cells start white, then cycle thru colors.
NEO.DOC	User manual for NEO.PRG.
NEO.PRG	Atari's free color drawing program.
PIANO.PRG	Simulation of tones from piano keyboard drawn on the screen. The first two rows of the CPU keyboard are assigned notes over a two-octave range, and activate the sound chip when depressed.
SOUND.DOC	Instructions for the following program.
SOUND.PRG	A program which allows the user to exercise the variety of sounds from the sound chip. Nice user interface.
SOUND2.C	Another demonstration of the sound chip.
SOUND2.PRG	Compiled version of above.
STWRITER.DOC	Intro to STWriter.
STWRITER.PRG	Atari's word-processing program.
TARGET.PRG	Game in which players take turns in controlling angle of turret and speed of projectile in attempts to strike the other's headquarters.

****** DISK #6 -- Tutorials ******

READ_ME — Contents of this disk (what you are reading).

TUTORIAL.GEM — (folder) Tim Oren's *excellent* guide to programming in the GEM environment. Thus far there are nine chapters, each of which covers one or more areas. Accompanying most chapters is a file of untilities to aid in the use and understanding of that chapter's topics. I use these tutorials as on-line references to system-level functions.

- GEMCL1.DOC — Introduction to the tutorial series.
- GEMCL2.DOC — The window manager, redrawing, window control requests, sliders, bugs, dirty tricks.
- GEMCL2.C — C utilities to accompany above chapter.
- GEMCL3.DOC — Dialogs, bug alerts, buttons.
- GEMCL3.C — C utilities to accompany above chapter.
- GEMCL4.DOC — Resource files, object types, editable text.
- GEMCL4.C — C utilities to accompany above chapter.
- GEMCL5.DOC — Object trees.
- GEMCL5.C — C utilities to accompany above chapter.
- GEMCL6.DOC — Rasters, VDI operations, monochrome vs. color, device-specific formats, fringes, transformations, optimized raster ops.
- GEMCL6.C — C utilities to accompany above chapter.
- GEMCL7.DOC — Menu structures, dynamic menu entries.
- GEMCL7.C — C utilities to accompany above chapter.
- GEMCL8.DOC — Covers user interface issues such as fingertips, muscles, eyes, short-term memory, and chunking.
- GEMCL9.DOC — VDI graphics: polylines, rounded rectanges, arcs, solids, area fill.
- FEEDBACK1.DOC — Question & answer session, part 1.
- FEEDBACK2.DOC — Question & answer session, part 2.

CNOTES.DOC — Examples of C language constructs.

EARTH.NEO — An image of the earth as viewed from outer space.

FRACTAL.NEO The image of a fractal, which can be loaded into Neochrome and edited.

LINETEST.C Example of C program which performs graphics.

LINETEST.PRG Compiled version of above.

MEGABYTE.DOC Latest version of instructions on converting the 520ST to a 1 megabyte machine. Use at your own risk!!

MOUNTAIN.C Another exemplary graphics program; draws polygonal surface.

MOUNTAIN.PRG Compiled version of above.

RAM.S A ramdisk program written in assembler. Although this program assembled does not work on a machine with TOS in ROM, I include it for educational value.

TIPS.DOC Well-written collection of tips on using the ST aimed at beginners.

XMODEM.DOC A detailed description of the XModem protocol.

Keith Hall

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Palo Alto, CA 94304

phone: 415-324-0284
email: hall@su-sushi.arpa

From 7496208143448537287
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ba12e6e88ff96a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-27 19:54:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: HALL@SU-SUSHI.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: (still more) ST Public Domain Software Library, Disks 7 & 8
Message-ID: <12186855167.28.HALL@SU-SUSHI.ARPA>
Date: Thu, 27-Feb-86 22:54:50 EST
Article-I.D.: SU-SUSHI.12186855167.28.HALL
Posted: Thu Feb 27 22:54:50 1986
Date-Received: Sat, 1-Mar-86 03:21:16 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet

Lines: 111

```
------------------------------------------------------------------------
ST Public Domain Software Library
------------------------------------------------------------------------
****** DISK #7 -- Applications ******

READ_ME         Contents of this disk (what you are reading).

MIDI            (folder)  Various programs and data files which make
                use of the Midi capability of the ST.

  SONGS           (folder)  Sample songs to play thru Midi.

    BANJO.SNG       MUSETTE.SNG
    CLEM.SNG        PREVIN.SNG
    EVITA.SNG       RAG.SNG
    MINUET.SNG      SANFRAN.SNG
    MOSCOW.SNG      SANJOSE.SNG

  4TH.BLK         Auxiliary (Forth) file for MIDIPLAY.PRG below.

  4TH.IMG         Another (Forth) file for MIDIPLAY.

  MIDI.TOS        Program to allow recording, playing, and monitoring
                  (dump-thru) of Midi port.

  MIDIPLAY.DOC    Instructions for using program below.

  MIDIPLAY.PRG    Plays songs in .SNG format on Midi port, and draws
                  piano keyboard which displays notes as they are played
                  with a different color assigned to each voice (device).

BIRDFLY.DOC     Instructions for using programs below.

BIRDFLY1.PRG    Program to simulate flight of bird.

BIRDFLY2.PRG    Same as above except bird can fly in front of any
                Neochrome image.

BIRD2.ANI       Data for above program.

BIRD2.NEO       Seascape image for above.

OTHELLO.PRG     Implementation of Othello where the ST is your opponent.
                Allows retraction of last move and adjustable level of
                difficulty.

OTHELLO.RSC     Resource file for above.
------------------------------------------------------------------------
****** DISK #8 -- Applications ******

READ_ME         Contents of this disk (what you are reading).
```

ELIZA.PRG	The popular computerized psychiatrist.
INIT.LSP	LISP program needed by XLISP.TTP below.
KERMIT.C	C source code of utilities to be used in program which needs Kermit protocol; "glue" must be added to call the various procs in this file.
KERMIT.H	Header file used in compilation of KERMIT.C.
MEGAROIDS.PRG	ST version of arcade game "Asteroids".
MEGAROIDS.RSC	Resource file for above.
STERM.S	Assembly source for version 3.0 of a VT52 emulator. Includes XModem transfer and ability to log and save sessions.
STERM.TOS	Assembled version of above.
STERMOLD.S	Version 1.0 of STERM.
STERMOLD.TOS	Assembled version of above.
STV924.PAS	Pascal source for yet another terminal emulator, this time for a Televideo 924 (a bit smarter than VT52). Allows downloading and uploading of files.
STV924.PRG	Compiled version of above.
TERM.DOC	Instructions for using program below.
TERM.S	Assembler source of a terminal emulator with disk capture and file uploading.
XLISP.DOC	Instructions for using program below.
XLISP.TTP	V1.4 of XLISP, an experimental object-oriented LISP.
XMOTERM.C	C source for very nice terminal emulator which includes disk capture, uploading, and XModem capability.
XMOTERM.TOS	Compiled version of above program.

The above disks are distributed for $6 per (single-sided) disk ppd. or together for $10 as one double-sided disk. If you want to trade software, all the better--please contact me and we can compare lists.

Keith Hall

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Palo Alto, CA

phone: 415-324-0284
email: hall@su-suhi.arpa

From 6992587461822378238
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8a0bd17fd70a571a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 09:20:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site watrose.UUCP
Path: utzoo!watmath!watnot!watrose!dwrowley
From: dwrowley@watrose.UUCP (David W. Rowley)
Newsgroups: net.micro.atari16
Subject: Blitter for 520ST ?
Message-ID: <7856@watrose.UUCP>
Date: Fri, 28-Feb-86 12:20:29 EST
Article-I.D.: watrose.7856
Posted: Fri Feb 28 12:20:29 1986
Date-Received: Sat, 1-Mar-86 03:53:28 EST
Distribution: net
Organization: U of Waterloo, Ontario
Lines: 6

     Perhaps Atari can answer this one: Will the new blitter chip,
     proposed for the 1040ST be available for the 520 ?

David Rowley
Univ. Of Waterloo

From -2162533111273317758
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b90dc0ad6573eff0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 12:41:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: SHD212 hard disk
Message-ID: <1422@cwruecmp.UUCP>
Date: Fri, 28-Feb-86 15:41:39 EST
Article-I.D.: cwruecmp.1422
Posted: Fri Feb 28 15:41:39 1986
Date-Received: Sat, 1-Mar-86 22:39:17 EST

Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 18

We just installed two SHD212 "prototype" 20Megbyte hard disks on our ST's. The speed really is impressive. Micro-emacs and an 8K file come up with about the speed that one expects of a RAMDISK.

The problem with head parking is very real. One of our office mates cycled the power on the hard drive without running the head parking program. The file system was trashed. We are now posting procedures and will soon install an iron maiden for the unfortunate souls who do not take heed!

I presume that compile, link execute benchmarks will be forthcoming, Bammi???

--

paul drongowski decvax!cwruecmp!pjd
case western reserve university pjd%Case@CSNet-relay

From 1381462541369568686
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,557f5fadb279ce7c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 15:05:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site alice.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!alice!d
From: d@alice.UucP (Daniel Rosenberg)
Newsgroups: net.micro.atari16
Subject: Amiga pays Atari?
Message-ID: <5063@alice.uUCp>
Date: Fri, 28-Feb-86 18:05:00 EST
Article-I.D.: alice.5063
Posted: Fri Feb 28 18:05:00 1986
Date-Received: Sat, 1-Mar-86 17:49:15 EST
Organization: Bell Labs, Murray Hill
Lines: 15

Dear Folks on net.micro.{amiga,atari16}:

There's this guy (an Atari-owner, and a rather proud one) who tells me something about since the original Amiga development work was done at Atari, that, with every Amiga sold, Commodore pays a commission of some sort to Atari. Is there any truth to this? Responses from people at C-Amiga and/or Atari (Mr. Dyer?) would be greatly appreciated. (Or anyone else who knows the truth.)

Much thanks,

--
##
Daniel Rosenberg / Bell Labs / Murray Hill / I disclaim.
{ihnp4;allegra;research}!alice!d || {ihnp4;allegra;research}!charm!dan

From -2550054607237617314
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 15:15:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: G.DYER@SU-SCORE.ARPA (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <12187066423.46.G.DYER@SU-SCORE.ARPA>
Date: Fri, 28-Feb-86 18:15:18 EST
Article-I.D.: SU-SCORE.12187066423.46.G.DYER
Posted: Fri Feb 28 18:15:18 1986
Date-Received: Sat, 1-Mar-86 18:16:11 EST
References: <456800001@uicsl>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 7

Micro-Emacs is available (and has been for quite some time) on the ST.
It comes with the ST Developer's Kit.

-Landon

From 7168001623227597652
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,4afd32d867cbdab9
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,c2cc6699280b1a7b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 17:35:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!rochester!ritcv!ccivax!rb
From: rb@ccivax.UUCP (rex ballard)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: Re: Ram disks - Ram Cache?
Message-ID: <442@ccivax.UUCP>
Date: Fri, 28-Feb-86 20:35:46 EST
Article-I.D.: ccivax.442
Posted: Fri Feb 28 20:35:46 1986

Date-Received: Tue, 4-Mar-86 01:26:04 EST
References: <12267320@ee.UUCP> <500044@iuvax.UUCP>
Reply-To: rb@ccivax.UUCP (What's in a name ?)
Followup-To: net.micro.atari16
Organization: CCI Telephony Systems Group, Rochester NY
Lines: 11
Xref: watmath net.micro.atari:2944 net.micro.atari16:75

Does anybody know of a good RAM CACHE program or algorythm?
Asynch read-ahead, and write would be nice, along with demand
based purging.

Such things are available for other machines, and appearantly
save you some of the grief of powering down the ram disk before
you've put it back on floppy. I've also heard they're real nice
with hard drives. I know very little about them exept that they
make a machine look like it's running faster.

Is this an OS/Driver hack?

From 6980626179825825763
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64676e50125177e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-28 19:52:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: Re: 1Meg Upgrade "Subtle" Warning
Message-ID: <8603010047.AA09812@mitre-bedford.ARPA>
Date: Fri, 28-Feb-86 22:52:53 EST
Article-I.D.: mitre-be.8603010047.AA09812
Posted: Fri Feb 28 22:52:53 1986
Date-Received: Sat, 1-Mar-86 18:16:22 EST
References: <3806@pur-ee.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 5

Gawsh, a wood-burning iron! I thought everybody knew you are supposed to
solder with a torch and a can of acid flux. (Well, at least half acid.)

                            -John Sangster
                            jhs at mitre-bedford.arpa

From -8307608850678204393
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-02-28 21:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site riccb.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihopa!riccb!djb
From: djb@riccb.UUCP (Dave J. Burris)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <638@riccb.UUCP>
Date: Sat, 1-Mar-86 00:29:00 EST
Article-I.D.: riccb.638
Posted: Sat Mar 1 00:29:00 1986
Date-Received: Sat, 1-Mar-86 23:10:14 EST
References: <92624@UB-MTS>
Organization: Rockwell Telecommunications, Downers Grove,Il.
Lines: 44

> To: John Zuschlag (I6191008@DBSTU1.BITNET)
> Subject: CP/M86k vs. TOS
>
> John,
>
>   Forgive me, but upon discussing your
> comment about TOS -not- being CP/M68k
> to a friend of mine, he thinks you are
> incorrect. Since he is also fairly
> well informed about the ST, and in
> touch with many key people, I thought
> it would be best to ask you on what
> "authority" do you state the "facts"
> that CP/M68k is not in the ST, and
> what facts do you have to substantiate
> this beyond any reasonable doubt, such
> that I can give this information to
> him and he can research it himself to
> his own satisfaction.
>
>   Thanks for your help and sorry about
> making you "prove" yourself, but
> obviously the difference between having
> CP/M68k as a central core and their
> own OS is a pretty major issue so it
> will be good to have the truth cast in
> gold before it gets twisted around.
>
>   Terry Conklin
>   The Club   (517) 372-3131
>   The Club II (313) 334-8877
>   Terry Conklin@UMich-MTS.Mailnet

The OS is not CP/M68K! If anything it could be considered GEM DOS with a customized BIOS. It so happens that GEM DOS has a number of similarities to CP/M. After all it came from the same folks.

I don't wish to attempt to prove by what "authority" I state this. I welcome
you to phone Richard Frick or Sig Hartmann at Atari for your proof.

--
Dave Burris
..!ihnp4!ihopa!riccb!djb
Rockwell Switching Systems, Downers Grove, Il.

From -1736139870619819033
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,db63be7895b3fb3e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 00:59:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: esfraga@WATER.UUCP (Eric S Fraga)
Newsgroups: net.micro.atari16
Subject: Re: (yet more) ST Public Domain Software Library, Disks 5 & 6
Message-ID: <8603010859.AA17267@water.UUCP>
Date: Sat, 1-Mar-86 03:59:04 EST
Article-I.D.: water.8603010859.AA17267
Posted: Sat Mar 1 03:59:04 1986
Date-Received: Sun, 2-Mar-86 19:17:47 EST
References: <12186853322.28.HALL@SU-SUSHI.ARPA>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: U. of Waterloo, Ontario
Lines: 18

Hello. I am wondering if it would possible for you to mail me one or
two of the files in the disks mentioned in your article. In particular,
I am very interested in the two files:

     GEMCL6.DOC
and GEMCL6.C

If you could upload either of the above to your system and then mail
me a copy, it would be greatly appreciated! If it is not possible,
thanks anyway! Keep up the good work.

--

Eric S Fraga || esfraga@water.uucp
Dept of Computer Science || esfraga%water@waterloo.csnet
U of Waterloo || esfraga%water%waterloo.csnet@csnet-relay.arpa

From 3311584153248730421
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 06:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!mcvax!unido!hmm
From: hmm@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <96100004@unido.UUCP>
Date: Sat, 1-Mar-86 09:29:00 EST
Article-I.D.: unido.96100004
Posted: Sat Mar 1 09:29:00 1986
Date-Received: Mon, 3-Mar-86 01:32:54 EST
References: <12326958@mitre-be.UUCP>
Sender: notes@unido.UUCP
Lines: 16
Nf-ID: #R:mitre-be:-1232695800:unido:96100004:000:946
Nf-From: unido!hmm   Mar 1 14:29:00 1986

Talking about the port of the C compiler from CP/M68k to GEMDOS...
CP/M68k does not have directories, while GEMDOS has. But no one thought
of this when they ported the linker. It seems to be impossible to link
files in different directories together. I use the atari hard disk for
development, and I (unix-addict as I am) like to have all things in the right
directories. Everything is fine, I have my \bin, \include, and \lib.
But to link a program, I have to copy my objects into \lib, cd to \lib,
link there and copy the program back into my directory. Granted, this is
all done by a command script, but it is a major pain in th *ss, though.
Obviously, the checks in the linker for correct filenames has not been adapted
to the different environment. Does anyone know if this will be fixed, or can
anyone give a patch to switch this stupid checking off ?

     Hans-Martin Mosner <hmm@unido.uucp>, <hmm@unido.bitnet>
     University of Dortmund

From -3560128121106322494
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,987cc05e82240968
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 15:01:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Re: Using RAM disk with the DRI C-Compil
Message-ID: <1424@cwruecmp.UUCP>
Date: Sat, 1-Mar-86 18:01:09 EST
Article-I.D.: cwruecmp.1424
Posted: Sat Mar 1 18:01:09 1986
Date-Received: Sun, 2-Mar-86 18:59:28 EST
References: <12317327@ucbvax.UUCP> <54600005@iuvax.UUCP>

Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 32

>
> Which RAM disk are you using? With the public domain RAM disk I am
> using, things don't work after a few compiles. Removing all files
> from the disk before each recompile seems to keep it going longer
> but that is not convienent if you also put libraries on it.
> (I tried to mail this, but my machine does not know how to reach you.)
>
> Paul Purdom (purdom@indiana on CSnet).

*** REPLACE THIS LINE WITH YOUR MESSAGE ***
The problem is not with the Ramdisk but with the version of tos you
are using. The later versions anf the rom tos fix the problem. One
caution about using floppies or ram disk to compile and link is
that you should have plenty of free space for temp. files. The linker
in particular does not tell you when it runs out of temp file space.
You realize that this happened when you end up with a ridiculusly
large/small .prg file after running relmod on the .68k file.

    Will someone from Atari on this net hold the programmers who
wrote link68 and ar68 upside down for a little while for me :-).
Seriously, when are you going to upgrade these two very weak links in
the dev system? My biggest objections are the speed due to the brain
damaged ar format (at least provide a ranlib), link not understanding
pathnames, and link not informing the user of some errors. In fact i
see no reason to have a relmod at all, link should generate the
correct output (Gemdos is not cp/m68k remember!).
--

                    Jwahar R. Bammi
                Usenet: .....!decvax!cwruecmp!bammi
                 CSnet: bammi@case
               Arpa: bammi%case@csnet-relay
            CompuServe: 71515,155

From 8057688250319443539
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,204506c69495ff55
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 15:53:31 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: luscher@NICMAD.UUCP (Jim {4thNIC} Luscher)
Newsgroups: net.micro.atari16
Subject: Re: Using RAM disk with the DRI C-Compiler
Message-ID: <8603012353.AA01723@nicmad.UUCP>
Date: Sat, 1-Mar-86 18:53:31 EST
Article-I.D.: nicmad.8603012353.AA01723
Posted: Sat Mar 1 18:53:31 1986
Date-Received: Sun, 2-Mar-86 19:20:07 EST

References: <8602251919.AA00661@ucbvax.berkeley.edu>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: /etc/organization
Lines: 16

I have done the 1meg upgrade for myself and a couple of others, but I
have yet to find a reasonable ramdisk! I am going to be doing a lot
of C and it sounds worthwhile.

Whose ramdisk do you use and where can I get one?? If it is public
domain can i send you some cash for your trouble in making a copy for
me? If it isn't public domain where can I buy one?

Also any pointers on how you set things up to use the disk would
be appreciated!

Thanks.

--
Jim Luscher / Nicolet Instruments / Oscilloscope Div.
5225 Verona Rd Bldg-2 / Madison Wi 53711 USA / 608/271-3333x2274

From -4926550837584037014
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c718f83bcb40166b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 16:06:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Resource Construction Set
Message-ID: <12187337917.23.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Sat, 1-Mar-86 19:06:40 EST
Article-I.D.: DEEP-THO.12187337917.23.UC.BRI
Posted: Sat Mar 1 19:06:40 1986
Date-Received: Sun, 2-Mar-86 19:17:31 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 17

    Does anyone know how to make menus on the resource construction
set? When I add entries to a menu, there are large spaces between each
entry. How can you add entries without the large spaces? Is this a bug
in the RCS, or just me using it wrong?

                        Thanks for the help,

                        --- Bri

uc.bri@deep-thought.mit.edu

...!eddie!bri

From -5131156867517680018
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64676e50125177e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 16:13:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site nicmad.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!uwvax!astroatc!nicmad!luscher
From: luscher@nicmad.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1Meg Upgrade Warning
Message-ID: <562@nicmad.UUCP>
Date: Sat, 1-Mar-86 19:13:53 EST
Article-I.D.: nicmad.562
Posted: Sat Mar 1 19:13:53 1986
Date-Received: Sun, 2-Mar-86 19:52:23 EST
References: <3806@pur-ee.UUCP> <54600001@iuvax.UUCP>
Reply-To: luscher@nicmad.UUCP (Jim {4thNIC} Luscher)
Organization: Nicolet Instrument Corp. Madison WI
Lines: 17

I have updated 3 machines to 1 meg, using TI and Mitsubishi drams.
On one of the machines one of the drams didn't work (anti-static foil
was used so I must assume the chip was bad from the factory). This
machine still booted (with 1/2 meg.) since the boot found bad memory
in the top 1/2 meg. As a developer, (i.e. SID debugger and schematics)
I found it relatively straightforward to find and fix the problem,
although time consuming. All of these used the (unnecessary?) 68
ohm resistors.

It is up to the individual to assess their level of expertise in
a mod like this, and/or their willingness to gamble on the outcome
and the possible steps they may have to take if things go bad.

My experience has been positive on the whole.
--
Jim Luscher / Nicolet Instruments / Oscilloscope Div.
5225 Verona Rd Bldg-2 / Madison Wi 53711 USA / 608/271-3333x2274

From 8375478832841802939
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,3e437376ad6b2195,start

X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,3e437376ad6b2195,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-01 20:10:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site harvard.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!olson
From: olson@harvard.UUCP (Eric Olson)
Newsgroups: net.micro.atari16,net.micro.atari
Subject: Atari stock symbol request
Message-ID: <746@harvard.UUCP>
Date: Sat, 1-Mar-86 23:10:34 EST
Article-I.D.: harvard.746
Posted: Sat Mar 1 23:10:34 1986
Date-Received: Mon, 3-Mar-86 01:32:13 EST
Reply-To: olson@harvard.UUCP (Eric olson)
Distribution: net
Organization: Aiken Comp Lab, Harvard
Lines: 4
Keywords: atari stock
Xref: watmath net.micro.atari16:72 net.micro.atari:2943

Does anyone know what exchange Atari stock trades on and what their symbol is?
I'm not even sure that they trade stock.

-Eric

From 3818447125418491872
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c718f83bcb40166b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 00:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!info-atari16
From: rling@UW-JUNE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Resource Construction Set
Message-ID: <510137594.rling@uw-june>
Date: Sun, 2-Mar-86 03:53:00 EST
Article-I.D.: uw-june.510137594.rling
Posted: Sun Mar 2 03:53:00 1986
Date-Received: Tue, 4-Mar-86 01:29:51 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 31

My developer's kit came with no documentation on how to use the RSC.
The following are just some things I found out by playing arround with

the RSC. For the sake of clarity, I call the objects in the menu bar 'items' and the individual objects within a menu item 'selections'.

 - When dragging menu items from the 'part-box' to the menu bar, place it to the right of the last menu item. If it overlaps any previous item, the menu items will be rearranged.

- You can set how wide the highlighted bar will be when the menu item is moused in the application program by dragging the lower-right corner of the highlighted area when the menu item is selected (highlighted) within the RSC. This also affects where menu item(s) to the right will be placed in the menu bar.

- You can resize the drop-down area by 'dragging' the lower-right corner. You can enlarge this area only if the area is empty. For example, when you first create a menu tree, there is already an item called 'File' with one selection ('Quit'). You would have to remove this item in order to enlarge the area. You can, however, shrink it even if it is not empty.

- Within the application program, when the mouse is over a selection within a menu item, the selection is highlighted. The width (and possibly height) of this highlighted area can also be set with the RSC. This is done by 'dragging' the lower-right corner of this highlighted area within the RSC.

- Robert Ling   <rling@uw-june.arpa>

From 6431098844413002543
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 01:30:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <94469@UB-MTS>
Date: Sun, 2-Mar-86 04:30:22 EST
Article-I.D.: UB-MTS.94469
Posted: Sun Mar 2 04:30:22 1986
Date-Received: Sat, 8-Mar-86 04:39:32 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 28

To: ALL
Subject: CP/M68k vs TOS

I would like to thank everyone who helped with my question about CP/M68k versus TOS. As was to be expected, everyone was more then helpful. Consider an indication of just who owns STs!

However, I guess what my friend and I both feel was basically correct. Atari did NOT write TOS, it modified CP/M68k. While I realize writing an OS is no small feat, I think where the question came in is that it was so vehemently stated that TOS is not CP/M68k that we were under the impression that it was supposed to be a total rewrite (effectively) which resembled it.

In the end, it's no great loss anyhow as the world has not been overwhelmed by the powerful software available for CP/M68k anyhow. (As soon as you see the "CP/M" in front you should've figured, right?) but as "What software does it run or is it compatible with?" becomes more and more the question asked nowadays, technically speaking CP/M68k programs cannot be included.

Where's Unix System V anyhow. It's about time to flush this single user nonsense anyhow!

Terry Conklin@UMich-MTS.Mailnet
or (517) 372-3133 The Club 300/1200
(313) 334-8877 The Club II same

From -6051298659270585981
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65162d86bf45b46a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 03:46:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!linus!decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Where are the 1040ST's
Message-ID: <286@imagen.UUCP>
Date: Sun, 2-Mar-86 06:46:49 EST
Article-I.D.: imagen.286
Posted: Sun Mar 2 06:46:49 1986
Date-Received: Tue, 4-Mar-86 04:05:19 EST
References: <238@inuxj.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 26

>
> I've been faithfully calling Atari dealers for about 3 weeks now
> trying to find a 1040ST. I get the same story every week -
> Atari has delayed the shipment, but they're supposed to ship
> NEXT week. So what's the scoop here - do 1040ST's really exist

> or am I just being string along???
>
> Ron Wolenty

~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~

my local dealer just informed me that he had 20 1040's in stock but
that they were going fast ! since i believe in the non-commercial
nature of the net i won't mention any names, but if you were to
send me email.....
--

     The master is not yet married, nor do I think he ever will be.
               -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From -5807256431299204096
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d9f2f56d8b524be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 05:28:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!info-atari16
From: @ge-crd.ARPA:skip@chenengo
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst (GNU Emacs)
Message-ID: <8603021415.AA28068@ucbvax.berkeley.edu>
Date: Sun, 2-Mar-86 08:28:00 EST
Article-I.D.: ucbvax.8603021415.AA28068
Posted: Sun Mar 2 08:28:00 1986
Date-Received: Tue, 4-Mar-86 01:30:19 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 42

Received: by chenengo.steinmetz (3.0/1.1x Steinmetz)
     id AA03785; Sun, 2 Mar 86 08:26:16 PST
Date: Sun, 2 Mar 86 08:26:16 PST
From: Skip Montanaro <skip@chenengo.steinmetz>
Posted-Date: Sun, 2 Mar 86 08:26:16 PST
Message-Id: <8603021626.AA03785@chenengo.steinmetz>
To: info-atari16@su-score.arpa
Subject: Re: Full Screen Editor Rqst (GNU Emacs)
~~~~~~~~~~~~~~~~

Not only is the GNU Emacs source huge (the tar file distribution is
about 6 Megabytes), but the amount of peripheral information needed to
run it is big. Various important sizes:

```
Sun 2 executable   >600K (stripped, optimizer off, 470K of
                      that is C, the rest is Lisp and data)
Peripheral stuff   >3.8M (could probably be cut to about 1.5M)
```

One person here has ported it to his AT&T Unix PC. I still don't know
how he shoehorned it onto that 10M disk, but he did it.

The things that make you want to put it on your favorite box are that
1) it is the best Emacs around,
2) it is currently being actively supported and enhanced by some good
   people,
3) it is being ported to lots of different environments (I am aware of
   attempts to move it to IBM/370 Unix, the Cray-2, VAX/VMS, and a wide
   variety of System V and 4bsd boxes, and
4) it's free.

When large enough hard disks become available (20 to 40M) for the ST,
it will probably make sense to port it to the ST.

==========
Skip Montanaro
ARPA: montanaro@ge-crd.arpa
US Mail: General Electric Company
      Corporate Research and Development
      P.O. Box 8
      Bldg KW, Room C210
      Schenectady, NY 12304
==========

From -4693820653020138039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8d9b507dcdd400e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 06:30:06 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site alvin.mcnc.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!mcnc!dinesh
From: dinesh@mcnc.UUCP
Newsgroups: net.micro.atari16
Subject: QUESTIONS ABOUT ST
Message-ID: <1190@alvin.mcnc.UUCP>
Date: Sun, 2-Mar-86 09:30:06 EST
Article-I.D.: alvin.1190
Posted: Sun Mar 2 09:30:06 1986
Date-Received: Tue, 4-Mar-86 01:44:31 EST
Distribution: net
Organization: Microelectronics Center of NC; RTP, NC
Lines: 23

i) Terminating a running program :
    Is there a way to terminate a running program by typing ^C or
    delete ? I notice that many programs can be terminated with ^C,
    but this doesn't work with every program. I understand that one
    has to make AES calls in order to sense a ^C. But if a program
    is stuck in a loop which does not contain an AES call, there is
    no graceful way to terminate and exit.(I think it should be the
    responsibility of the OS to intercept a ^C and stop the program.)

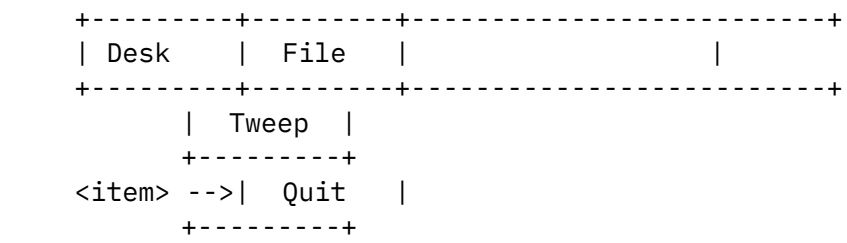
ii) Updates to Developer's package :
    I had returned the 'non-disclosure agreement' soon after buying
    my developers' package in October 85.   I have not received any
    updates to it since. Have there been any?

iii)uudecode, uuencode:
    Someone remarked about problems with uudecode. I have also been
    totally unsuccessful in getting uudecoded programs to work. I'd
    picked up the (IBM) C source off the net and then adapted it for
    ST. The program seems to work correctly for concocted test files.
    Is it possible that uuencoded files are being damaged in transit?
    If someone has already solved this problem, please help. Else I
    shall go through the debugging procedure and post the program
    (along with a BASIC version).

From -8734347917301854235
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c718f83bcb40166b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 08:23:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!info-atari16
From: gyuri@CVL.UMD.EDU (Gyorgy Fekete)
Newsgroups: net.micro.atari16
Subject: Re: Resource Construction Set
Message-ID: <8603021623.AA08955@cvl.umd.edu>
Date: Sun, 2-Mar-86 11:23:23 EST
Article-I.D.: cvl.8603021623.AA08955
Posted: Sun Mar 2 11:23:23 1986
Date-Received: Tue, 4-Mar-86 01:30:48 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Just to clean up the terminology:
Robert's "items" in the menu bar are called "titles"
and his selections are really called "items" in GEM/AES lingo.

           <title>
              |
              V



See an exanple of a MENU tree in the .C file generated by RCS.

-George

From 3752756544873035262
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28765c8a45a6ecec,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 14:03:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: rling@UW-JUNE.ARPA
Newsgroups: net.micro.atari16
Subject: Re: Titles and items
Message-ID: <510185001.rling@uw-june>
Date: Sun, 2-Mar-86 17:03:00 EST
Article-I.D.: uw-june.510185001.rling
Posted: Sun Mar 2 17:03:00 1986
Date-Received: Tue, 4-Mar-86 01:48:20 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 3

My apologies for creating the confusion in the terminology.

- Robert Ling <rling@uw-june.arpa>

From 3198372927041089476
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,204506c69495ff55
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 17:06:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: esfraga@WATER.UUCP (Eric S Fraga)
Newsgroups: net.micro.atari16
Subject: Re: Using RAM disk with the DRI C-Compiler
Message-ID: <8603030106.AA10902@water.UUCP>
Date: Sun, 2-Mar-86 20:06:14 EST
Article-I.D.: water.8603030106.AA10902
Posted: Sun Mar 2 20:06:14 1986

Date-Received: Sat, 8-Mar-86 05:25:49 EST
References: <8603012353.AA01723@nicmad.UUCP>
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: U. of Waterloo, Ontario
Lines: 232

In article <8603012353.AA01723@nicmad.UUCP> you write:
>I have done the 1meg upgrade for myself and a couple of others, but I
>have yet to find a reasonable ramdisk! I am going to be doing a lot
>of C and it sounds worthwhile.
>
>Whose ramdisk do you use and where can I get one?? If it is public
>domain can i send you some cash for your trouble in making a copy for
>me? If it isn't public domain where can I buy one?
>
>Also any pointers on how you set things up to use the disk would
>be appreciated!
>
>Thanks.
>
>--
>Jim Luscher / Nicolet Instruments / Oscilloscope Div.
>5225 Verona Rd Bldg-2 / Madison Wi 53711 USA / 608/271-3333x2274

At the end of this message is the source for a 360k ramdisk.
I got it on the net a long time ago and have been using without
any problems for quite a while.

In terms of how I use it, it depends on what I am working on.
If I am working on ST Basic and 1st-word together, which I do
quite often, put both of them on the ramdisk. This allows me to
switch from one to the other very quickly (in seconds!). When
compiling, I put most of the compiler and linker on the ramdisk,
leaving the libraries on floppy. I also put ME on the ramdisk.
This leaves enough room on the ramdisk to put the source and
compile very quickly. Linking takes time but I find that I
usually compile a lot more than I link (finding syntax errors,
etc.). I also have a 512k ramdisk (changed the entries in the
BPB structure). However, I can't seem to find the source right
now. If you want the 512 k ramdisk, I can mail you the uuencoded
binary. In fact, I can also mail the uuencoded binary for the
360k ramdisk if you wish.

============ source for 360k ramdisk follows ============
```
/* RAM  DISK ACCESSORY Version 1.3 - 1986 Feb. 1.

   Original:  Version 1.1 Gert Slavenburg, Mountain View, CA.

   Modified:  1.2: Reginald Knighton (213) 473-5202 [voice].
              improved performance by over a factor of 3

              1.3: E S Fraga - cleaned some things up.  Does not
              copy A: on boot up any more.  No beeping either.
```

```
   For Atari 520ST with RAM extension to 1 MByte.
   Link this program with accstart,%1,osbind,vdibind,aesbind

   This is the first, experimental version of the RAMdisk. It should
   be installed as a DESK ACCESSORY on the Bootdisk. Before re-booting,
   and thus activating it, the menu entry "install disk" should be used
   to install drive "D" with icon-label "RAMDISK". Then save the desktop to
   make the newly installed drive permanent.
   Now re-boot end enjoy. (write protect if you're paranoid - I am)

   You may get annoyed by my trick to let the RAMdisk give a beep every
   30 seconds. This was a debugging tool for me to see if it's still
   alive, and I get worried now if I don't hear it anymore...
   To remove it, just replace the "beep" statement in procedure "sleep".

   known bugs :
   1) GEMDOS refuses to do full diskette copy to/from the RAMdisk. Don't
      know why it does that, since the BPB's are identical.

   Lots of fun - Gert
*/

#include "portab.h"
#include "obdefs.h"
#include "define.h"
#include "gemdefs.h"
#include "osbind.h"

struct bpb
{ WORD recsiz,       /* see BIOS:rwabs.c for more info */
       clsiz,
       clsizb,
       rdlen,
       fsiz,
       fatrec,
       datrec,
       numcl,
       bflags;
};

/* stupid AES binding arrays - what a drag */

int contrl[12];      /* better find out what's REALLY NEEDED */
int intin[128];
int ptsin[128];
int intout[128];
int ptsout[128];

/* the variables below are really serious */

typedef LONG (*PFL)(); /* define "pointer to function returning a long" */
typedef WORD (*PFW)(); /* define "pointer to function returning a word" */
```

```
PFL getbpb;            /* pointer to the systems original getbpb function */
PFW mediach;           /* pointer to the systems original mediach */
PFL rwabs;             /* pointer to the systems original rwabs */

struct bpb rdiskbpb = { 512, 2, 1024, 7, 5, 6, 18, 351, 0 };
                       /* same as Single Sided microdiskette */

int data[184320];      /* 720 sectors of 512 bytes */
                       /* same as Single Sided microdiskette */


LONG RDgetbpb(dev)
WORD dev;
{
   if (dev != 3)
      return( (*getbpb)(dev) ); /* pass all non-RAMdisk to old handler */
   else
   {  return( &rdiskbpb );      /* return our bpb */
   }
}

WORD RDmediach(dev)
WORD dev;
{
   if (dev != 3)
      return((*mediach)(dev)) ; /* pass all non-RAMdisk to old handler */
   else
      return( 0 );              /* RAMDISK media never changes */
}

LONG RDrwabs(rw,buf,count,recno,dev) /* see page 5 of The Hitchhiker's Guide */
WORD rw;                             /* to the BIOS, 26 August 1985 Version  */

/*  int *buf;  */                    /* <------- classic code */

register long *buf;                  /* <------- new code */
WORD count, recno, dev;
{
/*  int i, *p;  */                   /* <------- classic code */

   register int i;                   /* <------- new code, declare register */
   register long *p;                 /*                    for speed        */

   if (dev != 3)
      return( (*rwabs)(rw,buf,count,recno,dev) ); /* pass it on */
   else
   { if (rw > 1) rw -=2;  /* we never change media anyway */
     while ( count > 0 )
     {  p = &data[((long) recno) * 256L];/* both casts necessary - C068 bug */
        if (rw==0) /* read */

          /* for (i=0; i<256; i++) *buf++ = *p++; */   /* <--- classic code */
```

```
          for(i=0; i<32; i++)   /* NEW read/write 16 bytes per loop cycle,   */
          {                      /* 32 cycles for 512 bytes.  Looking at the  */
             *buf++ = *p++;    /* .s files, DRI C generates very tight code */
             *buf++ = *p++;    /* for this construct...                     */
             *buf++ = *p++;    /*                                           */
             *buf++ = *p++;    /* modification by Reg Knighton              */
          }
        else      /* write */

          /* for (i=0; i<256; i++) *p++ = *buf++; */   /* <--- classic code */

          for(i=0; i<32; i++)  /* NEW code for write, see read block above  */
          {
             *p++ = *buf++;
             *p++ = *buf++;
             *p++ = *buf++;
             *p++ = *buf++;
          }

        count--; recno++;
     }
     return(0L);
   }
}

install()     /* take over DISKIO vectors, MUST RUN AS SUPERVISOR */
{
   long *bpbvect = 0x472;
   long *rwvect  = 0x476;
   long *mcvect  = 0x47e;
   long *devset  = 0x4c2;

   getbpb  = (PFL) *bpbvect; /* save old vectors */
   mediach = (PFW) *mcvect;
   rwabs   = (PFL) *rwvect;
   *bpbvect = RDgetbpb;      /* install new ones */
   *mcvect  = RDmediach;
   *rwvect  = RDrwabs;
                             /* vectors set-up, include in deviceset : */
   *devset  = (*devset) | (0x8L);

}

sleep()                      /* sleep forever */
{ int i;
  while (1)
  {  i = evnt_timer(30000,0); /* wait 30 Sec. */
     /* Bconout(2,7); /* BEEP to show I'm alive */
  }
}

main()
```

```
{
  register long int *ip;
  register long cnt;

  appl_init();            /* this is needed even to link - Yack !!!!!!! */

     /*
      * don't need to do this -- we just zero out the area.
      * ESF
      */
  /* Rwabs(0,data,720,0,0);   /* copy drive A: into RAMdisk data array */

     cnt = 92165;
     ip = (long *) data;
     while( cnt-- )
          *ip++ = 0;          /* zero out the whole thing */

  xbios(38,install);       /* INSTALL vectors in SUPV MODE */
  sleep();                 /* accessories never end ..... */
}

--

Eric S Fraga          ||                    esfraga@water.uucp
Dept of Computer Science   ||              esfraga%water@waterloo.csnet
U of Waterloo         ||    esfraga%water%waterloo.csnet@csnet-relay.arpa


From -2540069705286706768
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c718f83bcb40166b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 18:35:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!looking!jan
From: jan@looking.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: Resource Construction Set
Message-ID: <502@looking.UUCP>
Date: Sun, 2-Mar-86 21:35:30 EST
Article-I.D.: looking.502
Posted: Sun Mar  2 21:35:30 1986
Date-Received: Mon, 3-Mar-86 00:40:35 EST
References: <12187337917.23.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Reply-To: @looking.UUCP (Jan Gray)
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 17
Keywords: menus
Summary:

In article <12187337917.23.UC.BRI@DEEP-THOUGHT.MIT.EDU> UC.BRI%DEEP-
THOUGHT@EDDIE.MIT.EDU (Brian Totty) writes:
```

>   Does anyone know how to make menus on the resource construction
>set? When I add entries to a menu, there are large spaces between each
>entry. How can you add entries without the large spaces? Is this a bug
>in the RCS, or just me using it wrong?
>   --- Bri
>   uc.bri@deep-thought.mit.edu
>   ...!eddie!bri
If by "entries" you mean "titles", you can edit out the spaces in the title
(start by double clicking the title).

If by "entries" you mean "entries", you can resize the area for drop
down menus by holding down CTRL and dragging the bottom right corner
of the area. Entries can be positioned anywhere within this area,
on *line* boundaries only.

Jan Gray Looking Glass Software, Waterloo, Ont.   (519) 884-7473

From -7391528186331303377
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,afd627dedb6c99cc,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 21:04:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!cwruecmp!bammi
From: bammi@cwruecmp.UUCP (Jwahar R. Bammi)
Newsgroups: net.micro.atari16
Subject: Tdi Modula and Hard Disks
Message-ID: <1425@cwruecmp.UUCP>
Date: Mon, 3-Mar-86 00:04:29 EST
Article-I.D.: cwruecmp.1425
Posted: Mon Mar 3 00:04:29 1986
Date-Received: Tue, 4-Mar-86 01:46:15 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 66

     Have you noticed that the Modula compiler 'modula.prg' will
only run if it is put in the root directory of a drive 'd:'. It
refuses to even startup if put in any sub-directory. The linker
and editor work OK in subdirectories though. I guess it is due to
the overlay directory, which also has to be in the root directory.
On my hard disk this does not fit the usual \bin \src etc scheme of
things. It is obvious that the designers never considered hierarchical
file systems. The file dialogue are driving me crazy.

     Has anyone else got the error '- compiler error 2', while
compiling a program. This is followed shortly with a dialog box saying
'Run Time error #9'. In the manual run time error #9 says 'Program
Halt'. Any hints??

More questions: any answers will be much appreciated.

Suppose we have

```
TYPE
     word = ARRAY [1..15] of CHAR;
VAR
     s1: word;
     s2: ARRAY[1..10] of word;
....
```

and we write

```
     IF s1 = s2[i] THEN
               ^ operation with incompatible type (140)
```

The Tdi compiler gives the above error, but the Powell m2 compiler does not object. Who is right? (reading Wirths or Thalmann's book didn't give me any answer).

Also

```
TYPE
     word= ARRAY [1..20] OF CHAR;

..
PROCEDURE init(i:INTEGER; w:word);
VAR
    x:word;
...

x := w;
..

END init;

     init(1,'Something          '); (* 'twenty chars in string' *)
               ^ type incompatibility (128)
```

gives the above error.

if i change the type declaration to

```
TYPE
    word = ARRAY [0..19] OF CHAR;
```

The program compiles. Powells compiler of the Vax does not object to either Type declaration. Again who is right?

I better stop before i break my '?' key. Any answers will be much appreciated.

--

Jwahar R. Bammi
Usenet: .....!decvax!cwruecmp!bammi
CSnet: bammi@case
Arpa: bammi%case@csnet-relay
CompuServe: 71515,155

From -4997000313830739333

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf4e0ecaf3a724ad,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-02 22:49:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Book Review: GEM Programmer's Refer
Message-ID: <54600009@iuvax.UUCP>
Date: Mon, 3-Mar-86 01:49:00 EST
Article-I.D.: iuvax.54600009
Posted: Mon Mar 3 01:49:00 1986
Date-Received: Wed, 5-Mar-86 05:36:45 EST
References: <285@aero.UUCP>
Lines: 10
Nf-ID: #R:aero:-28500:iuvax:54600009:000:482
Nf-From: iuvax!franco   Mar 3 01:49:00 1986

The book just reviewed might be useful to someone without the dev kit
but my feeling is that it is far too elementary to be useful to anyone
with the dev kit. The following line taken from the book gives you an
idea of who the book is targeted for: "AES and VDI are nothing more than
libraries (along the lines of the Library of Congress) of functions and
program routines."

If the book sold for $1.95 I would say buy it. But at $19.95 it is a
real steal and you are the victim.

From 8056276740405463885
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,1bf8bab49ea7867a,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,1bf8bab49ea7867a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 05:33:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: micro-rtx demo
Message-ID: <288@imagen.UUCP>
Date: Mon, 3-Mar-86 08:33:39 EST
Article-I.D.: imagen.288
Posted: Mon Mar 3 08:33:39 1986
Date-Received: Wed, 5-Mar-86 04:22:13 EST
Distribution: net
Organization: The Houses of the Holy

Lines: 16
Xref: watmath net.micro.atari:2951 net.micro.atari16:88

~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~

because of the large number of requests i will be posting the
micro-rtx demo tonight, please be aware that this is a demo only,
meant to entice you into buying the program.
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 6662164425861297433
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 08:31:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!kcl-cs!glasgow!rh
From: rh@glasgow.glasgow.UUCP (ray herman)
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <424@glasgow.glasgow.UUCP>
Date: Mon, 3-Mar-86 11:31:08 EST
Article-I.D.: glasgow.424
Posted: Mon Mar 3 11:31:08 1986
Date-Received: Fri, 7-Mar-86 05:36:49 EST
References: <1981@uwmacc.UUCP> <456800001@uicsl>
Organization: Comp Sci Dept, Glasgow Univ, Scotland
Lines: 27

>
> RE:
>   > I have been looking (for about a month) for a public domain
>   > full screen editor for the ST.
>   >>Has anybody tried porting GNU Emacs to the ST?
>
> There is a program called Micro Emacs that has been ported to the Amiga.
> I believe it originally ran on the IBM. It may not be too hard to move
> it to the Atari.
>
> I think the binary is about 40KB on the Amiga and it does NOT require
> a hard disk to compile. There is no Mlisp. Changing key definitions
~~~~~~~~~~~~~~~~~~~~

> requires recompiling one of the routines.
>
> Also, someone recently posted a VI like editor to net.sources.
> (or was it mod.sources?)
> ----
>
>   harold ravlin   {ihnp4,pur-ee}!uiucdcs!uicsl!hr

  MicroEMACS was supplied to me by Atari(UK) with the developement ki
It is about 28k object code plus 128k documentation.
I much prefer '1st Word' the word processor distributed in lieu of
Gemwrite.

      ray herman @ glasgow
*** REPLACE THIS LINE WITH YOUR MESSAGE ***

From 7784819178005311349
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,65162d86bf45b46a
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 09:20:39 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-
crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Where are the 1040ST's
Message-ID: <129@atari.UUcp>
Date: Mon, 3-Mar-86 12:20:39 EST
Article-I.D.: atari.129
Posted: Mon Mar 3 12:20:39 1986
Date-Received: Wed, 5-Mar-86 04:27:42 EST
References: <238@inuxj.UUCP>
Distribution: net
Organization: Atari Corp/Mktg
Lines: 20

In article <238@inuxj.UUCP>, wolenty@inuxj.UUCP (R Wolenty) writes:
>
> I've been faithfully calling Atari dealers for about 3 weeks now
> trying to find a 1040ST. I get the same story every week -
> Atari has delayed the shipment, but they're supposed to ship
> NEXT week. So what's the scoop here - do 1040ST's really exist
> or am I just being string along???

They are on the way. We started to ship within the past week. The first
batch was delayed because (and you'll never believe this one) the airplane
made a stopover in the Phillipines. A LOOONG stopover.

The first load is completely spoken for, but several more boatloads are
expected soon. So tell your dealers to get their orders in place!

--->Neil Harris, Atari Corp.
    Usenet: ...lll-crg!vecpyr!atari!neil
    CIS: 70007,1135
    BIX: neilharris
    Atari BBS: 408-745-5308

From 8150416639410304685
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3e437376ad6b2195
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 09:50:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!sun!saber!imagen!
turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: Re: Atari stock symbol request
Message-ID: <289@imagen.UUCP>
Date: Mon, 3-Mar-86 12:50:42 EST
Article-I.D.: imagen.289
Posted: Mon Mar 3 12:50:42 1986
Date-Received: Wed, 5-Mar-86 04:22:43 EST
References: <746@harvard.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 19

> Does anyone know what exchange Atari stock trades on and what their symbol is?
> I'm not even sure that they trade stock.
>
> -Eric

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

they don't, atari corp. is privately held by jack tramiel
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 6206535897922629427
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6e0756ee9d97701,start

X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 10:01:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!mcvax!ukc!kcl-cs!glasgow!rh
From: rh@glasgow.glasgow.UUCP (ray herman)
Newsgroups: net.micro.atari16
Subject: The Graphic Artist - info wanted
Message-ID: <425@glasgow.glasgow.UUCP>
Date: Mon, 3-Mar-86 13:01:45 EST
Article-I.D.: glasgow.425
Posted: Mon Mar 3 13:01:45 1986
Date-Received: Fri, 7-Mar-86 05:37:18 EST
Organization: Comp Sci Dept, Glasgow Univ, Scotland
Lines: 16

  Local dealers have had publicity about CAD software with an inbuilt
spreadsheet and graphics language. They have not been able to get their
hands on the software or documentation despite 3-4 months trying. Does
anyone out there know anything about this product or company?

      The Graphic Artist $US 495 +$245 for the Language
              Progressive Computer Applications
              2002 McAuliffe Drive
              Rockville
              Maryland 20851
        (301) 340 8398

  Thanks in advance.

              ray herman @ glasgow

From 2770899745209766572
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 12:55:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <2014@uwmacc.UUCP>
Date: Mon, 3-Mar-86 15:55:56 EST
Article-I.D.: uwmacc.2014
Posted: Mon Mar 3 15:55:56 1986
Date-Received: Wed, 5-Mar-86 04:03:03 EST
References: <456800001@uicsl> <12187066423.46.G.DYER@SU-SCORE.ARPA>
Organization: UWisconsin-Madison Academic Comp Center
Lines: 24

>
> Micro-Emacs is available (and has been for quite some time) on the ST.
> It comes with the ST Developer's Kit.
>
>
> -Landon
> -------

Did the phrase "public domain" slip by you...?

(Sorry, I can't bring myself to shell out $300 for the developer's kit...)

--

                          --- Rob DeMillo
                              Madison Academic Computer Center
                              ...seismo!uwvax!uwmacc!demillo

     "...I suppose you find the concept of a
         robot with an artificial leg amusing?"

                    -- Marvin, the Paranoid Android

From 5407219478410950736
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85707fd36093c178
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 13:09:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: ST Monochrome *not* interlaced.
Message-ID: <2784@ukma.UUCP>
Date: Mon, 3-Mar-86 16:09:00 EST
Article-I.D.: ukma.2784
Posted: Mon Mar 3 16:09:00 1986
Date-Received: Tue, 4-Mar-86 05:25:00 EST
References: <123@atari.UUcp>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 7
Keywords: Atari ST monochrome monitor

     For anyone who is still sceptical about the lack of interlacing on the monochrome ST, Degas can be used to easily set each odd line of the screen to white. Then the finger waving test can be used to establish that the rate is

71 Hz for either all white or only odd lines white. The figures I got with a stop watch were 71 Hz plus or minus about .2 Hz. This convinced me entirely!!
Alan Kennington.

From 5245503936390566261
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,945d701e636132e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 13:31:43 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!watmath!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: OSS Pascal
Message-ID: <2785@ukma.UUCP>
Date: Mon, 3-Mar-86 16:31:43 EST
Article-I.D.: ukma.2785
Posted: Mon Mar 3 16:31:43 1986
Date-Received: Tue, 4-Mar-86 05:25:33 EST
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: na
Organization: U of KY Mathematical Sciences
Lines: 60

********* Richard Mangeur de Lion - King of England (12th century) *****

The comments below were made upon first using the OSS Pascal compiler. That was about a week ago. Since then I've found a couple of things I am not entirely happy with. For instance, the "eoln" function does not work in the same way as in normal Pascal. And there are one or two aspects of the development cycle that are not quite deluxe. But overall, this seems still to be by far the best way I know to write programs on the ST. It is still a real pleasure to use it.

Comments on the OSS Pascal compiler:

Folks! This is one stunning compiler. A positive pleasure!! I'm beside myself with amazement and delight. Chuck out your old Vaxes, folks. Or use them as intelligent disk drives. Why suffer any longer with that user-hostile junk? Perhaps I should try to calm down......

Just today I received OSS Pascal in the mail (1 week after ordering it, costing $50.) The documentation stunned me. The best documentation I've seen for micro, mini, or real computer compilers in 15 years of programming. And then I gave it a test drive. It's just what I always wanted.

In the middle of editing, you just push [F9] to save,compile and link (with optional maintenance of a backup of the last version, which makes me homesick for VMS version numbers on the files.) Compare that to mouldy old DRI C! It has standard Pascal plus all of the extensions that any rational person would want. And the variations from the standard don't require extensive reading of the documentation to convert old programs (like the ST Basic, for instance). The editor is good, and well integrated

with the rest of the development process (merging files, storing portions, moving to the compilation phase, indents, backup mode, search/replace, insert/replace modes, etc.). To run an old VMS program from years ago, I only had to change "varying" type to "string" type, and move the filename definition for an input file from an "open" statement to the "reset" statement - all very clearly and accurately explained in the manual. And then it ran!!! There was once a time when languages were supposed to be machine-independent. And this compiler brings a bit of that back to the ST. (As opposed to Basic.)

The manual even tells how to interface to assembly language and C (use of the stack, register usage etc.) And the compiler can be told to use lower case function names preceded by underscores so as to be compatible with DRI C. Bios, Xbios and Gemdos are accessed be function number, which means the Atari documentation is prabably necessary, and VDI/AES are called by almost the same names as in C, except that the two seem to have been integrated here. The C routine appl_init seems to have been replaced by init_gem, for instance.

Other things I like: underscores allowed in identifiers, identifier names case-insensitive, a compiler directive to allocate stack/heap space, lots of different optional runtime checks for stack overflow, range-checking, pointer-range, an include directive etc. etc. The compiler will also name the program .prg or .tos as required by the saved options file.

Using the .tos option, it's just like using the old Vax. And all of the mouse/window stuff seems to be included in the runtime library.

I hope it isn't improper for me to write all of this. But I thought some of you out there would like to know what you're missing.

Actually, I must admit that I would have liked to be able to mix Pascal and assembly language freely, but you can specify in the saved options file the list of code to be linked at link-time.

Incidentally, I am not biased or self-interested or doing anything else of an underhand nature in writing all of this.

so long ..... Alan Kennington

knnngt@ukma.UUCP (or bitnet or something like that).

From 6376645292327488775
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,765120631807f65,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 14:29:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- EA boycott ---
Message-ID: <8603061829.AA03828@ucbvax.berkeley.edu>
Date: Mon, 3-Mar-86 17:29:00 EST
Article-I.D.: ucbvax.8603061829.AA03828
Posted: Mon Mar 3 17:29:00 1986
Date-Received: Sat, 8-Mar-86 04:50:17 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA

Organization: The ARPA Internet
Lines: 25

Someone recently suggested a boycott against EA even when they DO
start programming for the ST. I would like to point out that this
is a self-defeating argument. Sure there are other software companies
out there programming for the ST. We want more! EA will *not* "go down
the tubes" without ST customers. They write for enought machines that
they don't really care if we buy their stuff or not. However they DO
produce good software. Much of which would not be available from other
companies. My suggestion: buy from them if it is the product that you
want, don't if it isn't. A boycott of them after they cave in to demand
and start writing ST software would be cutting off your nose to spite
your face.

BTW: This boycott call was posted to INFO-ATARI8. Possibly because the
original EA letter was posted there. The EA letter was a general interest
item, and should have been posted to both groups (I don't know if it was...).
Someone flamed the poster, saying keep ST stuff out of the ATARI8 mailing
list. I sent a note to him saying it was general interest. HOWEVER, the
boycott call was DEFINATELY ST-oriented, and should have been posted
to INFO-ATARI16.   I know this split is confusing folks, but I am sure
that you can do it if you try.....

              -Richard Hartman
              max.hartman@ames-vmsb

From -6780117843059983385
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8bf5b9af09433b17
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 17:06:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: Bicer.ES@XEROX.COM
Newsgroups: net.micro.atari16
Subject: Re: TOS->CP/M file transfer program
Message-ID: <860303-170727-1678@Xerox>
Date: Mon, 3-Mar-86 20:06:36 EST
Article-I.D.: Xerox.860303-170727-1678
Posted: Mon Mar 3 20:06:36 1986
Date-Received: Sat, 8-Mar-86 04:54:01 EST
References: <307@drivax.UUCP>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 12

I have just received CPM.TOS. When I execute it it asks for a CPM disk,
and none of the disks I seem to be good enough. What do I have to do to get

it to work with my CPM programs? Also, is the speed comparable to a,
lets say a 4Meg Z80?

     Thaks in advance,
     Jack Bicer

Bicer.ES@Xerox.COM
     -or-
Bicer.ES@Xerox.ARPA

From 171372547678031989
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b91dfaca70627324,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-03 18:12:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: eem@DSPVAX.MIT.EDU (Evangelos Milios)
Newsgroups: net.micro.atari16
Subject: STTrouble
Message-ID: <8603040212.AA00407@mit-bugs-bunny.MIT.EDU>
Date: Mon, 3-Mar-86 21:12:42 EST
Article-I.D.: mit-bugs.8603040212.AA00407
Posted: Mon Mar 3 21:12:42 1986
Date-Received: Sat, 8-Mar-86 04:57:49 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 23

I had an unpleasant experience with two Atari 520 STs
(the standard monochrome configuration), I received through
mail order. The first one I got showed a screwy display a few minutes
after I turned it on for the first time. I sent it back the next day
for exchange. 10 days later I received another one, whose display develops
a slight blurr about 5 minutes after turning it on. About 5 minutes later,
the blurr goes away, and the picture stays normal for the rest of the
session. The same thing happens with remarkable regularity (plus/minus
one minute - I timed it) every single time I turn it on after being off
for several hours. Recycling the power of either the computer or the
monitor after the first 10 minutes does not spoil the image.

Has anybody seen this problem before? Atari hasn't.
Any fixes? Please answer fast, I only have a 10-day exchange period.

...Evangelos
-- MIT Digital Signal Processing Group

UUCP: {seismo,pur-ee}!mit-bug!eem
ARPA: eem@mit-bugs-bunny.arpa

From -5843796721656105807
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,698afe059821cda7,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 05:07:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: burman@BRL-TBD.ARPA ("Norbert M. Burman", TBD-PMB-MRL)
Newsgroups: net.micro.atari16
Subject: Hard and Floppy Drives for ST?????
Message-ID: <8603070107.AA03638@ucbvax.berkeley.edu>
Date: Tue, 4-Mar-86 08:07:21 EST
Article-I.D.: ucbvax.8603070107.AA03638
Posted: Tue Mar 4 08:07:21 1986
Date-Received: Sat, 8-Mar-86 05:13:24 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 55

To all the hackers out there in ST land.

I am posting this in the hope that someone can provide me a few clues to the following questions:

1. Has anyone tried to get their own hard disc up and running on the ST either 520 (512k or upgrade to 1024 k) or 520+ (European 520 with 1024k)?

2. What hard disc controller and also what make and size of hard disc did you use? Is there a limit to the size of the hard disc the ST can handle?

3. Does the ST operating system, TDOS, come with software support for the SCSI/SASI hard disc bus built into the ST?

4. If there is no built in hard disc software support is there any mention in the developer's manuals of how to hook up and run a hard disc.

5. How does the Haba Hard Disc for the ST handle the software required to run the hard disc? Is there overlay or other software provided by Haba for TDOS or is TDOS smart enough to look at the hard disc port on cold boot? If it is can you select to boot from the hard disc and does this provide autoexec software capabilities similar to that available on CP/M and PC machines?

6. What sort of hard disc controller do Haba use? Has anyone had a look inside their box?? Is it their own design or do they use a WD1000, Shugart 1610 or similar SCSI/SASI type controller?

7. In the November 1985 Antic magazine there is an article which shows you how

to attach a 5 1/4" DSDD 40 or 80 track drive to the ST. Has anyone had a go at doing this yet? If so, were there any hassles either in the hardware or with the operation of the drive in the system? Are there any limitations to the use of this type of drive on the ST, ie. incompatability with the OS, sacrifice in file transfer speed, file transfer size limitations?. Could you use two 5 1/4" drives in place of the 3 1/2" drives if you have TDOS in ROM? I would prefer to have 700k odd capacity on discs that costs 1/3 of the 3 1/2" price.

If these questions have been asked and answered previously maybe someone could mail me a copy privately. If not, I am sure that there are others out there somewhere who would like to have a go at rolling their own hard disc and maybe adding a 5 1/4" DSDD disc drive as well.

For anyone interested in the 5 1/4" drives there are 96TPI (80 track) full height 5 1/4" drives available through mail order houses for about $US50 at the moment. With a case, power supply and cables you can have drive up and running for well under $US100. Beats the ATARI price by quite a few bucks and if you need it (you might want to upgrade your PC, XT, AT to a real machine) you will have built-in 5 1/4" IBM disc reading capability for tranfering ascii text files to your ST.

Thanks in advance for any help.

Norbert Burman
burman@brl-tbd.arpa

From 5557475330681177582
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,513c9608d1b649cf,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 15c82e,513c9608d1b649cf,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,513c9608d1b649cf,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 06:36:09 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpa.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpa!freak
From: freak@ihlpa.UUCP (Malloy)
Newsgroups: net.micro.atari,net.micro.atari8,net.micro.atari16
Subject: Foul language
Message-ID: <1174@ihlpa.UUCP>
Date: Tue, 4-Mar-86 09:36:09 EST
Article-I.D.: ihlpa.1174
Posted: Tue Mar 4 09:36:09 1986
Date-Received: Wed, 5-Mar-86 05:28:20 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 37
Xref: watmath net.micro.atari:2952 net.micro.atari8:32 net.micro.atari16:91

> From uucp Mon Mar 3 09:47 CST 1986
> >From ucbvax!@SUMEX-AIM.ARPA:MRC@PANDA Mon Mar 3 08:30:17 1986 remote from ihnp4
> Received: by ihnp4.ATT.COM id AA17647; 3 Mar 86 08:30:17 CST (Mon)
> Received: by ucbvax.berkeley.edu (5.45/1.9)
>   id AA20904; Sat, 1 Mar 86 21:08:53 PST
> Received: from PANDA by SUMEX-AIM.ARPA with Cafard; Sat 1 Mar 86 21:09:22-PST
> Date: Sat 1 Mar 86 20:14:28-PST
> From: Mark Crispin <ihnp4!ucbvax!SUMEX-AIM.ARPA!MRC%PANDA>
> Subject: Re: The correct use of the atari sub-groups
> To: ihlpa!freak
> In-Reply-To: <1159@ihlpa.UUCP>
> Postal-Address: 1802 Hackett Ave.; Mountain View, CA 94043-4431
> Phone: +1 (415) 968-1052
> Message-Id: <12187383027.8.MRC@PANDA>
> Status: RO
>
> Clancy Malloy -
>
>   Will you cut your goddamn fucking shit-sucking whining? It is bad
> enough that there is trash on the list without you flaming to everybody
> on the net about misdirected postings.
>
>   No wonder AT&T is going down the tubes, if this sort of bullshit is
> all AT&T's employees worry about.
> -------
>

     Why don't you grow up. And try to curb your foul language.

From inside the Tesseract of
     Clancy Malloy
     (ihnp4!ihlpa!freak)

| Everyone looked up and realized that we were only tenants of this world; |
| We have been given a new lease, and a warning, from the landlord. |

From -811970515388852376
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 08:23:42 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!amdcad!amdahl!drivax!braun
From: braun@drivax.UUCP (Karl Braun)
Newsgroups: net.micro.atari16
Subject: Re: (none) (Really Gemdos Tools and Paths)
Message-ID: <312@drivax.UUCP>

Date: Tue, 4-Mar-86 11:23:42 EST
Article-I.D.: drivax.312
Posted: Tue Mar 4 11:23:42 1986
Date-Received: Fri, 7-Mar-86 04:45:05 EST
References: <12326958@mitre-be.UUCP> <96100004@unido.UUCP>
Reply-To: braun@drivax.UUCP (Karl Braun)
Organization: Digital Research, Monterey, CA
Lines: 35

>>Talking about the port of the C compiler from CP/M68k to GEMDOS...
>>CP/M68k does not have directories, while GEMDOS has. But no one thought
>>of this when they ported the linker. It seems to be impossible to link
>>files in different directories together. I use the atari hard disk for
>>development, and I (unix-addict as I am) like to have all things in the right
>>directories. Everything is fine, I have my \bin, \include, and \lib.
>>But to link a program, I have to copy my objects into \lib, cd to \lib,
>>link there and copy the program back into my directory. Granted, this is
>>all done by a command script, but it is a major pain in th *ss, though.
>>Obviously, the checks in the linker for correct filenames has not been adapted
>>to the different environment. Does anyone know if this will be fixed, or can
>>anyone give a patch to switch this stupid checking off ?
>>
>>   Hans-Martin Mosner <hmm@unido.uucp>, <hmm@unido.bitnet>
>>   University of Dortmund

You are absolutely right. This is a major pain. What's the point in having
an organized directory if your tools can't make use of it? We are attempting
to get the compiler/linker/etc programs either fixed or changed so that they
accomodate hierarchical directories.

--

                kral
ihnp4!-------- \
mot! ---------- \
                 >   drivax!braun
ucscc!--------- /
amdahl!------- /

Disclaimer: Nothing I say matters anyway.

From 2517406717174952925
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b07e3d5b5347c8d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 08:35:56 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-

crg!lll-lcc!qantel!ptsfa!jmc
From: jmc@ptsfa.UUCP (Jerry Carlin)
Newsgroups: net.micro.atari16
Subject: Graphics chip on 1040ST
Message-ID: <1198@ptsfa.UUCP>
Date: Tue, 4-Mar-86 11:35:56 EST
Article-I.D.: ptsfa.1198
Posted: Tue Mar 4 11:35:56 1986
Date-Received: Fri, 7-Mar-86 05:34:02 EST
Organization: Pacific * Bell, San Francisco
Lines: 13
Keywords: graphics 1040ST

In the March BYTE, there is an article on the 1040ST which mentions
that at some point there will be a socket in the 1040 motherboard for
a graphics chip followed at some time later with an actual chip to go
into the socket. I don't know about anyone else, but if it will cost
me a lot of money to exchange my motherboard for one with a socket or
if I don't know how much it will cost to upgrade then I'll wait a few
months (or more) to get the real thing.

Will someone at Atari please clarify the availability of the socket
and the availability and capabilities of the forthcoming graphics chip.
--
voice= 415 823-2441
uucp={ihnp4,dual,qantel}!ptsfa!jmc

From 8254778537534757970
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,330db70939b9661b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 08:44:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site voder.UUCP
Path: utzoo!decvax!decwrl!pyramid!hplabs!nsc!voder!kevin
From: kevin@voder.UUCP (The Last Bugfighter)
Newsgroups: net.micro.atari16
Subject: Availability of 1040ST
Message-ID: <1297@voder.UUCP>
Date: Tue, 4-Mar-86 11:44:36 EST
Article-I.D.: voder.1297
Posted: Tue Mar 4 11:44:36 1986
Date-Received: Thu, 6-Mar-86 03:34:37 EST
Reply-To: kevin@voder.UUCP (The Last Bugfighter)
Distribution: na
Organization: National Semiconductor, Santa Clara
Lines: 12

  Concerning the availability of the 1040ST, at last night's (3/3/86) meeting
of the Bay Area Atari Users Group, a 1040ST with a hard disk was demonstrated
by San Jose Computer. The representative mentioned that they recieved 20

ST's last friday but that by today (monday night) the unit he was showing was
the only one left!

Kevin Thompson   {ucbvax,ihnp4!nsc}!voder!kevin

"It's a sort of threat, you see. I've never been very good at them
  myself but I'm told they can be very effective."

From -6039369091408228642
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f7b590d2a32d52e8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 09:43:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!amdcad!amdahl!
drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: How to make a CP/M diskette for the ST
Message-ID: <313@drivax.UUCP>
Date: Tue, 4-Mar-86 12:43:30 EST
Article-I.D.: drivax.313
Posted: Tue Mar 4 12:43:30 1986
Date-Received: Fri, 7-Mar-86 04:51:28 EST
Distribution: net
Organization: Digital Research, Monterey, CA
Lines: 30

(In reply to mail from Mssr. Bicer -- amdahl never heard of Xerox.COM)

Path: amdahl!hplabs!ucbvax!Xerox.COM!Bicer.ES

You have to have a formatted Atari diskette with NO files, and NO volume
label on it. This will work fine. I usually find it works even better on a
newly formatted diskette, rather than a normal GEMDOS diskette with all the
files erased.

Getting files onto the disk is tricky. I uploaded the source to a TOS->CP/M
file transfer program that includes a slight bug. The program works in my
testbed, but when I try to run it on my ST, it's always off by one block.

I don't know exactly how fast it is, but it seems extremely unlikely
that it matches a 4MHz Z80. More like a 1MHz Z80.

--

+---+

|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -2301505131115380705
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,45a13179855e0c72,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 09:46:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: HALL@SU-SUSHI.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: ST Public Domain Disk #4 -- erratum
Message-ID: <12188055053.13.HALL@SU-SUSHI.ARPA>
Date: Tue, 4-Mar-86 12:46:01 EST
Article-I.D.: SU-SUSHI.12188055053.13.HALL
Posted: Tue Mar 4 12:46:01 1986
Date-Received: Sat, 8-Mar-86 05:20:13 EST
Sender: wildbill@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

In my list of utility programs on Disk #4, I included four programs
which I should not have: DBMASTER, CONTROL.ACC, BREAKOUT.ACC, and
VT52.ACC. These are in the process of enhancement by Atari, who has
requested that they not be placed in the public domain. (DBMASTER
may be a product in the future.) I apologize for the error; I will
place other utilities on Disk #4 in their stead.

Keith

From -9025364105255994959
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34b5c48b11abb3c3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 12:26:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!brl-adm!brl-smoke!nlm-mcs!nlm-vax!randy
From: randy@nlm-vax.ARPA (Rand Huntzinger)
Newsgroups: net.micro.atari16
Subject: Re: Grand Opening Celebation
Message-ID: <2359@nlm-vax.ARPA>

Date: Tue, 4-Mar-86 15:26:34 EST
Article-I.D.: nlm-vax.2359
Posted: Tue Mar 4 15:26:34 1986
Date-Received: Sat, 8-Mar-86 21:32:40 EST
References: <54600006@iuvax.UUCP>
Reply-To: randy@nlm-vax.UUCP (Rand Huntzinger)
Organization: NLM/LHNCBC, Bethesda, Md.
Lines: 21

The CLI command interpreter posted to the net contains the following messages embedded in the executable file:

    Rising Star Industries, Copyright (c) 1985

and also the line:

    RSI Command Facility V1.01 9-20-85 MGW

This seems to suggest that this is a proprietary product, and therefore should not be distributed over the net. Is this true, or has Rising Star Industries given blanket permission to distribute it?

I do not wish to suggest improper behavior on the part of the poster of this article, nor on the part of the SYSOP of the BBS where he states he obtained it. However, we should clarify its status before allowing it to be further distributed. I'm not familiar with Rising Star Industries. Does someone know how to contact them and determine if this thing is legit?

                    Rand Huntzinger

From 7201699202511424255
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a4665603ab19f076,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 16:10:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: nep.pgelhausen@AMES-VMSB.ARPA
Newsgroups: net.micro.atari16
Subject: --- Postings ---
Message-ID: <8603070739.AA09179@ucbvax.berkeley.edu>
Date: Tue, 4-Mar-86 19:10:00 EST
Article-I.D.: ucbvax.8603070739.AA09179
Posted: Tue Mar 4 19:10:00 1986
Date-Received: Sat, 8-Mar-86 05:23:05 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Reply-To: nep.pgelhausen@ames-vmsb.ARPA
Organization: The ARPA Internet
Lines: 54

This message was returned to me when I tried to address it to
both INFO-ATARI8 and INFO-ATARI16 at the same time. My mailer
is a bit dense at times.... I have recieved one copy through
channels, and am assuming that INFO-ATARI8 got it, and that
INFO-ATARI16 has not, therefore I am reposting this only to
INFO-ATARI16. If I have guessed wrong about which list got
it, I apologize in advance.

Ok, there have been some mis-postings, and some (largly inaccurate)
flames about them. Let's lay out the ground rules:

   1) INFO-ATARI8 is for the 8-bit machines
   2) INFO-ATARI16 is for the 16-bit machines
   3) INFO-ATARI is currently synonymous with INFO-ATARI8
      (contrary to the recent flame, messages are not
      posted FROM INFO-ATARI, they are posted TO INFO-ATARI)
   4) INFO-ATARI8-REQUEST, INFO-ATARI16-REQUEST, and INFO-ATARI-REQUEST
      are ONLY for posting bookkeeping notes to. Add to list. Drop
      from list. They are NOT for posting messages to, hoping someone
      there will figure out where it should go for you. Lets use a
      little judgement and keep our mailing list operators lives a
      little easier.

My own vote is that INFO-ATARI (no number) should be a master post to
both 8 & 16 bit lists, and used for general interest items. This is,
however, only my opinion on how it *should* be, and does not reflect
the current status of the mailing list.

There has been some misteaks on posting to the lists, but the flames
have been equally irresponsible. There was a posting on INFO-ATARI8
about a letter from Electronic Arts that said they will start publishing
for the 8-bit machines again. It ended with the hope that if we keep
up the pressure they will do some for the STs. This was promptly flamed.
That flame was out of line. The bulk of the message was about the 8-bit
programs they were about to start. There was, however, a reply to this
msg about starting a boycott of EA, to spite them. This was directed
to the ST owners, but due to the laziness of the poster (I am assuming
he used a 'reply' function in his mailer) it was posted only to the
INFO-ATARI8 list. This too, was out of line. A more recent flame
was complaining about a posting from 'INFO-ATARI ... the ones who
split the list'. This is flat-out wrong. As I pointed out above
the INFO-ATARI address is synonymous with INFO-ATARI8. It was addressed
wrong, but it was NOT from 'the guys who split the list'.

How about we all be a little more responsible both with our addresses
AND our hair-trigger responses when something goes wrong?

              -Richard Hartman
              max.hartman@ames-vmsb

From 8338327603520530265
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d6fe499eb1eaec8f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-04 23:29:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!genrad!panda!talcott!harvard!seismo!ll-xn!mit-amt!todd
From: todd@mit-amt.MIT.EDU (Hisashi Todd Fujinaka)
Newsgroups: net.micro.atari16
Subject: Ultima II help needed
Message-ID: <103@mit-amt.MIT.EDU>
Date: Wed, 5-Mar-86 02:29:04 EST
Article-I.D.: mit-amt.103
Posted: Wed Mar 5 02:29:04 1986
Date-Received: Fri, 7-Mar-86 08:29:13 EST
Organization: MIT Media Lab, Cambridge, MA
Lines: 15
Keywords: How do you get provisions?

I hope you don't mind the game question here, but I think this problem
might be ST specific (I asked this question to someone who had the
Apple II version long ago, and he didn't have this problem).

I can't seem to get any provisions. I always starve to death. I see
wandering shopkeepers who ask me if I want to buy apples, but I can't
find a way to buy them. I just keep getting the same query.

Thanks.

Todd Fujinaka todd@media-lab.arpa
         ~somewhere!mit-eddie!mit-media-lab!todd

P.S. CompuClub finally came through and delivered Ultima II a week
after they promised it.

From 7974211161167150592
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 00:07:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site amdahl.UUCP
Path: utzoo!linus!decvax!decwrl!amdcad!amdahl!sjl
From: sjl@amdahl.UUCP (Steve Langdon)
Newsgroups: net.micro.atari16
Subject: Re: Gemdos Tools and Paths
Message-ID: <2878@amdahl.UUCP>
Date: Wed, 5-Mar-86 03:07:51 EST

Article-I.D.: amdahl.2878
Posted: Wed Mar 5 03:07:51 1986
Date-Received: Sat, 8-Mar-86 07:38:03 EST
References: <12326958@mitre-be.UUCP> <96100004@unido.UUCP> <312@drivax.UUCP>
Reply-To: sjl@amdahl.UUCP (Steve Langdon)
Organization: Amdahl Corp, Advanced Systems Planning
Lines: 20
Summary: Learn from the Macintosh world

In article <312@drivax.UUCP> braun@drivax.UUCP (Karl Braun) writes:

>
> You are absolutely right. This is a major pain. What's the point in having
> an organized directory if your tools can't make use of it? We are attempting
> to get the compiler/linker/etc programs either fixed or changed so that they
> accomodate hierarchical directories.
>

You might want to try a simple short term fix for this type of problem that
is available on the Mac. Andy Hertzfeld wrote a patch to the open routine
that searches all directories if it cannot find the file in the current
directory. This allows many pre-HFS programs to work with the new Mac ROMs.
I do not know if this kind of patch is as easy on the ST as it is on the MAC,
but it might be worth a try.
--
Stephen J. Langdon   ...!{ihnp4,cbosgd,hplabs,sun}!amdahl!sjl

[The article above is not an official statement from any organization
  in the known universe.]

From -3118656446580482857
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 07:30:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site druxu.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!houxm!mtuxo!drutx!druxu!rwb
From: rwb@druxu.UUCP (BlackR)
Newsgroups: net.micro.atari16
Subject: help needed on uudecode files
Message-ID: <118@druxu.UUCP>
Date: Wed, 5-Mar-86 10:30:49 EST
Article-I.D.: druxu.118
Posted: Wed Mar 5 10:30:49 1986
Date-Received: Fri, 7-Mar-86 05:27:14 EST
Organization: AT&T Information Systems Labs, Denver, Co
Lines: 16
Keywords: uudecode

Has anyone been able to move uuencoded files from the net to a 520ST and

get them to run? I've downloaded the assembler, the clock, and micro
EMACS, uudecoded them and tried to run them. The screen clears (micro
EMACS asks for parameters since it is a .TTP file), the disk whirls,
then I get the desk top back. I would suspect the uudecode program, but
a dump of the decoded files show character strings that are readable among
a lot of stuff that is not readable. Since I just received the TOS ROMs, I'm
going to install those and see if they make any difference. Any other
suggestions?

Rodney Black
AT&T Information Systems
11900 North Pecos,
Denver, CO.
..!ihnp4!druxu

From 2644777634241458040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b07e3d5b5347c8d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 08:37:58 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site aum.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!pyramid!hplabs!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari16
Subject: Re: Graphics chip on 1040ST
Message-ID: <441@aum.UUCP>
Date: Wed, 5-Mar-86 11:37:58 EST
Article-I.D.: aum.441
Posted: Wed Mar 5 11:37:58 1986
Date-Received: Sat, 8-Mar-86 02:45:31 EST
References: <1198@ptsfa.UUCP>
Organization: The Aurora Systems Bunch
Lines: 27

> In the March BYTE, there is an article on the 1040ST which mentions
> that at some point there will be a socket in the 1040 motherboard for
> a graphics chip followed at some time later with an actual chip to go
> into the socket. I don't know about anyone else, but if it will cost
> me a lot of money to exchange my motherboard for one with a socket or
> if I don't know how much it will cost to upgrade then I'll wait a few
> months (or more) to get the real thing.
>
> Will someone at Atari please clarify the availability of the socket
> and the availability and capabilities of the forthcoming graphics chip.

I was told by atari that there is no socket in the current 1040's and
this chip will not be for a while... I was assured that one could put
one in eventually but that it would involve a `kludge' I would not
put off buying a 1040 on this one. after all with custom VLSI, schedules
are a mystery to even the people intimately involved. They did say that

they had first silicon however... They also as an aside told me that
on the `Amy' chip, the 16 bit audio chip, they punted on it after
difficulty in making the silicon do what they wanted; They sold the design
to a third party. Hopefully they are not going to be made in the
Phillipines ;-)
--

Erik James Freed
Aurora Systems
San Francisco, CA
{dual,ptsfa}!aum!freed

From 5307626307952050441
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6c8ce6c853466c0c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 10:11:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site oscvax.UUCP
Path: utzoo!utcsri!utcs!oscvax!ron
From: ron@oscvax.UUCP
Newsgroups: net.micro.atari16
Subject: Any PD Ramdisks out there?
Message-ID: <399@oscvax.UUCP>
Date: Wed, 5-Mar-86 13:11:10 EST
Article-I.D.: oscvax.399
Posted: Wed Mar 5 13:11:10 1986
Date-Received: Wed, 5-Mar-86 13:42:39 EST
Distribution: tor
Organization: Ontario Science Centre, Toronto
Lines: 9

I have been hearing that there are public domain RAM disk around. We
just upgraded a ST to 1 Meg and would like to get some RAM disk
software. If anyone in the Toronto area has such a thing and would be
willing to mail it to me, I would be very grateful. Also any pointers
to commercial RAM disks would be appreciated.
--
Ron Janzen
Ontario Science Centre, Toronto
...!{allegra,ihnp4,linus,decvax}!utzoo!oscvax!ron

From -30944719436641832
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 10:29:18 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site uwmacc.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!genrad!panda!talcott!harvard!uwvax!uwmacc!oyster

From: oyster@uwmacc.UUCP (Vicious Oyster)
Newsgroups: net.micro.atari16
Subject: Program Development on the ST
Message-ID: <2018@uwmacc.UUCP>
Date: Wed, 5-Mar-86 13:29:18 EST
Article-I.D.: uwmacc.2018
Posted: Wed Mar 5 13:29:18 1986
Date-Received: Fri, 7-Mar-86 07:56:10 EST
Distribution: net
Organization: UWisconsin-Madison Academic Comp Center
Lines: 42

*** REPLACE THIS LINE WITH YOUR MUSHROOMS ***

  Well, I don't (yet!) have my ST, but I want to be able to plug it in and start programming immediately (1/2 :-), so I'm going to be ordering software soon. Here's a very short summary of what I've seen here so far on the subject of languages:

TDI Modula-2: Exciting, but has a bizarre object file format

OSS Personal Pascal: Great! Impressive! Nifty!

DRI C: Slow and lacking

Megamax C: It exists

Lattice C: Real Soon Now

  Is that all anybody knows about?! I'd rather program in C than Pascal, but so far I'm leaning toward the TDI Modula-2 compiler. Is there any other C out there? What about assemblers?
  Since the language and compiler themselves make up only a part of a development system, I'm also very interested in the less heralded things, like editor (if there is one), edit-compile-link cycle (speed, ease,...), documentation, library routines, etc. (The OSS Pascal and TDI Modula-2 reviews have been really good about that; thanks, to those of you who've posted). Any information would be appreciated (post things of general interest; send obnoxious comments and flames by E-mail).

My personal view of the developer's kit:
It may have been the only game in town at one point, but that's not true anymore. From the reports on the compiler and documentation, it's not worth the $300 price. Are there any plans to either reduce the price, tidy it up, or unbundle the components? Also, both myself and another couple of people I've talked to see an attitude on the part of Atari of "if you didn't pay us $300 to be conferred the title of Developer we won't play with you." Is this a warped perception? [This one should probably be answered by E-mail!]

- Joel Plutchak
  {allegra,ihnp4,seismo}!uwvax!uwmacc!oyster

Can you say "opinion"? I *knew* you could!

From 3073661905167601195
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e88a02419d25486,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 11:28:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!glacier!LaBrea!hall
From: hall@LaBrea.ARPA (Keith Hall)
Newsgroups: net.micro.atari16
Subject: Public Domain Disk #4 -- erratum
Message-ID: <136@LaBrea.ARPA>
Date: Wed, 5-Mar-86 14:28:29 EST
Article-I.D.: LaBrea.136
Posted: Wed Mar 5 14:28:29 1986
Date-Received: Fri, 7-Mar-86 08:35:44 EST
Organization: Stanford University
Lines: 9

In my list of utility programs on Disk #4, I included four programs
which I should not have: DBMASTER, CONTROL.ACC, BREAKOUT.ACC, and
VT52.ACC. These are in the process of enhancement by Atari, who has
requested that they not be placed in the public domain. (DBMASTER
may be a product in the future.) I apologize for the error; I will
place other utilities on Disk #4 in their stead.

Keith
hall@su-sushi.arpa

From -571874506708306770
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,7b07e3d5b5347c8d
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 14:18:04 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!genrad!panda!talcott!harvard!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Graphics chip on 1040ST
Message-ID: <130@atari.UUcp>
Date: Wed, 5-Mar-86 17:18:04 EST
Article-I.D.: atari.130
Posted: Wed Mar 5 17:18:04 1986
Date-Received: Fri, 7-Mar-86 08:30:00 EST
References: <1198@ptsfa.UUCP>
Organization: Atari Corp/Mktg
Lines: 20
Keywords: graphics 1040ST

In article <1198@ptsfa.UUCP>, jmc@ptsfa.UUCP (Jerry Carlin) writes:
> In the March BYTE, there is an article on the 1040ST which mentions
> that at some point there will be a socket in the 1040 motherboard for
> a graphics chip followed at some time later with an actual chip to go
> into the socket. I don't know about anyone else, but if it will cost
> me a lot of money to exchange my motherboard for one with a socket or
> if I don't know how much it will cost to upgrade then I'll wait a few
> months (or more) to get the real thing.

The 1040ST will NOT have a graphics chip. A chip under development should
appear in a more costly computer later this year -- a new model.

However, we are also developing an add-on board for the 1040ST to adapt it
when the new chip is out. The cost of this add-on is expected to be similar
to the differential between the 1040ST and the new model.

No word on the adaptability of the 520ST to this chip -- but my guess
<unofficially> is that it will be equivalent to adapting a 1040ST.

--->Neil @ Atari

From 15111876382709788845
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 15:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <54600011@iuvax.UUCP>
Date: Wed, 5-Mar-86 18:15:00 EST
Article-I.D.: iuvax.54600011
Posted: Wed Mar 5 18:15:00 1986
Date-Received: Sat, 8-Mar-86 23:16:28 EST
References: <118@druxu.UUCP>
Lines: 16
Nf-ID: #R:druxu:-11800:iuvax:54600011:000:556
Nf-From: iuvax!franco   Mar 5 18:15:00 1986

We can't diagnose your problem without more information. Can you
tell us everything you do exactly in sequence right down to how you
move the file from the net to whatever and how you prepare the file for
decoding. I have tried uudecode several times and it has always worked.
If we get to the bottom of this in public alot of people should benefit.

Whatever you do - do not destroy the original files - there is still

hope.

"Where there is a will there is a way"
                    - mothers all across America

P.S. include all equipment involved

From 3895099489673330040
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 15:21:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <54600013@iuvax.UUCP>
Date: Wed, 5-Mar-86 18:21:00 EST
Article-I.D.: iuvax.54600013
Posted: Wed Mar 5 18:21:00 1986
Date-Received: Sat, 8-Mar-86 23:17:12 EST
References: <118@druxu.UUCP>
Lines: 4
Nf-ID: #R:druxu:-11800:iuvax:54600013:000:180
Nf-From: iuvax!franco   Mar 5 18:21:00 1986

One last thing - it is very important that we all get together and figure
out this UUDECODE problem because a whole lot more UUENCODED stuff is
coming down the pike real soon now!

From 4367302662616266285
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,6b1fb82030f1ed42,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-05 15:48:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Software Catalog
Message-ID: <54600014@iuvax.UUCP>
Date: Wed, 5-Mar-86 18:48:00 EST
Article-I.D.: iuvax.54600014

Posted: Wed Mar 5 18:48:00 1986
Date-Received: Sat, 8-Mar-86 23:18:00 EST
Lines: 467
Nf-ID: #N:iuvax:54600014:000:19444
Nf-From: iuvax!franco   Mar 5 18:48:00 1986

Below is a catalog of the Bloomington, Indiana ST User's Group Public Domain software. We are willing and happy to place anything reasonable in size on the net for all to scoop up. Please look this list over. If you see something of interest, mail me a note indicating such (franco@indiana.CSNET). We will put anything that is mentioned by a large number of people on the net (even if it has to be UUENCODED and provided it is not too big - the bird demo (bird flying across the screen), for example, is pretty big - I will have to check to see what squeezing does to it).

BLOOMINGTON ST USERS GROUP
Public Domain Software Index
2/15/86

System:

   TOS.IMG
   DESKTOP.INF

Accesories:

   DESK1.ACC   -Control panel
   DESK2.ACC   -Breakout (game)
   DESK3.ACC   -Spooler (works only in desktop)
   DESK4.ACC   -RAMDISK (360K) for the 1 MEG upgraded ST without TOS in ROM
   DESK5.ACC   -VT52 terminal emulator
   DESK6.ACC   -Fontloader
   DESK7.ACC   -Displays amount of free RAM
   PUZZLE.ACC -15 Squares Puzzle
   CLOCK.ACC   -Digital Clock
   MRAMDISK.ACC-RAMDISK (100k - inf) Works with TOS in ROM
   SNAPSHOT.ACC-Takes snapshot of screen in DEGAS format
   CALENDAR.ACC-Displays current day within current month - use mouse to change
   TTOOL.ACC   -File, Memory and Sector Editors - needs work

Languages:

   BASIC.PRG   -100K Basic interpretor executable (Atari supplied)
   BASIC.RSC   -Resource file for above
   TBI68K.TOS -Tiny BASIC - allows lots of array space
   LOGO.PRG   -100K Logo interpretor executable (Atari supplied)

```
   LOGO.RSC    -Resource file for above
   A68.TTP     -Assembler
   XLISP.TTP   -Public Domain XLISP
   FORTH.BLK   -Dragon Group FORTH demo disk...full blown FORTH
   FORTH.TOS   -       minus file transfer capability
   FORTH.DAT   -
   PROLOG.LSP  -PROLOG built ontop of XLISP (slow)
   FORTH.TOS   -PD forth (different from previous FORTH.TOS)
   KERNAL.TOS  -Subset of the above


Programs:

   FIBON.LOG   -Computes fibonnaci numbers.  Used as benchmark, test stack
   FLAKY.LOG   -Draws snowflakes (from ANTIC)
   HANOI.LOG   -Solves Tower of Hanoi Problem graphically

   BUG.BAS     -Bug wanders in search of food, leaves trail.  Test RND
   BUG1.BAS    -Bug wanders in search of food, leaves no trail.  Test erase
   BOUNCE.BAS  -Ball is bounced against floor. HZ motion, CoRes < 1
   CIRCLE.BAS  -Builds many concentric circles.  Speed test for Basic
   ENIGMA.BAS  -Encode/Decode secret messages based on German WWII machine
   FIBONACC.BAS-Computes fibonacci numbers recursively.  Test stack, speed
   GRAVITY.BAS -Path of spaceship near star of great mass, leaves trail
   GRAVITYW.BAS-As above except that spaceship bounces off screen boundaries
   ITSYBITS.BAS-Plays itsybitsy spider.  Test of sound chip
   PI.BAS      -Computes integers A,B s.t. A/B is nearly pi.  Speed test
   SCALES.BAS  -Test of sound chip
   3CONES.BAS  -Three cones generated with sound
   SILENT.BAS  -Plays Silent Night (MIDI port only)
   MOUSE.BAS   -Mouse demo
   SOLIDST.BAS -Draws perspectives of objects...can use objects in .DAT below
   SHIP.DAT    -Used by SOLIDST.BAS
   XWING.DAT   -Used by SOLIDST.BAS
   TIEFIGHT.DAT-Used by SOLIDST.BAS
   VDITST.BAS  -Does as named
   MEM.BAS     -Some sort of memory tester
   FINAN.BAS   -Package of about 20 programs for managing your finances
   MOL.BAS     -Molecule viewer - needs .DAT files below
   NACL.DAT    -Sodium Chloride
   B10H14.DAT  -I should mention that some of these are mislabeled
   C7H7O2N.DAT -Another molecule
   CRC6H6.DAT  -Another molecule
   4B5H7.DAT   -Another molecule
   MOL7.DAT    -Another molecule
   BIORYT.BAS  -Find your biorythm curve for any day - even before you were born

   ART.LSP     -
   EXAMPLE.LSP -Object example
   FACT.LSP    -Computes Factorials (benchmark)
   FIB.LSP     -Computes Fibonacci Numbers recursively (benchmark)
   HANOI.LSP   -Solves tower of Hanoi problem
   HDWR.LSP    -Hardware objects, mix and match to create design
```

```
IFTHEN.LSP  -Animal world expert system (small)
INIT.LSP    -Required at startup of XLISP
OBJECT.LSP  -Object example
QUEENS.LSP  -Solves n-queens problem
QUEENS2.LSP -Solves n-queens problem with graphical output

LIFE.S      -Source for game of LIFE (assembler)
LIFE2.S     -Source for game of LIFE (assembler)
RAM.S       -RAMDISK source
HI25.S      -25 lines of text in Hi-Res mode
HI50.S      -50 lines of text in Hi-Res mode
TBI68K.S    -Source for Tiny BASIC

ACSKEL.C    -
APSKEL.C    -
BOB.C       -
DCOS.C      -
DROP2.C     -
DROP3.C     -
FIB.C       -Fibonacci benchmark
FLOAT.C     -
FOOLISH.C   -
FRACT1.C    -
FRACT2.C    -
FRACT3.C    -
FRACT4.C    -
FRAME.C     -
GETTIX.C    -
HZ.C        -
INTMATH.C   -
POINTER.C   -
QSORT.C     -
RFRAME.C    -
RINTMATH.C  -
RPOINTER.C  -
RSQSORT.C   -
RSIEVE.C    -
TERM.C      -
XLREAD.C    -
BICALC.C    -
NEOCON.C    -Convert pictures from DEGAS (PI1) format to NEOCHROME format
CC.C        -
CPRIMER.C   -C demo, needs include file ALPHA.H
GETOPT.C    -
MKBOOT.C    -
NEOCON.C    -
NRAMDSK.C   -
RAMDSKI.C   -
SRAMDSK.C   -
STSTUFF.C   -
SYSERR.C    -
SYSTEM.C    -
TERM.C      -
```

```
   TPA.C       -
   UPACK.C     -
   WBOOT.C     -
   XLBFUN.C    -Start of XLISP source files
   XLCONT.C    -
   XLDBUG.C    -
   XLDMEM.C    -
   XLEVAL.C    -
   XLFIO.C     -
   XLFTAB1.C   -
   XLFTAB2.C   -
   XLGLOB.C    -
   XLINIT.C    -
   XLIO.C      -
   XLISP.C     -
   XJUMP.C     -
   XLLIST.C    -
   XLMATH.C    -
   XLOBJ.C     -
   XLPRINT.C   -
   XLREAD.C    -
   XLSTR.C     -
   XLSUBR.C    -
   XLSYM.C     -
   XLSYS.C     -End of XLISP source files
   XMDM.C      -XMODEM source (CWRU version)

   ALPHA.H     -For CPRIMER.C           |
   CTYPE.H     -For XLISP               |
   MATH.H      -For XLISP               | Include Files for C Source
   SETJUMP.H   -For XLISP               |
   XLISP.H     -For XLISP               |


Utilities:

   MEMEDIT.PRG -San Leandro BBS memory editor                  |
   MEMEDIT.PRG -Another memory editor - limited distribution   |
   MEMEDIT.RSC -Resource file for above                        | Editors
   SECEDIT.TOS -Sector Editor (edits disks)                    |
   UE.TTP      -Microemacs (indispensible)                     |

   STERM.TOS   -Terminal with ability to upload/download       |
   STERM.SRC   -Source for above                               |
   STTALK.EXE  -PD STTALK                                      | Terminal
   STTALK.PRG  -Needed for STTALK                              | Emulators,
   KERMIT.TTP  -PD Kermit                                      | File XMIT
   XMOTER.PRG  -XMODEM/terminal emulator                       |
   XMDM.PRG    -XMODEM/terminal emulator                       |

   NRAMDSK.PRG -RAMDISK                                        |
   RAMDSK.PRG  -RAMDISK                                        | RAMDISKs
   RAMDSKI.PRG -Improved RAMDISK                               |
```

```
SRAMDSK.PRG -72K RAMDISK                                        |

STSQ.TTP    -Squeeze files for faster transmission              |
STUSQ.TTP   -Unsqueeze                                          |
UPACK.TTP   -Pack many files for fast transmission              | Pack, Unpack
STPACK      -Improved packer                                    |
STUPACK     -Improved unpacker                                  |

RPDDSKCP.TTP-Rapid disk copier                                  |
FASTCOPY.TTP-Another fast disk copier                           |
COPYDISK.TTP-Formats and copies disks at the same time          | Other useful
COPYDISK.RSC-Resource file for above                            | Utilities
COMMAND.TOS -Command Line Interface                             |
SPEED.PRG   -Checks Floppy Drive Speed                          |

MEMTEST.PRG -Memory tester                                      |
EXTRACT.PRG -Library Extractor                                  |
WBOOT.PRG   -Writes boot sector onto disk                       |
NOVERIFY    -Do not read while writing disks                    |
VERIFY      -Toggle between VERIFY and NOVERIFY                 |
SMAKER      -Source maker  (only source code available)         |
OMAKER      -Object maker  (only source code available)         |
PRINT.TTP   -Print untility                                     | Miscellaneous
TPA.TTP     -                                                   | Utilities
TIME.TTP    -                                                   |
GETOPT      -              (only source code available)         |
MK512.TOS   -Make 1040ST look like 520ST                        |
MK1MB.TOS   -Make 1040ST look like 1040ST                       |
MSHRM.TOS   -Mushroom analyser                                  |
ADDRES.PRG  -Address book - includes phone numbers              |
HIGH.PRG    -Quickly takes resolution from low to med           |
LOW.PRG     -Quickly takes resolution from med to low           |

ADVENTUR.FNT-                          |
ARCHAILF.FNT-                          |
BLOCK.FNT   -                          |
COMP.FNT    -                          |
CURSIVE.FNT -                          |
GOTHIC.FNT  -                          |
HEX.FNT     -                          |
ITALIAN.FNT -                          |
MODERN.FNT  -                          |
OLDSTYLE.FNT-                          | FONTS - for use with DESK6.ACC
OUTLINE.FNT -                          |         (particularly good for
ROMAN.FNT   -                          |          NEOCHROME picture ed.)
SCRIPT.FNT  -                          |
SQUARE.FNT  -                          |
ST.FNT      -The normal ST FONT        |
STANDARD.FNT-                          |
STYLISH.FNT -                          |
TECH.FNT    -                          |
UNDERLIN.FNT-                          |
```

Documentation:

DUMP.DOC	-File dumper	
GETOPT.DOC	-	
KERMIT.DOC	-Use of KERMIT	
OMAKER.DOC	-Use of object maker	
SMAKER.DOC	-Use of source maker	
RD1040.DOC	-Installation of 360K RAMDISK for 1M upgraded STs	Utility
SECED.DOC	-Use of the sector editor	Documentation
UE.DOC	-Microemacs bindings	
UUENC.DOC	-Use of UUencoder, decoder	
WBOOT.DOC	-Use of warm boot utility	
STTALK.HLP	-STTALK help file	
XMODEM.DOC	-Use of XMODEM	
CATALOG.DOC	-Catalog of Bloomington User Group	User Group
PURG.DIR	-Catalog of Purgatory BBS	Catalogs,
CASE.ST	-Catalog of Case Western Reserve U. User Group	ST Products
PRODLIST.DIR	-New products for 520ST	
1MEGUPG.DOC	-Text showing how to upgrade 520ST to 1 MEG	Upgrade
RGBMON.DOC	-RGB signal location, doc for 520ST	Info
ADRES.DOC	-Use of ADDRES utility	
CC.DOC	-Use of CC to run C programs	
MEMLOC.DOC	-Useful memory locations and meaning	
XLISP.DOC	-Use of PD XLISP	
4xFORTH.DOC	-Use of Dragon FORTH demo	
EDITOR.DOC	-Use of Dragon FORTH editor	
GRAPHIC.DOC	-Use of Dragon FORTH graphics	
PRINT.DOC	-Use of Dragon FORTH print utility	Languages
RUN.DOC	-How to run Dragon FORTH demo	
STATUS.DOC	-Pertains to Dragon FORTH demo	
WIDTHS.DOC	-Pertains to Dragon FORTH demo	
WINDOW1.DOC	-GEM tutorial	
WINDOW2.DOC	-GEM tutorial continued	
WINDOW3.DOC	-GEM tutorial continued	GEM
GEMCL3.C	-Sample code for WINDOW1.DOC	Tutorial
GEMCL4.C	-Sample code for WINDOW2.DOC	
GEMCL6.C	-Sample code for WINDOW3.DOC	

Word Processing:

STWRITER.PRG	-Atari supplied word processor
STMAN	-Manual for STWRITER
QUICKREF	-Quick reference section for manual
XYZZX.TXT	-Set printer parameters
STCONFIG.TOS	-Creates XYZZX.DAT from XYZZX.TXT
XYZZX.DAT	-Used by STWRITER to send proper esc sequences to printer

```
   STWCARD.TXT
   TEMPLATE.STW-Template to be placed over keyboard - shows f-key defs
   DRIVRTST.STW-Puts printer through its paces for evaluation


Picture Processing:

   NEO.PRG     -Like McDraw except in color and with some features missing
   SLIDENEO.PRG-Presents slideshow of .NEO files
   SLIDE.PRG   -Presents slideshow of .PIC files (see Demos)
   WIND.PRG    -See pictures singly in windows (for .PIC files)
   WIND.RSC    -Resource file for above
   SHOWPIC.PRG -
   READPIC.PRG -Shows NEOCHROME pictures individually without a window
   NEOCON.TTP  -Converts pictures from DEAGS format to NEOCHROME format


Pictures:

   AAFAUCET.PIC-Water faucet in same room occupied by robot in ROBOTTV.NEO
   AAFLAG.PIC  -American flag and Atari logo
   AAREPORT.PIC-Weather map (very pretty - one of JF's favorites)
   AATRUMP.PIC -Trumpet (pretty)
   AAWORM.PIC  -Worm goes for a walk (interesting)
   AMIGA.PIC   -Atari figure pulls switch on Amiga LOGO sending it down and out
   ANGE1.PIC   -"Angel" (ugly angel but shows off shading ability of NEO)
   APLATE.PIC  -Indiana License Plate with ATARI 520ST written on it
   ATARI.PIC   -Atari logos all over the place (JF's least favorite)
   CHAOS.PIC   -What title says it is
   DEGAS.PIC   -Sample of FONTS available in DEGAS
   DRAGON.PIC  -Picture of a dragon fighting two warriors
   GHOST.PIC   -Ghostbuster LOGO
   HOUSE3.PIC  -Modern house in forest at Christmas
   JOCKEY.PIC  -Jockey riding Sofa (well done)
   SPIRAL.PIC  -(not terribly appealing)
   SAILBO.PIC  -Sailboats on sunny summer day
   SPACE2.PIC  -Four spaceships (not very appealing)
   SUPERM.PIC  -Picture of Superman before an American flag
   WHEELS3.PIC -Automobile against stark blue sky (ugh)
   AAFALL.NEO  -Waterfall at twilight (one of the best - animates well)
   AAINSECT.NEO-Large mothlike creature
   AATRAIN.NEO -Blue steam engine (not the greatest)
   CHROME.NEO  -Neochrome ad (not very interesting)
   FRACTAL.NEO -Mild technical interest
   GREATWAV.NEO-Large ocean wave (mildly intertesting, so-so color)
   MAP431.NEO  -
   ROBOTTV.NEO -Robot watches TV as canary and comet look on (cute)
   SCICOVER.NEO-Fractal generated cover of some issue of Sci Am


Pictures with sound:

   1ALITE.PIC  -Title frame of Audiolite demo
```

```
   2ALITE.PIC  -Elves opening castle doors
   3ALITE.PIC  -Inside room with fireplace clock
   4ALITE.PIC  -Inside room above with encased snowman
   5ALITE.PIC  -Inside room above with encased skier
   6ALITE.PIC  -Picture of Trumpet
   7ALITE.PIC  -
   8ALITE.PIC  -
   1ALITE.SNG  -Song accompanying 1ALITE.PIC
   2ALITE.SNG  -Song accompanying 2ALITE.PIC
   3ALITE.SNG  -Song accompanying 3ALITE.PIC
   4ALITE.SNG  -Song accompanying 4ALITE.PIC
   5ALITE.SNG  -Song accompanying 5ALITE.PIC
   6ALITE.SNG  -Song accompanying 6ALITE.PIC (Pachebel's Canon)
   7ALITE.SNG  -Song accompanying 7ALITE.PIC
   8ALITE.SNG  -Song accompanyong 8ALITE.PIC
   ALITE.PRG   -Runs the Audiolite demo (one of the best demos around)


Animation:

   BIRD.PRG    -Bird flies across screen (beautiful)
   BIRD1.BRD   -Background picture (any NEOCHROME file will do relabeled)
   BIRD2.BRD   -Secondary picture shown between flights (can be same as above)
   BIRD2.ANI   -The bird file


Demos:

   ACSKEL.PRG  -Developer kit demo
   APSKEL.PRG  -Developer kit demo
   ARTWORK.PRG -
   ARTWORL.PRG -
   BOINK.PRG   -Now classic bouncing r/w checkered ball against grid bkg
   CHKDMO.PRG  -Checkwriting demo from HABA (use lo.pic, lo-res)
   CHECK4.RSC  -Resource file for above
   CHESS.PRG   -Plays a game of chess while you watch (nice effects)
   COSINE.PRG  -Lines appear to move accross screen in beautiful pattern
   CUBE.PRG    -Cube shrinks, expands, spins.  Demonstates shading changes
   CUBEMANU.PRG-Manually control the cube of the previous demo
   DBMASTER.PRG-Make labels
   DEMO1.PRG   -
   DRDOODLE.PRG-Incomplete drawing and typing program
   DOODLE.RSC  -Resource file for above
   EFFECTS.PRG -Bombs system
   FIREWRKS.PRG-Move mouse to position, left click to set off
   FRACTAL.PRG -Generates pictures using fractals (very slow)
   FRACT1.PRG  -Another fractal program
   FRACT2.PRG  -Another fractal program
   FRACT3.PRG  -Another fractal program
   FRACT4.PRG  -Another fractal program
   GEMDEM.PRG  -Builds fractal tree, sierpinski, etc.
   GOLDFISH.PRG-Goldfish swims around monotonously
   GRSHOP.PRG  -
```

```
   HEX.PRG     -Many colors filling many hexagons - lots of movement
   LO.PIC      -Check picture for check writing demo
   LOWDEMO.TOS -Interesting demo
   MANDEL.PRG  -Mandelbrot example
   MENUTST.PRG -Play with menu driver
   MENUTST.DEF -Goes with above picture
   MOVELN.PRG  -Animation of polygons you create
   MOUNT.PRG   -Draws mountains out of polygons
   NEWSIN.PRG  -Like COSINE above
   PIANO.PRG   -Piano keyboard allows one note to be played at a time
   PIECHART.PRG-Produces piechart to play with
   PIEMAN.PRG  -Slices of a pie move in and out asyncronously
   QUIX.PRG    -String art
   QUX2.PRG    -String art
   SDEMO.PRG   -Siren, gunshot, other sound effects
   SOUND.PRG   -Move mouse to change frequencies of two tones
   SPIRAL.PRG  -Create a spiral to suit your taste
   STARRAID.PRG-Ad for STARRAIDERS game or something like that
   STARDEMO.PIC-Picture that goes along with above
   STCALC.PRG  -Elementary 4 function calculator
   STRART.PRG  -String art
   STRNGA.PRG  -String art
   SUNDOG.PRG  -Ad for game called SUNDOG - needs SUNDEMO.DAT
   SUMDEMO.DAT -For above
   SUPERBOX.PRG-Pretty color patterns on screen (lo-res)
   SURFAC.PRG  -
   TITLE.PRG   -Pretty, symmetrical pictures.  Set res to low
   VALD414.TOS -Inc. CAD tool.  Use c(ircle), e(llipse), r(ect.) keys, mouse
   VIPSOUND.PRG-Thus Spake Zarathustra - ad for VIP professional
   512COLOR.PRG-See 512 colors on the screen at the same time


Games:

   MGRD.PRG    -Spaceship moves, shoots asteroids and other spaceships
   MEGAROID.RSC-Resource file for above
   HISCORE     -Goes with above
   MASTERMIND  -ST version of famous game - well done (in BASIC)
   TARGET.TOS  -Two cities try to destroy each other - control projectiles
   JOURNEY.BAS -Low level ADVENTURE style game
   LIFE.TOS    -Famous game
   LIFE2.TOS   -Another variant
   LIFE.DOC    -Documentation for the game of LIFE
   BACKGM.BAS  -Game of Backgammon against the computer
   OTHELLO.BAS -Game of Othello either against computer or second player
   CRIBBAGE.BAS-Game of Cribbage against the computer
   4SCORE.PRG  -Game of Fourscore - computer can be beaten
   MAZEMKER.PRG-Produces mazes for your printer - then you find path
   ELIZA.TOS   -Clone (not quite) of famous piece of AI work


From -7294666650282877186
X-Google-Language: ENGLISH,ASCII-7-bit
```

X-Google-Thread: 140593,93b3dddf705736e4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 08:24:11 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site mprvaxa.UUCP
Path: utzoo!utcsri!ubc-vision!mprvaxa!rintoul
From: rintoul@mprvaxa.UUCP (Doug Rintoul)
Newsgroups: net.micro.atari16
Subject: micro emacs
Message-ID: <700@mprvaxa.UUCP>
Date: Thu, 6-Mar-86 11:24:11 EST
Article-I.D.: mprvaxa.700
Posted: Thu Mar 6 11:24:11 1986
Date-Received: Thu, 6-Mar-86 12:21:05 EST
Organization: Microtel Pacific Research, Burnaby, B.C., Canada
Lines: 24

Recently someone posted an article summarizing the commands of a pubilc
domain version of micro emacs for the ST. Where was the binary and or
source for micro emacs posted? I would dearly like a copy if some poor
soul could email me one or give me pointers on how to obtain a copy.
I also be willing to mail a disk and money to cover postage and handling.
(or is this the micro emacs that comes with the development system? and is
in PD). Thanks for your replies.
     I am working on a copy of a pretty printer for Modula 2 (converts
source files into a "more readable" form) that i will post if there is
interest.
     By the way, thanks for all who responded with my request for xlisp.
I received two copies, and have proceeded to distribute xlisp to various
ST fans here in Vancouver.

Doug Rintoul
Microtel Pacific Research
{ihnp4!alberta sun utcsri}!ubc-vision!mprvaxa!rintoul

--

Doug Rintoul
Microtel Pacific Research
{ihnp4!alberta sun utcsri}!ubc-vision!mprvaxa!rintoul

From 5418221555725295094
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,eced84f6fb5e1527,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 09:01:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: connecting 5.25 floppies to the ST

Message-ID: <8603061700.AA02183@ucbvax.berkeley.edu>
Date: Thu, 6-Mar-86 12:01:07 EST
Article-I.D.: ucbvax.8603061700.AA02183
Posted: Thu Mar 6 12:01:07 1986
Date-Received: Sat, 8-Mar-86 04:38:36 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Sorry I forgot something,

you need also buffers for Side 0 Select.

Drive 0 Select, Drive 1 Select and Side 0 Select are directly

controlled by the Sound Chip YM 2149. Play save and use buffers

when using non-ATARI drives.

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -4002025990755944493
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,def6a90d661dc17a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 09:06:10 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: re: connecting 5.25 floppies to the ST...
Message-ID: <8603061705.AA02281@ucbvax.berkeley.edu>
Date: Thu, 6-Mar-86 12:06:10 EST
Article-I.D.: ucbvax.8603061705.AA02281
Posted: Thu Mar 6 12:06:10 1986
Date-Received: Sat, 8-Mar-86 04:39:03 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 13

Sorry I forgot something,

you need also buffers for Side 0 Select.

Drive 0 Select, Drive 1 Select and Side 0 Select are directly

controlled by the Sound Chip YM 2149. Play save and use buffers

when using non-ATARI drives.

Johann Zuschlag (I6191008 DBSTU1.BITNET)

From 1165749670777531749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,28db18699cf258cb,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 11:38:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!decwrl!sun!saber!imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari16
Subject: disassembler for 68000
Message-ID: <295@imagen.UUCP>
Date: Thu, 6-Mar-86 14:38:44 EST
Article-I.D.: imagen.295
Posted: Thu Mar 6 14:38:44 1986
Date-Received: Sat, 8-Mar-86 22:32:21 EST
Distribution: net
Organization: The Houses of the Holy
Lines: 4336

~~~~~~~~~~~~~~~~~~~~~~~\ lineater, \~~~~~~~~~~~~~~~~~~~~~~~~~
here is the shar file for the 68k disassembler, as i said before it
was written on an Unisoft port of unix and uses b.out.h to discribe
the format of the executable file; for the obvious reasons i can not
include the file here.

remember to cut my .signature at the end of this file before saving
as a shar file
~~~~~~
Date: 15 Aug 85 23:11:30 GMT
Date-Received: 21 Aug 85 13:39:54 GMT
Reply-To: jmc@inset.UUCP (John Collins)
Organization: --- NONE ---
Lines: 4303
Xpath: icdoc ivax

This is the 68000 disassembler mentioned on the net.
It is not my final version by any means, but I have found it extremely
useful and it represents severl weeks' work.

     John Collins.

You should get the following files:

     doc   - MM macros
     makefile

```
     unc.h
     alloc.c
     file.c
     heur.c
     iset.c
     libmtch.c
     main.c
     prin.c
     robj.c

To extract /bin/sh the remainder of the file after the next line
------------------------------cut here------------------------------

# To unbundle, sh this file
echo doc 1>&2
sed 's/.//' >doc <<'//GO.SYSIN DD doc'
-.\"/*%  nroff -cm -rL72 %|epson|spr -f plain.a -h uncdoc -w
-.nr Hb 7
-.nr Hs 3
-.ds HF 3 3 3 3 3 3 3
-.nr Hu 5
-.nr Hc 1
-.SA 1
-.PH "''A Disassembler''"
-.PF "'Issue %I%'- Page \\\\nP -'%G%'"
-.H 1 "Introduction"
-This document describes the first release of a disassembler for UNIX
-executable files.
-The key features are:
-.AL
-.LI
-For object files the output can be assembled to generate the same
-object module, (apart from minor variations in symbol table ordering) as the
-input.
-.LI
-For stripped executable files object modules and libraries may be scanned,
-modules in the main input identified and the appropriate names automatically
-inserted into the output.
-.LI
-An option is available to convert most non-global names into local symbols,
-which cuts down the symbols in the generated assembler file.
-.LI
-The disassembler copes reasonably with modules merged with the
-.B "-r"
-option to
-.B "ld" ,
-generating a warning message as to the number of modules involved.
-.LE
-.P
-At present this is available for certain Motorola 68000 ports of UNIX
-System III and System V. Dependencies on
-.AL a
-.LI
```

-Instruction set.
-.LI
-Object module format.
-.LI
-Library module format.
-.LI
-Assembler output format.
-.LE
-.P
-are hopefully sufficiently localised to make the product useful as a
-basis for other disassemblers for other versions of UNIX.
-.P
-The product is thus distributed in source form at present.
-.H 1 "Use"
-The disassembler is run by entering:
-.DS I
-unc mainfile lib1 lib2 ...
-.DE
-.P
-The first named file is the file to be disassembled, which should be
-a single file, either an object module, a (possibly stripped) executable
-file, or a library member. Library members are designated using a
-parenthesis notation, thus:
-.DS I
-unc '/lib/libc.a(printf.o)'
-.DE
-.P
-It is usually necessary to escape the arguments in this case to prevent
-misinterpretation by the shell. Libraries in standard places such as
-.I "/lib"
-and
-.I "/usr/lib"
-may be specified in the same way as to
-.B "ld" ,
-thus
-.DS I
-unc '-lc(printf.o)'
-unc '-lcurses(wmove.o)'
-.DE
-.P
-As an additional facility, the list of directories searched for
-libraries may be varied by setting the environment variable
-.B "LDPATH" ,
-which is interpreted similarly to the shell
-.B "PATH"
-variable, and of course defaults to
-.DS I
-LDPATH=/lib:/usr/lib
-.DE
-.P
-As a further facility, the insertion of
-.B "lib"
-before and

```
-.B ".a"
-after the argument may be suppressed by using a capital
-.B "-L"
-argument, thus to print out the assembler for
-.I "/lib/crt0.o" ,
-then the command
-.DS I
-unc -Lcrt0.o
-.DE
-.P
-should have the desired effect.
-.P
-Second and subsequent file arguments are only referenced for stripped
-executable files, and may consist of single object files and library
-members, using the same syntax as before, or whole libraries of object
-files, thus:
-.DS I
-unc strippedfile -Lcrt0.o -lcurses -ltermcap '-lm(sqrt.o)' -lc
-.DE
-.P
-It is advisable to make some effort to put the libraries to be searched
-in the order in which they were originally loaded. This is because the
-search for each module starts where the previously matched module ended.
-However, no harm is done if this rule is not adhered to apart from
-increased execution time except in the rare cases where the disassembler
-is confused by object modules which are very nearly similar.
-.H 1 "Additional options"
-The following options are available to modify the behaviour of the
-disassembler.
-.VL 15 2
-.LI "-o file"
-Causes output to be sent to the specified file instead of the standard
-output.
-.LI "-t prefix"
-Causes temporary files to be created with the given prefix. The default
-prefix is
-.B "split" ,
-thus causing two temporary files to be created with this prefix in the
-current directory. If it is desired, for example, to create the files as
-.B "/tmp/xx*" ,
-then the argument
-.B "-t /tmp/xx"
-should be given. Note that the temporary files may be very large as a
-complete map of the text and data segments is generated.
-.LI "-a"
-Suppresses the generation of non-global absolute symbols from the
-output. This saves output from C compilations without any obvious
-problems, but the symbols are by default included in the name of
-producing as nearly identical output as possible to the original source.
-.LI "-s"
-Causes an additional scan to take place where all possible labels are
-replaced by local symbols. The local symbols are inserted in strictly
-ascending order, starting at 1.
```

```
-.LI "-v"
-Causes a blow-by-blow account of activities to be output on the standard
-error.
-.LE
-.H 1 "Diagnostics etc"
-Truncated or garbled object and library files usually cause processing
-to stop with an explanatory message.
-.P
-The only other kinds of message are some passing warnings concerning
-obscure constructs not handled, such as the relocation of byte fields,
-or the relocation of overlapping fields. Occasionally a message
-.DS I
-Library clash: message
-.DE
-.P
-may appear and processing cease. This message is found where at a late
-stage in processing libraries, the program discovers that due to the
-extreme similarity of two or more library members, it has come to the
-wrong conclusion about which one to use. The remedy here is to spell out
-to the program which members to take in which order.
-.H 1 "Future development"
-In the future it is hoped to devise ways of making the disassembler
-independent of all the above-mentioned version dependencies, by first
-reading a files defining these things. This will probably be applied
-after the Common Object Format becomes more standard.
-.P
-In the long term it would be desirable and useful to enhance the product
-to produce compilable C in addition to assemblable assembler. Stages in
-the process are seen as follows:
-.AL
-.LI
-Better identification of basic blocks in the code. Switch statements are
-a major problem here, as are constant data held in the text segment.
-.LI
-Marrying of data to the corresponding text. It is in various places hard
-to divorce static references "on the fly" (e.g. strings, and switch
-lists in some implementations) from static at the head of a module. This
-is part of the problem of identifying basic blocks.
-.LI
-Compilation of header files to work out structure references within the
-text. At this stage some interaction may be needed.
-.LE
-.P
-Meanwhile the product is one which is a useful tool to the author in its
-present form. Comments and suggestions as to the most practical method
-of improving the product in the ways suggested or in other ways would be
-gratefully considered.
//GO.SYSIN DD doc
echo makefile 1>&2
sed 's/.//' >makefile <<'//GO.SYSIN DD makefile'
-CFLAGS=-v -OB
-OBJS=alloc.o file.o libmtch.o robj.o iset.o prin.o heur.o main.o
-
```

```
-unc:    $(OBJS)
-    cc -o unc $(OBJS)
-
-$(OBJS):unc.h
//GO.SYSIN DD makefile
echo unc.h 1>&2
sed 's/.//' >unc.h <<'//GO.SYSIN DD unc.h'
-/*
- *  SCCS:    @(#)unc.h1.2  11/2/84  14:21:02
- *  Header file for uncompile program.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *      John M Collins
- *      47 Cedarwood Drive
- *      St Albans
- *      Herts, AL4 0DN
- *      England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
- *      2.  Nothing may be based on this software without
- *          acknowledgement, including incorporation of this
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- */
-
-#define  MAXCHARS  50
-#define  HASHMOD       97
-
-/*
- *  The following structure is used to keep track of symbols.
- */
-
-struct  symstr   {
-    struct   symstr   *s_next;      /*  Next in hash chain  */
-    struct   symstr   *s_link;      /*  Next in duplicate labels */
-    unsigned s_type   :  3;         /*  Symbol type  */
-    unsigned s_newsym:  1;      /*  A new symbol  */
-    unsigned s_invent:  1;      /*  Invented symbol  */
-    unsigned s_glob   :  1;         /*  Global symbol  */
-    long     s_value;      /*  Value if defined  */
-    short         s_defs;           /*  Defined count  */
-    short         s_used;           /*  Used count  */
-    unsigned short    s_lsymb;      /*  Local symbol  */
-    char     s_name[1];         /*  Chars of name null term */
-};
-
```

```
-typedef struct   symstr   *symbol;
-
-symbol  symbhash[HASHMOD];
-
-typedef struct   {
-    int  ef_t;              /*  Text file fd  */
-    int  ef_d;              /*  Data file fd  */
-    long ef_entry;     /*  Entry point  */
-    long ef_tsize;     /*  Text size  */
-    long ef_dsize;     /*  Data size  */
-    long ef_bsize;     /*  Bss size  */
-    long ef_end;            /*  End of it all  */
-    long ef_tbase;     /*  Text base  */
-    long ef_dbase;     /*  Data base  */
-    long ef_bbase;     /*  Bss base  */
-    int  ef_stcnt;     /*  Number of symbols  */
-    int  ef_stmax;     /*  Max number of symbols  */
-    symbol   *ef_stvec;         /*  Symbol vector  */
-}  ef_fids;
-
-typedef ef_fids  *ef_fid;
-
-/*
- *  Description of word in text file.  This entry is held in the place
- *  corresponding to the address in the text file.
- */
-
-typedef struct   {
-    unsigned  short    t_contents;        /*  Actual contents  */
-    unsigned  short t_iindex;        /*  Index in table  */
-    unsigned t_type    :  2;         /*  Type  */
-    unsigned t_vins  :  1;      /*  Valid instruction  */
-    unsigned t_bdest   :  1;         /*  Is branch dest  */
-    unsigned t_gbdest:  1;      /*  Is global dest  */
-    unsigned t_dref    :  1;         /*  Refered to in data  */
-    unsigned t_bchtyp:  2;      /*  Branch type  */
-    unsigned t_lng     :  3;         /*  Length in words  */
-    unsigned t_reloc :  2;      /*  Relocatable  */
-    unsigned t_rptr    :  2;         /*  Where relocated  */
-    unsigned t_rdisp :  1;      /*  Relocatable displacement */
-    unsigned t_isrel :  1;      /*  Relocated  */
-    unsigned t_amap    :  1;         /*  Worked out  */
-    symbol        t_relsymb;         /*  Relocation symbol  */
-    long     t_reldisp;         /*  Offset + or - from symb */
-    symbol        t_lab;             /*  Label  */
-    unsigned  short    t_lsymb;      /*  Local symbol  */
-    long     t_reflo;       /*  Lowest place referred  */
-    long     t_refhi;       /*  Highest place referred  */
-    unsigned  short    t_match;      /*  Lib match lng  */
-}  t_entry;
-
-/*
- *  Types ......
```

```
- */
-
-#define  T_UNKNOWN 0
-#define  T_BEGIN       1
-#define  T_CONT        2
-
-#define  R_NONE        0        /*  No relocation  */
-#define  R_BYTE        1        /*  Byte relocation  */
-#define  R_WORD        2        /*  Word relocation  */
-#define  R_LONG        3        /*  Long relocation  */
-
-/*
- *  Branch types.
- */
-
-#define  T_NOBR        0
-#define  T_CONDBR  1
-#define  T_UNBR        2
-#define  T_JSR         3
-
-typedef  struct   {
-    unsigned  char    d_contents;       /*  Actual contents  */
-    unsigned  d_type  :  4;     /*  Data type  */
-    unsigned  d_reloc :  2;     /*  Relocatable  */
-    unsigned  d_rptr   :  2;         /*  Where relocated  */
-    short         d_lng;             /*  Length -ve for D_CONT */
-    symbol        d_relsymb;         /*  Relocation symbol  */
-    long     d_reldisp;         /*  Offset + or - from symb */
-    symbol        d_lab;             /*  Label  */
-}  d_entry;
-
-/*
- *  Data types.
- */
-
-#define  D_ASC         0        /*  Ascii chars  */
-#define  D_ASCZ        1        /*  Null-term ascii  */
-#define  D_BYTE        2        /*  Decimal bytes  */
-#define  D_WORD        3        /*  Words  */
-#define  D_LONG        4        /*  Longs  */
-#define  D_ADDR        5        /*  Address pointer  */
-#define  D_CONT        6        /*  Continuation of last  */
-
-/*
- *  'Common' items.
- */
-
-struct  commit   {
-    symbol   *c_symb;      /*  List of symbols  */
-    int  c_int;            /*  Current number  */
-    int  c_max;            /*  Maximum  */
-};
-
```

```
-/*
- *  Library file description.
- */
-
-struct  libit    {
-    int  lf_fd;             /*  File descriptor  */
-    long lf_offset;         /*  Offset of current file  */
-    long lf_next;      /*  Offset of next file  */
-    char lf_name[14];       /*  Name of item  */
-};
//GO.SYSIN DD unc.h
echo alloc.c 1>&2
sed 's/.//' >alloc.c <<'//GO.SYSIN DD alloc.c'
-/*
- *  SCCS:    @(#)alloc.c   1.2  11/2/84  14:17:20
- *  Allocate space etc.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *      John M Collins
- *      47 Cedarwood Drive
- *      St Albans
- *      Herts, AL4 0DN
- *      England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
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- *          acknowledgement, including incorporation of this
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include <setjmp.h>
-#include "unc.h"
-
-#define  STINC    10
-
-char    *malloc(), *realloc();
-char    *strncpy();
-void    gette(), getde(), setde(), putte(), putde();
-void    unimpl();
-long    gettw();
-
-ef_fids  mainfile;
-
```

```
-/*
- *  Oops! out of memory.....
- */
-
-void    nomem()
-{
-    (void) fprintf(stderr, "Sorry - run out of memory\n");
-    exit(255);
-}
-
-/*
- *  Look up hash value of symbol.
- */
-
-unsigned  shash(str)
-register  char    *str;
-{
-    register  unsigned  result = 0;
-    register  int cnt = 0;
-
-    while  (*str  &&  cnt < MAXCHARS)  {
-         result += *str++;
-         cnt++;
-    }
-    return  result % HASHMOD;
-}
-
-/*
- *  Look up hash value of symbol, possibly allocating a new symbol.
- */
-
-symbol  lookup(str)
-char    *str;
-{
-    register  symbol  res, *pp;
-    register  int len;
-
-    pp = &symbhash[shash(str)];
-    res = *pp;
-    while  (res != NULL)  {
-         if  (strncmp(res->s_name, str, MAXCHARS) == 0)
-              return   res;
-         pp = &res->s_next;
-         res = *pp;
-    }
-    for  (len = 0;  len < MAXCHARS;  len++)
-         if  (str[len] == '\0')
-              break;
-    len++;
-    res = (symbol) malloc(sizeof(struct symstr) + len);
-    if  (res == NULL)
-         nomem();
-    *pp = res;
```

```
-    res->s_next = NULL;
-    (void) strncpy(res->s_name, str, len);
-    res->s_name[len] = '\0';         /*  Null-terminate  */
-    res->s_newsym = 1;
-    res->s_glob = 0;
-    res->s_invent = 0;
-    res->s_link = NULL;
-    res->s_used = 0;
-    res->s_defs = 0;
-    res->s_lsymb = 0;
-    return  res;
-}
-
-/*
- *  Invent a symbol, making sure that we don't know it.
- */
-
-symbol   inventsymb(prefix)
-char    *prefix;
-{
-    static   int  nsymb = 0;
-    char schars[10];
-    register  symbol  res;
-
-    do   (void) sprintf(schars, "%s%d", prefix, ++nsymb);
-    while  (!(res = lookup(schars))->s_newsym);
-
-    res->s_newsym = 0;
-    res->s_invent = 1;
-    return   res;
-}
-
-/*
- *  Reallocate symbol table.
- */
-
-void    reallst(outf)
-register  ef_fid  outf;
-{
-    outf->ef_stmax += STINC;
-    if  (outf->ef_stvec == NULL)
-         outf->ef_stvec = (symbol *) malloc(outf->ef_stmax * sizeof(symbol));
-    else
-         outf->ef_stvec = (symbol *) realloc(outf->ef_stvec,
-                         outf->ef_stmax * sizeof(symbol));
-    if  (outf->ef_stvec == NULL)
-         nomem();
-}
-
-/*
- *  Search through existing symbol table for symbol with given
- *  value.  Invent a new one if needed.
- */
```

```
-
-symbol  getnsymb(fid, seg, pos)
-register  ef_fid  fid;
-unsigned  seg;
-long    pos;
-{
-    register  int i;
-    register  symbol  res;
-
-    /***********  MACHINE DEPENDENT  ******************************
-     *   Convert relocation segment type (argument) to symbol type
-     *   (as remembered in symbol table).  Don't ask me why they
-     *   have to be different.....
-     */
-
-    seg += TEXT - RTEXT;
-
-    /*
-     *   See if the reference is to an external symbol.
-     *   If so, use that.
-     */
-
-    for  (i = 0;  i < fid->ef_stcnt;  i++)  {
-        res = fid->ef_stvec[i];
-        if  (res->s_type == seg  &&  res->s_value == pos)
-            return   res;
-    }
-
-    /*
-     *   Invent a symbol and use that.
-     */
-
-    res = inventsymb("RS");
-    if  (fid->ef_stcnt >= fid->ef_stmax)
-        reallst(fid);
-    fid->ef_stvec[fid->ef_stcnt++] = res;
-    res->s_type = seg;
-    res->s_value = pos;
-    if  (seg == TEXT)  {
-        t_entry  tent;
-        gette(fid, pos, &tent);
-        tent.t_bdest = 1;
-        tent.t_lab = res;
-        putte(fid, pos, &tent);
-    }
-    else  if  (seg == DATA  ||  seg == BSS)  {
-        d_entry dent;
-        getde(fid, pos, &dent);
-        dent.d_lab = res;
-        putde(fid, pos, &dent);
-    }
-
-    return   res;
```

```
-}
-
-/*
- *  Assuming address given is in text segment, find its label, or invent
- *  one.  Also set where refered from.
- */
-
-symbol  textlab(loc, refpos)
-long    loc, refpos;
-{
-    t_entry  tent;
-
-    gette(&mainfile, loc, &tent);
-    if  (tent.t_type == T_CONT)
-        return   NULL;
-    if  (tent.t_lab == NULL)  {
-        tent.t_lab = inventsymb("TS");
-        tent.t_lab->s_type = TEXT;
-        tent.t_lab->s_value = loc;
-        tent.t_bdest = 1;
-        putte(&mainfile, loc, &tent);
-    }
-    else
-        tent.t_lab->s_used++;
-    if  (tent.t_refhi < refpos)  {
-        tent.t_refhi = refpos;
-        putte(&mainfile, loc, &tent);
-    }
-    if  (tent.t_reflo > refpos)  {
-        tent.t_reflo = refpos;
-        putte(&mainfile, loc, &tent);
-    }
-    return   tent.t_lab;
-}
-
-/*
- *  Note references to data.
- */
-
-void    mkdref(tpos, size)
-long    tpos;
-unsigned  size;
-{
-    t_entry  tent;
-    d_entry  dent;
-    register  symbol  ds;
-    int  dchng = 0;
-    int  wsize;
-    long dpos;
-
-    gette(&mainfile, tpos, &tent);
-    if  (tent.t_relsymb != NULL)
-        return;
```

```
-
-    dpos = gettw(&mainfile, tpos, R_LONG);
-    if  (dpos < mainfile.ef_dbase  ||  dpos > mainfile.ef_end)
-         return;
-
-    switch  (size)  {
-    default:
-         wsize = D_BYTE;
-         break;
-    case  2:
-         wsize = D_WORD;
-         break;
-    case  4:
-         wsize = D_LONG;
-         break;
-    }
-
-    getde(&mainfile, dpos, &dent);
-    if  ((ds = dent.d_lab) == NULL)  {
-         if  (dpos >= mainfile.ef_bbase)  {
-              ds = inventsymb("BS");
-              ds->s_type = BSS;
-         }
-         else  {
-              ds = inventsymb("DS");
-              ds->s_type = DATA;
-         }
-         ds->s_value = dpos;
-         dent.d_lab = ds;
-         dchng++;
-    }
-    else
-         ds->s_used++;
-
-    if  (dent.d_type != D_BYTE)  {
-         if  (dent.d_type != wsize)  {
-              if  (dent.d_type == D_ADDR)  {
-                   if  (wsize != D_LONG)
-                        unimpl("Addr word usage");
-              }
-              else  if  (dent.d_type > wsize)  {
-                   dchng++;
-                   dent.d_type = wsize;
-                   dent.d_lng = size;
-              }
-         }
-    }
-    else  {
-         dent.d_type = wsize;
-         dent.d_lng = size;
-         dchng++;
-    }
-    if  (dchng)  {
```

```
-         putde(&mainfile, dpos, &dent);
-         for  (dchng = 1;  dchng < size; dchng++)
-              setde(&mainfile, dpos+dchng, D_CONT, 1);
-    }
-
-    tent.t_relsymb = ds;
-    putte(&mainfile, tpos, &tent);
-}
-
-/*
- *  Add item to common or abs list.
- */
-
-#define  COMINC   10
-
-void     addit(cp, symb)
-register  struct  commit  *cp;
-symbol   symb;
-{
-    if  (cp->c_int >= cp->c_max)  {
-         cp->c_max += COMINC;
-         if  (cp->c_symb == NULL)
-              cp->c_symb = (symbol *) malloc(COMINC*sizeof(symbol));
-         else
-              cp->c_symb = (symbol *)
-                        realloc(cp->c_symb,
-                             cp->c_max * sizeof(symbol));
-         if  (cp->c_symb == NULL)
-              nomem();
-    }
-    cp->c_symb[cp->c_int++] = symb;
-}
//GO.SYSIN DD alloc.c
echo file.c 1>&2
sed 's/.//' >file.c <<'//GO.SYSIN DD file.c'
-/*
- *  SCCS:     @(#)file.c    1.2  11/2/84   14:17:35
- *  Various operations on files.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *       John M Collins
- *       47 Cedarwood Drive
- *       St Albans
- *       Herts, AL4 0DN
- *       England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *       1.  No free maintenance will be guaranteed.
- *       2.  Nothing may be based on this software without
- *           acknowledgement, including incorporation of this
```

```
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ***************************************************************************
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include "unc.h"
-
-long    lseek();
-void    unimpl();
-
-/*
- *  Validate addr and get text entry corresponding to it from the given
- *  file.
- */
-
-void    gette(fid, addr, te)
-register  ef_fid  fid;
-register  long    addr;
-t_entry *te;
-{
-    addr -= fid->ef_tbase;
-    if  (addr < 0  ||  addr > fid->ef_tsize  || (addr & 1) != 0)  {
-        (void) fprintf(stderr, "Invalid text address %lx\n", addr);
-        exit(200);
-    }
-    (void) lseek(fid->ef_t, (long)(addr * sizeof(t_entry)/2), 0);
-    if  (read(fid->ef_t, (char *) te, sizeof(t_entry)) != sizeof(t_entry))  {
-        (void) fprintf(stderr, "Trouble reading text at %lx\n", addr);
-        exit(201);
-    }
-}
-
-/*
- *  Store a text entry.
- */
-
-void    putte(fid, addr, te)
-register  ef_fid  fid;
-register  long    addr;
-t_entry *te;
-{
-    addr -= fid->ef_tbase;
-    if  (addr < 0  ||  addr > fid->ef_tsize  ||  (addr & 1) != 0)  {
-        (void) fprintf(stderr, "Invalid text address %lx\n", addr);
-        exit(200);
-    }
-    (void) lseek(fid->ef_t, (long)(addr * sizeof(t_entry)/2), 0);
-    (void) write(fid->ef_t, (char *) te, sizeof(t_entry));
-}
```

```
-
-/*
- *  Validate addr and get data entry corresponding to it from the given
- *  file.
- */
-
-void    getde(fid, addr, de)
-register  ef_fid  fid;
-register  long    addr;
-d_entry *de;
-{
-    if  (addr < fid->ef_dbase  ||  addr > fid->ef_end)  {
-         (void) fprintf(stderr, "Invalid data address %lx\n", addr);
-         exit(200);
-    }
-    addr -= fid->ef_dbase;
-    (void) lseek(fid->ef_d, (long)(addr * sizeof(d_entry)), 0);
-    if  (read(fid->ef_d, (char *) de, sizeof(d_entry)) != sizeof(d_entry))  {
-         (void) fprintf(stderr, "Trouble reading data at %lx\n", addr);
-         exit(201);
-    }
-}
-
-/*
- *  Store a data entry.
- */
-
-void    putde(fid, addr, de)
-register  ef_fid  fid;
-register  long    addr;
-d_entry *de;
-{
-    if  (addr < fid->ef_dbase  ||  addr > fid->ef_end)  {
-         (void) fprintf(stderr, "Invalid data address %lx\n", addr);
-         exit(200);
-    }
-    addr -= fid->ef_dbase;
-    (void) lseek(fid->ef_d, (long)(addr * sizeof(d_entry)), 0);
-    (void) write(fid->ef_d, (char *) de, sizeof(d_entry));
-}
-
-/*
- *  Set type and length of given data entry.
- */
-
-void    setde(fid, addr, type, lng)
-ef_fid  fid;
-long    addr;
-unsigned  type;
-int lng;
-{
-    d_entry  dat;
-
```

```
-    if  (addr > fid->ef_end)
-         return;
-    getde(fid, addr, &dat);
-    if  (type == D_CONT  &&  dat.d_reloc != R_NONE)  {
-         char obuf[30];
-         (void) sprintf(obuf, "overlapped reloc 0x%x", addr);
-         unimpl(obuf);
-    }
-    dat.d_type = type;
-    dat.d_lng = lng;
-    putde(fid, addr, &dat);
-}
-
-/*
- *  Get a word of data file, size as requested.
- */
-
-long    getdw(fid, pos, size)
-register  ef_fid  fid;
-long    pos;
-int size;
-{
-    d_entry  dat;
-    register  long    res;
-    register  int i, lt;
-
-    getde(fid, pos, &dat);
-
-    switch  (size)  {
-    case  R_BYTE:
-         return   dat.d_contents;
-
-    case  R_LONG:
-         lt = 4;
-         goto  rest;
-
-    case  R_WORD:
-         lt = 2;
-    rest:
-         res = dat.d_contents;
-         for  (i = 1;  i < lt; i++)  {
-              getde(fid, pos+i, &dat);
-              res = (res << 8) + dat.d_contents;
-         }
-         return   res;
-
-    default:
-         (void) fprintf(stderr, "Data word size error\n");
-         exit(20);
-    }
-    /*NOTREACHED*/
-}
-
```

```
-/*
- *  Get a word of text file.
- */
-
-long    gettw(fid, pos, size)
-register  ef_fid  fid;
-long    pos;
-int size;
-{
-    t_entry  tex;
-    long res;
-
-    gette(fid, pos, &tex);
-
-    switch  (size)  {
-    case  R_BYTE:
-         return   tex.t_contents >> 8;
-
-    case  R_WORD:
-         return   tex.t_contents;
-
-    case  R_LONG:
-         res = tex.t_contents;
-         gette(fid, pos+2, &tex);
-         return   (res << 16) + tex.t_contents;
-    default:
-         (void) fprintf(stderr, "Text word size error\n");
-         exit(20);
-    }
-    /*NOTREACHED*/
-}
//GO.SYSIN DD file.c
echo heur.c 1>&2
sed 's/.//' >heur.c <<'//GO.SYSIN DD heur.c'
-/*
- *  SCCS:    @(#)heur.c    1.2  11/2/84  14:17:46
- *  Attempt to guess things about the file.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *      John M Collins
- *      47 Cedarwood Drive
- *      St Albans
- *      Herts, AL4 0DN
- *      England           +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
- *      2.  Nothing may be based on this software without
- *          acknowledgement, including incorporation of this
- *          notice.
```

```
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ***************************************************************************
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include "unc.h"
-
-#define  INITDAT  256
-#define  INCDAT   128
-
-#define  STRSCNT  3
-#define  STRECNT  3
-
-char    *malloc(), *realloc();
-
-void    gette(), getde(), setde(), putte(), putde();
-void    nomem();
-long    getdw();
-symbol  inventsymb();
-
-long    endt;
-ef_fids mainfile;
-
-/*
- *  Talk about implemented things.....
- */
-
-void    unimpl(msg)
-char    *msg;
-{
-    (void) fprintf(stderr, "Warning: handling of \"%s\" not implemented\n", msg);
-}
-
-/*
- *  Return 1 if string char, otherwise 0.
- */
-
-int possstr(x)
-unsigned  x;
-{
-    if  (x >= ' '  &&  x <= '~')
-        return   1;
-    if  (x == '\n'  ||  x == '\t')
-        return   1;
-    return   0;
-}
-
-/*
- *  Guess things about data files.
- */
```

```
-
-void    intudat(fid)
-ef_fid  fid;
-{
-    register  int i, j;
-    int  lt, input, invcnt;
-    long offs, soffs, endd;
-    d_entry  fdat;
-    unsigned  char    *inbuf;
-    int  ibsize;
-
-    inbuf = (unsigned  char *)malloc(INITDAT);
-    if  (inbuf == NULL)
-        nomem();
-    ibsize = INITDAT;
-
-    offs = fid->ef_dbase;
-    endd = fid->ef_bbase;
-
-    while  (offs < endd)  {
-        getde(fid, offs, &fdat);
-        if  (fdat.d_type != D_BYTE)  {
-            offs += fdat.d_lng;
-            continue;
-        }
-
-        /*
-         *   Looks like general data.  Read in as much as possible.
-         */
-
-        input = 0;
-        soffs = offs;
-        do  {
-            if  (input >= ibsize)  {
-                ibsize += INCDAT;
-                inbuf = (unsigned  char *)
-                    realloc((char *)inbuf, (unsigned)ibsize);
-                if  (inbuf == NULL)
-                    nomem();
-            }
-            inbuf[input++] = fdat.d_contents;
-            offs++;
-            if  (offs >= endd)
-                break;
-            getde(fid, offs, &fdat);
-        }  while  (fdat.d_type == D_BYTE && fdat.d_lab == NULL);
-
-        /*
-         *   Now split up the data.
-         */
-
-        for  (i = 0;  i < input;  )  {
-
```

```
-             /*
-              *   Might be a string.
-              */
-
-             if  (possstr(inbuf[i]))  {
-                  lt = input;
-                  if  (i + STRSCNT < lt)
-                       lt = i + STRSCNT;
-                  for  (j = i + 1;  j < lt;  j++)  {
-                       if  (inbuf[j] == '\0')
-                            break;
-                       if  (!possstr(inbuf[j]))
-                            goto  notstr;
-                  }
-
-                  /*
-                   *   Looks like a string then.
-                   */
-
-                  invcnt = 0;
-                  for  (j = i + 1; j < input;  j++)  {
-                       if  (inbuf[j] == '\0')  {
-                            j++;
-                            break;
-                       }
-                       if  (possstr(inbuf[j]))
-                            invcnt = 0;
-                       else  {
-                            invcnt++;
-                            if  (invcnt >= STRECNT)  {
-                                 j -= invcnt - 1;
-                                 break;
-                            }
-                       }
-                  }
-
-                  setde(fid,
-                        soffs+i,
-                        (unsigned)(inbuf[j-1]=='\0'?D_ASCZ:D_ASC),
-                        j - i);
-                  for  (i++;  i < j;  i++)
-                       setde(fid, soffs+i, D_CONT, 1);
-                  continue;
-             }
-
-notstr:
-             /*
-              *   If on odd boundary, treat as a byte.
-              */
-
-             if  ((soffs + i) & 1  ||  i + 1 >= input)  {
-                  setde(fid, soffs + i, D_BYTE, 1);
-                  i++;
```

```
-                 continue;
-             }
-
-             /*
-              *   Treat as longs unless not enough.
-              */
-
-             if  (i + 3 >= input)  {
-                 setde(fid, soffs + i, D_WORD, 2);
-                 setde(fid, soffs + i + 1, D_CONT, -1);
-                 i += 2;
-                 continue;
-             }
-
-             /*
-              *   Treat as a long but mark changable.
-              */
-
-             setde(fid, soffs + i, D_LONG, 4);
-             for  (j = 1;  j < 4;  j++)
-                 setde(fid, soffs + i + j, D_CONT, -j);
-             i += 4;
-         }
-     }
-     free((char *)inbuf);
-
-     /*
-      *   Now zap bss segment.
-      */
-
-     offs = fid->ef_bbase;
-     endd = fid->ef_end;
-
-     while  (offs < endd)  {
-         getde(fid, offs, &fdat);
-         if  (fdat.d_type != D_BYTE)  {
-             offs += fdat.d_lng;
-             continue;
-         }
-
-         soffs = offs;
-         do  {
-             offs++;
-             if  (offs >= endd)
-                 break;
-             getde(fid, offs, &fdat);
-         }  while  (fdat.d_type == D_BYTE && fdat.d_lab == NULL);
-
-         setde(fid, soffs, D_BYTE, (int)(offs-soffs));
-         for  (i = -1, soffs++;  soffs < offs; i--, soffs++)
-             setde(fid, soffs, D_CONT, i);
-     }
-}
```

```
-
-/*
- *  For non relocatable files, try to identify address pointers in
- *  the data.
- */
-
-void    inturdat(fid)
-ef_fid  fid;
-{
-    register  long     offs = fid->ef_dbase;
-    register  int i;
-    register  symbol  ds;
-    long  endd = fid->ef_bbase;
-    long  cont;
-    d_entry  dent, refdent;
-
-    while  (offs < endd)  {
-         getde(fid, offs, &dent);
-         if  (dent.d_type != D_LONG)
-              goto  endit;
-         cont = getdw(fid, offs, R_LONG);
-         if  (cont < fid->ef_dbase || cont > fid->ef_end)
-              goto  endit;
-         getde(fid, cont, &refdent);
-         if  (refdent.d_type == D_CONT)  {
-              d_entry  pdent;
-              int  siz;
-
-              if  (refdent.d_lng >= 0)
-                   goto  endit;
-              getde(fid, cont+refdent.d_lng, &pdent);
-              i = -refdent.d_lng;
-              refdent.d_lng += pdent.d_lng;
-              pdent.d_lng = i;
-              if  (pdent.d_type == D_LONG  &&  i == 2)
-                   siz = D_WORD;
-              else
-                   siz = D_BYTE;
-              refdent.d_type = siz;
-              pdent.d_type = siz;
-              putde(fid, cont - i, &pdent);
-              for  (i = 1;  i < refdent.d_lng;  i++)
-                   setde(fid, cont+i, D_CONT, -i);
-         }
-         if  ((ds = refdent.d_lab) == NULL)  {
-              if  (cont >= fid->ef_bbase)  {
-                   ds = inventsymb("BS");
-                   ds->s_type = BSS;
-              }
-              else  {
-                   ds = inventsymb("DS");
-                   ds->s_type = DATA;
-              }
```

```
-             ds->s_value = cont;
-             refdent.d_lab = ds;
-             putde(fid, cont, &refdent);
-         }
-         else
-             ds->s_used++;
-         dent.d_type = D_ADDR;
-         dent.d_relsymb = ds;
-         dent.d_rptr = ds->s_type;
-         putde(fid, offs, &dent);
-         for  (i = 1;  i < 4;  i++)
-             setde(fid, offs+i, D_CONT, 1);
-endit:
-         offs += dent.d_lng;
-    }
-}
-
-/*
- *  Recursively follow through the code, stopping at unconditional
- *  branches and invalid instructions.
- */
-
-void    follseq(pos)
-long    pos;
-{
-    t_entry  tent;
-    int  lng;
-    long npos;
-
-    while  (pos < endt)  {
-         gette(&mainfile, pos, &tent);
-         if  (tent.t_amap)  /*  Been here  */
-             return;
-         tent.t_amap = 1;
-         lng = findinst(&tent, pos);
-         npos = pos + lng*2;
-         if  (npos > endt)  {
-             tent.t_vins = 0;
-             tent.t_lng = 1;
-             tent.t_type = T_UNKNOWN;
-             lng = 0;
-             npos = endt;
-         }
-         putte(&mainfile, pos, &tent);
-         pos = npos;
-
-         if  (lng <= 0)
-             return;
-
-         switch  (tent.t_bchtyp)  {
-         case  T_UNBR:
-             if  (tent.t_relsymb == NULL)
-                  return;
```

```
-             pos = tent.t_relsymb->s_value;
-             continue;
-         case  T_JSR:
-             if  (tent.t_relsymb != NULL)
-                 follseq(tent.t_relsymb->s_value);
-             continue;
-         case  T_CONDBR:
-             follseq(tent.t_relsymb->s_value);
-         default:
-             continue;
-         }
-    }
-}
-
-
-/*
- *  Try to work out things about text files.
- */
-
-void    intutext()
-{
-    long pos;
-    t_entry  tent;
-    int  lng;
-
-    endt = mainfile.ef_tbase + mainfile.ef_tsize;
-    pos = mainfile.ef_entry;
-nextv:
-    for  (;  pos < endt;)  {
-         gette(&mainfile, pos, &tent);
-         if  (!tent.t_amap && tent.t_vins)  {
-             follseq(pos);
-             pos += 2;
-             goto  nextiv;
-         }
-         pos += tent.t_lng * 2;
-         if  (tent.t_bchtyp == T_UNBR)
-             goto  nextiv;
-    }
-    goto dorest;
-nextiv:
-    for  (;  pos < endt;  pos += 2)  {
-         gette(&mainfile, pos, &tent);
-         if  (tent.t_bdest)
-             goto  nextv;
-    }
-dorest:
-    /*
-     *   Deal with unmapped instructions.
-     */
-
-    for  (pos = 0;  pos < endt;)  {
-         gette(&mainfile, pos, &tent);
```

```
-         switch  (tent.t_type)  {
-         case  T_BEGIN:
-              pos += tent.t_lng * 2;
-              continue;
-         case  T_UNKNOWN:
-              if  (tent.t_vins)  {
-                   lng = findinst(&tent, pos);
-                   putte(&mainfile, pos, &tent);
-                   if  (lng > 0)  {
-                        pos += lng * 2;
-                        continue;
-                   }
-              }
-         default:
-              pos += 2;
-              continue;
-         }
-    }
-}
-
-/*
- *  Invent local symbols.
- */
-
-void    intlsym()
-{
-    long bpos, epos, hiref, hipos;
-    unsigned  llnum;
-    t_entry  tent;
-    register  symbol  tl;
-
-    endt = mainfile.ef_tbase + mainfile.ef_tsize;
-    epos = mainfile.ef_entry;
-    for  (;;)  {
-         bpos = epos;
-         hiref = bpos;
-         if  (epos >= endt)
-              return;
-         gette(&mainfile, epos, &tent);
-         epos += tent.t_lng * 2;
-         for  (;  epos < endt;)  {
-              gette(&mainfile, epos, &tent);
-              if  (tent.t_gbdest  ||  tent.t_dref)
-                   break;
-              if  (tent.t_reflo < bpos)
-                   break;
-              if  (tent.t_refhi > hiref)  {
-                   hiref = tent.t_refhi;
-                   hipos = epos;
-              }
-              epos += tent.t_lng * 2;
-         }
-         if  (hiref > epos)
```

```
-             epos = hipos;
-         llnum = 0;
-         for  (hipos = bpos;  hipos < epos;)  {
-             gette(&mainfile, hipos, &tent);
-             if  (!tent.t_gbdest && !tent.t_dref &&
-              tent.t_reflo >= bpos && tent.t_refhi < epos &&
-              (tl = tent.t_lab) != NULL)
-                 tl->s_lsymb = ++llnum;
-             hipos += tent.t_lng * 2;
-         }
-    }
-}
-
-/*
- *  Given the main file, a possible candidate for matching in the
- *  file and an offset, see if text matches.  Return 1 if matches,
- *  or 0 if no match.
- */
-
-int matchup(mf, lf, startpos)
-register  ef_fid  mf, lf;
-long    startpos;
-{
-    register  int i, matches = 0;
-    t_entry  ltent, mtent;
-
-    if  (lf->ef_tsize > mf->ef_tsize - startpos + mf->ef_tbase)
-         return   0;   /*  At end - can't fit  */
-
-    for  (i = 0;  i < lf->ef_tsize;  i += 2)  {
-         gette(lf, lf->ef_tbase + i, &ltent);
-         if  (ltent.t_isrel)
-             continue;
-         gette(mf, startpos + i, &mtent);
-         if  (mtent.t_contents != ltent.t_contents)
-             return   0;
-         matches++;
-    }
-
-    /*
-     *   Give up on zero length or all relocatable files.
-     */
-
-    return   matches > 0;
-}
-
-/*
- *  Scan through main file looking for a match.
- */
-
-long    findstart(mf, lf)
-register  ef_fid  mf, lf;
-{
```

```
-    register  long     res = mf->ef_tbase;
-    long lim = mf->ef_tbase + mf->ef_tsize - lf->ef_tsize;
-    t_entry   tent;
-
-restart:
-    for  (;  res <= lim;  res += 2)  {
-         gette(mf, res, &tent);
-         if  (tent.t_match != 0)  {
-              res += tent.t_match;
-              goto  restart;
-         }
-         if  (matchup(mf, lf, res))
-              return   res;
-    }
-    return   -1;
-}
-
-/*
- *  Mark the head of a matched module to save searching.
- */
-
-void     markmatch(mf, lf, pos)
-ef_fid   mf, lf;
-long     pos;
-{
-    t_entry   tent;
-
-    gette(mf, pos, &tent);
-    tent.t_match = (unsigned) lf->ef_tsize;
-    putte(mf, pos, &tent);
-}
//GO.SYSIN DD heur.c
echo iset.c 1>&2
sed 's/.//' >iset.c <<'//GO.SYSIN DD iset.c'
-/*
- *  SCCS:     @(#)iset.c    1.2  11/2/84   14:18:23
- *  Decode instructions.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *       John M Collins
- *       47 Cedarwood Drive
- *       St Albans
- *       Herts, AL4 0DN
- *       England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *       1.  No free maintenance will be guaranteed.
- *       2.  Nothing may be based on this software without
- *           acknowledgement, including incorporation of this
- *           notice.
```

```
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include "unc.h"
-
-ef_fids  mainfile;
-long     endt;
-
-void     gette(), putte();
-void     mkdref();
-long     gettw();
-symbol   textlab();
-
-int l1(), l2(), el1(), lea(), lmove(), lcbch(), jj();
-int limed(), lsbit(), lmvml(), lone(), loone(), lonew(), lonel();
-
-int pmove(), pcbch(), pdbcc(), pscc(), pcs(), pmovc(), pstop(), pexg();
-int pimed(), pmovp(), psbit(), pdbit(), pcs2(), pone(), ppea();
-int plea(), pdreg(), pmvml(), ptrap(), plink(), pareg(), podreg();
-int pqu(), pmqu(), ptreg(), pcmpm(), pomode(), pmshf(), pshf();
-
-struct   opstr    {
-    unsigned  short     mask;
-    unsigned  short  match;
-    int  (*opsize)();
-    int  (*opprin)();
-    char *prarg;
-} optab[] = {
-    0xf000, 0x2000, lmove, pmove, "l",
-    0xf000, 0x3000, lmove, pmove, "w",
-    0xf000, 0x1000, lmove, pmove, "b",
-    0xf000, 0x6000, lcbch, pcbch, 0,
-    0xffbf, 0x003c, l2,    pcs,   "or",
-    0xff00, 0x0000, limed, pimed, "or",
-    0xffbf, 0x023c, l2,    pcs,   "and",
-    0xff00, 0x0200, limed, pimed, "and",
-    0xff00, 0x0400, limed, pimed, "sub",
-    0xff00, 0x0600, limed, pimed, "add",
-    0xffbf, 0x0a3c, l2,    pcs,   "eor",
-    0xff00, 0x0a00, limed, pimed, "eor",
-    0xff00, 0x0c00, limed, pimed, "cmp",
-    0xf138, 0x0108, l2,    pmovp, 0,
-    0xff00, 0x0800, lsbit, psbit, 0,
-    0xf100, 0x0100, lonew, pdbit, 0,
-    0xffc0, 0x40c0, lonew, pcs2,  "sr",
-    0xff00, 0x4000, lone,  pone,  "negx",
-    0xff00, 0x4200, lone,  pone,  "clr",
-    0xffc0, 0x44c0, lonew, pcs2,  "cc",
```

```
-    0xff00, 0x4400, lone,  pone,  "neg",
-    0xffc0, 0x46c0, lonew, pcs2,  "sr",
-    0xff00, 0x4600, lone,  pone,  "not",
-    0xffc0, 0x4800, lonew, ppea,  "nbcd",
-    0xfff8, 0x4840, l1,    pdreg, "swap",
-    0xffc0, 0x4840, lonel, ppea,  "pea",
-    0xfff8, 0x4880, l1,    pdreg, "extw",
-    0xfff8, 0x48c0, l1,    pdreg, "extl",
-    0xfb80, 0x4880, lmvml, pmvml, 0,
-    0xffc0, 0x4ac0, lonew, ppea,  "tas",
-    0xff00, 0x4a00, lone,  pone,  "tst",
-    0xfff0, 0x4e40, l1,    ptrap, 0,
-    0xfff8, 0x4e50, l2,    plink, 0,
-    0xfff8, 0x4e58, l1,    pareg, "unlk\t%s",
-    0xfff8, 0x4e60, l1,    pareg, "movl\t%s,usp",
-    0xfff8, 0x4e68, l1,    pareg, "movl\tusp,%s",
-    0xffff, 0x4e70, l1,    pareg, "reset",
-    0xffff, 0x4e71, l1,    pareg, "nop",
-    0xffff, 0x4e72, l2,    pstop, 0,
-    0xffff, 0x4e73, el1,   pareg, "rte",
-    0xffff, 0x4e75, el1,   pareg, "rts",
-    0xffff, 0x4e76, l1,    pareg, "trapv",
-    0xffff, 0x4e77, el1,   pareg, "rtr",
-    0xfffe, 0x4e7a, l2,    pmovc, 0,
-    0xffc0, 0x4e80, jj,    ppea,  "jsr",
-    0xffc0, 0x4ec0, jj,    ppea,  "jmp",
-    0xf1c0, 0x4180, lonew, podreg,"chk",
-    0xf1c0, 0x41c0, lonel, plea,  0,
-    0xf0f8, 0x50c8, lcbch, pdbcc, 0,
-    0xf0c0, 0x50c0, lonew, pscc,  0,
-    0xf100, 0x5000, lone,  pqu,   "add",
-    0xf100, 0x5100, lone,  pqu,   "sub",
-    0xf100, 0x7000, l1,    pmqu,  0,
-    0xf1c0, 0x80c0, lonew, podreg,"divu",
-    0xf1c0, 0x81c0, lonew, podreg,"divs",
-    0xf1f0, 0x8100, l1,    ptreg, "sbcd",
-    0xf000, 0x8000, loone, pomode,"or",
-    0xf1f0, 0x9100, l1,    ptreg, "subxb",
-    0xf1f0, 0x9140, l1,    ptreg, "subxw",
-    0xf1f0, 0x9180, l1,    ptreg, "subxl",
-    0xf000, 0x9000, loone, pomode,"sub",
-    0xf1f8, 0xb108, l1,    pcmpm, "cmpmb",
-    0xf1f8, 0xb148, l1,    pcmpm, "cmpmw",
-    0xf1f8, 0xb188, l1,    pcmpm, "cmpml",
-    0xf100, 0xb000, loone, pomode,"cmp",
-    0xf1c0, 0xb1c0, loone, pomode,"cmp",
-    0xf100, 0xb100, loone, pomode,"eor",
-    0xf1c0, 0xc0c0, lonew, podreg,"mulu",
-    0xf1c0, 0xc1c0, lonew, podreg,"muls",
-    0xf1f0, 0xc100, l1,    ptreg, "abcd",
-    0xf130, 0xc100, l1,    pexg,  0,
-    0xf000, 0xc000, loone, pomode,"and",
-    0xf1f0, 0xd100, l1,    ptreg, "addxb",
```

```
-    0xf1f0, 0xd140, l1,    ptreg, "addxw",
-    0xf1f0, 0xd180, l1,    ptreg, "addxl",
-    0xf000, 0xd000, loone, pomode,"add",
-    0xf8c0, 0xe0c0, lonew, pmshf,  0,
-    0xf000, 0xe000, l1,    pshf,   0,
-    0
-};
-
-char    *areg[] = { "a0", "a1", "a2", "a3", "a4", "a5", "a6", "sp"};
-char    *cclist[] = { "hi", "ls", "cc", "cs", "ne", "eq", "vc", "vs",
-            "pl", "mi", "ge", "lt", "gt", "le"};
-
-char    *shtype[] = { "as", "ls", "rox", "ro" };
-char    *bittyp[] = { "tst", "chg", "clr", "set" };
-
-char    *creg[] = { "sfc", "dfc", "usp", "vbr" };
-
-/*
- *  Length functions.
- */
-
-int l1()
-{
-    return   1;
-}
-
-int l2()
-{
-    return   2;
-}
-
-int el1(te)
-t_entry  *te;
-{
-    te->t_bchtyp = T_UNBR;
-    return   1;
-}
-
-int lea(instr, size, pos)
-unsigned  instr, size;
-long    pos;
-{
-    switch  ((instr >> 3) & 0x7)  {
-    case  0:
-    case  1:
-    case  2:
-    case  3:
-    case  4:
-        return   1;
-    case  5:
-    case  6:
-        return   2;
-    default:
```

```
-        switch  (instr & 0x7)  {
-        case  0:
-        case  2:
-        case  3:
-             return   2;
-        case  1:
-             mkdref(pos, size);
-             return   3;
-        case  4:
-             if  (size > 2)
-                  return   3;
-             return   2;
-        default:
-             return   0;
-        }
-    }
-}
-
-/*
- *  Lengths of move instructions.
- */
-
-int lmove(te, pos)
-t_entry  *te;
-long     pos;
-{
-    register  unsigned  tc  =  te->t_contents;
-    unsigned  sz  =  1;
-    int  lng, lng2;
-
-    lng  = tc & 0xf000;
-    if  (lng == 0x3000)
-         sz = 2;
-    else  if  (lng == 0x2000)
-         sz = 4;
-
-    if  ((lng = lea(tc, sz, pos+2)) <= 0)
-         return   0;
-    lng2 = lea(((tc>>3) & 0x38) | ((tc>>9) & 0x7), sz, pos+lng+lng);
-    if  (lng2 <= 0)
-         return   0;
-    return   lng + lng2 - 1;
-}
-
-/*
- *  Lengths for conditional branches and dbcc instructions.
- */
-
-int lcbch(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
```

```
-    long dest  =  pos + 2;
-    int  res   =  2;
-
-    if  ((tc & 0xf000) == 0x5000  ||  (tc & 0xff) == 0)
-         dest += (short)gettw(&mainfile, pos+2, R_WORD);
-    else  {
-         dest += (char) tc;
-         res = 1;
-    }
-    if  ((tc & 0xff00) == 0x6000)
-         te->t_bchtyp = T_UNBR;
-    else  if  ((tc & 0xff00) == 0x6100)
-         te->t_bchtyp = T_JSR;
-    else
-         te->t_bchtyp = T_CONDBR;
-
-    te->t_relsymb = textlab(dest, pos);
-    return   res;
-}
-
-int jj(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-    t_entry   nextl;
-
-    te->t_bchtyp = (tc & 0x40)? T_UNBR: T_JSR;
-    if  ((tc & 0x3f) == 0x39)  {
-         gette(&mainfile, pos+2, &nextl);
-         if  (nextl.t_relsymb == NULL)  {
-              nextl.t_relsymb = textlab(gettw(&mainfile, pos+2, R_LONG), pos);
-              putte(&mainfile, pos+2, &nextl);
-         }
-         te->t_relsymb = nextl.t_relsymb; /*  Easy ref  */
-    }
-    return   lea(tc, 4, pos+2);
-}
-
-int limed(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-    int  lng;
-
-    /*
-     *   Specifically exclude byte address register operands,
-     *   and ones which have lengths of 3.
-     */
-
-    if  ((tc & 0xf8) == 0x08)
-         return  0;
```

```
-
-    if  ((tc & 0xc0) >= 0x80)  {
-         if  (tc & 0x40)
-              return  0;
-         lng = lea(tc, 4, pos+6);
-         if  (lng > 0)
-              lng += 2;
-    }
-    else  {
-         lng = lea(tc, (unsigned)((tc & 0xc0)?2:1), pos+4);
-         if  (lng > 0)
-              lng++;
-    }
-    return   lng;
-}
-
-int lsbit(te, pos)
-t_entry  *te;
-long     pos;
-{
-    int  lng = lea(te->t_contents, 1, pos+4);
-
-    if  (lng > 0)
-         lng++;
-    return   lng;
-}
-
-int lmvml(te, pos)
-t_entry  *te;
-long     pos;
-{
-    int  lng = lea(te->t_contents,
-              (unsigned)(te->t_contents&0x40? 4:2), pos+4);
-
-    if  (lng > 0)
-         lng++;
-    return   lng;
-}
-
-/*
- *  Length depends on bits 6 and 7 of instruction.
- */
-
-int lone(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    return   lea(tc, 1 << ((tc >> 6) & 3), pos+2);
-}
-
-/*
```

```
- *  Length depends on bits 6-8 of instruction.
- */
-
-int loone(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    switch  ((tc >> 6) & 7)  {
-    case  0:
-    case  4:
-        return   lea(tc, 1, pos+2);
-    case  1:
-    case  3:
-    case  5:
-        return  lea(tc, 2, pos+2);
-    case  2:
-    case  6:
-    case  7:
-        return   lea(tc, 4, pos+2);
-    }
-    /*NOTREACHED*/
-}
-
-int lonew(te, pos)
-t_entry *te;
-long    pos;
-{
-    return   lea(te->t_contents, 2, pos+2);
-}
-
-int lonel(te, pos)
-t_entry *te;
-long    pos;
-{
-    return   lea(te->t_contents, 4, pos+2);
-}
-
-/*
- *  Print routines.
- */
-
-int findleng(tc)
-unsigned  tc;
-{
-    switch  ((tc >> 6) & 3)  {
-    case  0:
-        return   'b';
-    case  1:
-        return   'w';
-    default:
-        return   'l';
```

```
-    }
-}
-
-void    piword(disp)
-unsigned  disp;
-{
-    int  szc;
-
-    (void) printf("@(0x%x,", disp & 0xff);
-    if  (disp & 0x8000)
-         (void) printf("%s", areg[(disp >> 12) & 0x7]);
-    else
-         (void) printf("d%d", (disp >> 12) & 0x7);
-    szc = 'w';
-    if  (disp & (1 << 10))
-         szc = 'l';
-    (void) printf(":%c)", szc);
-}
-
-void    paddr(pos)
-long    pos;
-{
-    t_entry  tent;
-    symbol   symb;
-
-    gette(&mainfile, pos, &tent);
-    if  (tent.t_relsymb != NULL)  {
-         symb = tent.t_relsymb;
-         if  (symb->s_lsymb != 0)
-              (void) printf("%u$", symb->s_lsymb);
-         else
-              (void) printf("%s", symb->s_name);
-         if  (tent.t_reldisp != 0)
-              (void) printf("+0x%x", tent.t_reldisp);
-         return;
-    }
-    (void) printf("0x%x", gettw(&mainfile, pos, R_LONG));
-}
-
-int prea(ea, pos, sz)
-unsigned  ea, sz;
-long    pos;          /*  Address of previous word to extn  */
-{
-    unsigned  reg  =  ea & 0x7;
-    long disp;
-
-    pos += 2;
-
-    switch  ((ea >> 3) & 0x7)  {
-    case  0:
-         (void) printf("d%d", reg);
-         return   0;
-    case  1:
```

```
-         (void) printf("%s", areg[reg]);
-         return   0;
-    case  2:
-         (void) printf("%s@", areg[reg]);
-         return   0;
-    case  3:
-         (void) printf("%s@+", areg[reg]);
-         return   0;
-    case  4:
-         (void) printf("%s@-", areg[reg]);
-         return   0;
-    case  5:
-         disp = gettw(&mainfile, pos, R_WORD);
-         (void) printf("%s@(0x%x)", areg[reg], disp);
-         return   2;
-    case  6:
-         (void) printf("%s", areg[reg]);
-         piword((unsigned) gettw(&mainfile, pos, R_WORD));
-         return   2;
-    default:
-         switch  (reg)  {
-         case  0:
-              disp = gettw(&mainfile, pos, R_WORD);
-              (void) printf("0x%x:w", disp);
-              return   2;
-         case  1:
-              paddr(pos);
-              return   4;
-         case  2:
-              disp = gettw(&mainfile, pos, R_WORD);
-              (void) printf("pc@(0x%x)", disp);
-              return   2;
-         case  3:
-              (void) printf("pc");
-              piword((unsigned) gettw(&mainfile, pos, R_WORD));
-              return   2;
-         case  4:
-              (void) printf("#");
-              if  (sz < 4)
-                   (void) printf("0x%x", gettw(&mainfile, pos, R_WORD));
-              else
-                   paddr(pos);
-              return   sz;
-         default:
-              (void) fprintf(stderr, "Funny mode\n");
-              exit(220);
-         }
-    }
-    /*NOTREACHED*/
-}
-
-int pmove(te, pos)
-t_entry  *te;
```

```
-long    pos;
-{
-    unsigned  sz  =  2;
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("mov%s\t", optab[te->t_iindex].prarg);
-
-    if  ((tc & 0xf000) == 0x2000)
-        sz = 4;
-
-    pos += prea(tc, pos, sz);
-    putchar(',');
-    (void) prea(((tc >> 9) & 0x7) | ((tc >> 3) & 0x38), pos, sz);
-}
-
-int pcbch(te)
-t_entry  *te;
-{
-    int  cc = ((te->t_contents >> 8) & 0xf) - 2;
-    char *msg;
-    register  symbol  ts;
-
-    if  (cc < 0)
-        msg = cc < -1? "ra": "sr";
-    else
-        msg = cclist[cc];
-    (void) printf("b%s", msg);
-    if  (te->t_lng < 2)
-        (void) printf("s");
-    ts = te->t_relsymb;
-    if  (ts->s_lsymb != 0)
-        (void) printf("\t%u$", ts->s_lsymb);
-    else
-        (void) printf("\t%s", ts->s_name);
-}
-
-int pdbcc(te)
-t_entry  *te;
-{
-    unsigned  tc  =  te->t_contents;
-    int  cc = ((tc >> 8) & 0xf) - 2;
-    char *msg;
-    register  symbol  ts;
-
-    if  (cc < 0)
-        msg = cc < -1? "t": "f";
-    else
-        msg = cclist[cc];
-    ts = te->t_relsymb;
-    (void) printf("db%s\td%d,", msg, tc & 0x7);
-    if  (ts->s_lsymb)
-        (void) printf("%u$", ts->s_lsymb);
-    else
```

```
-        (void) printf("%s", ts->s_name);
-}
-
-int pscc(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-    int  cc = ((tc >> 8) & 0xf) - 2;
-    char *msg;
-
-    if  (cc < 0)
-        msg = cc < -1? "t": "f";
-    else
-        msg = cclist[cc];
-    (void) printf("s%s\t", msg);
-    (void) prea(tc, pos, 1);
-}
-
-int pcs(te, pos)
-t_entry *te;
-long    pos;
-{
-    long disp  =  gettw(&mainfile, pos+2, R_WORD);
-
-    (void) printf("%s", optab[te->t_iindex].prarg);
-    if  ((te->t_contents & 0xc0) == 0)
-        (void) printf("b\t#0x%x,cc", disp);
-    else
-        (void) printf("w\t#0x%x,sr", disp);
-}
-
-int pmovc(te, pos)
-t_entry *te;
-long    pos;
-{
-    int  disp = gettw(&mainfile, pos+2, R_WORD);
-    int  ctrl = ((disp >> 10) & 2) | (disp & 1);
-
-    (void) printf("movec\t");
-    if  ((te->t_contents & 1) == 0)
-        (void) printf("%s,", creg[ctrl]);
-    if  (disp & 0x8000)
-        (void) printf("%s", areg[(disp >> 12) & 7]);
-    else
-        (void) printf("d%d", disp >> 12);
-    if  (te->t_contents & 1)
-        (void) printf(",%s", creg[ctrl]);
-}
-
-int pimed(te, pos)
-t_entry *te;
-long    pos;
```

```
-{
-    int  sz = findleng(te->t_contents);
-
-    (void) printf("%s%c\t#", optab[te->t_iindex].prarg, sz);
-    if  (sz == 'l')  {
-         paddr(pos+2);
-         putchar(',');
-         (void) prea(te->t_contents, pos+4, 4);
-    }
-    else  {
-         (void) printf("0x%x,", gettw(&mainfile, pos+2, R_WORD));
-         (void) prea(te->t_contents, pos+2, 2);
-    }
-}
-
-int pmovp(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-    long disp  =  gettw(&mainfile, pos+2, R_WORD);
-    int  dreg = tc >> 9;
-    char *ar = areg[tc & 0x7];
-
-    (void) printf("movep");
-    if  (tc & (1 << 6))
-         putchar('l');
-    else
-         putchar('w');
-
-    if  (tc & (1 << 7))
-         (void) printf("\td%d,%s@(0x%x)", dreg, ar, disp);
-    else
-         (void) printf("\t%s@(0x%x),d%d", ar, disp, dreg);
-}
-
-int psbit(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("b%s\t#%d,", bittyp[(tc >> 6) & 0x3], gettw(&mainfile, pos+2,
R_WORD));
-    (void) prea(tc, pos+2, 1);
-}
-
-/*ARGSUSED*/
-int pstop(te, pos)
-t_entry  *te;
-long     pos;
-{
-    (void) printf("stop\t#0x%x", gettw(&mainfile, pos+2, R_WORD));
```

```
-}
-
-int pdbit(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("b%s\td%d,", bittyp[(tc >> 6) & 0x3], (tc >> 9) & 0x7);
-    (void) prea(tc, pos, 1);
-}
-
-int pcs2(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("movw\t");
-    if  ((tc & 0xffc0) == 0x40c0)  {
-         (void) printf("sr,");
-         (void) prea(tc, pos, 2);
-    }
-    else  {
-         (void) prea(tc, pos, 2);
-         (void) printf(",%s", optab[te->t_iindex].prarg);
-    }
-}
-
-int pone(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-    int  sz = findleng(tc);
-
-    (void) printf("%s%c\t", optab[te->t_iindex].prarg, sz);
-    (void) prea(tc, pos, (unsigned)(sz == 'l'? 4: 2));
-}
-
-int ppea(te, pos) /*  nbcd, pea, tas, jmp, jsr  */
-t_entry *te;
-long    pos;
-{
-    (void) printf("%s\t", optab[te->t_iindex].prarg);
-    (void) prea(te->t_contents, pos, (unsigned)(te->t_lng > 2? 4: 2));
-}
-
-
-int plea(te, pos)
-t_entry *te;
-long    pos;
-{
```

```
-    (void) printf("lea\t");
-    (void) prea(te->t_contents, pos, 4);
-    (void) printf(",%s", areg[(te->t_contents >> 9) & 0x7]);
-}
-
-int pdreg(te)
-t_entry *te;
-{
-    (void) printf("%s\td%d", optab[te->t_iindex].prarg, te->t_contents & 7);
-}
-
-
-int pmvml(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-    register  unsigned  dw  =  gettw(&mainfile, pos+2, R_WORD);
-    unsigned  sz = 4;
-    int  sc = 'l';
-    register  int i;
-    register  unsigned  bit;
-
-    (void) printf("movem");
-    if  ((tc & 0x40) == 0)  {
-        sc = 'w';
-        sz = 2;
-    }
-
-    (void) printf("%c\t", sc);
-
-    if  (tc & 0x400)  {
-        (void) prea(tc, pos+2, sz);
-        (void) printf(",#0x%x", dw);
-    }
-    else  {
-        (void) printf("#0x%x,", dw);
-        (void) prea(tc, pos+2, sz);
-    }
-
-    (void) printf("\t|");
-
-    if  ((tc & 0x38) == 0x20)  {
-        bit = 0x8000;
-        for  (i = 0;  i < 8;  i++)  {
-            if  (dw & bit)
-                (void) printf(" d%d", i);
-            bit >>= 1;
-        }
-        for  (i = 0;  i < 8;  i++)  {
-            if  (dw & bit)
-                (void) printf(" %s", areg[i]);
-            bit >>= 1;
```

```
-         }
-    }
-    else  {
-         bit = 1;
-         for  (i = 0;  i < 8;  i++)  {
-              if  (dw & bit)
-                   (void) printf(" d%d", i);
-              bit <<= 1;
-         }
-         for  (i = 0;  i < 8;  i++)  {
-              if  (dw & bit)
-                   (void) printf(" %s", areg[i]);
-              bit <<= 1;
-         }
-    }
-}
-
-int ptrap(te)
-t_entry *te;
-{
-    (void) printf("trap\t#0x%x", te->t_contents & 0xf);
-}
-
-int plink(te, pos)
-t_entry *te;
-long    pos;
-{
-    (void) printf("link\t%s,#0x%x", areg[te->t_contents & 0x7],
-                   gettw(&mainfile, pos+2, R_WORD));
-}
-
-
-int pareg(te)
-t_entry *te;
-{
-    (void) printf(optab[te->t_iindex].prarg, areg[te->t_contents & 0x7]);
-}
-
-int podreg(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("%s\t", optab[te->t_iindex].prarg);
-    (void) prea(tc, pos, 2);
-    (void) printf(",d%d", (tc >> 9) & 0x7);
-}
-
-int pqu(te, pos)
-t_entry *te;
-long    pos;
-{
```

```
-    unsigned  tc  =  te->t_contents;
-    int  sz  =  findleng(tc);
-    int  amt = (tc >> 9) & 0x7;
-
-    if  (amt == 0)
-         amt = 8;
-    (void) printf("%sq%c\t#%d,", optab[te->t_iindex].prarg, sz, amt);
-    (void) prea(tc, pos, (unsigned)(sz == 'l'? 4: 2));
-}
-
-int pmqu(te)
-t_entry  *te;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("moveq\t#0x%x,d%d", (char)tc, (tc >> 9) & 0x7);
-}
-
-int ptreg(te)
-t_entry  *te;
-{
-    register  unsigned  tc  =  te->t_contents;
-    int  rx = (tc >> 9) & 0x7;
-    int  ry = tc & 0x7;
-
-    (void) printf("%s\t", optab[te->t_iindex].prarg);
-    if  (tc & 0x8)
-         (void) printf("%s@-,%s@-", areg[ry], areg[rx]);
-    else
-         (void) printf("d%d,d%d", ry, rx);
-}
-
-int pcmpm(te)
-t_entry  *te;
-{
-    register  unsigned  tc  =  te->t_contents;
-
-    (void) printf("%s\t%s@+,%s@+", optab[te->t_iindex].prarg,
-         areg[tc & 7], areg[(tc >> 9) & 7]);
-}
-
-int pomode(te, pos)
-t_entry  *te;
-long     pos;
-{
-    unsigned  tc  =  te->t_contents;
-    char bef[4], aft[4];
-    int  sz;
-    int  reg = (tc >> 9) & 7;
-
-    bef[0] = aft[0] = '\0';
-
-    switch  ((tc >> 6) & 7)  {
```

```
-    case  0:
-         sz = 'b';
-         goto  toreg;
-    case  1:
-         sz = 'w';
-         goto  toreg;
-    case  2:
-         sz = 'l';
-    toreg:
-         (void) sprintf(aft, ",d%d", reg);
-         break;
-    case  3:
-         sz = 'w';
-         goto  toareg;
-    case  7:
-         sz = 'l';
-    toareg:
-         (void) sprintf(aft, ",%s", areg[reg]);
-         break;
-    case  4:
-         sz = 'b';
-         goto  frreg;
-    case  5:
-         sz = 'w';
-         goto  frreg;
-    case  6:
-         sz = 'l';
-    frreg:
-         (void) sprintf(bef, "d%d,", reg);
-         break;
-    }
-
-    (void) printf("%s%c\t%s", optab[te->t_iindex].prarg, sz, bef);
-    (void) prea(tc, pos, (unsigned)(sz == 'l'? 4: 2));
-    (void) printf(aft);
-}
-
-int pexg(te)
-t_entry *te;
-{
-    unsigned  tc  =  te->t_contents;
-    int  r1 = (tc >> 9) & 7, r2 = tc & 7;
-
-    (void) printf("exg\t");
-
-    if  ((tc & 0x00f8) == 0x0048)
-         (void) printf("%s,", areg[r1]);
-    else
-         (void) printf("d%d,", r1);
-    if  (tc & 0x8)
-         (void) printf("%s", areg[r2]);
-    else
-         (void) printf("d%d", r2);
```

```
-}
-
-int pmshf(te, pos)
-t_entry *te;
-long    pos;
-{
-    unsigned  tc  =  te->t_contents;
-
-    (void) printf("%s%cw\t", shtype[(tc >> 9) & 3], tc & 0x100? 'l': 'r');
-    (void) prea(tc, pos, 2);
-}
-
-int pshf(te)
-t_entry *te;
-{
-    unsigned  tc  =  te->t_contents;
-    int  sz  =  findleng(tc);
-    int  disp = (tc >> 9) & 7;
-
-    (void) printf("%s%c%c\t", shtype[(tc >> 3) & 3], tc & 0x100? 'l': 'r', sz);
-    if  (tc & 0x20)
-        (void) printf("d%d", disp);
-    else
-        (void) printf("#%d", disp == 0? 8: disp);
-    (void) printf(",d%d", tc & 7);
-}
-
-/*
- *  Find length etc of instruction.
- */
-
-int findinst(te, pos)
-register  t_entry  *te;
-long    pos;
-{
-    register  struct  opstr*op;
-    unsigned  tc  =  te->t_contents;
-    int  lng = 0;
-    register  int i;
-
-    te->t_type = T_BEGIN;
-    te->t_bchtyp = T_NOBR;
-
-    for  (op = &optab[0];  op->mask;  op++)  {
-        if  ((tc & op->mask) == op->match)  {
-            te->t_iindex = op - optab;
-            lng = (op->opsize)(te, pos);
-            break;
-        }
-    }
-
-    for  (i = 1;  i < lng;  i++)  {
-        t_entry  ctent;
```

```
-         long npos = pos+i+i;
-
-         if  (npos >= endt)
-              goto  clearem;
-         gette(&mainfile, npos, &ctent);
-         if  (ctent.t_bdest || ctent.t_dref)  {
-clearem:     for  (i--; i > 0; i--)  {
-                  npos = pos + i + i;
-                  gette(&mainfile, npos, &ctent);
-                  ctent.t_type = T_UNKNOWN;
-                  putte(&mainfile, npos, &ctent);
-              }
-              lng = 0;
-              goto  ginv;
-         }
-         ctent.t_type = T_CONT;
-         putte(&mainfile, npos, &ctent);
-    }
-
-    if  (lng <= 0)  {
-ginv:        te->t_vins = 0;
-         te->t_lng = 1;
-         te->t_type = T_UNKNOWN;
-         te->t_bchtype = T_NOBR;
-    }
-    else
-         te->t_lng = lng;
-    return   lng;
-}
-
-/*
- *  Print instruction.
- */
-
-void     prinst(te, pos)
-t_entry *te;
-long     pos;
-{
-    putchar('\t');
-    (optab[te->t_iindex].opprin)(te, pos);
-    putchar('\n');
-}
//GO.SYSIN DD iset.c
echo libmtch.c 1>&2
sed 's/.//' >libmtch.c <<'//GO.SYSIN DD libmtch.c'
-/*
- *  SCCS:    @(#)libmtch.c 1.2  11/2/84  14:18:55
- *  Read library files.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *       John M Collins
```

```
- *      47 Cedarwood Drive
- *      St Albans
- *      Herts, AL4 0DN
- *      England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
- *      2.  Nothing may be based on this software without
- *          acknowledgement, including incorporation of this
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ******************************************************************************
- */
-
-#include <stdio.h>
-#include <fcntl.h>
-#include <a.out.h>
-#include <ar.h>
-#include <setjmp.h>
-#include "unc.h"
-
-long    lseek();
-void    bfopen(), bfclose(), nomem();
-void    rrell2(), markmatch();
-char    *strchr(), *strrchr(), *strncpy(), *strcat(), *strcpy(), *malloc();
-int matchup();
-long    findstart();
-
-char    verbose;      /*  Tell the world what we are doing  */
-char    *tfnam;
-char    *cfile;
-ef_fids  mainfile;
-struct  commit   dreltab;
-int donedrel, donebrel;
-long    trelpos, drelpos, brelpos;
-static  struct   libit    currlib = {-1, 0, -1, ""};
-
-void    lclash(str)
-char    *str;
-{
-    (void) fprintf(stderr, "Library scan failure - %s\n", str);
-    (void) fprintf(stderr, "Searching %s\n", cfile);
-    if  (currlib.lf_name[0])
-        (void) fprintf(stderr, "Member is %s\n", currlib.lf_name);
-    exit(255);
-}
-
-/*
- *  Find next member.
- */
```

```
-
-long    nextmemb(lfd)
-register  struct  libit     *lfd;
-{
-    struct   ar_hdr   arbuf;
-
-    if  (lfd->lf_next < 0)
-        return   -1;
-
-    (void) lseek(lfd->lf_fd, lfd->lf_next, 0);
-    if  (read(lfd->lf_fd, (char *)&arbuf, sizeof(arbuf)) != sizeof(arbuf))  {
-        lfd->lf_next = -1;
-        return   -1;
-    }
-    (void) strncpy(lfd->lf_name, arbuf.ar_name, sizeof(lfd->lf_name));
-    lfd->lf_offset = lfd->lf_next + sizeof(arbuf);
-    lfd->lf_next = (lfd->lf_offset + arbuf.ar_size + 1) & ~1;
-    return   lfd->lf_offset;
-}
-
-/*
- *  Decode a file name thus -
- *
- *  -lxxx decode as /lib/libxxx.a /usr/lib/libxxx.a etc
- *  -Lxxx forget "lib" ".a" bit thus -Lcrt0.o
- *  or read LDPATH environment var to give list of directories as sh
- *  (default /lib:/usr/lib).
- *
- *  Alternatively treat as normal pathname.
- *
- *  File names may be followed by (membername) if the file is an archive,
- *  thus
- *
- *      -lc(printf.o)
- *
- *  in which case the specified module is fetched.
- */
-
-struct  libit    *getfnam(str)
-char    *str;
-{
-    char *bp, *ep = NULL, *pathb, *pathe, *fullpath = NULL;
-    static   char *pathn;
-    extern   char *getenv();
-    long magic;
-    struct   ar_hdr   arhdr;
-    int  fd;
-
-    if  ((bp = strrchr(str, '(')) != NULL &&
-          (ep = strrchr(str, ')')) != NULL)
-        *ep = *bp = '\0';
-
-    if  (str[0] == '-'  &&  (str[1] == 'l' || str[1] == 'L'))  {
```

```
-        if  (pathn == NULL)  {
-             if  ((pathn = getenv("LDPATH")) == NULL)
-                  pathn = "/lib:/usr/lib";
-        }
-        fullpath = malloc((unsigned)(strlen(pathn) + strlen(str) + 1));
-        if  (fullpath == NULL)
-             nomem();
-        pathb = pathn;
-        do  {
-             pathe = strchr(pathb, ':');
-             if  (*pathb == ':')
-                  fullpath[0] = '\0';
-             else  {
-                  if  (pathe != NULL)
-                       *pathe = '\0';
-                  (void) strcpy(fullpath, pathb);
-                  (void) strcat(fullpath, "/");
-                  if  (pathe != NULL)
-                       *pathe = ':';
-             }
-             if  (str[1] == 'l')
-                  (void) strcat(fullpath, "lib");
-             (void) strcat(fullpath, &str[2]);
-             if  (str[1] == 'l')
-                  (void) strcat(fullpath, ".a");
-             if  ((fd = open(fullpath, O_RDONLY)) >= 0)
-                  goto  found;
-             pathb = pathe + 1;
-        }   while  (pathe != NULL);
-
-        (void) fprintf(stderr, "Unable to locate lib%s.a in %s\n",
-             &str[2], pathn);
-        exit(101);
-    }
-    else  if  ((fd = open(str, O_RDONLY)) < 0)  {
-        (void) fprintf(stderr, "Cannot open %s\n", str);
-        exit(102);
-    }
-
-found:
-
-    if  ((read(fd, (char *) &magic, sizeof(magic)) != sizeof(magic)  ||
-        magic != ARMAG))  {
-        if  (ep != NULL)  {
-             (void) fprintf(stderr, "%s is not library file\n",
-                       fullpath != NULL? fullpath: str);
-             exit(103);
-        }
-        if  (fullpath != NULL)
-             free(fullpath);
-        currlib.lf_fd = fd;
-        currlib.lf_offset = 0;
-        currlib.lf_next = -1;
```

```
-         currlib.lf_name[0] = '\0';
-         return  &currlib;
-     }
-
-     /*
-      *   It appears to be a library file - see if we want a specific
-      *   one.
-      */
-
-     if  (ep != NULL)  {
-         currlib.lf_offset = sizeof(magic) + sizeof(struct ar_hdr);
-         for  (;;)  {
-             if  (read(fd, &arhdr, sizeof(arhdr)) != sizeof(arhdr))  {
-                 (void) fprintf(stderr, "Cannot find member %s in %s\n",
-                     bp+1, fullpath?fullpath: str);
-                 exit(103);
-             }
-             if  (strncmp(bp+1, arhdr.ar_name, sizeof(arhdr.ar_name)) == 0)
-                 break;
-             currlib.lf_offset += arhdr.ar_size + sizeof(arhdr) + 1;
-             currlib.lf_offset &= ~ 1;
-             (void) lseek(fd, (long)(currlib.lf_offset - sizeof(arhdr)), 0);
-         }
-         if  (fullpath != NULL)
-             free(fullpath);
-         currlib.lf_fd = fd;
-         currlib.lf_next = -1;
-         currlib.lf_name[0] = '\0';
-         *bp = '(';
-         *ep = ')';
-         return   &currlib;
-     }
-
-     /*
-      *   Otherwise point to 1st member in library.
-      */
-
-     if  (read(fd, &arhdr, sizeof(arhdr)) != sizeof(arhdr))  {
-         (void) fprintf(stderr, "Library %s empty\n", fullpath? fullpath: str);
-         exit(104);
-     }
-     if  (fullpath != NULL)
-         free(fullpath);
-     currlib.lf_offset = sizeof(magic) + sizeof(arhdr);
-     currlib.lf_next = currlib.lf_offset + arhdr.ar_size + 1;
-     currlib.lf_next &= ~1;
-     currlib.lf_fd = fd;
-     (void) strncpy(currlib.lf_name, arhdr.ar_name, sizeof(currlib.lf_name));
-     return   &currlib;
- }
-
- /*
-  *  Process library files.
```

```
- */
-
-#define  MINTEXT   6
-
-void     lscan(nfiles, fnames)
-int nfiles;
-char     **fnames;
-{
-    ef_fids   libfile;
-    register  ef_fid  ll = &libfile;
-    register  struct  libit *clf;
-    extern    symbol    dolsymb();
-    int  firstfile;
-
-    for  (;  nfiles > 0;  fnames++, nfiles--)  {
-         clf = getfnam(*fnames);
-         cfile = *fnames;
-         firstfile = 1;
-         do  {
-              bfopen(tfnam, ll);
-
-              /*
-               *   If file is garbled, silently forget it and go
-               *   on to the next one.
-               */
-
-              if  (!rtext(clf->lf_fd, clf->lf_offset, ll))
-                   goto  closeit;
-
-              if  (ll->ef_tsize < MINTEXT)
-                   goto  closeit;
-
-              if  (!rdata(clf->lf_fd, clf->lf_offset, ll))
-                   goto  closeit;
-
-              if  (rrell1(clf->lf_fd, clf->lf_offset, ll) < 0)
-                   goto  closeit;
-
-              /*
-               *   If first file in library, find it from
-               *   beginning of main file.
-               */
-
-              if  (firstfile)  {
-                   if  ((trelpos = findstart(&mainfile, ll)) < 0)
-                        goto  closeit;
-                   firstfile = 0;
-              }
-              else   if  (!matchup(&mainfile, ll, trelpos))
-                        goto  closeit;
-
-              /*
-               *   Found a match.
```

```
-              */
-
-             if  (!rsymb(clf->lf_fd, clf->lf_offset, dolsymb, ll))  {
-                  (void) fprintf(stderr, "Corrupt file %s\n",
-                                 *fnames);
-                  exit(150);
-             }
-
-             donedrel = 0;
-             donebrel = 0;
-             rrell2(clf->lf_fd, clf->lf_offset, ll);
-             if  (verbose)  {
-                  (void) fprintf(stderr, "Found: ");
-                  if  (clf->lf_name[0])
-                       (void) fprintf(stderr, "%.14s in ",
-                                 clf->lf_name);
-                  (void) fprintf(stderr, "%s\n", *fnames);
-             }
-             if  (libfile.ef_stvec != NULL)  {
-                  free(libfile.ef_stvec);
-                  libfile.ef_stvec = NULL;
-                  libfile.ef_stcnt = 0;
-             }
-             dreltab.c_int = 0;
-
-             /*
-              *   Start looking next time round
-              *   where last one left off.
-              */
-
-             markmatch(&mainfile, ll, trelpos);
-             trelpos += libfile.ef_tsize;
-closeit:
-             bfclose(ll);
-         }  while  (nextmemb(clf) >= 0);
-    }
-}
//GO.SYSIN DD libmtch.c
echo main.c 1>&2
sed 's/.//' >main.c <<'//GO.SYSIN DD main.c'
-/*
- *  SCCS:    @(#)main.c    1.2  11/2/84  14:19:31
- *  Main routine etc.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *       John M Collins
- *       47 Cedarwood Drive
- *       St Albans
- *       Herts, AL4 0DN
- *       England           +44 727 57267
- *
```

```
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- *
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- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- */
-
-#include <stdio.h>
-#include <fcntl.h>
-#include <a.out.h>
-#include <sys/var.h>
-#include "unc.h"
-
-#define  LINELNG  70
-
-void    inturdat(), intutext(), intudat(), intlsym();
-void    ptext(), pdata(), pabs(), pbss(), lscan();
-
-ef_fids  mainfile;
-
-int par_entry, par_round;  /*  68000 parameters  */
-int nmods;             /*  Number of modules it looks like  */
-
-char    *tfnam = "split";
-
-char    lsyms;             /*  Generate local symbols  */
-char    verbose;      /*  Tell the world what we are doing  */
-char    noabs;             /*  No non-global absolutes  */
-int rel;          /*  File being analysed is relocatable  */
-int lpos;
-
-symbol  dosymb();
-struct  libit    *getfnam();
-
-/*
- *  Get hex characters, also allowing for 'k' and 'm'.
- */
-
-int ghex(str)
-register  char    *str;
-{
-    register  int result = 0;
-    register  int lt;
-
-    for  (;;)  {
-        lt = *str++;
-        switch  (lt)  {
-        default:
```

```
-err:             (void) fprintf(stderr, "Invalid hex digit \'%c\'\n", lt);
-             exit(1);
-
-        case '\0':
-             return   result;
-
-        case '0':case '1':case '2':case '3':case '4':
-        case '5':case '6':case '7':case '8':case '9':
-             result = (result << 4) + lt - '0';
-             continue;
-
-        case 'a':case 'b':case 'c':case 'd':case 'e':case 'f':
-             result = (result << 4) + lt - 'a' + 10;
-             continue;
-
-        case 'A':case 'B':case 'C':case 'D':case 'E':case 'F':
-             result = (result << 4) + lt - 'A' + 10;
-             continue;
-
-        case 'k':case 'K':
-             if  (*str != '\0')
-                  goto  err;
-             return  result << 10;
-
-        case 'm':case 'M':
-             if  (*str != '\0')
-                  goto  err;
-             return  result << 20;
-        }
-    }
-}
-
-/*
- *  Process entry line options.  Return number dealt with.
- */
-
-int doopts(av)
-char    *av[];
-{
-    register  int cnt = 0, lt;
-    register  char    *arg;
-    struct   var  vs;
-
-    uvar(&vs);
-    par_entry = vs.v_ustart;
-    par_round = vs.v_txtrnd - 1;
-
-    for  (;;)  {
-        arg = *++av;
-        if  (*arg++ != '-')
-             return   cnt;
-        cnt++;
-
```

```
-nx:     switch  (lt = *arg++)  {
-        default:
-            (void) fprintf(stderr, "Bad option -%c\n", lt);
-            exit(1);
-
-        case  '\0':
-            continue;
-
-        case  'l':    /*  A file name  */
-        case  'L':
-            return   cnt - 1;
-
-        case  's':
-            lsyms++;
-            goto  nx;
-
-        case  'v':
-            verbose++;
-            goto  nx;
-
-        case  'a':
-            noabs++;
-            goto  nx;
-
-        case  'R':
-        case  'N':
-            if  (*arg == '\0')  {
-                cnt++;
-                arg = *++av;
-                if  (arg == NULL)  {
-bo:                  (void) fprintf(stderr,"Bad -%c option\n",lt);
-                     exit(1);
-                }
-            }
-            if  (lt == 'R')
-                par_entry = ghex(arg);
-            else
-                par_round = ghex(arg) - 1;
-            continue;
-
-        case  't':
-            if  (*arg == '\0')  {
-                cnt++;
-                arg = *++av;
-                if  (arg == NULL)
-                     goto  bo;
-            }
-            tfnam = arg;
-            continue;
-
-        case  'o':
-            if  (*arg == '\0')  {
-                cnt++;
```

```
-                   arg = *++av;
-                   if  (arg == NULL)
-                        goto  bo;
-              }
-              if  (freopen(arg, "w", stdout) == NULL)  {
-                   (void) fprintf(stderr, "Help! cant open %s\n", arg);
-                   exit(20);
-              }
-              continue;
-         }
-    }
-}
-
-/*
- *  Open binary files.  Arrange to erase them when finished.
- */
-
-void    bfopen(nam, fid)
-char    *nam;
-ef_fid  fid;
-{
-    char fnam[80];
-
-    (void) sprintf(fnam, "%s.tx", nam);
-    if  ((fid->ef_t = open(fnam, O_RDWR|O_CREAT, 0666)) < 0)  {
-efil:        (void) fprintf(stderr, "Help could not open %s\n", fnam);
-         exit(4);
-    }
-    (void) unlink(fnam);
-    (void) sprintf(fnam, "%s.dt", nam);
-    if  ((fid->ef_d = open(fnam, O_RDWR|O_CREAT, 0666)) < 0)
-         goto  efil;
-    (void) unlink(fnam);
-}
-
-/*
- *  Close binary files.  They should get zapped anyway.
- */
-
-void    bfclose(fid)
-ef_fid  fid;
-{
-    (void) close(fid->ef_t);
-    (void) close(fid->ef_d);
-}
-
-/*
- *  Main routine.
- */
-
-main(argc, argv)
-int argc;
-char    *argv[];
```

```
-{
-    int  i;
-    char *progname = argv[0];
-    char *msg;
-    register  struct  libit  *lfd;
-
-    i = doopts(argv);
-    argc -= i;
-    argv += i;
-
-    if  (argc < 2)  {
-         (void) fprintf(stderr, "Usage: %s [ options ] file\n", progname);
-         exit(1);
-    }
-
-    lfd = getfnam(argv[1]);
-    if  (lfd->lf_next > 0)  {
-         (void) fprintf(stderr, "Main file (%s) cannot be library\n", argv[1]);
-         exit(2);
-    }
-
-    bfopen(tfnam, &mainfile);
-    if  (verbose)
-         (void) fprintf(stderr, "Scanning text\n");
-    if  (!rtext(lfd->lf_fd, lfd->lf_offset, &mainfile))  {
-         msg = "text";
-bf:      (void) fprintf(stderr, "Bad format input file - reading %s\n", msg);
-         exit(5);
-    }
-    if  (verbose)
-         (void) fprintf(stderr, "Scanning data\n");
-    if  (!rdata(lfd->lf_fd, lfd->lf_offset, &mainfile))  {
-         msg = "data";
-         goto  bf;
-    }
-    if  (verbose)
-         (void) fprintf(stderr, "Scanning symbols\n");
-    if  (!rsymb(lfd->lf_fd, lfd->lf_offset, dosymb, &mainfile))  {
-         msg = "symbols";
-         goto  bf;
-    }
-    if  (verbose)
-         (void) fprintf(stderr, "Scanning for relocation\n");
-    if  ((rel = rrel(lfd->lf_fd, lfd->lf_offset, &mainfile)) < 0)  {
-         msg = "reloc";
-         goto  bf;
-    }
-
-    if  (rel)  {
-         if  (verbose)
-              (void) fprintf(stderr, "File is relocatable\n");
-         if  (argc > 2)
-              (void) fprintf(stderr, "Sorry - no scan on reloc files\n");
```

```
-    }
-    else
-         lscan(argc - 2, &argv[2]);
-
-    if  (verbose)
-         (void) fprintf(stderr, "End of input\n");
-
-    (void) close(lfd->lf_fd);
-    if  (nmods > 0)
-         (void) fprintf(stderr, "Warning: at least %d merged modules\n",
-              nmods + 1);
-
-    if  (mainfile.ef_stvec != NULL)  {
-         free(mainfile.ef_stvec);
-         mainfile.ef_stvec = NULL;
-         mainfile.ef_stcnt = 0;
-    }
-
-    if  (verbose)
-         (void) fprintf(stderr, "Text anal 1\n");
-    intutext();
-    if  (verbose)
-         (void) fprintf(stderr, "Data anal 1\n");
-    intudat(&mainfile);
-    if  (!rel)  {
-         if  (verbose)
-              (void) fprintf(stderr, "Data anal 2\n");
-         inturdat(&mainfile);
-    }
-    if  (lsyms)  {
-         if  (verbose)
-              (void) fprintf(stderr, "Local symbol scan\n");
-         intlsym();
-    }
-    pabs();
-    ptext(&mainfile);
-    pdata(&mainfile);
-    pbss(&mainfile);
-    bfclose(&mainfile);
-    exit(0);
-}
//GO.SYSIN DD main.c
echo prin.c 1>&2
sed 's/.//' >prin.c <<'//GO.SYSIN DD prin.c'
-/*
- *  SCCS:    @(#)prin.c    1.2  11/2/84  14:19:47
- *  Print stuff.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *       John M Collins
- *       47 Cedarwood Drive
```

```
- *      St Albans
- *      Herts, AL4 0DN
- *      England           +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
- *      2.  Nothing may be based on this software without
- *          acknowledgement, including incorporation of this
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include "unc.h"
-
-#define  LINELNG  70
-
-void    gette(), getde();
-long    gettw(), getdw();
-void    prinst();
-
-char    noabs;              /*  No non-global absolutes  */
-int rel;          /*  File being analysed is relocatable  */
-int lpos;
-
-struct  commit   abstab, comtab;
-
-/*
- *  Print absolute and common values.
- */
-
-void    pabs()
-{
-    register  int i;
-    register  symbol  cs;
-
-    for  (i = 0;  i < abstab.c_int;  i++)
-
-    for  (i = 0;  i < abstab.c_int;  i++)  {
-        cs = abstab.c_symb[i];
-        if  (cs->s_glob)
-            (void) printf("\t.globl\t%s\n", cs->s_name);
-        else  if  (noabs)
-            continue;
-        (void) printf("%s\t=\t0x%lx\n", cs->s_name, cs->s_value);
-    }
-    for  (i = 0;  i < comtab.c_int;  i++)  {
-        cs = comtab.c_symb[i];
```

```
-         (void) printf("\t.comm\t%s,%d\n", cs->s_name, cs->s_value);
-    }
-}
-
-/*
- *  Print out labels.
- */
-
-void    plabs(ls, seg)
-register  symbol  ls;
-int seg;
-{
-    for  (; ls != NULL;  ls = ls->s_link)  {
-         if  (ls->s_type != seg)
-             continue;
-         if  (ls->s_lsymb)  {
-             (void) printf("%u$:\n", ls->s_lsymb);
-             return;       /*  Set last  */
-         }
-         if  (ls->s_glob)
-             (void) printf("\n\t.globl\t%s", ls->s_name);
-         (void) printf("\n%s:\n", ls->s_name);
-    }
-}
-
-/*
- *  Print out text.
- */
-
-void    ptext(fid)
-register  ef_fid  fid;
-{
-    register  long     tpos, endt;
-    t_entry  tstr;
-
-    (void) printf(".text\n");
-
-    tpos = fid->ef_tbase;
-    endt = tpos + fid->ef_tsize;
-contin:
-    for  (;  tpos < endt;  tpos += tstr.t_lng * 2)  {
-         gette(fid, tpos, &tstr);
-         plabs(tstr.t_lab, TEXT);
-         if  (tstr.t_type == T_BEGIN)
-             prinst(&tstr, tpos);
-         else  if  (tstr.t_relsymb != NULL)  {
-             (void) printf("\t.long\t%s", tstr.t_relsymb->s_name);
-             if  (tstr.t_relsymb->s_type!=TEXT &&
-                  tstr.t_relsymb->s_type!=DATA)
-                  (void) printf("+0x%x", gettw(fid, tpos, R_LONG));
-             putchar('\n');
-             tpos += 4;
-             goto  contin;
```

```
-         }
-         else
-              (void) printf("\t.word\t0x%x\n", tstr.t_contents);
-    }
-
-    /*
-     *   Print out any trailing label.
-     */
-
-    gette(fid, tpos, &tstr);
-    plabs(tstr.t_lab, TEXT);
-}
-
-/*
- *  Print out data.
- */
-
-void    pdata(fid)
-register  ef_fid  fid;
-{
-    register  long    dpos, endd;
-    register  int lng;
-    unsigned  ctyp;
-    int  had, par, inc;
-    char *msg;
-    d_entry  dstr;
-
-    (void) printf("\n.data\n");
-
-    dpos = fid->ef_dbase;
-    endd = dpos + fid->ef_dsize;
-
-    while  (dpos < endd)  {
-
-         getde(fid, dpos, &dstr);
-         plabs(dstr.d_lab, DATA);
-
-         switch  (dstr.d_type)  {
-         case  D_CONT:
-              (void) fprintf(stderr, "Data sync error\n");
-              exit(200);
-
-         case  D_ASC:
-         case  D_ASCZ:
-              ctyp = dstr.d_type;
-              lng = dstr.d_lng;
-              (void) printf("\t.asci");
-              if  (ctyp == D_ASC)
-                   (void) printf("i\t\"");
-              else  {
-                   (void) printf("z\t\"");
-                   lng--;
-              }
```

```
-
-            while  (lng > 0)  {
-                 getde(fid, dpos, &dstr);
-                 switch  (dstr.d_contents)  {
-                 default:
-                      if  (dstr.d_contents < ' ' ||
-                           dstr.d_contents > '~')
-                           (void) printf("\\%.3o", dstr.d_contents);
-                      else
-                           putchar(dstr.d_contents);
-                      break;
-                 case  '\"':
-                 case  '\'':
-                 case  '\\':
-                 case  '|':
-                      (void) printf("\\%c", dstr.d_contents);
-                      break;
-                 case  '\b':
-                      (void) printf("\\b");
-                      break;
-                 case  '\n':
-                      (void) printf("\\n");
-                      break;
-                 case  '\r':
-                      (void) printf("\\r");
-                      break;
-                 }
-
-                 lng--;
-                 dpos++;
-            }
-            (void) printf("\"\n");
-            if  (ctyp == D_ASCZ)
-                 dpos++;
-            break;
-
-        case  D_BYTE:
-            msg = "byte";
-            par = R_BYTE;
-            inc = 1;
-            goto  wrest;
-
-        case  D_WORD:
-            msg = "word";
-            par = R_WORD;
-            inc = 2;
-            goto  wrest;
-
-        case  D_LONG:
-            msg = "long";
-            par = R_LONG;
-            inc = 4;
-        wrest:
```

```
-             (void) printf("\t.%s\t", msg);
-             lng = dstr.d_lng;
-             lpos = 16;
-             had = 0;
-             while  (lng > 0)  {
-                  if  (lpos > LINELNG)  {
-                       (void) printf("\n\t.%s\t", msg);
-                       lpos = 16;
-                  }
-                  else  if  (had)
-                       lpos += printf(", ");
-
-                  lpos += printf("0x%x", getdw(fid, dpos, par));
-                  lng -= inc;
-                  dpos += inc;
-                  had++;
-             }
-             putchar('\n');
-             break;
-
-        case  D_ADDR:
-             (void) printf("\t.long\t");
-             lng = dstr.d_lng;
-             lpos = 16;
-             had = 0;
-             while  (lng > 0)  {
-                  if  (lpos > LINELNG)  {
-                       (void) printf("\n\t.long\t");
-                       lpos = 16;
-                  }
-                  else  if  (had)
-                       lpos += printf(", ");
-
-                  getde(fid, dpos, &dstr);
-                  lpos += printf("%s", dstr.d_relsymb->s_name);
-                  lng -= sizeof(long);
-                  dpos += sizeof(long);
-                  had++;
-             }
-             putchar('\n');
-             break;
-        }
-    }
-
-    /*
-     *   Print trailing label.
-     */
-
-    getde(fid, dpos, &dstr);
-    plabs(dstr.d_lab, DATA);
-}
-
-void    pbss(fid)
```

```
-register  ef_fid  fid;
-{
-    register  long     bpos = fid->ef_bbase;
-    long endb = fid->ef_end;
-    d_entry   bstr;
-
-    (void) printf("\n.bss\n");
-
-    while  (bpos < endb)  {
-         getde(fid, bpos, &bstr);
-         plabs(bstr.d_lab, BSS);
-         (void) printf("\t.space\t%d\n", bstr.d_lng);
-         bpos += bstr.d_lng;
-    }
-
-    getde(fid, endb, &bstr);
-    plabs(bstr.d_lab, BSS);
-}
//GO.SYSIN DD prin.c
echo robj.c 1>&2
sed 's/.//' >robj.c <<'//GO.SYSIN DD robj.c'
-/*
- *  SCCS:    @(#)robj.c    1.2  11/2/84  14:19:59
- *  Read object files.
- *
- ************************************************************************
- *  This software is copyright of
- *
- *      John M Collins
- *      47 Cedarwood Drive
- *      St Albans
- *      Herts, AL4 0DN
- *      England            +44 727 57267
- *
- *  and is released into the public domain on the following conditions:
- *
- *      1.  No free maintenance will be guaranteed.
- *      2.  Nothing may be based on this software without
- *          acknowledgement, including incorporation of this
- *          notice.
- *
- *  Notwithstanding the above, the author welcomes correspondence and bug
- *  fixes.
- ************************************************************************
- *
- *  This particular module will obviously have to be munged beyond
- *  recognition for another object format.
- */
-
-#include <stdio.h>
-#include <a.out.h>
-#include "unc.h"
-
```

```
-void    gette(), getde(), setde(), putte(), putde();
-long    gettw(), getdw();
-void    reallst(), lclash(), nomem(), unimpl();
-void    addit();
-char    *malloc();
-long    lseek();
-
-int par_entry, par_round, nmods, donedrel, donebrel;
-struct  commit   abstab, comtab, dreltab;
-long    trelpos, drelpos, brelpos;
-
-ef_fids  mainfile;
-
-symbol  lookup(), inventsymb(), getnsymb();
-
-#define  DBSIZE   100
-#define  STINIT   20
-
-/*
- *  Read text segment.  Return 0 if not ok.
- */
-
-int rtext(inf, offset, outf)
-int inf;     /*  a.out file (possibly in library)  */
-long    offset;       /*  Offset from start of inf of a.out file  */
-ef_fid  outf;         /*  Output file descriptor  */
-{
-    t_entry       tstr;
-    struct   bhdr filhdr;
-    register  long     size;
-    register  int i, l;
-    unsigned  short    inbuf[DBSIZE/2];
-
-    /*
-     *   Initialise fields in structure.
-     */
-
-    tstr.t_type = T_UNKNOWN;
-    tstr.t_vins = 1;       /*  For the moment  */
-    tstr.t_bdest = 0;
-    tstr.t_gbdest = 0;
-    tstr.t_lng = 1;
-    tstr.t_reloc = R_NONE;
-    tstr.t_rdisp = 0;
-    tstr.t_isrel = 0;
-    tstr.t_amap = 0;
-    tstr.t_dref = 0;
-    tstr.t_relsymb = NULL;
-    tstr.t_reldisp = 0;
-    tstr.t_lab = NULL;
-    tstr.t_lsymb = 0;
-    tstr.t_refhi = 0;
-    tstr.t_reflo = 0x7fffffff;
```

```
-    tstr.t_match = 0;
-
-    /*
-     *   Read a.out header.
-     */
-
-    (void) lseek(inf, offset, 0);
-
-    if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-         return   0;
-
-    if  (filhdr.fmagic != FMAGIC  &&  filhdr.fmagic != NMAGIC)
-         return   0;
-
-    /*
-     *   Warn user if entry point does not tie up.
-     */
-
-    if  (filhdr.entry != par_entry)
-         (void) fprintf(stderr, "Warning: File has -R%X\n", filhdr.entry);
-
-    outf->ef_entry = filhdr.entry;
-    outf->ef_tbase = filhdr.entry;
-    outf->ef_dbase = filhdr.tsize + filhdr.entry;
-
-    if  (filhdr.fmagic == NMAGIC)
-         outf->ef_dbase = (outf->ef_dbase + par_round) & (~par_round);
-
-    outf->ef_bbase = outf->ef_dbase + filhdr.dsize;
-    outf->ef_end = outf->ef_bbase + filhdr.bsize;
-
-    outf->ef_tsize = filhdr.tsize;
-    outf->ef_dsize = filhdr.dsize;
-    outf->ef_bsize = filhdr.bsize;
-
-    (void) lseek(inf, offset + TEXTPOS, 0);
-
-    size = outf->ef_tsize;
-
-    while  (size > 1)  {
-         l = size > DBSIZE? DBSIZE: size;
-         if  (read(inf, (char *)inbuf, l) != l)
-              return   0;
-         l /= 2;
-         for  (i = 0;  i < l;  i++)  {
-              tstr.t_contents = inbuf[i];
-              (void) write(outf->ef_t, (char *)&tstr, sizeof(tstr));
-         }
-         size -= l + l;
-    }
-
-    /*
-     *   Extra one to cope with "etext".
```

```
-     */
-
-    (void) write(outf->ef_t, (char *)&tstr, sizeof(tstr));
-    return   1;
-}
-
-/*
- *  Same sort of thing for the data segment.
- */
-
-int rdata(inf, offset, outf)
-int inf;      /*  a.out file (possibly in library)  */
-long    offset;       /*  Offset from start of inf of a.out file  */
-ef_fid  outf;         /*  Output file descriptor  */
-{
-    d_entry       dstr;
-    struct   bhdr filhdr;
-    register  long     size;
-    register  int i, l;
-    unsigned  char     inbuf[DBSIZE];
-
-    /*
-     *   Initialise fields in structure.
-     */
-
-    dstr.d_type = D_BYTE;
-    dstr.d_reloc = R_NONE;
-    dstr.d_lng = 1;
-    dstr.d_relsymb = NULL;
-    dstr.d_reldisp = 0;
-    dstr.d_lab = NULL;
-
-    /*
-     *   Read a.out header.
-     */
-
-    (void) lseek(inf, offset, 0);
-
-    if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-        return   0;
-
-    (void) lseek(inf, offset + DATAPOS, 0);
-
-    size = outf->ef_dsize;
-
-    while  (size > 0)  {
-        l = size > DBSIZE? DBSIZE: size;
-        if  (read(inf, (char *)inbuf, l) != l)
-            return   0;
-        for  (i = 0;  i < l;  i++)  {
-            dstr.d_contents = inbuf[i];
-            (void) write(outf->ef_d, (char *)&dstr, sizeof(dstr));
-        }
```

```
-         size -= l;
-     }
-
-     /*
-      *   Repeat for BSS segment.
-      */
-
-     dstr.d_contents = 0;
-     for  (size = outf->ef_bsize;  size > 0;  size--)
-         (void) write(outf->ef_d, (char *)&dstr, sizeof(dstr));
-
-     /*
-      *   Extra one to cope with "end".
-      */
-
-     (void) write(outf->ef_d, (char *)&dstr, sizeof(dstr));
-     return   1;
-}
-
-/*
- *  Process symbol table segment.
- */
-
-int rsymb(inf, offset, dproc, outf)
-int inf;      /*  a.out file (possibly in library)  */
-long    offset;       /*  Offset from start of inf of a.out file  */
-symbol  (*dproc)();
-register  ef_fid  outf;    /*  Output file descriptor  */
-{
-     register  symbol  csym;
-     struct    bhdr filhdr;
-     struct    sym  isym;
-     register  long    size;
-     register  int i, l;
-     char inbuf[SYMLENGTH+1];
-
-     /*
-      *   Read a.out header.
-      */
-
-     (void) lseek(inf, offset, 0);
-
-     if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-         return   0;
-
-     offset += SYMPOS;
-     size = filhdr.ssize;
-     if  (size <= 0)
-         return   1;
-
-     /*
-      *   Guesstimate symbol table vector size.
-      */
```

```
-
-    l = size / (sizeof(struct sym) + 4);
-    if  (l <= 0)
-         l = STINIT;
-
-    outf->ef_stvec = (symbol *) malloc(l * sizeof(symbol));
-    if  (outf->ef_stvec == NULL)
-         nomem();
-
-    outf->ef_stcnt = 0;
-    outf->ef_stmax = l;
-
-    while  (size > sizeof(struct sym))  {
-         (void) lseek(inf, offset, 0);
-         if  (read(inf, (char *)&isym, sizeof(isym)) != sizeof(isym))
-              return   0;
-         size -= sizeof(isym);
-         l = SYMLENGTH;
-         if  (l > size)
-              l = size;
-         if  (read(inf, inbuf, l) != l)
-              return   0;
-         inbuf[l] = '\0';
-         for  (i = 0; inbuf[i] != '\0';  i++)
-              ;
-         size -= i + 1;
-         offset += sizeof(isym) + i + 1;
-         csym = (*dproc)(lookup(inbuf), isym.stype, isym.svalue, outf);
-         if  (outf->ef_stcnt >= outf->ef_stmax)
-              reallst(outf);
-         outf->ef_stvec[outf->ef_stcnt++] = csym;
-    }
-    return   1;
-}
-
-/*
- *  Process relocation stuff.  -1 error, 0 no relocation, 1 relocation.
- */
-
-int rrel(inf, offset, outf)
-int inf;      /*  a.out file (possibly in library)  */
-long     offset;       /*  Offset from start of inf of a.out file  */
-ef_fid   outf;         /*  Output file descriptor  */
-{
-    struct    bhdr filhdr;
-    struct    reloc     crel;
-    t_entry   tstr;
-    d_entry   dstr;
-    register  long     size;
-    long cont, pos;
-
-    /*
-     *   Read a.out header.
```

```
-     */
-
-    (void) lseek(inf, offset, 0);
-
-    if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-         return   -1;
-    if  (filhdr.rtsize <= 0  &&  filhdr.rdsize <= 0)
-         return   0;
-
-    size  =  filhdr.rtsize;
-
-    (void) lseek(inf, RTEXTPOS + offset, 0);
-    while  (size >= sizeof(struct reloc))  {
-         if  (read(inf, (char *)&crel, sizeof(crel)) != sizeof(crel))
-              return   -1;
-
-         pos = crel.rpos + outf->ef_tbase;
-         gette(outf, pos, &tstr);
-         tstr.t_reloc = crel.rsize + 1;   /*  Fiddle!  YUK!!!  */
-         tstr.t_rdisp = crel.rdisp;
-         tstr.t_rptr = crel.rsegment;
-         if  (crel.rsegment == REXT)  {
-              if  (crel.rsymbol >= outf->ef_stcnt)
-                   return  -1;
-              tstr.t_relsymb = outf->ef_stvec[crel.rsymbol];
-              tstr.t_reldisp = gettw(outf, pos, (int)crel.rsize+1);
-         }
-         else  {
-              cont = gettw(outf, pos, (int)crel.rsize+1);
-              tstr.t_relsymb = getnsymb(outf, crel.rsegment, cont);
-         }
-         tstr.t_relsymb->s_used++;
-         putte(outf, pos, &tstr);
-         size -= sizeof(crel);
-    }
-
-    /*
-     *   And now repeat all that for data relocations.
-     */
-
-    size  =  filhdr.rdsize;
-
-    (void) lseek(inf, RDATAPOS + offset, 0);
-    while  (size >= sizeof(struct reloc))  {
-         if  (read(inf, (char *)&crel, sizeof(crel)) != sizeof(crel))
-              return   -1;
-
-         pos = crel.rpos + outf->ef_dbase;
-         getde(outf, pos, &dstr);
-         dstr.d_reloc = crel.rsize + 1;   /*  Fiddle!  YUK!!!  */
-         dstr.d_rptr = crel.rsegment;
-
-         if  (crel.rsegment == REXT)  {
```

```
-             if  (crel.rsymbol >= outf->ef_stcnt)
-                  return  -1;
-             dstr.d_relsymb = outf->ef_stvec[crel.rsymbol];
-             dstr.d_reldisp = getdw(outf, pos, (int)crel.rsize+1);
-         }
-         else  {
-             cont = getdw(outf, pos, (int)crel.rsize+1);
-             dstr.d_relsymb = getnsymb(outf, crel.rsegment, cont);
-             if  (dstr.d_relsymb->s_type == TEXT)  {
-                  gette(outf, cont, &tstr);
-                  tstr.t_dref = 1;
-                  putte(outf, cont, &tstr);
-             }
-         }
-         switch  (crel.rsize)  {
-         default:
-             unimpl("Data byte relocation");
-             break;
-         case  RWORD:
-             unimpl("data word reloc");
-             dstr.d_type = D_WORD;
-             dstr.d_lng = 2;
-             setde(outf, pos+1, D_CONT, 1);
-             break;
-         case  RLONG:
-             dstr.d_type = D_ADDR;
-             dstr.d_lng = 4;
-             setde(outf, pos+1, D_CONT, 1);
-             setde(outf, pos+2, D_CONT, 1);
-             setde(outf, pos+3, D_CONT, 1);
-             break;
-         }
-         dstr.d_relsymb->s_used++;
-         putde(outf, pos, &dstr);
-         size -= sizeof(crel);
-    }
-    return 1;
-}
-
-/*
- *  Process a symbol.
- */
-
-symbol  dosymb(sy, type, val, fid)
-register  symbol  sy;
-int type;
-long    val;
-ef_fid  fid;
-{
-    t_entry  tstr;
-    d_entry  dstr;
-
-    if  (!sy->s_newsym)  {
```

```
-         if  (type & EXTERN)  {
-              (void) fprintf(stderr, "Duplicate symbol %s\n", sy->s_name);
-              exit(10);
-         }
-         if  (++sy->s_defs > nmods)
-              nmods = sy->s_defs;
-         sy = inventsymb("DUP");
-    }
-
-    sy->s_value = val;
-
-    switch  (type)  {
-    default:
-         return   NULL;
-
-    case  EXTERN|UNDEF:
-         if  (val != 0)  {
-              sy->s_type = COMM;
-              addit(&comtab, sy);
-         }
-         else
-              sy->s_type = N_UNDF;
-         sy->s_glob = 1;
-         break;
-
-    case  EXTERN|ABS:
-         sy->s_type = N_ABS;
-         sy->s_glob = 1;
-         addit(&abstab, sy);
-         break;
-
-    case  ABS:
-         sy->s_type = N_ABS;
-         addit(&abstab, sy);
-         break;
-
-    case  EXTERN|TEXT:
-    case  TEXT:
-         sy->s_type = N_TEXT;
-         gette(fid, val, &tstr);
-         tstr.t_bdest = 1;
-         if  (type & EXTERN)  {
-              tstr.t_gbdest = 1;
-              sy->s_glob = 1;
-         }
-         sy->s_link = tstr.t_lab;
-         tstr.t_lab = sy;
-         putte(fid, val, &tstr);
-         break;
-
-    case  BSS:
-    case  EXTERN|BSS:
-         sy->s_type = N_BSS;
```

```
-         goto datrest;
-    case  DATA:
-    case  EXTERN|DATA:
-         sy->s_type = N_DATA;
-    datrest:
-         getde(fid, val, &dstr);
-         if  (type & EXTERN)
-              sy->s_glob = 1;
-         sy->s_link = dstr.d_lab;
-         dstr.d_lab = sy;
-         putde(fid, val, &dstr);
-         break;
-    }
-
-    sy->s_newsym = 0;
-    return   sy;
-}
-
-/*
- *  Process relocation stuff in putative library modules.
- *  The main function of all this is to mark which bits of the text
- *  not to look at as I compare the stuff.
- *
- *  As with "rrel", return -1 error, 0 no relocation, 1 relocation.
- */
-
-int rrell1(inf, offset, outf)
-int inf;      /*  a.out file (possibly in library)  */
-long    offset;       /*  Offset from start of inf of a.out file  */
-ef_fid  outf;         /*  Output file descriptor  */
-{
-    struct   bhdr filhdr;
-    struct   reloc    crel;
-    t_entry  tstr;
-    register  long    size;
-    long pos;
-
-    /*
-     *   Read a.out header.
-     */
-
-    (void) lseek(inf, offset, 0);
-
-    if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-         return   -1;
-    if  (filhdr.rtsize <= 0  &&  filhdr.rdsize <= 0)
-         return   0;
-
-    size  =  filhdr.rtsize;
-
-    (void) lseek(inf, RTEXTPOS + offset, 0);
-    while  (size >= sizeof(struct reloc))  {
-         if  (read(inf, (char *)&crel, sizeof(crel)) != sizeof(crel))
```

```
-             return   -1;
-
-         pos = crel.rpos + outf->ef_tbase;
-         gette(outf, pos, &tstr);
-         tstr.t_reloc = crel.rsize + 1;   /*  Fiddle!  YUK!!!  */
-         tstr.t_rdisp = crel.rdisp;
-         tstr.t_rptr = crel.rsegment;
-         tstr.t_isrel = 1;
-         putte(outf, pos, &tstr);
-         if  (crel.rsize == RLONG)  {
-             gette(outf, pos+2, &tstr);
-             tstr.t_isrel = 1;
-             putte(outf, pos+2, &tstr);
-         }
-         size -= sizeof(crel);
-    }
-
-    /*
-     *   Dont bother with data relocation at this stage. We'll
-     *   tie that up later.
-     */
-
-    return 1;
-}
-
-/*
- *  Process a symbol in library file.  The extern variable trelpos gives
- *  the place in the main file where the library module is relocated.
- *  We don't know the data position until we do the final merge, perhaps
- *  not even then.
- */
-
-symbol  dolsymb(sy, type, val, fid)
-register  symbol  sy;
-int type;
-long    val;
-ef_fid  fid;
-{
-    t_entry  tstr;
-
-    switch  (type)  {
-    default:
-         return   NULL;
-
-    case  EXTERN|UNDEF:
-         if  (!sy->s_newsym)
-             return   sy;
-         sy->s_value = val;
-         if  (val != 0)  {
-             sy->s_type = COMM;
-             addit(&dreltab, sy);
-         }
-         else
```

```
-             sy->s_type = N_UNDF;
-         sy->s_glob = 1;
-         break;
-
-    case  EXTERN|ABS:
-         if  (!sy->s_newsym)  {
-             if  (sy->s_type != N_ABS || sy->s_value != val)
-                 lclash("abs");
-         }
-         sy->s_type = N_ABS;
-         sy->s_value = val;
-         sy->s_glob = 1;
-         addit(&abstab, sy);
-         break;
-
-    case  EXTERN|TEXT:
-         sy->s_type = N_TEXT;
-         val += trelpos - fid->ef_tbase;
-         if  (!sy->s_newsym)  {
-             if  (val != sy->s_value)
-                 lclash("tsym");
-             return   sy;
-         }
-         sy->s_value = val;
-         gette(&mainfile, val, &tstr);
-         tstr.t_bdest = 1;
-         tstr.t_gbdest = 1;
-         sy->s_glob = 1;
-         sy->s_link = tstr.t_lab;
-         tstr.t_lab = sy;
-         putte(&mainfile, val, &tstr);
-         break;
-
-    case  EXTERN|BSS:
-         if  (!sy->s_newsym)
-             return   sy;
-         sy->s_type = N_BSS;
-         sy->s_value = val - fid->ef_bbase;
-         goto datrest;
-
-    case  EXTERN|DATA:
-         if  (!sy->s_newsym)
-             return   sy;
-         sy->s_type = N_DATA;
-         sy->s_value = val - fid->ef_dbase;
-    datrest:
-         sy->s_glob = 1;
-         addit(&dreltab, sy);
-         break;
-    }
-
-    sy->s_newsym = 0;
-    return   sy;
```

```
-}
-
-/*
- *  Change definition of undefined symbol as we define it.
- */
-
-void    reassign(sy, val)
-register  symbol  sy;
-long    val;
-{
-    sy->s_value = val;
-
-    if  (val < mainfile.ef_tbase)  {
-        sy->s_type = N_ABS;
-        addit(&abstab, sy);
-    }
-    else  if  (val < mainfile.ef_dbase)  {
-        t_entry  tstr;
-
-        sy->s_type = N_TEXT;
-        gette(&mainfile, val, &tstr);
-        tstr.t_bdest = 1;
-        tstr.t_gbdest = 1;
-        sy->s_glob = 1;
-        sy->s_link = tstr.t_lab;
-        tstr.t_lab = sy;
-        putte(&mainfile, val, &tstr);
-    }
-    else  {
-        d_entry dstr;
-
-        sy->s_type = val < mainfile.ef_bbase? N_DATA: N_BSS;
-        getde(&mainfile, val, &dstr);
-        sy->s_link = dstr.d_lab;
-        dstr.d_lab = sy;
-        putde(&mainfile, val, &dstr);
-    }
-}
-
-/*
- *  When we discover where bss or data come, reallocate the table.
- */
-
-void    zapdat(seg, inc)
-int seg;
-long    inc;
-{
-    register  int i;
-    register  symbol  csymb;
-    d_entry  dent;
-
-    for  (i = 0;  i < dreltab.c_int;  i++) {
-        csymb = dreltab.c_symb[i];
```

```
-        if  (csymb->s_type != seg)
-            continue;
-        csymb->s_value += inc;
-        getde(&mainfile, csymb->s_value, &dent);
-        csymb->s_link = dent.d_lab;
-        dent.d_lab = csymb;
-        putde(&mainfile, csymb->s_value, &dent);
-    }
-}
-
-/*
- *  Process relocation stuff in library module which we are inserting.
- *  Horrors if something goes wrong.
- */
-
-void    rrell2(inf, offset, outf)
-int inf;     /*  a.out file (possibly in library)  */
-long    offset;       /*  Offset from start of inf of a.out file  */
-ef_fid  outf;         /*  Output file descriptor  */
-{
-    struct   bhdr filhdr;
-    struct   reloc    crel;
-    t_entry  mtstr;
-    d_entry  mdstr;
-    register  long    size;
-    register  symbol  csymb;
-    long pos, mpos, mval, lval;
-    int  dhere = 0;         /*  Mark whether bss done  */
-
-    /*
-     *   Read a.out header.
-     */
-
-    (void) lseek(inf, offset, 0);
-
-    if  (read(inf, (char *)&filhdr, sizeof(filhdr)) != sizeof(filhdr))
-        return;
-    if  (filhdr.rtsize <= 0  &&  filhdr.rdsize <= 0)
-        return;
-
-    size  =  filhdr.rtsize;
-
-    (void) lseek(inf, RTEXTPOS + offset, 0);
-    for  (;  size >= sizeof(struct reloc);  size -= sizeof(crel))  {
-        if  (read(inf, (char *)&crel, sizeof(crel)) != sizeof(crel))
-            lclash("rd trel");
-
-        pos = crel.rpos + outf->ef_tbase;
-        mpos = crel.rpos + trelpos;
-        gette(&mainfile, mpos, &mtstr);
-        lval = gettw(outf, pos, (int)crel.rsize+1);
-        mval = gettw(&mainfile, mpos, (int)crel.rsize+1);
-
```

```
-         switch  (crel.rsegment)  {
-         case  RTEXT:
-              if  (lval + trelpos - outf->ef_tbase != mval)
-                   lclash("Trel");
-              continue;
-         case  RDATA:
-              if  (donedrel)  {
-                   if  (lval + drelpos - outf->ef_dbase != mval)
-                        lclash("Drel");
-              }
-              else  {
-                   donedrel++;
-                   drelpos = mval - lval + outf->ef_dbase;
-              }
-              continue;
-         case  RBSS:
-              if  (donebrel)  {
-                   if  (lval + brelpos - outf->ef_bbase != mval)
-                        lclash("brel");
-              }
-              else  {
-                   donebrel++;
-                   brelpos = mval - lval + outf->ef_bbase;
-              }
-              continue;
-         case  REXT:
-              if  (crel.rsymbol >= outf->ef_stcnt)
-                   lclash("Bad sy no");
-              csymb = outf->ef_stvec[crel.rsymbol];
-              if  (csymb == NULL)
-                   continue;
-              switch  (csymb->s_type)  {
-              case  N_UNDF:
-                   reassign(csymb, mval - lval);
-                   break;
-              case  N_ABS:
-                   if  (lval + csymb->s_value != mval)
-                        lclash("abs rel");
-                   break;
-              case  N_TEXT:
-                   if  (lval + csymb->s_value != mval)
-                        lclash("text rel");
-                   break;
-              case  N_DATA:
-                   if  (lval + csymb->s_value != mval)
-                        lclash("data rel");
-                   break;
-              case  N_BSS:
-                   if  (lval + csymb->s_value != mval)
-                        lclash("bss rel");
-                   break;
-              case  COMM:
-                   reassign(csymb, mval - lval);
```

```
-                 break;
-             }
-             mtstr.t_relsymb = csymb;
-             mtstr.t_reldisp = lval;
-             break;
-         }
-     }
-
-     /*
-      *   Relocate data and bss if possible.
-      */
-
-     if  (donebrel)  {
-         zapdat(N_BSS, brelpos);
-         dhere++;
-     }
-
-     if  (!donedrel)
-         return;
-
-
-     zapdat(N_DATA, drelpos);
-
-     /*
-      *   And now repeat all that for data relocations if possible
-      */
-
-     size  =  filhdr.rdsize;
-
-     (void) lseek(inf, RDATAPOS + offset, 0);
-     for  (;  size >= sizeof(struct reloc); size -= sizeof(crel))  {
-         if  (read(inf, (char *)&crel, sizeof(crel)) != sizeof(crel))
-             lclash("Rd drel");
-
-         if  (crel.rsize != RLONG)
-             continue;
-
-         pos = crel.rpos + outf->ef_dbase;
-         mpos = crel.rpos + drelpos;
-         getde(&mainfile, mpos, &mdstr);
-         lval = getdw(outf, pos, (int)crel.rsize+1);
-         mval = getdw(&mainfile, mpos, (int)crel.rsize+1);
-         switch  (crel.rsegment)  {
-         case  RTEXT:
-             if  (lval + trelpos - outf->ef_tbase != mval)
-                 lclash("Trel-d");
-             continue;
-         case  RDATA:
-             if  (lval + drelpos - outf->ef_dbase != mval)
-                 lclash("Drel-d");
-             continue;
-         case  RBSS:
-             if  (donebrel)  {
```

```
-                 if  (lval + brelpos - outf->ef_bbase != mval)
-                     lclash("brel");
-             }
-             else  {
-                 donebrel++;
-                 brelpos = mval - lval + outf->ef_bbase;
-             }
-             continue;
-         case  REXT:
-             if  (crel.rsymbol >= outf->ef_stcnt)
-                 lclash("Bad sy no");
-             csymb = outf->ef_stvec[crel.rsymbol];
-             if  (csymb == NULL)
-                 continue;
-             switch  (csymb->s_type)  {
-             case  N_UNDF:
-                 reassign(csymb, mval - lval);
-                 break;
-             case  N_ABS:
-                 if  (lval + csymb->s_value != mval)
-                     lclash("abs rel");
-                 break;
-             case  N_TEXT:
-                 if  (lval + csymb->s_value != mval)
-                     lclash("text rel");
-                 break;
-             case  N_DATA:
-                 if  (lval + csymb->s_value != mval)
-                     lclash("data rel");
-                 break;
-             case  N_BSS:
-                 if  (lval + csymb->s_value != mval)
-                     lclash("bss rel");
-                 break;
-             case  COMM:
-                 reassign(csymb, mval - lval);
-                 break;
-             }
-             mtstr.t_relsymb = csymb;
-             mtstr.t_reldisp = lval;
-             break;
-         }
-     }
-
-     if  (dhere || !donebrel)
-         return;
-
-     zapdat(N_BSS, brelpos);
-}
//GO.SYSIN DD robj.c
--
John M Collins          ....mcvax!ist!inset!jmc
Phone:    +44 727 57267
```

Snail Mail: 47 Cedarwood Drive, St Albans, Herts, AL4 0DN, England.

--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
         Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 6328426760559998504
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f907e8e68312bcbd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 21:51:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: TYSON@SRI-AI.ARPA (Mabry Tyson)
Newsgroups: net.micro.atari16
Subject: Non Atari monitor?
Message-ID: <860306215129.0.TYSON@SRI-BISHOP.ARPA>
Date: Fri, 7-Mar-86 00:51:00 EST
Article-I.D.: SRI-BISH.860306215129.0.TYSON
Posted: Fri Mar 7 00:51:00 1986
Date-Received: Sun, 9-Mar-86 00:07:39 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 9

I've scanned the past few megabytes of mail on the ST but haven't seen someone
address one of my questions.

I understand the DIN plug outputs an analog RGB signal. Are there TV/Monitors
out that can be fed this signal (modulo connector changes) and give an image
approximately as good as the Atari monitor's?

(I'm in the market for the 1040ST and also for a good TV. Maybe I can save
some $300 by merging the two...)

From 293423709297157211
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,a8a2a5f988c6dd7a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-06 22:10:23 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
drillsys!gatech!seismo!umcp-cs!eneevax!ravi
From: ravi@eneevax.UUCP (Ravi Kulkarni)
Newsgroups: net.micro.atari16
Subject: ar68 compatibility question
Message-ID: <557@eneevax.UUCP>
Date: Fri, 7-Mar-86 01:10:23 EST
Article-I.D.: eneevax.557
Posted: Fri Mar 7 01:10:23 1986
Date-Received: Sun, 9-Mar-86 08:27:13 EST
Distribution: net
Organization: U of Maryland, EE Dept., College Park, MD
Lines: 10

I have a lot of files that I would like to download to my ST.
Does anybody know if the "fixed" ar68 is compatible with the
unix ar? I would like to archive a source library, download it
and then extract it using ar68. Thanks for any info.

-ravi

--
ARPA: ravi@eneevax.umd.edu
UUCP: [seismo,allegra]!umcp-cs!eneevax!ravi

From 7601760233548038543
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fd0c68505a5d47cd,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 06:02:45 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!petrus!scherzo!allegra!princeton!
orsvax1!pyrnj!caip!lll-crg!lll-lcc!ucdavis!ucbvax!info-atari16
From: G.ABRAMS@SU-SCORE.ARPA (Marshall D. Abrams)
Newsgroups: net.micro.atari16
Subject: Bad host addresses
Message-ID: <12188800842.10.G.ABRAMS@SU-SCORE.ARPA>
Date: Fri, 7-Mar-86 09:02:45 EST
Article-I.D.: SU-SCORE.12188800842.10.G.ABRAMS
Posted: Fri Mar 7 09:02:45 1986
Date-Received: Sat, 8-Mar-86 23:58:03 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 11

Possibly due to my error and possibly due to network addressing quirks
several new additions to the lsit cannot be addressed. If anyone knows
a working path to either of the following hosts will they please inform

me.

usl-pa
ULKYUK.BITNET

Thanks,
Marshall Abrams

From -7583323252792904164
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,843ad142e58cfe5d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 08:55:47 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.PCS 1/10/84; site mtgzy.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!mtuxo!mtgzy!ker
From: ker@mtgzy.UUCP (k.e.roser)
Newsgroups: net.micro.atari16
Subject: TERRIBLE Atari Service
Message-ID: <1643@mtgzy.UUCP>
Date: Fri, 7-Mar-86 11:55:47 EST
Article-I.D.: mtgzy.1643
Posted: Fri Mar 7 11:55:47 1986
Date-Received: Sat, 8-Mar-86 22:48:44 EST
Organization: AT&T Information Systems Labs, Holmdel NJ
Lines: 25

Heaven forbid anyone needs to get their 520ST repaired. Mine has
been in the shop since January 16th and all I get is excuses as
to why I'm not getting it back.

If this is the type of repair service Atari is going to provide,
its reputation is going to go down hill very rapidly!

For the last month and a half I've been told "You'll have it next
week", but next week comes but the computer doesn't.

Since my power supply caused the failure, and the damage might
be extensive, maybe there is no expertise in the service center
and they are stalling because they CAN'T get it working.
On the other hand, maybe parts are not available.
Either way, the service absolutely STINKS!!!!!!!

Why the heck can't someone in the repair organization have some
honesty and tell the truth as to what is happening? What are
they hiding? Why do they have to lie week after week?

Who knows!!

Whatever, I hope to get the computer back some time in the near future.
If not, I'll probably have to take these people court just to get back

a computer. I sure hope it doesn't happen to you.

From 1662730659293496557
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,34c68da12d1d18c2,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 11:16:44 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!lll-crg!lll-lcc!ucdavis!ucbvax!brl-tbd.arpa!burman
From: burman@BRL-TBD.ARPA ("Norbert M. Burman", TBD-PMB-MRL)
Newsgroups: net.micro.atari16
Subject: What next for the ST?
Message-ID: <8603092319.AA12627@ucbvax.berkeley.edu>
Date: Fri, 7-Mar-86 14:16:44 EST
Article-I.D.: ucbvax.8603092319.AA12627
Posted: Fri Mar 7 14:16:44 1986
Date-Received: Wed, 12-Mar-86 01:53:08 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 31

I read the March Byte article on the 1040ST and resulting info-atari16 questions on the future inclusion of a graphics processor with great interest. From the comments made by Shiraz Shivji in the Byte interview and other Atari personnel on info-atari16, I get the impression that we are in for a spate of Atari machines based on the origonal 520ST architecture but incorporating ram and peripheral improvements, built-in and add-on, ad nauseum.

The thing that worries me about this is that with all these models stretching into the future how compatible will they all be? How will the software houses write their programs if the target machines are constantly changing. There are now two STs (all within a few months) on the market with at least one (with more ram) and/or another (with graphics co-processor) machine(s) in the wings (that's what Atari have told us about anyway). I believe in progress sure, but every time I go to order an ST there is talk/rumour of a new model, (Yes I have not purchased an ST yet!).

I am very keen to get my hands on an ST, I would love to get into some real graphics work, but cannot see myself lashing out a hefty $1000 +/- $100 without knowing if I will be able to use the machine for at least a few months before a new improved/updated model appears. Possibly others out there feel the way I do, I gather from some of the info-atari16 mail that I am not alone?? Maybe Atari would tell us how many models the ST family will have by the end of '86? Orders of magnitude will do!

Until the whole business stabilizes, just a little, or Atari can convince me it will slow down on the rate of new machine releases, I will hold off and continue to use my old faithfull Z80 machine.

Norbert Burman

Would-be ST User.

From 8694176653310660461
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 13:26:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST
Message-ID: <54600016@iuvax.UUCP>
Date: Fri, 7-Mar-86 16:26:00 EST
Article-I.D.: iuvax.54600016
Posted: Fri Mar 7 16:26:00 1986
Date-Received: Wed, 12-Mar-86 02:23:29 EST
References: <2018@uwmacc.UUCP>
Lines: 20
Nf-ID: #R:uwmacc:-201800:iuvax:54600016:000:1274
Nf-From: iuvax!franco   Mar 7 16:26:00 1986

I don't think the DRI C supplied with the dev kit is slow - in fact it may
be the fastest game in town. I estimate that it is at least 3 times faster
than OSS Pascal based on running some simple fibonacci programs (actually,
the fibonacci result difference was greater than 3 times - but to be
conservative I used the factor 3). However, the time to compile is long and
compiling is awkward (as supplied by Atari). One quickly learns, however to
overcome these defects: Get TOS in ROM, upgrade to 1MEG and install a 650K
RAMDISK - then pare down the libraries a bit, create the appropriate batch
files, put everything into the RAMDISK and go to town. There is one serious
defect with the DRI C compiler, however: some C like functions (e.g. fgetc..)
do not work the way they are supposed to. So, for example, i/o is done a bit
differently with DRI C than with other C variants. My colleague next door has
begun taking the drastic step of changing many of these functions so they look
like C functions.

One other comment: the dev kit has indeed lost its value - the reason is that
almost everything in it is now in the Public Domain in one form or another
(except, perhaps, the Compiler (Gee - I wonder why?)). It was a bargain when
it was first introduced, though.

From -6063564169754843189
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,9514fe366872f9be
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 13:47:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP

Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Program Development on the ST
Message-ID: <54600017@iuvax.UUCP>
Date: Fri, 7-Mar-86 16:47:00 EST
Article-I.D.: iuvax.54600017
Posted: Fri Mar 7 16:47:00 1986
Date-Received: Wed, 12-Mar-86 02:23:57 EST
References: <2018@uwmacc.UUCP>
Lines: 20
Nf-ID: #R:uwmacc:-201800:iuvax:54600017:000:1278
Nf-From: iuvax!franco   Mar 7 16:47:00 1986

One more thing - I have found that the people at atari bend over backwards
to help you whether or not you are a developer. Most people do not have this
impression, though. The reason, I think, is that Atari is a "small" company
doing big business and many of us have fallen through the cracks from time to
time just because they don't have the personell to take care of everthing.
I think that neil and dyer coming to the net are an example of this: it took
them a long time to make it to the net (exasperating many of us) but they
did make it and are now doing a very fine job of keeping us informed and
giving individual help when asked (I had a few special favors to ask and these
were granted before I knew what happened - I am too ashamed to tell you what
those favors were because they involved privileges that almost no one else
has at this time).

disclaimer: I have fallen through the cracks many times myself, yet I have
   great respect for the people at Atari (like neil and dyer and frick) who
   have always answered my questions WITHOUT first asking whether I was
   a developer. Above all, I love my ST and I could tolerate a whole lot
   more mistreatment before even entertaining the thought of giving it up.
   I am not connected with Atari in any way.

From 9146874308341567972
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd031e997137f0a5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 18:49:13 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!ittatc!dcdwest!sdcsvax!ucbvax!su-score.arpa!G.ABRAMS
From: G.ABRAMS@SU-SCORE.ARPA (Info-Atari Moderator)
Newsgroups: net.micro.atari16
Subject: Renaming of archives
Message-ID: <12188940372.20.G.ABRAMS@SU-SCORE.ARPA>
Date: Fri, 7-Mar-86 21:49:13 EST
Article-I.D.: SU-SCORE.12188940372.20.G.ABRAMS

Posted: Fri Mar 7 21:49:13 1986
Date-Received: Wed, 12-Mar-86 03:36:58 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

Per a suggestion from a "member", the archives of message traffic
in [SU-SCORE]<info-atari> have been renamed so that the names sort
in date sequence. The new form is ATARI.YYMM. The current contents are:

```
   PS:<INFO-ATARI>
            Bytes(SZ)

 ATARI.1981.1     62421(7)
   .1982A.1       289669(7)
   .1982B.1       524464(7)
   .1983.1        711452(7)
   .1984.1        598399(7)
   .8501.1        49069(7)
   .8502.1        42303(7)
   .8503.1        125669(7)
   .8504.1        111435(7)
   .8505.1        83566(7)
   .8506.1        37291(7)
   .8507.1        7481(7)
   .8508.1        20427(7)
   .8509.1        294156(7)
   .8510.1        607148(7)
   .8511.1        467815(7)
   .8512.1        633738(7)
   .8601A.1       626234(7)
   .8601B.1       742933(7)
   .8602A.1       302412(7)
   .8602B.2       229801(7)
   .TXT.2         280915(7)

 Total of 2685 pages in 22 files
-------
```

From -7691014512185763511
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f8e633d85bf3081b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 19:05:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihnet.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!ihnet!bryan
From: bryan@ihnet.UUCP (b. k. delaney)
Newsgroups: net.micro.atari16
Subject: Ram Upgrades
Message-ID: <376@ihnet.UUCP>
Date: Fri, 7-Mar-86 22:05:34 EST

Article-I.D.: ihnet.376
Posted: Fri Mar 7 22:05:34 1986
Date-Received: Sat, 8-Mar-86 23:34:02 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 14

A word of caution to those of you considering on upgrading your
Atari 520ST to 1 meg.

!!!!!!!!USE CMOS RAM CHIPS ONLY!!!!!!!!!

41256C-15 BY NEC are a good choice

The problem is that a non cmos ram chip can draw as much as
70 ma of current. Therefore 70*16 equals aprox 1 amp of current!

ihnet!bryan
Bryan DeLaney
AT&T Bell Labs

From -3583356184408046962
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,204506c69495ff55
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-07 23:38:34 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site water.UUCP
Path: utzoo!watmath!watnot!water!esfraga
From: esfraga@water.UUCP (Eric S Fraga)
Newsgroups: net.micro.atari16
Subject: Re: Using RAM disk with the DRI C-Compiler
Message-ID: <257@water.UUCP>
Date: Sat, 8-Mar-86 02:38:34 EST
Article-I.D.: water.257
Posted: Sat Mar 8 02:38:34 1986
Date-Received: Sat, 8-Mar-86 21:07:04 EST
References: <8603012353.AA01723@nicmad.UUCP> <8603030106.AA10902@water.UUCP>
Reply-To: esfraga@water.UUCP (Eric S Fraga)
Organization: U of Waterloo, Ontario
Lines: 16
Summary:

By the way, there was a slight bug in the Ramdisk source that I posted
(by mistake as I was trying to REPLY to a message that seems to have
come from some mailing list...) to this newsgroup a little while ago.

The 'cnt' variable gets set to 92165. That value should have been

```
cnt = 92160;
```

Otherwise, too much memory gets cleared! Sorry for any problems this may
have caused.
--

Eric S Fraga || esfraga@water.uucp
Dept of Computer Science || esfraga%water@waterloo.csnet
U of Waterloo || esfraga%water%waterloo.csnet@csnet-relay.arpa

From 5844649650915234009
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,513c9608d1b649cf
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,513c9608d1b649cf
X-Google-Attributes: gid140593,public
X-Google-Thread: 15c82e,513c9608d1b649cf
X-Google-Attributes: gid15c82e,public
X-Google-ArrivalTime: 1986-03-08 07:06:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site imagen.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!
decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!hplabs!pesnta!pyramid!decwrl!sun!saber!
imagen!turner
From: turner@imagen.UUCP (D'arc Angel)
Newsgroups: net.micro.atari,net.micro.atari8,net.micro.atari16
Subject: Re: Foul language
Message-ID: <298@imagen.UUCP>
Date: Sat, 8-Mar-86 10:06:46 EST
Article-I.D.: imagen.298
Posted: Sat Mar 8 10:06:46 1986
Date-Received: Wed, 12-Mar-86 03:47:24 EST
References: <1174@ihlpa.UUCP>
Distribution: net
Organization: The Houses of the Holy
Lines: 52
Xref: watmath net.micro.atari:2959 net.micro.atari8:55 net.micro.atari16:144

> > From uucp Mon Mar 3 09:47 CST 1986
> > >From ucbvax!@SUMEX-AIM.ARPA:MRC@PANDA Mon Mar 3 08:30:17 1986 remote from
ihnp4
> > From: Mark Crispin <ihnp4!ucbvax!SUMEX-AIM.ARPA!MRC%PANDA>
> > Subject: Re: The correct use of the atari sub-groups
> > To: ihlpa!freak
> > In-Reply-To: <1159@ihlpa.UUCP>
> > Postal-Address: 1802 Hackett Ave.; Mountain View, CA 94043-4431
> > Phone: +1 (415) 968-1052
> > Message-Id: <12187383027.8.MRC@PANDA>
> > Status: RO
> >
> > Clancy Malloy -
> >
> >   Will you cut your goddamn fucking shit-sucking whining? It is bad

> > enough that there is trash on the list without you flaming to everybody
> > on the net about misdirected postings.
> >
> >   No wonder AT&T is going down the tubes, if this sort of bullshit is
> > all AT&T's employees worry about.
> > -------
> >
>
>   Why don't you grow up. And try to curb your foul language.
>
> From inside the Tesseract of
>   Clancy Malloy
>   (ihnp4!ihlpa!freak)
>
> ---
> | Everyone looked up and realized that we were only tenants of this world; |
> | We have been given a new lease, and a warning, from the landlord. |
> ---

*** REPLACE THIS LINE WITH YOUR MESSAGE ***

welcome to the club, i also recieved such a foul mouthed missive
from mrc; i was advised by people that i work with that know him
that he is a child and best ignored. I was also told that when he
left his last job to come out here, his old boss called his new one
to thank him, i don't know if that is true but after one email from
him i believe it. As my wife says consider the source and ignore him.
--

     The master is not yet married, nor do I think he ever will be.
                -Rocky Horror Picture Show

Name: James Turner
Mail: Imagen Corp. 2650 San Tomas Expressway, P.O. Box 58101
        Santa Clara, CA 95052-8101
AT&T: (408) 986-9400
UUCP: ...{decvax,ucbvax}!decwrl!imagen!turner
CompuServe: 76327,1575

From 3469042580824164804
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b91dfaca70627324
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-08 07:35:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!ttidcb.UUCP!adam
From: adam@TTIDCB.UUCP
Newsgroups: net.micro.atari16
Subject: Re: STTrouble
Message-ID: <8603081535.AA03627@philabs.uucp>
Date: Sat, 8-Mar-86 10:35:07 EST

Article-I.D.: philabs.8603081535.AA03627
Posted: Sat Mar 8 10:35:07 1986
Date-Received: Tue, 11-Mar-86 01:22:26 EST
References: <8603040212.AA00407@mit-bugs-bunny.MIT.EDU>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: Transaction Technology, Inc. (CitiCorp), Santa Monica
Lines: 18

(Does something still eat this line? Rn doesn't.)

It sounds like either a thermal problem in the high voltage focus (is
the de-focus all over the crt screen) or posibally (but less likely) a
thermal problem in the crt gun structure itself. The only way to determine
if I'm right would be to disassemble the monitor and play with the focus
pot while it is warming up, or use cold spray on it after it is warm.
It is not likely to get better but may stay that way for years. If you
can do without it for a while, send it back. You payed to have it perfect!
Mine is OK but note that since it works at 70 Hertz, and everything around
it is 60 Hertz, it is very subseptible to magnetic field interaction. You
will know when the picture starts moving or waving at you. I can't have
the color monitor on (but unused) and next to the B/W (12 inches) while I am
using the B/W. Also, keep the power blocks (transformers) away from the
monitor -- especially the back. Move them around the monitor with it on to
see what I mean.
     Good luck.
     Ken Adam

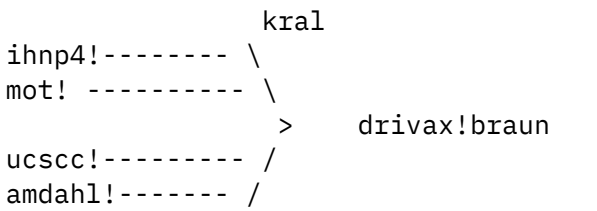
From 7037775084368679182
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-08 07:54:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!hplabs!amdahl!drivax!braun
From: braun@drivax.UUCP (Karl Braun)
Newsgroups: net.micro.atari16
Subject: Re: Gemdos Tools and Paths
Message-ID: <317@drivax.UUCP>
Date: Sat, 8-Mar-86 10:54:53 EST
Article-I.D.: drivax.317
Posted: Sat Mar 8 10:54:53 1986
Date-Received: Mon, 10-Mar-86 08:30:00 EST
References: <12326958@mitre-be.UUCP> <96100004@unido.UUCP> <312@drivax.UUCP>
<2878@amdahl.UUCP>
Organization: Digital Research, Monterey, CA
Lines: 30

(concerning the inability of TOS/GEMDOS to have a search path)
>
>You might want to try a simple short term fix for this type of problem that

>is available on the Mac. Andy Hertzfeld wrote a patch to the open routine
>that searches all directories if it cannot find the file in the current
>directory. This allows many pre-HFS programs to work with the new Mac ROMs.
>I do not know if this kind of patch is as easy on the ST as it is on the MAC,
>but it might be worth a try.
>--
>Stephen J. Langdon   ...!{ihnp4,cbosgd,hplabs,sun}!amdahl!sjl
>
>[The article above is not an official statement from any organization
> in the known universe.]

Be carefule here. I'm not sure about TOS, but GEMDOS has this misfeature
that keeps a an FCB-like data structure in memory for every directory node
visited so far. The original intent here was to speed up future references
to files in that directories subtree. The patch you recommend will eat up
a lot of TPA space very fast! (Is this true for TOS, Landon?)

--



From -4009544432282125764
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-08 08:12:38 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site drivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
ucbvax!hplabs!amdahl!drivax!braun
From: braun@drivax.UUCP (Karl Braun)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <318@drivax.UUCP>
Date: Sat, 8-Mar-86 11:12:38 EST
Article-I.D.: drivax.318
Posted: Sat Mar 8 11:12:38 1986
Date-Received: Mon, 10-Mar-86 08:30:22 EST
References: <94469@UB-MTS>
Reply-To: braun@drivax.UUCP (Karl Braun)
Organization: Digital Research, Monterey, CA
Lines: 35

In article <94469@UB-MTS> Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
writes:

>To: ALL
>Subject: CP/M68k vs TOS
>
>   I would like to thank everyone who helped with my question
>about CP/M68k versus TOS. As was to be expected, everyone was
>more then helpful. Consider an indication of just who owns
>STs!
>
>   However, I guess what my friend and I both feel was basically
>correct. Atari did NOT write TOS, it modified CP/M68k....
>

Atari did not completly write TOS. They did modify GEMDOS to suit their
needs. It has a slightly different set of rules for interfacing with
the BDOS and the BIOS. But it is mostly GEMDOS.

GEMDOS was a complete write of an OS done in a very short period of time
based on some prototypes we had working here at Dig. IT is NOT CP/M anything.
It was built as a DOS emulator for the GEM system so we could get it working
on 68k systems.

--

                kral
ihnp4!-------- \
mot! ---------- \
                 >   drivax!braun
ucscc!--------- /
amdahl!------- /

Usual disclaimer disavowing any official representation of DRI's position
on this or any other subject.

From 1641739205208887856
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cd267b0f7e1963b2
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-08 09:53:01 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!seismo!cmcl2!lanl!unm-la!unmvax!wampler
From: wampler@unmvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: help needed on uudecode files
Message-ID: <1010@unmvax.UUCP>
Date: Sat, 8-Mar-86 12:53:01 EST
Article-I.D.: unmvax.1010
Posted: Sat Mar 8 12:53:01 1986
Date-Received: Tue, 11-Mar-86 01:50:36 EST
References: <118@druxu.UUCP>

Organization: Univ. of New Mexico, Albuquerque
Lines: 13

>
> Has anyone been able to move uuencoded files from the net to a 520ST and
> get them to run?
     I use uudecode all the time (the one posted about November with
atari ifdefs), and have had no problem with any uuencoded programs, both
with and without the ROM TOS.
--
Dr. Bruce E. Wampler
University of New Mexico
Department of Computer Science
Albuquerque, NM 87131

..{ucbvax | seismo!gatech | ihnp4!lanl}!unmvax!wampler

From -3405803602188895895
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f3d83a0b16f3179,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-08 13:04:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!iubugs!iuvax!
franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: UUDECODER for the ST
Message-ID: <54600018@iuvax.UUCP>
Date: Sat, 8-Mar-86 16:04:00 EST
Article-I.D.: iuvax.54600018
Posted: Sat Mar 8 16:04:00 1986
Date-Received: Wed, 12-Mar-86 02:15:31 EST
Lines: 243
Nf-ID: #N:iuvax:54600018:000:6794
Nf-From: iuvax!franco   Mar 8 16:04:00 1986

Here is a UUDECODER for the ST which I tested myself on the RTXDEMO binary
that was posted recently. This works for me and it should work for you.
Please try it and report results to the net. It is written in dev kit C.
Link with osbind, gemlib, libf. Soon to come - the encoder.

Hopefully there will be no more complaints about uudecode inability after
this.


```
/*
 * Uudecode -- decode a uuencoded file back to binary form.
 *
 * Useage: (CLI) uudec <uuencoded filename>
```

```
 *         (GEM) click on uudec.ttp
 *               enter <uuncoded filename> in dialog box
 *               hit CR
 *
 * Result: File specified in first line of uuencoded file is created,
 *         contents of uuencoded file are decoded and placed into
 *         the created file.
 *
 * How it works:
 *         The bits of every three consecutive bytes of the binary file are
 *         encoded into four consecutive printable ascii bytes according
 *         to the following diagram:
 *
 *               |         |         |         |         |
 *               |x1x2|3456|x7x8|1234|x5x6|7812|x3x4|5678|
 *               ----------------------------------------
 *
 *         where the long vertical bars separate bytes and the short
 *         vertical bars separate half bytes.  The x'ed bits are not
 *         important to us (they are given values which result in
 *         printable ascii characters).  The first eight digits
 *         increasing in order from 1 to 8 mark the positions of the
 *         first byte of the group of three binary bytes.  The next
 *         eight mark the second byte and so on.  Each line of the
 *         encoded file contains a count character followed a number
 *         (multiple of four) of encoded bytes.  To decode we merely
 *         need to go through the usual bit pushing.
 *
 * Problems: Contact J. Franco (franco@indiana.CSNET)
 *
 * Comment: This should work.  I successfully downloded the recently posted
 *          RTXDEMO with no trouble whatsoever (and that is a pretty big
 *          file).
 *
 * Note:    This is the latest of a number of hacks of a uudecoder originally
 *          intended for the IBM PC. (3/6/86 - JVF)
 */

#include <stdio.h>
#include <osbind.h>

char *Progname = "UUDECODE";

#define USAGE "Usage: UUDECODE [file]\n"

/* single character decode */
#define DEC(c)  (((c) - ' ') & 077)

FILE *in, *out, *efopen(), *efopenb(), *fopen(), *fopenb();

main(argc, argv)
        int argc; char *argv[];
        {
```

```
        int mode;
        char dest[128];
        char buf[80];
        /* optional input arg */
        if (argc > 1) {
                in = efopen(argv[1], "r");
                argv++; argc--;
                }
        else
                in = stdin;
        if (argc != 1) {
                fprintf(stderr, USAGE);
                exit(2);
                }
        /* search for header line */
        for (;;) {
                if (fgets(buf, sizeof buf, in) == NULL) {
                        fprintf(stderr, "No begin line\n");
                        exit(3);
                        }
                if (strncmp(buf, "begin ", 6) == 0)
                        break;
                }
        sscanf(buf, "begin %o %s", &mode, dest);
        out = efopenb(dest, "w");  /* create output file */
        decode(in, out);
        fclose(out);
        if (fgets(buf, sizeof buf, in) == NULL || strcmp(buf, "end\n")) {
                fprintf(stderr, "No end line\n");
                exit(5);
                }
        }

/*
 * copy from in to out, decoding as you go along.
 */

decode(in, out)
        FILE *in, *out;
        {
        char buf[80];
        char *bp;
        int n;
        for (;;) {
                if (fgets(buf, sizeof buf, in) == NULL) {
                        fprintf(stderr, "Short file\n");
                        break;
                        }
                n = DEC(buf[0]);
                if (n <= 0)
                        break;
                bp = &buf[1];
```

```
                while (n > 0) {
                        outdec(bp, out, n);
                        bp += 4;
                        n -= 3;
                        }
                }
        }

/*
 * output a group of 3 bytes (4 input characters).
 * the input chars are pointed to by p, they are to
 * be output to file f.  n is used to tell us not to
 * output all of them at the end of the file.
 */

outdec(p, f, n)
        char *p; FILE *f; int n;
        {
        int c1, c2, c3;
        c1=((*p&64)<<1)   | ((*p&31)<<2)   | ((p[1]&64)>>5) | ((p[1]&16)>>4);
        c2=((p[1]&15)<<4) | ((p[2]&64)>>3) | ((p[2]&28)>>2);
        c3=((p[2]&3)<<6)  | ((p[3]&64)>>1) | ((p[3]&31));
        if (n >= 1)
           { if (c1 == 13)
                 fprintf(f,"%c",13);
             else
                 putc(c1, f);
           }
        if (n >= 2)
           { if (c2 == 13)
                 fprintf(f,"%c",13);
             else
                 putc(c2, f);
           }
        if (n >= 3)
           { if (c3 == 13)
                 fprintf(f,"%c",13);
              else
                 putc(c3, f);
           }
        }


/* fr: like read but stdio */

int fr(fd, buf, cnt)
        FILE *fd; char *buf; int cnt;
        {
        int c, i;
        for (i = 0; i < cnt; i++) {
                c = getc(fd);
                if (c == EOF)
                        return(i);
```

```
                buf[i] = c;
                }
        return (cnt);
        }

/* If your library already has this function, use it and nuke the code below */

#ifdef noindex
/*
 * Return the ptr in sp at which the character c appears;
 * NULL if not found
 */

char *index(sp, c)
        register char *sp, c;
        {
        do {
                if (*sp == c)
                        return(sp);
                } while (*sp++);
        return(NULL);
        }
#endif


/* Open a file, aborting on failure */

/* Written by Bernie Roehl, June 1985 */

FILE *
efopen(fn, mode)
        char *fn, *mode;
        {
        FILE *unit;
        if ((unit = fopen(fn, mode)) == NULL)
                error("Cannot open file %s", fn);
        else
                return unit;
        }

extern char *Progname;

error(s1, s2)
        char *s1, *s2;
        {
        fprintf(stderr, "%s: ", Progname);
        fprintf(stderr, s1, s2);
        exit(1);
        }



/*
```

```
 * efopenb is a slightly modified efopen()
 * All it does is use the ST fopenb() call to open
 * a binary file.
 * Note that this is uuencode so only the input file
 * needs to be opened with this function.
 */

FILE *
efopenb(fn, mode)
        char *fn, *mode;
        {
        FILE *unit;
        if ((unit = fopenb(fn, mode)) == NULL)
                error("Cannot open file %s", fn);
        else
                return unit;
        }
```

```
From 832184921728501108
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b91dfaca70627324
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 01:23:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!linus!philabs!cmcl2!
harvard!seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Re: STTrouble
Message-ID: <96100005@unido.UUCP>
Date: Sun, 9-Mar-86 04:23:00 EST
Article-I.D.: unido.96100005
Posted: Sun Mar  9 04:23:00 1986
Date-Received: Sat, 15-Mar-86 22:27:53 EST
References: <13105620@mit-bugs.UUCP>
Sender: notes@unido.UUCP
Lines: 11
Nf-ID: #R:mit-bugs:-1310562000:unido:96100005:000:439
Nf-From: unido!uh    Mar  9 09:23:00 1986
```

We had also some trouble in this direction. We have bougth about 30 ST's
and two of them have had the same fault(s). Our dealer told us, that this error
always occurs, when the custom MMU is defective. The same thing I have read
in a ST magazine here in Germany.

     Uwe Hoch
     Computer Science Department, University of Dortmund
     4600 Dortmund 50, P.O. Box 500500, W.-Germany
     E-mail address: uh@unido.uucp, uh@unido.bitnet

From 1299836202952747486
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,bf7516ba2183ca5d,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 08:51:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihuxl.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxn!ihnp4!ihuxl!walt2
From: walt2@ihuxl.UUCP (Walt Kurszewski)
Newsgroups: net.micro.atari16
Subject: Seeking info on 1040ST
Message-ID: <1727@ihuxl.UUCP>
Date: Sun, 9-Mar-86 11:51:40 EST
Article-I.D.: ihuxl.1727
Posted: Sun Mar 9 11:51:40 1986
Date-Received: Tue, 11-Mar-86 00:32:43 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 11

*** REPLACE THIS LINE WITH YOUR PRIMAL SCREAM ***

I've been off the net for a couple of months, could someone please
mail me some info on the Atari 1040ST? Features, options, prices,
and ahh... availability?

Thanks in advance.

              Walt Kurszewski
              ihnp4!ihuxl!walt2

From 1272126999916226882
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c2f849a5fed8d7b9,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 11:02:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Graphics Coprocessor for ST
Message-ID: <131@atari.UUcp>
Date: Sun, 9-Mar-86 14:02:40 EST
Article-I.D.: atari.131
Posted: Sun Mar 9 14:02:40 1986
Date-Received: Wed, 12-Mar-86 04:20:44 EST
Organization: Atari Corp/Mktg
Lines: 22

.....this line reserved for pacmen

The March issue of Byte Magazine features a piece on the 1040ST, including an interview with Atari's Vice President of Research and Development, Shiraz Shivji. We have received many questions on the "graphics coprocessor" chip that he mentioned in that article. Here is some further clarification, courtesy of Atari Corp. President Sam Tramiel:

The graphics coprocessor that is currently under development is intended for future products in the ST line, _not_ the 1040ST. We expect to release a product containing this chip at a higher price than the current products, and it is expected to be on the market late this year.

For owners of current ST computers, we will make this chip available on an upgrade board, to be available as soon as possible.

--->Neil @ Atari

USENET: ...lll-crg!vevpyr!atari!neil
BIX: neilharris
CIS: 70007,1135
Atari BBS: 408-745-2642

From -9210392358277641982
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a92c98ba2dee4cb8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 11:13:14 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!lll-crg!lll-lcc!well!wvucenic
From: wvucenic@well.UUCP (Wayne Vucenic)
Newsgroups: net.micro.atari16
Subject: Comparing hard disks
Message-ID: <743@well.UUCP>
Date: Sun, 9-Mar-86 14:13:14 EST
Article-I.D.: well.743
Posted: Sun Mar 9 14:13:14 1986
Date-Received: Wed, 12-Mar-86 01:49:58 EST
Organization: Whole Earth Lectronic Link, Sausalito, CA
Lines: 33

I'm interested in the 20Meg Atari hard disk. I had heard rumors to the effect that the developers hard disks have a faster data transfer rate than the soon-to-be-available commercial 20Meg Atari hard disks. I asked about this at my local dealer, but the fellow there told me that the only differences were cosmetic: metal case vs. plastic case. I'm not sure he's got the straight story on data transfer rates, as he was quoting 10Mbits/sec to me. I realize that the DMA controller can transfer at that speed, but I had heard that the hard disk controllers were actually running at 7.5Mbits or 5Mbits.

   I was wondering if anyone had the straight story on the differences between the developers and commercial hard disks. The two topics of

particular interest to me are:

1) Performance: data transfer rates, access times, etc.
2) Fan noise. I seem to be overly sensitive to noise. (I REALLY like the fact that my ST doesn't have a fan, but the hum (60 cycle, it sounds like) from my monochrome monitor begins to bug me at times. My color monitor is silent. Anyone else have a noisy mono monitor, or is it just mine?) Anyway, back to hard disks... the developers hard disk I looked at had a fan that seemed to be about average for fan noise.)

Other differences of more minor interest would include requirements for parking the heads. I understand that the developer's hard disk requires this, but I can't imagine that a commercial version would.

Can anyone at Atari or elsewhere shed some light on this? Thanks.

==========
Wayne Vucenic
...{ucbvax, ihnp4, allegra, decvax}!hplabs!well!wvucenic
==========

From -5913792241945902924
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a728f81834fbbb3,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 12:20:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!topaz!
lll-crg!lll-lcc!dual!islenet!jons
From: jons@islenet.UUCP (Jonathan Spangler)
Newsgroups: net.micro.atari16
Subject: More ST Basic
Message-ID: <2155@islenet.UUCP>
Date: Sun, 9-Mar-86 15:20:49 EST
Article-I.D.: islenet.2155
Posted: Sun Mar 9 15:20:49 1986
Date-Received: Wed, 12-Mar-86 04:21:19 EST
Reply-To: jons@islenet.UUCP (Jonathan Spangler)
Organization: Islenet Inc., Honolulu
Lines: 20

I have a few questions about ST Basic:

1) How do you get more than 16 colors in Basic?
2) Are there plans for a compiled basic in the forseeable future?
3) I can only get sound channel #1 to work. How do I get the other channels to work?

I suppose all these questions should be prefaced with the more

general question: when is a newer release of the basic expected?

Aloha,

Jonathan Spangler
{ihnp4!vortex!dual}!islenet!jons

--
Jonathan Spangler
{ihnp4,vortex,dual}!islenet!jons
"On Thursday, the world came to an end."

From 1011790153793764500
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,8d023e650f25ba72,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 12:26:52 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!cmcl2!lanl!unm-la!unmvax!nmtvax!rob
From: rob@nmtvax.UUCP (Rob Kenyon -A stranger in a stranger land)
Newsgroups: net.micro.atari16
Subject: Troff for STs?
Message-ID: <962@nmtvax.UUCP>
Date: Sun, 9-Mar-86 15:26:52 EST
Article-I.D.: nmtvax.962
Posted: Sun Mar 9 15:26:52 1986
Date-Received: Wed, 12-Mar-86 04:20:01 EST
Distribution: net
Organization: New Mexico Tech (You call that an Organization?)
Lines: 16

This is being posted for a friend.. (Sure. That's what they all say.)

Anybody know of typesetters (or incredibly intelligent word processors)
for writing techincal papers (I.E. Equations and other ugly things)
are available for STs?

--

Robert Kenyon   p /
...ucbvax!unmvax!nmtvax!rob   /
rob@nmt   / g

They say there is strangeness too dangerous,
In our theaters and bookstore shelves.
Those who know what's best for us,
Must rise and save us from ourselves.

From -8548087062701415205
X-Google-Language: ENGLISH,ASCII-7-bit

X-Google-Thread: 140593,edb7b47fa00397d5,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 12:29:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!cmcl2!lanl!unm-la!unmvax!nmtvax!rob
From: rob@nmtvax.UUCP (Rob Kenyon -A stranger in a stranger land)
Newsgroups: net.micro.atari16
Subject: Re: ST formatters
Message-ID: <963@nmtvax.UUCP>
Date: Sun, 9-Mar-86 15:29:50 EST
Article-I.D.: nmtvax.963
Posted: Sun Mar 9 15:29:50 1986
Date-Received: Wed, 12-Mar-86 04:20:15 EST
Distribution: net
Organization: New Mexico Tech (You call that an Organization?)
Lines: 23

Regarding my last article...

Postnews doesn't grab .signatures... Here it is:

Robert Kenyon   p /
...ucbvax!unmvax!nmtvax!rob   /
rob@nmt   / g

They say there is strangeness too dangerous,
In our theaters and bookstore shelves.
Those who know what's best for us,
Must rise and save us from ourselves.
--

Robert Kenyon   p /
...ucbvax!unmvax!nmtvax!rob   /
rob@nmt   / g

They say there is strangeness too dangerous,
In our theaters and bookstore shelves.
Those who know what's best for us,
Must rise and save us from ourselves.

From -6543366210797782837
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,410d91e319211f10,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-03-09 14:27:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!allegra!princeton!orsvax1!pyrnj!caip!
seismo!lll-crg!lll-lcc!ucdavis!ucbvax!DBSTU1.BITNET!I6191008
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16

Subject: KERMIT
Message-ID: <8603092227.AA11775@ucbvax.berkeley.edu>
Date: Sun, 9-Mar-86 17:27:40 EST
Article-I.D.: ucbvax.8603092227.AA11775
Posted: Sun Mar 9 17:27:40 1986
Date-Received: Wed, 12-Mar-86 01:52:19 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 15

The KERMIT given with the Development Kit doesn't work with the new

TOS (197kbyte). After starting it from TOS I get a hangup. Even with

the old TOS there are certain problems resulting in a hangup. Did

anybody have the same experience? There is still no public domain

version of KERMIT available. The KERMIT people are still working on

it. By the way, the KERMIT given with the kit looks like a very

old version.

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From 6209249638225204749
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee546e3ac9db488b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-14 08:15:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!ut-sally!seismo!mcvax!unido!frank
From: frank@unido.UUCP
Newsgroups: net.micro.atari16
Subject: ComputerViruses: Help needed
Message-ID: <96100001@unido.UUCP>
Date: Fri, 14-Feb-86 11:15:00 EST
Article-I.D.: unido.96100001
Posted: Fri Feb 14 11:15:00 1986
Date-Received: Mon, 17-Feb-86 05:37:28 EST
Sender: notes@unido.UUCP
Lines: 35
Nf-ID: #N:unido:96100001:000:953
Nf-From: unido!frank   Feb 14 16:15:00 1986

Computer-Viruses: Help needed !!!

Please don`t mind for posting my request into this
notefile.

I have been searching for any kind of literature
concerning the subject of `computer viruses` for
three weeks now and my results are rather poor.

I only found 2 interesting entries in the databases
locally available. Because I intend to get a Ph.D.
in protection mechanisms against computer viruses
I really have a big need for more references and
hints to get.

So, if anybody out there in the net does know something
about the stuff, please give me any kind of information.

I`m also interested in getting contacts to others
working on the same or similar subject.

If there will be enough feedback I will summarize the
replies to the net.

Thanks in advance

Frank Hoffmeister frank@unido.uucp
frank@unido.bitnet

University of Dortmund
Dept. of Computer Science
PO Box 500 500
D-4600 Dortmund, F.R.Germany

From 4008652687435773046
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,848898d00832c66f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-15 07:11:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!whuxl!whuxlm!akgua!
gatech!ut-sally!seismo!mcvax!unido!uh
From: uh@unido.UUCP
Newsgroups: net.micro.atari16
Subject: Proff for 520ST available???
Message-ID: <96100003@unido.UUCP>
Date: Sat, 15-Feb-86 10:11:00 EST
Article-I.D.: unido.96100003
Posted: Sat Feb 15 10:11:00 1986
Date-Received: Mon, 17-Feb-86 05:37:42 EST
Sender: notes@unido.UUCP
Lines: 8
Nf-ID: #N:unido:96100003:000:306
Nf-From: unido!uh   Feb 15 15:11:00 1986

Has anybody adapted the proff sources, distributed in net.sources to the

520ST? If so, please let me know! Many thanks in advance.

Uwe Hoch
Computer Science Department, University of Dortmund
4600 Dortmund 50, P.O. Box 500500, W.-Germany
E-mail address: uh@unido.uucp, uh@unido.bitnet

From -2073352980139358429
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,14b89eeeeee06220,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,14b89eeeeee06220,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-17 12:50:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84 exptools; site ihlpm.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!ihlpm!rtb
From: rtb@ihlpm.UUCP (Todd)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: Need help with 520ST
Message-ID: <714@ihlpm.UUCP>
Date: Mon, 17-Feb-86 15:50:07 EST
Article-I.D.: ihlpm.714
Posted: Mon Feb 17 15:50:07 1986
Date-Received: Tue, 18-Feb-86 04:08:55 EST
Distribution: net
Organization: AT&T Bell Laboratories
Lines: 22
Xref: watmath net.micro.atari:2839 net.micro.atari16:3

Does anybody know how to use the new EPSON LQ800 (24 pin) with
the 520ST in graphics mode (like a screen dump from the OS).
THe LQ800 works fine in text mode, but I get nothing but garbage
when I try to send graphics. The basic problem is that the 24
wire head needs 3 times the information. I know that there is a way
to default the LQ800 to regular FX80 graphics codes but I haven't
figured out how yet. I have tried sending ESC L and ESC Y befor the
dump but this didn't work. I have called EPSON but they don't
seem to know either. How do I know that this is possible? I have
seen it done at a store, but since I didn't buy the ST at this particular
store, they weren't willing to tell me how to do it. Also,
my phone numbers for Atari don't seem to work any more.
Does anyone have a phone number that actually gets answered.
(tape recorders don't count)

Thanks
R.T. Bradstrum

From -3025814773688427311
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,b988b3a473b93cf1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-18 08:23:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10 5/3/83; site bbncca.ARPA
Path: utzoo!watmath!clyde!cbosgd!ihnp4!bbncca!kchin
From: kchin@bbncca.ARPA (Ken Chin)
Newsgroups: net.micro.atari16
Subject: EPSON LX-80 printer
Message-ID: <1711@bbncca.ARPA>
Date: Tue, 18-Feb-86 11:23:07 EST
Article-I.D.: bbncca.1711
Posted: Tue Feb 18 11:23:07 1986
Date-Received: Wed, 19-Feb-86 03:39:55 EST
Organization: Bolt, Beranek and Newman, Cambridge, Ma.
Lines: 9

I'm interested in getting one for my ATARI 520ST. Has anybody had
any experience with these? Will it be suitable for doing graphics
mode? Do I have to purchase a special cable for this?

Thanks,
Ken Chin
(617)497-3375
ARPA: kchin@bbncca

From 2240124458925678713
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a81b0d3c7fcf2506,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-18 10:09:12 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/17/84; site cwruecmp.UUCP
Path: utzoo!linus!decvax!cwruecmp!pjd
From: pjd@cwruecmp.UUCP (dr. funk)
Newsgroups: net.micro.atari16
Subject: DEGAS review
Message-ID: <1417@cwruecmp.UUCP>
Date: Tue, 18-Feb-86 13:09:12 EST
Article-I.D.: cwruecmp.1417
Posted: Tue Feb 18 13:09:12 1986
Date-Received: Wed, 19-Feb-86 20:23:33 EST
Organization: CWRU Dept. Computer Eng., Cleveland, OH
Lines: 29

Product: DEGAS
Developer: Batteries Included

Address: 17875 Sky Park North, Suite P, Irvine, CA 92714
Phone: (416) 881-9816
Price: Discounted to $23 (MRSP unknown)

Probably everyone has heard of DEGAS by now and there have been
several reviews in magazines. Frankly, it is $23 (or so) well
spent. The human interface is well designed and it appears to be
quite a capable paint program.

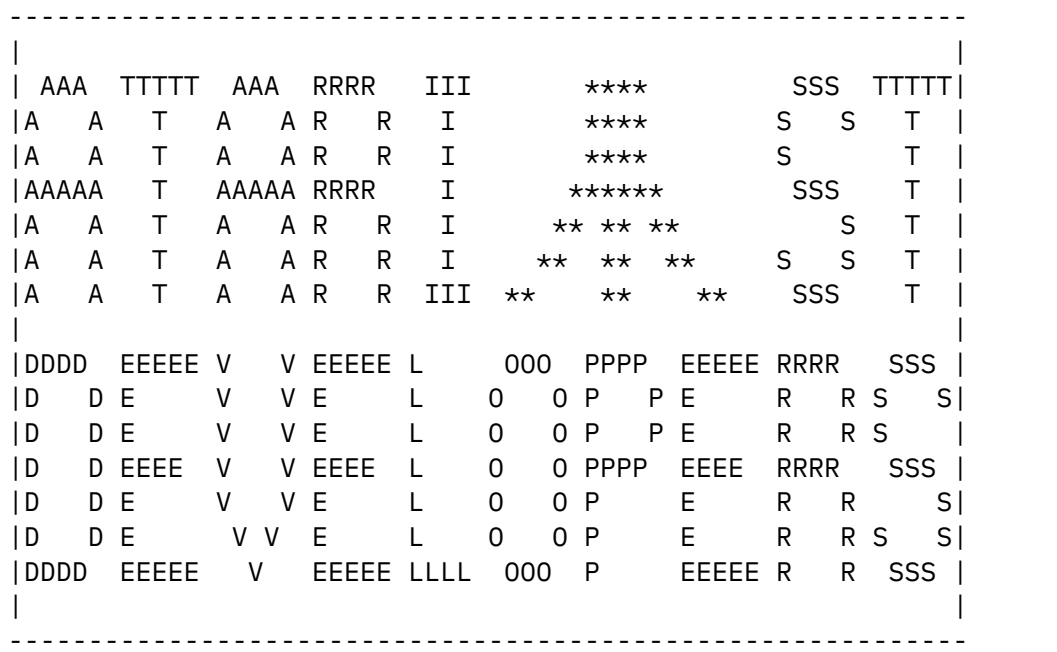
Since I am not an artist, I'm not really qualified to comment on
its suitability for art, but the demo pictures are really quite nice.
It IS, however, a good tool for viewgraph preparation. As a frustrated
typographer, it's fun to create a new font with the font editor and
try it out in a graphic design. I was a little disappointed in the
quality of the fonts provided (I am working on a Futura-like font)
and the 8H x 16V fixed character format is a serious restriction.
The magnify feature is good for touching-up large display text.
The EPSON print driver works OK with our Panasonic 1092 with good
results. (Running the dot matrix output through a Xerox copier
tends to integrating the jaggies and reduces "blockiness.")

DEGAS is easy to learn and has a good user's manual. Give this
one 3.5 stars.
--

paul drongowski   decvax!cwruecmp!pjd
case western reserve university   pjd%Case@CSNet-relay

From 1825993022659932482
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,e1cfa7edd2549fb8,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-18 11:35:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: ST Developer Questions (long)
Message-ID: <113@atari.UUcp>
Date: Tue, 18-Feb-86 14:35:03 EST
Article-I.D.: atari.113
Posted: Tue Feb 18 14:35:03 1986
Date-Received: Fri, 21-Feb-86 06:49:00 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 330
Keywords: Atari ST, GEM, GEMDOS

This was (or soon will be) posted to Compuserve; John gave it
to me to post to Usenet as well.


AAA TTTTT AAA RRRR III **** SSS TTTTT
A A T A A R R I **** S S T
A A T A A R R I **** S T
AAAAA T AAAAA RRRR I ****** SSS T
A A T A A R R I ** ** ** S T
A A T A A R R I ** ** ** S S T
A A T A A R R III ** ** ** SSS T
DDDD EEEEE V V EEEEE L OOO PPPP EEEEE RRRR SSS
D D E V V E L O O P P E R R S S
D D E V V E L O O P P E R R S
D D EEEE V V EEEE L O O PPPP EEEE RRRR SSS
D D E V V E L O O P E R R S
D D E V V E L O O P E R R S S
DDDD EEEEE V EEEEE LLLL OOO P EEEEE R R SSS

Question and Answer Bulletin February 1986
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1196 Borregas Ave., Sunnyvale, Ca. 94086

Here are the latest questions from the Atari developers mailbag as answered by John Feagans, Director of Software Technology. Leave questions on Compuserve for PIN 70007,1072 or GO PCS57 for Atari developer SIG information.

How can I have a different background color for text. There does not seem to be anything I can set to make this happen.

A way we recommend to make this happen is to do a rectangle fill of the area behind the text then use v_gtext with a transparent writing mode.

I have a GEM application that I am porting from the IBM PC. Everything compiles O.K. but I get a number of undefined symbols in the link step. Some of these symbols are dos_free, dos_gdrive, dos_lseek, and dos_open.

The problem here is some differences in name between what you are using, what is described in the GEMDOS spec, and what is actually in the bindings. Here is a table which may explain what is happening:

Your code	GEM DOS manual	osbind.h
dos_free	d_free	Dfree
dos_gdrive	d_getdrv	Dgetdrv

```
        |dos_lseek      f_seek              Fseek   |
        |dos_open       d_open              Fopen   |
        ------------------------------------------
```


Question and Answer Bulletin

From the VDI there doesn't seem to be a call to set pixels. How do I do it and be compatible with all resolutions?

You can do it by drawing a 1 pixel wide line with a length of 1 pixel. There is also a line-A call for setting pixels. The latter method is much faster, however, it does not clip.

I just installed my ROMs and the system doesn't come up. It is just a white screen. It is like this every time I reset. Oh...there it is...what happened?

If you have just installed your ROMs and do not have a disk drive attached, the TOS is going to spend considerable time attempting to read some files from disk. It is looking for desk accessories, an auto folder which may contain drivers to load, and a desktop.inf file created if you saved a desktop. If you want to shorten the power-up process, then have a disk attached with a valid floppy disk in the drive.

I just ported my IBM PC version and have the symbol UMULDIV undefined.

VDIBIND defines MUL_DIV, mul_div, and umul_div, but the symbol UMUL_DIV is missing. If you are programming in C perhaps you could #define it in a header file. In assembler, you could equate UMUL_DIV to umul_div.

Can I boot another operating system if I have TOS in ROM?

Yes. The system has been designed so that a disk with a boot sector can have another operating system which can be loaded in. Another way to load another system would be to put a driver in the auto folder on the system disk. A third interesting method would be to make a desk accessory which loads the new system. It is also possible for a program to perform an extended bios call PUNTAES which frees up the memory used by the AES and desktop while preserving the bios,dos, and VDI.

How can I load in code from BASIC? Where is it put? How do I allocate space for it?

To use the BLOAD function you must first allocate a string array big enough to hold your code. Next use the varptr function to get the address of the storage area. Use BLOAD with this address and the CALL function to execute your code. One final point--make sure the code is relocatable and completely relative as BLOAD does no fix-ups.

How are the icon outlines dragged on the desktop and what is the shape?

Icons are dragged on the desktop by moving a polyline XOR box. The vertices are a fixed set that resemble the edges of the mask data for the icon.

How do I stop BASIC from drawing windows on my output screen?

Windows are redrawn when BASIC calls a routine in the event library. Some examples of these routines are evnt_multi, evnt_keyboard, and evnt_button. It is possible to stop the evnt_multi calls because there is a BASIC system table called SYSTAB. Check the documentation for particulars. At an offset of +24 there is a variable called GEMFLAG. A POKE of 1 in this location turns the event calls off and a POKE 0 turns the event calls on.

When I double click on AS68 from the desktop, the screen turns white and immediately returns to the desktop. How do I type in the name of the file to assemble?

It is posible to run AS68 from the desktop. The procedure is to install it as a TTP type, (TOS takes parameters) and save desktop, or show-info and rename it as a .TTP. Next time you double click on AS68, a dialog box for parameters will come up. You can then type "-u -l myfile.s" and click on OK to run the program. Object files fill be generated and control returns to the desktop upon completion of the assembly.

I have a program where I am drawing my own dialog boxes and menu by constructing the object tree and calling OBJC_DRAW. The problem is that when I draw the dialog box, the menu pops down. I have tried everything to prevent this. What is happening?

We suspect what is happening here is that you may be passing the address of the menu rather than the dialog box. If you have the level set to MAXDEPTH, everything including the dialog box over a popped down menu may be drawn. Double check what you are passing to the objc_draw.

I have a dialog box with an editable field. When I try to put string to initialize the data, everything is messed up. It seems like the pe_text pointer is pointing to the wrong place!

The OBSPEC field of the editable object points to a TEDINFO structure. In this structure there are three pointers: in order they are 1) to a string containing the actual text, 2) to the template, and 3) to a character validation field. Beyond getting the proper pointer, another problem you may encounter is that the string is a fixed length. You may be moving data into it which is longer than was created at the time you defined the text in the resource construction set.

I am running the batch program and get a bus error after c0.prg has been running a little while compiling my program. Could this be a bug in the compiler.

A bug is always possible but here are a few other things to suspect when a problem like this occurs. The batch program will abend if it cannot find a specified program to load. You may also have an include file with something illegal. That might explain why things proceed through the pre-processor in abort in the first compile step. Another thing to check is if you are running out of space on the disk from which the compiler is running. Each step of the compile creates some intermediate files which require space. It is possible to specify to the compiler which drive to which it writes the intermediate files.

I am transferring files from my IBM PC to the ST using kermit. ASCII files come over o.k. but binary files are messed up.

When you transfer binary files you must tell the server to SET FILE TYPE BIN. You must also tell kermit on the ST to gi (get image) or si (send image).

I am using ICED.PRG to design my icons for use in my resource file. How do I load these icons into the RCS?

As an example, let us consider that you are in the RCS and have created a dialog box. Drag the icon type from the parts box into your work area. Select the work area and select the icon you have just moved down. Bring down the menu under the file heading and select the open. At this point the open item will not load a new resource but will load in and link the data for the icon file you select in the file selector.

What documentation errors do you know about in the Hitchhiker's Guide to the BIOS?

The current Hitchhiker's Guide shows the initial PC being set from $FC0000 and the initial SP from $FC0004. These values are reversed.

Hitchhiker's Guide is wrong in two places about the GEMDOS call $20 to set supervisor mode. The flag to merely test the current mode is $1 and not the $FFFFFFFF specified. The latter will crash the system. Second, the returned value from this function is $0 for user mode and $FF for supervisor mode, not $0 and $1 as documented.

To get started writing my program I need some more example programs. Where can I find some?

We recommend that you get onto Compuserve and take a look at the Atari 16-bit SIG and also the Atari developer's SIG. For the latter, type GO PCS57, and read the membership information. We are constantly uploading example programs into the data libraries as well as other developers. These programs are available for download to your system.

I am trying to redirect standard output by using the Fforce function. Gemdos is checking the handle for a number less than 6 and reporting an error. How do I redirect the console?

The new handle which you pass this function must be greater than 6 or less than 0. Values of -1, -2, -3 correspond to CON, AUX and PRN.

How can I make a listing of my assembler program?

There is a way to make AS68 write a listing file to disk. To do this you must add the parameter -P and specify the output file name following the input file name with >filename. Here is an example which may work for you.

```
AS68 -P -L -U file.s >list.txt
```

You can do this either from a batch file or you may install AS68 as a TTP and do this from the desktop.

I am trying to compile the simple example C program that just uses printf to output "hello world". I keep getting undefined symbols during the compile and the object will not link. What is wrong?

The most likely cause of the compile errors is that you are missing the header file STDIO.H. Be sure that at the beginning of your source file that you put the following statement in:

```
#include "stdio.h"
```

Problems with the link may be caused by not specifying all the files that are required, or placing the files in the correct order. Here is the bare minimum you should have for a C program that is not a GEM application:

```
gemstart.o,(your object),gemlib,libf
```

Why is the return key not returned by the getchar function?

When Digital Research wrote the 68k run time libraries for the Alcyon C compiler they used the Unix new line definition for terminating input. In a generic system the return key would generate the sequence CR LF. The run time libraries throw away the CR and count on the LF coming through. The only way to get around this problem is to use the unfiltered bios or dos input from console. The scanf function is similarly afflicted. Instead of forcing the user to terminate input with control-J, build a buffer of characters terminated by a null character using the bios and bdos. Pass

this string to sscanf which acts only on the string and does no keyboard input.

From -2451219079677583619
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,1f5ca21b1ce284df,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,1f5ca21b1ce284df,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-18 15:22:20 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!ritcv!ref0070
From: ref0070@ritcv.UUCP (Robert E. Fortin)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: OS/9 for 520 ST
Message-ID: <9369@ritcv.UUCP>
Date: Tue, 18-Feb-86 18:22:20 EST
Article-I.D.: ritcv.9369
Posted: Tue Feb 18 18:22:20 1986
Date-Received: Fri, 21-Feb-86 06:48:04 EST
Reply-To: ref0070@ritcv.UUCP (Bob Fortin)
Organization: Rochester Institute of Technology, Rochester, NY
Lines: 11
Keywords: Coming soon
Xref: linus net.micro.atari:2813 net.micro.atari16:6

I just read in the March issue of Analog that the OS/9 operating system *is* being adapted to run on the ST. They didn't mention the name of the company though. Also they reinforce my opinion that almost all of the software HIPPO puts out is rushed and that you should check out your other options before buying their inferior software :-)> (This opinion doesn't apply to their hardware, as I have no information on it).

Bob

{allegra decvax siesmo}!rochester!ritcv!ref0070

From 5993040992196151047
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,ee546e3ac9db488b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-19 14:05:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site sivax.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!gamma!epsilon!zeta!sabre!petrus!bellcore!

decvax!decwrl!sun!calma!sivax!jim
From: jim@sivax.UUCP (Jim Bauman)
Newsgroups: net.micro.atari16
Subject: Re: ComputerViruses: Help needed
Message-ID: <209@sivax.UUCP>
Date: Wed, 19-Feb-86 17:05:29 EST
Article-I.D.: sivax.209
Posted: Wed Feb 19 17:05:29 1986
Date-Received: Fri, 21-Feb-86 05:31:20 EST
References: <96100001@unido.UUCP>
Organization: System Industries, Milpitas, Ca
Lines: 10

> Computer-Viruses: Help needed !!!
>
> Please don`t mind for posting my request into this
> notefile.
>
> I have been searching for any kind of literature
> concerning the subject of `computer viruses` for
> three weeks now and my results are rather poor.

Can you get AIDS from a contaminated keyboard?

From 7115608635532906407
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-20 08:03:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!harvard!uwvax!uwmacc!demillo
From: demillo@uwmacc.UUCP (Rob DeMillo)
Newsgroups: net.micro.atari16
Subject: Full Screen Editor Rqst
Message-ID: <1981@uwmacc.UUCP>
Date: Thu, 20-Feb-86 11:03:08 EST
Article-I.D.: uwmacc.1981
Posted: Thu Feb 20 11:03:08 1986
Date-Received: Sun, 23-Feb-86 06:20:12 EST
Organization: UWisconsin-Madison Academic Comp Center
Lines: 21

I have been looking (for about a month) for a public domain
full screen editor for the ST. I have tried both local
ST groups, and calling BBSs in different parts of the country.

Can anybody (especially the Atari-guy) point me in the right
direction, or is it to early yet for anyone to have designed
a public domain editor? (Something akin to PC-WRITE for the
IBMs would be great...)

Thanks in advance...

--
                            --- Rob DeMillo
                                Madison Academic Computer Center
                                ...seismo!uwvax!uwmacc!demillo

     "...I suppose you find the concept of a
         robot with an artificial leg amusing?"

                        -- Marvin, the Paranoid Android

From 6780736682600814663
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df6fd694d75c5f2f,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-20 13:04:41 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site molihp.UUCP
Path: utzoo!utcsri!ubc-vision!molihp!markr
From: markr@molihp.UUCP (Mark Reid)
Newsgroups: net.micro.atari16
Subject: Problems with Atari Basic
Message-ID: <146@molihp.UUCP>
Date: Thu, 20-Feb-86 16:04:41 EST
Article-I.D.: molihp.146
Posted: Thu Feb 20 16:04:41 1986
Date-Received: Fri, 21-Feb-86 08:16:52 EST
Reply-To: markr@molihp.UUCP (Mark Reid)
Organization: Moli Energy, Vancouver, B.C., CANADA
Lines: 28

[]
After waiting over three months for my basic from Atari, I finally
received it. Either the manual is incorrect or maybe I'm thick
but I can't get some of the functions to work as described in the
manual. I would appreciate any help...

1) inp()   function is supposed to read from the keyboard single
     characters. I tried inp(-4) to read the status and it only
     returns 16. Try inp(4) which also returns 16. Anybody know
     how this works?
2) wave()   function for producing sound. Manual page is missing the
     table for envelope shape. Would like a complete explaination.
3) buf graphics   what is this? I didn't understand it's use.
4) large files   If you try to load in a very large basic program
     the 520 will load the file from the disk in one large piece,
     then several small pieces. It tells you of no errors.
     The real magic is it will give you all sorts of undefined
     errors, none of which are out of memory errors.

Thanks in advance for any help with the above problems. As I have a

manual I am willing to help others without, just send me which functions
you would like descriptions of.

Mark Reid
ubc-vision!molihp!markr

From -1251654124203631701
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,1f5ca21b1ce284df
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,1f5ca21b1ce284df
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-21 08:06:40 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!mcvax!cernvax!jmg
From: jmg@cernvax.UUCP (jmg)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: Re: OS/9 for 520 ST
Message-ID: <278@cernvax.UUCP>
Date: Fri, 21-Feb-86 11:06:40 EST
Article-I.D.: cernvax.278
Posted: Fri Feb 21 11:06:40 1986
Date-Received: Mon, 24-Feb-86 07:26:25 EST
References: <9369@ritcv.UUCP>
Reply-To: jmg@cernvax.UUCP (Mike Gerard, DD Division, CERN.)
Organization: CERN, Geneva/Switzerland
Lines: 17
Keywords: C Lattice Hippo OS/9
Xref: linus net.micro.atari:2834 net.micro.atari16:11

In article <9369@ritcv.UUCP> ref0070@ritcv.UUCP (Bob Fortin) writes:
>I just read in the March issue of Analog that the OS/9 operating
>system *is* being adapted to run on the ST. They didn't mention
>the name of the company though. Also they reinforce my opinion
>that almost all of the software HIPPO puts out is rushed and that
>you should check out your other options before buying their inferior
>software :-)> (This opinion doesn't apply to their hardware, as I
>have no information on it).

I don't get access to the US Atari mags (sniff sniff boo hoo), so any
continued information on if/when/whether OS/9 will be available is
always nice.

What I did get two days ago is an offer of the Lattice C-compiler.
Has anyone any experience on whether this is better than the Hippo one?
I have seen the Whetstone figures for the Atari, but do not know which
compiler they used.

From -7798172286330712073

X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,3d6352e8ffc41935,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-21 08:51:08 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!unisoft!mtxinu!rtech!
amdahl!drivax!holloway
From: holloway@drivax.UUCP (Bruce Holloway)
Newsgroups: net.micro.atari16
Subject: Disclaimer
Message-ID: <290@drivax.UUCP>
Date: Fri, 21-Feb-86 11:51:08 EST
Article-I.D.: drivax.290
Posted: Fri Feb 21 11:51:08 1986
Date-Received: Mon, 24-Feb-86 20:25:34 EST
Distribution: net
Organization: Digital Research, Monterey, CA
Lines: 14

There will not be a multi-tasking GEMDOS out this year. Don't hold your
breath for it. Pretend I never mentioned it.

--

+---+
|Whatever I write are not the opinions or policies of Digital Research, Inc.,|
|and probably won't be in the foreseeable future. |
+---+

Bruce Holloway

....!ucbvax!hplabs!amdahl!drivax!holloway
(I'm not THAT Bruce Holloway, I'm the other one.)

From -3878230591780486344
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-21 20:38:57 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!decvax!genrad!panda!talcott!harvard!seismo!lll-crg!well!hoptoad!
gnu
From: gnu@hoptoad.uucp (John Gilmore)
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <544@hoptoad.uucp>
Date: Fri, 21-Feb-86 23:38:57 EST
Article-I.D.: hoptoad.544
Posted: Fri Feb 21 23:38:57 1986
Date-Received: Mon, 24-Feb-86 21:16:00 EST
References: <1981@uwmacc.UUCP>
Organization: Nebula Consultants in San Francisco

Lines: 11

In article <1981@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:
> I have been looking (for about a month) for a public domain
> full screen editor for the ST.

Has anybody tried porting GNU Emacs to the ST? It ought to run fine
in a meg machine, unless the C compiler and environment are too far
off from Unix. (Of course, you'd need a hard disk to compile it,
since the source is about 8 megs -- and even the executable image
might not fit on a floppy.).
--
John Gilmore {sun,ptsfa,lll-crg,ihnp4}!hoptoad!gnu   jgilmore@lll-crg.arpa

From 6057724845478436039
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f2c7abf3d5cc803c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-22 18:01:17 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!linus!decvax!bellcore!ulysses!burl!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: ST & ordinary monochrome monitors
Message-ID: <2748@ukma.UUCP>
Date: Sat, 22-Feb-86 21:01:17 EST
Article-I.D.: ukma.2748
Posted: Sat Feb 22 21:01:17 1986
Date-Received: Wed, 26-Feb-86 03:57:16 EST
References: <709@ihwpt.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Distribution: net
Organization: U of KY Mathematical Sciences
Lines: 29

In article <709@ihwpt.UUCP> knudsen@ihwpt.UUCP (mike knudsen) writes:
>I took a closer look at the pretty colored Atari flyer
>spec sheet, and not only is the vertical frequency
>up to 71 Hz, but the Horizontal is a whopping
>35.7 KHz, or 2.13 times the NTSC standard 15.75!
>
>This answers a long-standing question--
>ST Monochrome is NON-INTERLACED!
>It really draws all 400 lines in each of 70 frames/sec!
>Atari really went all the way on this.
>   mike k
>
>PS: This assumes that the spec sheet is correct.

     Here's a simple test for checking whether a monitor is interlaced:
First you display a blank screen - i.e. all white. And you wave your finger

in front of it. Do it fast enough to make 8 images of your finger appear on the screen. Now get a stop watch and time 40 waves of your finger - i.e. 640 images of your finger altogether. I did this and obtained 640 images in 8.96 seconds. This gives 71.43 Hz as the image frequency. I know this is just luck that it is so close, but an accuracy of only about 20% is necessary here.

Second, you display only every odd or even line, which should give a frequency of half as much for interlaced, or the same for non-interlaced. I just tried the same test on the GEM desktop dither pattern and got 70.80 Hz. This is not surprising, because the dither pattern uses all lines.

Could some good person please do the experiment for alternate lines only. I haven't got my second disk drive in the mail yet. So I can't be bothered to write a C program for it.

Alan Kennington.

From -3776480979193671106
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,a81b0d3c7fcf2506
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-22 18:36:59 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 alpha 4/3/85; site ukma.UUCP
Path: utzoo!linus!decvax!bellcore!ulysses!burl!clyde!cbosgd!ukma!knnngt
From: knnngt@ukma.UUCP (Alan Kennington)
Newsgroups: net.micro.atari16
Subject: Re: DEGAS review
Message-ID: <2750@ukma.UUCP>
Date: Sat, 22-Feb-86 21:36:59 EST
Article-I.D.: ukma.2750
Posted: Sat Feb 22 21:36:59 1986
Date-Received: Wed, 26-Feb-86 03:58:29 EST
References: <1417@cwruecmp.UUCP>
Reply-To: knnngt@ukma.UUCP (Alan Kennington)
Organization: U of KY Mathematical Sciences
Lines: 35

In article <1417@cwruecmp.UUCP> pjd@cwruecmp.UUCP (dr. funk) writes:
>Product: DEGAS
>Probably everyone has heard of DEGAS by now and there have been
>several reviews in magazines. Frankly, it is $23 (or so) well
>spent. The human interface is well designed and it appears to be
>quite a capable paint program.
>
>one 3.5 stars.
>case western reserve university pjd%Case@CSNet-relay

It is true that in comparison to a lot of the poorly written stuff on the market for the ST, Degas is refreshingly usable. (Unlike the revolting terminal "emulator" I sometimes use.) But in spite of all the good things said and written about Degas, a perusal of the VDI and AES manuals will reveal that the author(s) simply made rational use of existing program components. There seem to me to be few innovations in Degas. The idea of using the left mouse button to flip between a control window and the worksurface is a very

nice way of doubling the effective screen area. But the actual operations selectable from the control panel are almost entirely selected from the repertoire provided in the OS.

If congratulations are in order for Degas, they are equally appropriate for the designers of VDI/AES who have written in many Mac-like painting routines, and even a resource creation and icon editing facility, so that the design of a control panel is a positive pleasure. If you haven't created a set of control panels, menus, alerts and dialogs with the development kit yet, you really should deny yourself the pleasure no more. And all the fuss over the manuals being slightly difficult to read is beyond my comprehension. The only really painful thing is trying to use the routines from C with only one disk drive. And I certainly don't want to find out how to use VDI/AES from Basic. Any good feeling I might have had towards this "language" have evaporated as a result of the nasty little 130K patience-tester that Atari were unwise enough to try to pass off as a Basic interpreter. But I think Basic will be okay as soon as they get a team of experts to rewrite it.

Sorry I can't think of anything good to say.

So long, Alan Kennington.

From 6478639299655617491
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,a222453957f95110,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,a222453957f95110,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-23 16:15:35 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!rochester!ritcv!moscom!jgpvax!mqh
From: mqh@jgpvax.UUCP (Mike Hojnowski)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: Assorted ST questions
Message-ID: <133@jgpvax.UUCP>
Date: Sun, 23-Feb-86 19:15:35 EST
Article-I.D.: jgpvax.133
Posted: Sun Feb 23 19:15:35 1986
Date-Received: Wed, 26-Feb-86 05:22:14 EST
Organization: any unified, consolidated group of elements
Lines: 29
Xref: linus net.micro.atari:2850 net.micro.atari16:17

<Mmmm, tasty>

I've just started using my 520ST for things other than terminal emulation, and I have a few questions for anyone who may be able to help me. I have the developers kit, but not much else.

1) Does anyone know how to convince the Control Panel not to nuke the time? I wrote a program to put in my "auto" directory to set the time. It works fine normally, but when run from "auto" it apparently sets the time, only to have it overwritten by the control panel accessory at startup. Any suggestions??

2) Can a desk accessory be written such that it runs to completion,
   and simply terminates (As opposed to sitting around in an infinite
   loop of sleep calls)? Specifically, I have in mind writing an
   accessory to run through an 'auto2' directory, and run stuff
   AFTER all the desktop information is set up.

3) Has anyone got a copy of a public domain RAMDISK that works?
   The person who gave me mine mentioned that there was a bug, but
   I never saw any fixes come by.

4) Has anyone gotten RTS/CTS handshaking to work well? I have my ST
   hooked directly to a UN*X box at 9600 baud, and RTS/CTS doesn't
   work at all. I'm not positive it's the ST's fault, so I'm just
   looking for verification.

--
Mike Hojnowski UUCP: ..rochester!moscom!jgpvax!mqh
CSNET: "moscom!jgpvax!mqh"@ritcv

From -7821752898322565497
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-24 08:01:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles $Revision: 1.7.0.10 $; site uicsl
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!pur-ee!
uiucdcs!uicsl!hr
From: hr@uicsl.UUCP
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <456800001@uicsl>
Date: Mon, 24-Feb-86 11:01:00 EST
Article-I.D.: uicsl.456800001
Posted: Mon Feb 24 11:01:00 1986
Date-Received: Fri, 28-Feb-86 01:12:45 EST
References: <1981@uwmacc.UUCP>
Lines: 19
Nf-ID: #R:uwmacc.UUCP:1981:uicsl:456800001:000:638
Nf-From: uicsl.UUCP!hr   Feb 24 10:01:00 1986

RE:
> I have been looking (for about a month) for a public domain
> full screen editor for the ST.
>>Has anybody tried porting GNU Emacs to the ST?

There is a program called Micro Emacs that has been ported to the Amiga.
I believe it originally ran on the IBM. It may not be too hard to move
it to the Atari.

I think the binary is about 40KB on the Amiga and it does NOT require
a hard disk to compile. There is no Mlisp. Changing key definitions

requires recompiling one of the routines.

Also, someone recently posted a VI like editor to net.sources.
(or was it mod.sources?)
---

     harold ravlin   {ihnp4,pur-ee}!uiucdcs!uicsl!hr

From -1346375319834530400
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 1517c1,c29014038ef6a163,start
X-Google-Attributes: gid1517c1,public
X-Google-Thread: 140593,c29014038ef6a163,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-24 09:30:51 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!linus!philabs!cmcl2!seismo!lll-crg!lll-lcc!qantel!ptsfa!aum!freed
From: freed@aum.UUCP (Erik Freed)
Newsgroups: net.micro.atari,net.micro.atari16
Subject: 1040ST graphics coprocessor
Message-ID: <440@aum.UUCP>
Date: Mon, 24-Feb-86 12:30:51 EST
Article-I.D.: aum.440
Posted: Mon Feb 24 12:30:51 1986
Date-Received: Wed, 26-Feb-86 20:51:12 EST
Distribution: net
Organization: The Aurora Systems Bunch
Lines: 11
Xref: linus net.micro.atari:2860 net.micro.atari16:18

Does anyone (specifically at Atari) know whether there is going to
be a place on the 1040's pc board for the Blit-coprocessor? Will
people who buy the first rev of the 1040 be able to upgrade?
(for people who have not heard of the Blit-chip see March Byte)
thanks in advance...
--

                            Erik James Freed
                  Aurora Systems
                  San Francisco, CA
                  {dual,ptsfa}!aum!freed

From -2013769920301317587
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64676e50125177e,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-24 20:28:07 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.1 6/24/83; site pur-ee.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!ihnp4!inuxc!pur-ee!beatyr
From: beatyr@pur-ee.UUCP (Robert Beaty)

Newsgroups: net.micro.atari16
Subject: 1Meg Upgrade Warning
Message-ID: <3806@pur-ee.UUCP>
Date: Mon, 24-Feb-86 23:28:07 EST
Article-I.D.: pur-ee.3806
Posted: Mon Feb 24 23:28:07 1986
Date-Received: Fri, 28-Feb-86 01:08:15 EST
Reply-To: beatyr@pur-ee.UUCP (Robert Beaty)
Organization: Electrical Engineering Department , Purdue University
Lines: 25

<<>>

  This is just a subtle warning to all of those interested in upgrading their Atari 520ST's to 1Meg. I attempted to do so two weekends ago and the result was a non-functional 520ST and about 24 hrs. of wasted time.
  Now there will be those out there that will say that I might have used a wood burning gun instead of a nice soldering iron, but that is not the case. I am getting my Ph.D in EE and have worked as a tech. for many a summer. I have performed similiar upgrades to H-19's and Radio Shack Color Computers (piggy-backing chips and the like). This upgrade is NOT a simple one. It is not due to the fact that the techniques are that difficult, just that the component values are VERY touchy.
  For instance, I tried BOTH the resistor and non-resistor upgrades - neither worked. I have seen (since I tried my upgrade) about the fact that the values of the resistors are sensitive to the manufacturer of the 256K DRAM chip. This is not my idea of a good, safe upgrade.
  My only warning is this, DO NOT try this if your 520ST is AT ALL as valuable to you as mine is to me (doing without it for 2 wks. was very tough). If you have the time and the persistance to MAKE it work then you might want to try it. If possible, find out EXACTLY what combination of components worked for someone else (any offers out there?).
  I am not trying to bad-mouth anyone, only trying to save someone like myself a LOT of grief.

                    Bob

From -974146711024634021
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f51f2168c2a67e7a,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 10:05:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/5/84; site spp2.UUCP
Path: utzoo!decvax!ittatc!dcdwest!sdcsvax!sdcrdcf!trwrb!trwspp!spp2!rroux
From: rroux@spp2.UUCP (Ray Roux)
Newsgroups: net.micro.atari16
Subject: 520ST questions
Message-ID: <872@spp2.UUCP>
Date: Tue, 25-Feb-86 13:05:00 EST
Article-I.D.: spp2.872
Posted: Tue Feb 25 13:05:00 1986

Date-Received: Fri, 28-Feb-86 03:12:01 EST
Distribution: na
Organization: TRW, Redondo Beach CA
Lines: 25

<<<<<<< line eater >>>>>>>

Couple of questions:

1) Several people have mentioned "auto folder", and being able to run
   a program automatically at startup. The manual that came with my 520
   doesn't mention any thing about being able to do that. How do you put
   something into the "auto folder" and where can I find some info about it?

2) I've gotten a couple TOS error messages when trying to run some programs.
   The message pops up in a box, with a stop sign in it, and gives an error
   number (eg TOS error #35). How can I find what that error number means?
   I have the Abacus "Internals" and "GEM" books and couldn't find it there.

There was a guy from Haba at our last AUG meeting showing us the Haba hard
disk (10 meg) and some of the Haba software. The disk looked nice, and
should be shipping in a week or two. He hinted at being able to upgrade it
to 20 meg but made no commitment as to when and how much. He said they are
no longer selling the Hippo C, but will continue to support it. They are
working on a more powerfull C compiler (no hint as to when it will be out).

--

   Ray Roux
     {ucbvax|decvax}!trwrb!trwspp!spp3!rroux

From -1541260375906235816
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64676e50125177e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 10:27:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: Re: 1Meg Upgrade Warning
Message-ID: <54600001@iuvax.UUCP>
Date: Tue, 25-Feb-86 13:27:00 EST
Article-I.D.: iuvax.54600001
Posted: Tue Feb 25 13:27:00 1986
Date-Received: Fri, 28-Feb-86 22:32:53 EST
References: <3806@pur-ee.UUCP>
Lines: 30
Nf-ID: #R:pur-ee:-380600:iuvax:54600001:000:2041
Nf-From: iuvax!franco   Feb 25 13:27:00 1986

I strongly urge anyone interested in performing the 1MEG upgrade to disregard the previous note. I know of over a dozen Upgrades that worked either right away or soon after (after backtracking and discovering a wiring or some other mistake). The only Upgrade that I know of that resulted in permanent damage is the case of the previous author. I personally found the upgrade to be a relatively simple procedure. Furthermore, I cannot agree that components are all that sensitive - you can heat the DRAMs pretty well before they give out, for example. The one thing the DRAMs are sensitive to is static electricity. If you observe simple precautions against static buildup (aluminum foil on the table and in contact with everything as often as possible) they will not be damaged. Period. Another thing that might cause a problem is powering up a DRAM which is only partially connected (there is a very effective, simple precaution to observe here as well - namely, do not power up until the connections are complete). Also, I have NEVER EVER EVER even attempted an upgrade of any machine before. Also, I have NEVER EVER EVER even looked inside of a computer before. Yet my upgrade has been working for three months now.

Notice that I am suggesting that people disregard the previous note and I am not saying whether the author is right or wrong. For all I know the author may be right (but I am pretty sure he his wrong). The reason I am suggesting that the note be disregarded is that absolutely, positively no meaningful information whatsoever was presented to support the conclusion made. I bring this up because this sort of thing seems to happen more than half the time on the net. Please, Please, Please, people. If you are going to make a statement that may strongly affect how others will use their machine, post the deductive path used to come to the conclusions you make!!! Remember, you are not talking to your friend down the block - you are talking to perhaps tens of thousands of people. Be responsible! Please.

From -8072395611502159521
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 10:41:46 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <92624@UB-MTS>
Date: Tue, 25-Feb-86 13:41:46 EST
Article-I.D.: UB-MTS.92624
Posted: Tue Feb 25 13:41:46 1986
Date-Received: Fri, 28-Feb-86 06:34:59 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 32

To: John Zuschlag (I6191008@DBSTU1.BITNET)

Subject: CP/M86k vs. TOS

John,

   Forgive me, but upon discussing your comment about TOS -not- being CP/M68k to a friend of mine, he thinks you are incorrect. Since he is also fairly well informed about the ST, and in touch with many key people, I thought it would be best to ask you on what "authority" do you state the "facts" that CP/M68k is not in the ST, and what facts do you have to substantiate this beyond any reasonable doubt, such that I can give this information to him and he can research it himself to his own satisfaction.

    Thanks for your help and sorry about making you "prove" yourself, but obviously the difference between having CP/M68k as a central core and their own OS is a pretty major issue so it will be good to have the truth cast in gold before it gets twisted around.

     Terry Conklin
     The Club   (517) 372-3131
     The Club II (313) 334-8877
     Terry Conklin@UMich-MTS.Mailnet

From 4969013439901945674
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,204506c69495ff55,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 11:12:49 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: fxl@AIDS-UNIX (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: Using RAM disk with the DRI C-Compiler
Message-ID: <8602251919.AA00661@ucbvax.berkeley.edu>
Date: Tue, 25-Feb-86 14:12:49 EST
Article-I.D.: ucbvax.8602251919.AA00661
Posted: Tue Feb 25 14:12:49 1986
Date-Received: Fri, 28-Feb-86 06:35:21 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 20

I've had pretty good luck in speeding up the compile-link time by using a 285K RAM disk. A RAM disk of that size is possible when you have TOS in ROM, but no 1Meg upgrade. My total compile-link time went from 8minutes to 2:30 minutes, by telling the compiler, assembler and linker to use C: for temporary files, putting the libraries on C:, plus a few other small files. It took me quite some time to figure out how to do this, but it was worth it. Of course, once I get my 1Meg upgrade I'll put everything into RAM disk, and I expect the compile-link time will go down even more.

Have any of you had similar experiences? I'll post my batch files, plus a list of the files in RAM disk, if there is interest.

Franz Lanzinger
Advance Decision Systems
201 San Antonio Circle #286
Mountain View CA 94040
(415) 941 3912
fxl@ads-unix
(formerly fxl@aids-unix)

From -8763667733293205873
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85e4d2726e0ccfb1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 13:53:00 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: Notesfiles; site iuvax.UUCP
Path: utzoo!watmath!clyde!cbosgd!ihnp4!inuxc!iubugs!iuvax!franco
From: franco@iuvax.UUCP
Newsgroups: net.micro.atari16
Subject: 520ST Prices
Message-ID: <54600002@iuvax.UUCP>
Date: Tue, 25-Feb-86 16:53:00 EST
Article-I.D.: iuvax.54600002
Posted: Tue Feb 25 16:53:00 1986
Date-Received: Fri, 28-Feb-86 22:33:06 EST
Lines: 31
Nf-ID: #N:iuvax:54600002:000:1312
Nf-From: iuvax!franco   Feb 25 16:53:00 1986

I just spoke with aa Atari retailer in Indianapolis that is offering some pretty good prices on ST stuff. For Example:

1. A 520ST, Single Sided Drive, Color Monitor for $800.00
   Check or Cach Price (add 5% for Credit Card, add 5% for tax within IN)
   The price includes only the software that comes with the particular machine you buy. If you want all free software that Atari will eventually make available (NEOCHROME, STBASIC, LOGO, STWRITER) you should also include about four disks and $20 copy charge or $50 for a package of disks

   some of which will be used to copy the above onto (you keep all ten
   disks).

2. If you buy the above you may purchase VIP for an additional $125.00

3. If you buy the ST above you may purchase a second, double sided drive
   for $250.00

If interested give a call to Pat McGraw at 317-291-8882 or write

       Pat McGraw
       Microcomputers Inc.
       3350 N. High School Rd.
       Indianapolis, IN 46224

I have no connection with Microcomputers Inc. I have never even been there.
However, a friend of mine has been there so we know the place exists. I
cannot say anything about the service one might expect from this
organization. However, Pat was easy to talk to on the phone, seemed helpful
and WANTS to sell computers. What the heck.

From 9126469633779005492
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 15c82e,d793fcdbc70d0a4,start
X-Google-Attributes: gid15c82e,public
X-Google-Thread: 140593,d793fcdbc70d0a4,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-25 16:43:53 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site voder.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!nsc!voder!kevin
From: kevin@voder.UUCP (The Last Bugfighter)
Newsgroups: net.micro.atari8,net.micro.atari16
Subject: Electronic Arts succumbs to the inevitable!
Message-ID: <1032@voder.UUCP>
Date: Tue, 25-Feb-86 19:43:53 EST
Article-I.D.: voder.1032
Posted: Tue Feb 25 19:43:53 1986
Date-Received: Fri, 28-Feb-86 21:27:29 EST
Reply-To: kevin@voder.UUCP (The Last Bugfighter)
Organization: National Semiconductor, Santa Clara
Lines: 46
Xref: watmath net.micro.atari8:12 net.micro.atari16:26

   Recently someone posted a letter they had recieved from Electronic
Arts - a computer game company - in which EA stated they had no intentions
of developing new (or old) games for the Atari ST or the Atari 8-Bit line.
The reasons given were that basicaly the ST was crap and that no one owned
an 8-Bitter.
   A number of people complained about this to both EA and to Antic and
ANALOG magazines, and both of these mags suggested a letter campaign to inform

EA of it's error. Well in the April `86 issue of Antic you will find this letter:

> The response of your readers to Antic editorials is growing. We have recieved quite a few letters, and because of the interest shown by Atari users, we are planning the following hit products for the Atari 800 in 1986:
>
> Adventure Construction Set
> Heart of Africa
> Mail Order Monsters
> Marble Madness
> Racing Destruction Set
> Skyfox
> Software Golden Oldies (Software Country)
> Ultima IV (Origin Systems)
>
> We hope to see at retail the kind of response we have seen in our mailbox!
>
> Trip Hawkins
> President
> Electronic Arts

So now that we've gotten EA to admit it's error let's make sure that they realize that their change of mind is justified. Also, if every EA purchase was accompanied by a letter of appreciation and a brief ps on how nice this game would look on an ST we may be able to get the ball rolling in that area as well. In the meantime, don't you ST owners give up! If EA can admit it's mistake for the 8-Bit line it's only a matter of time as far as the ST is concerned.

Kevin Thompson   {ucbvax,ihnp4!nsc}!voder!kevin

"It's a sort of threat, you see. I've never been very good at them
  myself but I'm told they can be very effective."

From -5292542458486945367
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,f6c29eaca54fe89b
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 02:14:03 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!harvard!seismo!mcvax!ukc!reading!minster!nigel
From: nigel@minster.UUCP (nigel)
Newsgroups: net.micro.atari16
Subject: Re: Full Screen Editor Rqst
Message-ID: <703@minster.UUCP>
Date: Wed, 26-Feb-86 05:14:03 EST

Article-I.D.: minster.703
Posted: Wed Feb 26 05:14:03 1986
Date-Received: Sat, 1-Mar-86 02:16:36 EST
References: <1981@uwmacc.UUCP> <544@hoptoad.uucp>
Reply-To: nigel@minster.UUCP (nigel)
Organization: University of York, England
Lines: 12

In article <544@hoptoad.uucp> version B 2.10 5/3/83; site minster.UUCP minster!
reading!ukc!mcvax!seismo!lll-crg!well!hoptoad!gnu gnu@hoptoad.UUCP writes:
>In article <1981@uwmacc.UUCP>, demillo@uwmacc.UUCP (Rob DeMillo) writes:
>> I have been looking (for about a month) for a public domain
>> full screen editor for the ST.
>
>Has anybody tried porting GNU Emacs to the ST? It ought to run fine
>in a meg machine, unless the C compiler and environment are too far
>off from Unix. (Of course, you'd need a hard disk to compile it,
>since the source is about 8 megs -- and even the executable image
>might not fit on a floppy.).

Anything that big isn't worth compiling.

From 1316315220769933630
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 07:56:21 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!info-atari16
From: jhs@MITRE-BEDFORD.ARPA
Newsgroups: net.micro.atari16
Subject: (none)
Message-ID: <8602261550.AA17411@mitre-bedford.ARPA>
Date: Wed, 26-Feb-86 10:56:21 EST
Article-I.D.: mitre-be.8602261550.AA17411
Posted: Wed Feb 26 10:56:21 1986
Date-Received: Fri, 28-Feb-86 21:48:10 EST
References: <92624@UB-MTS>
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The MITRE Corp., Bedford, MA
Lines: 10

Re: CPM-68K underlying TOS.

See the October, 1968 COMPUTE! Magazine product description of the 520ST for
a (p)re-iteration of this claim.

They could be wrong, but that would be highly inconsistent with their normal
way of doing business.

John Sangster

From -2627947794035897898
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,d64676e50125177e
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 08:00:05 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.2 9/18/84; site looking.UUCP
Path: utzoo!watmath!clyde!cbosgd!looking!jan
From: jan@looking.UUCP (Jan Gray)
Newsgroups: net.micro.atari16
Subject: Re: 1Meg Upgrade Warning
Message-ID: <498@looking.UUCP>
Date: Wed, 26-Feb-86 11:00:05 EST
Article-I.D.: looking.498
Posted: Wed Feb 26 11:00:05 1986
Date-Received: Fri, 28-Feb-86 07:55:04 EST
References: <3806@pur-ee.UUCP>
Reply-To: jan@looking.UUCP (Jan Gray)
Organization: Looking Glass Software Ltd. Waterloo, Ontario
Lines: 20

In article <3806@pur-ee.UUCP> beatyr@pur-ee.UUCP (Robert Beaty) writes:
> This is just a subtle warning to all of those interested in upgrading
>their Atari 520ST's to 1Meg. I attempted to do so two weekends ago and
>the result was a non-functional 520ST and about 24 hrs. of wasted time.
>   . . .
> If possible, find out EXACTLY what combination
>of components worked for someone else (any offers out there?).

I upgraded my ST months ago and it worked first time. I used NEC 41256-15
DRAMs (*exactly* the same part as my Atari installed DRAMs, but manufactured
five weeks later!)

I did not install resistors, and I'm not sure if I will. I do not have
the ROM upgrade yet. One poster to the net said installing ROMs fried
his resistor-less upgrade, but others said it worked fine without resistors.

If the damn resistors are so important, why didn't Atari install them
on the lower 512K bank?

Jan Gray Looking Glass Software, Waterloo, Ont.   (519) 884-7473

From 2640780687905091540
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c175d2fff37f5993,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 09:03:36 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU

Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!info-atari16
From: D-ROGERS@EDWARDS-2060.ARPA
Newsgroups: net.micro.atari16
Subject: Bami's DMA reply
Message-ID: <12186474470.20.D-ROGERS@EDWARDS-2060.ARPA>
Date: Wed, 26-Feb-86 12:03:36 EST
Article-I.D.: EDWARDS-.12186474470.20.D-ROGERS
Posted: Wed Feb 26 12:03:36 1986
Date-Received: Fri, 28-Feb-86 21:51:41 EST
Sender: usenet@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 21

I couldn't reply direct as you can see below, so here it is for everyone:

>26-Feb-86 08:41:09-PDT,1563;000000000001
>Return-Path: <MAILER-DAEMON%case.csnet@CSNET-RELAY.ARPA>
>Received: from CSNET-RELAY.ARPA by EDWARDS-2060.ARPA with TCP; Wed 26 Feb 86
08:41:02-PDT
>Received: from case by csnet-relay.csnet id ae06655; 26 Feb 86 11:01 EST
>From: Mail Delivery Subsystem <MAILER-DAEMON%case.csnet@CSNET-RELAY.ARPA>
>Subject: Returned mail: User unknown
>
>   ----- Transcript of session follows -----
>550 bami@CASE... User unknown

unless the ST does things a lot different than other computers i've seen
your description to Mike K. was inadaquate. Direct Memory Access still
requires use of the address and data paths, the advantage is that this may
be done without processor intervention, except bus arbitration, during times
when the CPU is occupied with decoding or executing an instruction. Unless
the ST has some sort of dual port access a-la-shared memory, the DMA port
represents no gain over direct bus connection.
FIELD@EDWARDS-2060

From 8452057439028612389
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,5d64eb1fe52b6c9c,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 09:55:30 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!decwrl!ucbvax!info-atari16
From: fxl@AIDS-UNIX (Franz Lanzinger)
Newsgroups: net.micro.atari16
Subject: batch file for ST developers with TOS in ROM
Message-ID: <8602261806.AA21105@ucbvax.berkeley.edu>
Date: Wed, 26-Feb-86 12:55:30 EST
Article-I.D.: ucbvax.8602261806.AA21105
Posted: Wed Feb 26 12:55:30 1986
Date-Received: Fri, 28-Feb-86 21:51:05 EST

Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 43

[Note: if this is getting to any 8bit groups it isn't my fault.
I am mailing this to info-atari16@su-score on the ARPA net]

Here is a batch file which I use for running the compiler and linker
using a 285K RAM disk installed as drive C:, with source on drive B:
and the compiler, assembler and linker on drive A:.

```
C:rm C:%1.prg
cp68 -i B: B:%1.c C:%1.i
c068 C:%1.i C:%1.1 C:%1.2 C:%1.3 -f
C:rm C:%1.i
c168 C:%1.1 C:%1.2 C:%1.s
C:rm C:%1.1
C:rm C:%1.2
as68 -l -u -f C: -s C: C:%1.s
link68 [temp [C:],u] C:%1.68k = C:gemstart,C:osbind,C:%1,C:vdibind,C:gemlib
relmod C:%1
C:rm C:%1.68K
C:wait
```

The argument %1 is the name of the single program to be compiled and linked.
Additional required libraries can be added beyond 80 columns in the link68
line, or you might want to use the com option as described in the
documentation.

The philosophy behind this setup is to put all files that will be *written*
into RAM disk, since writing a file takes longer than reading (probably
because there is verification going on). Also, the biggest bottleneck
seems to be the linker. Try replacing C:gemlib by B:gemlib, for instance,
and watch that drive spin for an additional 30 seconds or so.

Oh, by the way. The batch file, and all files without a C: should sit
on the same drive (I use A:). Also you need the file C:as68sym.dat (I
think that's the name) to initialize the assembler. I have all my
source code, .h's and the editor on drive B:.

Please let me know of your experiences with this, or any improvements, or
comments.

     Franz Lanzinger (fxl@aids-unix)
     415 941 3912
     Advanced Information Systems

From 5770164630593476352
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,df6fd694d75c5f2f
X-Google-Attributes: gid140593,public

X-Google-ArrivalTime: 1986-02-26 11:42:29 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!
harvard!seismo!lll-crg!lll-lcc!vecpyr!atari!neil
From: neil@atari.UUcp (Neil Harris)
Newsgroups: net.micro.atari16
Subject: Re: Problems with Atari Basic
Message-ID: <121@atari.UUcp>
Date: Wed, 26-Feb-86 14:42:29 EST
Article-I.D.: atari.121
Posted: Wed Feb 26 14:42:29 1986
Date-Received: Sat, 1-Mar-86 16:40:43 EST
References: <146@molihp.UUCP>
Organization: Atari Corp/Mktg
Lines: 75

In article <146@molihp.UUCP>, markr@molihp.UUCP (Mark Reid) writes:

> After waiting over three months for my basic from Atari, I finally
> received it. Either the manual is incorrect or maybe I'm thick
> but I can't get some of the functions to work as described in the
> manual. I would appreciate any help...
>
> 1) inp()   function is supposed to read from the keyboard single
>   characters. I tried inp(-4) to read the status and it only
>   returns 16. Try inp(4) which also returns 16. Anybody know
>   how this works?

The manual is in error -- use INP(2) and INP(-2). Using SYSTAB to turn off
GEM will make this work very well.

> 2) wave()   function for producing sound. Manual page is missing the
>   table for envelope shape. Would like a complete explaination.

WAVE a,b,c,d,e
 a=voice to enable. 1 is the default (which is why the SOUND command only
   uses 1 voice normally. Add 2 to use voice 2, add 4 to use voice 3. Add 8
   to use noise on voice 1, 16 for noise on 2, 32 for noise on 3.

 b=envelope enable, to use the programmable envelope instead of pure tone.
   Add 1 for voice 1, 2 for voice 2, 4 for voice 3.

 c=which envelope to use.
         0-3= ________

        4-7= /|_______

     8=   \|\|\|\|\|

     9=   _________

     10= \/\/\/\/\/

```
     11=    ________
           \|

     12=   /|/|/|/|/|

     13=    _________
           /

     14=   /\/\/\/\/\

     15=  /|_________
```

 d=period of envelope. Use large numbers, in hundreds or thousands.

 e=duration of sound before next BASIC command is executed. Usually 0.

NOTE: Best technique seems to be to set WAVE then set SOUND for each voice,
      setting delay>0 only on the _last_ SOUND command.

> 3) buf graphics   what is this? I didn't understand it's use.

This sets up a 32K graphics buffer, so menus and other windows do not
obliterate your graphics.

> 4) large files   If you try to load in a very large basic program
>   the 520 will load the file from the disk in one large piece,
>   then several small pieces. It tells you of no errors.
>   The real magic is it will give you all sorts of undefined
>   errors, none of which are out of memory errors.

Are you sure? I never had that problem with my programs. How large is
large?

--->Neil @ Atari
    Usenet: ...lll-crg!vecpyr!atari!neil
    CIS: 70007,1135
    BIX: neilharris
    Atari BBS: 408-745-5308

From -622304158288635750
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,cf46715d956b1748
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 12:08:50 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site druhi.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!mhuxr!mhuxt!houxm!mtuxo!drutx!druhi!lbl
From: lbl@druhi.UUCP (LocklearLB)
Newsgroups: net.micro.atari16
Subject: Re: (none)
Message-ID: <162@druhi.UUCP>
Date: Wed, 26-Feb-86 15:08:50 EST

Article-I.D.: druhi.162
Posted: Wed Feb 26 15:08:50 1986
Date-Received: Fri, 28-Feb-86 21:19:00 EST
References: <92624@UB-MTS>
Organization: AT&T Information System Labs, Denver, Co
Lines: 42
Summary: The ST uses GEMDOS NOT CP/M68K

In article <92624@UB-MTS>, Terry_Conklin%UB-MTS%UMich-MTS.MAILNET@MIT-MULTICS.ARPA writes:
> To: John Zuschlag (I6191008@DBSTU1.BITNET)
> Subject: CP/M86k vs. TOS
>
> John,
>
>   Forgive me, but upon discussing your
> comment about TOS -not- being CP/M68k
> to a friend of mine, he thinks you are
> incorrect. Since he is also fairly
> well informed about the ST, and in
> touch with many key people, I thought
> it would be best to ask you on what
> "authority" do you state the "facts"
> that CP/M68k is not in the ST, and
> what facts do you have to substantiate
> this beyond any reasonable doubt, such
> that I can give this information to
> him and he can research it himself to
> his own satisfaction.

Tell your friend to look in the developer's kit. There is documentation about GEMDOS in there. It also talks about a few of the differences between GEMDOS and CP/M68K. There is much confusion on this point because the developer's kit also has documentation relating to CP/M68K. This documentation was included because the C compiler and various other tools were originally written to be used with CPM/68K, so the documentation was taken from the CP/M68K manuals instead of being rewritten specifically for GEMDOS. Hopefully this will be remedied in the next release of the developer's kit (which is coming soon!!).

Also tell your friend that programs compiled with the C compiler in the developer's kit must be run through an additional filter called RELMOD that rearranges the file headers from CP/M68K format to GEMDOS format.

Tell him to call Richard Frick at Atari if he still has doubts.
Maybe Richard's answer will convince him.

Barry Locklear
AT&T Information Systems Labs
Denver, CO 80241
ihnp4!druhi!lbl

From 8264492932909353120
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,fa7a463a1dab3d0,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 16:37:22 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: I6191008@DBSTU1.BITNET
Newsgroups: net.micro.atari16
Subject: CPM/68K vs TOS
Message-ID: <8602270036.AA04885@ucbvax.berkeley.edu>
Date: Wed, 26-Feb-86 19:37:22 EST
Article-I.D.: ucbvax.8602270036.AA04885
Posted: Wed Feb 26 19:37:22 1986
Date-Received: Fri, 28-Feb-86 21:58:54 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 61

Terry-

Hmmm, looks like that we've got a problem here...

When the ST was presented to the public all testers told that it is

using an enhanced CPM/68k. They also told that the disks use the IBM

PC format. Actually it's the same, except 2 small differences. If you

add a 5" floppy to the ST you can transfer ONE file at a time (with

more you get problems with the file allocation table) from the PC to

the ST and vice versa. In the 'Hitchhikers Guide to the BIOS' and

in the documentation they compare their system quite much with MS-DOS

(sometimes to often). Actually it is very similar to MS-DOS (not only

Unix; like I told before). The subdirectories are handeled like in

MS-DOS. I never worked with CPM/68k but there was a time when I wanted

to build such a system (was too expensive), so I know at least some

facts about it. Unfortunately I don't have access to my documentations

right now... but I'll dig it out when there is need for it.

(Then I can post a comparison of the system calls.)

In general you push your desired function on the stack and call the

system. And this functions are different in both OS's as I know.

Next: You've got several system components: GEMDOS,BIOS,XBIOS,GEM and a grafics kernel. GEMDOS is not GEM, it's more like BDOS in CP/M.

The XBIOS is an extension of the BIOS. The kernel supports the GEM (You can use it without GEM if you like). Even without GEM the TOS doesn't look like CPM/68k. Try to run an CPM program (of course from the TOS) und you'll see what happens...several bombs...reset....:-)

  The problem is that ATARI had the intention to use CPM (and told so) but changed their mind later on. But several M-magazines are still writing something about CPM68k on the ST. If they would have tried to run an CPM program the would have known better.

Finally, I'm not the ultimate source for such informations, I know some facts but not all...feel free to revise the above.

Johann Zuschlag (I6191008@DBSTU1.BITNET)

From -5331215379237755345
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,85707fd36093c178,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 17:16:16 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!genrad!panda!talcott!harvard!seismo!lll-crg!lll-lcc!vecpyr!atari!dyer
From: dyer@atari.UUcp (Landon Dyer)
Newsgroups: net.micro.atari16
Subject: ST Monochrome *not* interlaced.
Message-ID: <123@atari.UUcp>
Date: Wed, 26-Feb-86 20:16:16 EST
Article-I.D.: atari.123
Posted: Wed Feb 26 20:16:16 1986
Date-Received: Sat, 1-Mar-86 17:09:09 EST
Organization: Atari Corp., Sunnyvale CA
Lines: 8
Keywords: Atari ST monochrome monitor

The Atari ST's monochrome video is *not* interlaced. It runs at 71hz.
It was done this way so the screen would look good.

The color display runs at 50hz or 60hz depending on the setting of
the PAL/NTSC bit in the shifter configuration register.

-Landon

From -3782358830774831599
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,577ae98f05cf99c1,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 17:49:15 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site aero.ARPA
Path: utzoo!watmath!clyde!burl!ulysses!bellcore!decvax!ittatc!dcdwest!sdcsvax!
sdcrdcf!trwrb!trwrba!aero!mendoza
From: mendoza@aero.ARPA (Lee Mendoza)
Newsgroups: net.micro.atari16
Subject: Book Review: GEM Programmer's Reference
Message-ID: <285@aero.ARPA>
Date: Wed, 26-Feb-86 20:49:15 EST
Article-I.D.: aero.285
Posted: Wed Feb 26 20:49:15 1986
Date-Received: Sat, 1-Mar-86 18:34:02 EST
Reply-To: mendoza@aero.UUCP (Lee Mendoza)
Distribution: net
Organization: The Aerospace Corporation, El Segundo, CA
Lines: 78
Keywords: Book Review, GEM, AES, VDI

<your flavorite line-eater offering here>

Book Review: Atari ST GEM Programmer's Reference
Authors: Norbert Szczepnowski and Bernd Gunther
Publisher: Abacus Software
Price: $19.95

Short review: This is what the developer's kit should have included.

Long review:

    This book bills itself as "The complete guide to programming the ST
using the Graphics Environment Manager," and it is not too far off the
mark. As with all of its predecessors, it starts off with the obligatory
heaping of praise on the Motorola MC 68000 and the ST. The book is about
400 pages long, and is divided into four chapters: GEM Organization in
the Atari ST; Programming with GEM; Inside GEM -- the VDI; and Inside GEM --
the AES. Unlike "ST Internals," this book has an index. There are three
appendices: Overview of the VDI Functions; Overview of the AES Functions;
and the ever-popular 68000 Instructions.

Chapter 1: GEM Organization in the Atari ST

This chapter is a very short description of the interactions of the components of GEM, and contains little usable information. A description of the limited multi-tasking ability of the ST is given.

Chapter 2: Programming with GEM

Another title for this chapter might well be "How to use your developer's kit." This chapter starts off with a short intro to C (I recommend sticking with Kernighan and Ritchie) and branches off to assembly language. As with the Internals book, this book reflects the early developer systems which included MINCE as the editor, and a short tutorial for MINCE is provided. The individual programs that make up the C compiler are discussed (without information about flags, if any) as is the AS68 assembler. In all, this chapter is a bit dated, but might be helpful to someone who has just gotten their kit.

Chapter 3: Inside GEM -- the VDI

This chapter presents an Atari ST specific version of the VDI routines. The VDI functions are divided by type (control, output, graphic, etc.) and each description provides a summary of the input and output parameters and a description of what they do. The C type declarations and binding is provided, and is followed by ST-specific remarks. Where applicable, examples of the graphics output are shown. The chapter ends with several examples coded in both C and assembler. Many of these examples would appear to be easily incorporated in other programs.

Chapter 4: Inside GEM -- the AES

In this chapter the AES is described in the same manner as the VDI is described in chapter 3. Many of the concepts are presented in a slightly easier to understand form than the developer's kit. The various types of buttons are quite well described. The method of defining structures for use with the dialog boxes is quite nice, providing an easy alternative to the Resource Construction Set. Unfortunately, the RCS is not covered in this book. Once again, the chapter ends with some rather nice examples in both C and assembler.

Summary

"Atari ST GEM Programmer's Reference" provides a reasonably complete discussion of programming in the GEM environment. This book is a nice addition to the documentation in the developer's kit, and would provide an excellent source for those who wish to program the ST but don't have the kit. Together with "Atari ST Internals," most of the useful information given in the developer's kit can be found, and found more easily. I would highly recommend this book; it's only failing is the lack of documentation on the Resource Construction Set.

Standard disclaimers about opinions above not representing, and my not working, etc. etc.

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From 2612387319691692862
X-Google-Language: ENGLISH,ASCII-7-bit
X-Google-Thread: 140593,c67dec1ee1a451be,start
X-Google-Attributes: gid140593,public
X-Google-ArrivalTime: 1986-02-26 19:40:54 PST
Relay-Version: version B 2.10 5/3/83; site utzoo.UUCP
Posting-Version: version B 2.10.3 4.3bsd-beta 6/6/85; site ucbvax.BERKELEY.EDU
Path: utzoo!watmath!clyde!burl!ulysses!ucbvax!info-atari16
From: UC.BRI%DEEP-THOUGHT@EDDIE.MIT.EDU (Brian Totty)
Newsgroups: net.micro.atari16
Subject: Fonts
Message-ID: <12186590486.9.UC.BRI@DEEP-THOUGHT.MIT.EDU>
Date: Wed, 26-Feb-86 22:40:54 EST
Article-I.D.: DEEP-THO.12186590486.9.UC.BRI
Posted: Wed Feb 26 22:40:54 1986
Date-Received: Fri, 28-Feb-86 22:00:42 EST
Sender: daemon@ucbvax.BERKELEY.EDU
Organization: The ARPA Internet
Lines: 18

Does any one out there know how to use the 6x6 system font in GEM programs? I tried using vst_font with all types of values, but I kept getting back the standard 8x8 font.

In a similar question, is there a font editor available? And even if not, if I create a font in the proper format, what do I have to do to load and use it?

Thanks,

--- Bri

UUCP: ...!mit-eddie!bri
ARPA: uc.bri@deep-thought.mit.edu